ILLINOIS POLLUTION CONTROL BOARD
June 17, 2010

IN THE MATTER OF:	)	
RCRA SUBTITLE C UPDATE, USEPA AMENDMENTS (July 1, 2008 through December 31, 2008 and June 15, 2010)	)	R09-16 (Identical-in-Substance Rulemaking - Land)
RCRA SUBTITLE C UPDATE, USEPA REGULATIONS (January 1, 2009 through June 30, 2009)	)	R10-4 (Identical-in-Substance Rulemaking - Land) (Consolidated)

Proposed Rule. Proposal for Public Comment.

OPINION OF THE BOARD (by G.T. Girard):

SUMMARY OF TODAY'S ACTION

This consolidated identical-in-substance rulemaking would update the Illinois hazardous waste regulations to incorporate revisions to the federal regulations. The United States Environmental Protection Agency (USEPA) adopted the federal hazardous waste amendments that prompted this action during the time periods of July 1, 2008 through December 31, 2008 and January 1, 2009 through June 30, 2009. This proceeding proposes amendments to 35 Ill. Adm. Code 703, 720, 721, 722, 724, and 725. This proposal for public comment would also make a series of substantive and non-substantive corrections and stylistic revisions to segments of the text that are not otherwise affected by the covered federal amendments.

This opinion and the related order propose for public comment identical-in-substance amendments in the hazardous waste program area. Sections 7.2 and 22.4(a) of the Act (415 ILCS 5/7.2 and 22.4(a) (2008)) require the Board to adopt regulations that are "identical in substance" to hazardous waste regulations adopted by the USEPA. These USEPA rules implement Subtitle C of the federal Resource Conservation and Recovery Act of 1976 (RCRA Subtitle C) (42 U.S.C. §§ 6921 *et seq*. (2006)). The federal RCRA Subtitle C hazardous waste management (HWM) regulations are found at 40 C.F.R. 260 through 268, 270 through 273, and 279.

Section 22.4(a) also provides that Title VII of the Act and Section 5 of the Administrative Procedure Act (5 ILCS 100/5-35 and 5-40 (2008)) do not apply to the Board's adoption of identical-in-substance regulations.

This opinion supports an order that the Board also adopts today. The Board will cause the proposed amendments to be published in the *Illinois Register* and will hold the docket open to receive public comments for 45 days after the date of publication. The Board presently intends to adopt final amendments based on this proposal on or before November 15, 2010, as is explained beginning on page 9 of this opinion.

As a special note, the Board particularly requests that USEPA and the Agency comment on certain aspects of the Board's proposal. These aspects are indicated in the substantive discussions of the USEPA amendments that follow, beginning on pages 229, 265, 267, and 270 of this opinion. In particular, the Board wishes comments on the approach taken with regard to the October 30, 2008 USEPA amendments to the definition of "solid waste" and the December 19, 2008 comparable fuels exclusion from the definition of that term.

The Board has needed to adapt several procedural features of the October 30, 2008 amendments to the definition of solid waste rule (DSWR) to adapt the rule to the Illinois regulatory system. The Board has also needed to alter many segments of the USEPA language to incorporate the USEPA amendments into the Illinois regulations. Further, USEPA published a *Federal Register* notice on May 27, 2009 that sought comments on how USEPA might alter the October 30, 2008 amendments to the definition of solid waste. The discussion of the October 30, 2008 DSWR amendments includes the Board's observations in response to some of USEPA's May 27, 2009 requests for comments. The discussion of the October 30, 2008 DSWR amendments begins at page 12 of this opinion. The Board requests Agency and USEPA comments in that discussion (beginning at page 229 of this opinion).

The discussion of the December 19, 2008 USEPA amendments to the comparable fuels exclusion is included at page 266 of this opinion. The Board seeks Agency and USEPA comments in that discussion.

FEDERAL ACTIONS CONSIDERED IN THIS RULEMAKING

The following listing briefly summarizes the federal actions considered in this RCRA Subtitle C update rulemaking:

Docket R09-16: July 1, 2008 through December 31, 2008 Amendments

USEPA amended the federal hazardous waste regulations three times during the period July 1, 2008 through December 31, 2008, as is summarized below:

October 30, 2008 (73 Fed. Reg. 64668): Amended Definition of Solid Waste to Exclude Reclaimed Secondary Hazardous Materials

Description of the USEPA action: USEPA amended the rule that sets forth the definition of "solid waste" to exclude certain "hazardous secondary materials" (HSMs) from regulation as hazardous waste. USEPA sought to respond to judicial decisions and to encourage resource conservation and recycling. The amendments defined HSM as material that undergoes reclamation but which would constitute hazardous waste if discarded.

The amendments added four new self-implementing exclusions from the definition of solid waste. These are briefly described as follows:

1. Exclusion of HSMs reclaimed by the generator in non-land-based units (the generator-reclaimed non-land-based exclusion);

2. Exclusion of HSMs reclaimed by the generator in land-based units (the generator-reclaimed land-based exclusion);

3. Exclusion of HSMs that are reclaimed by an entity other than the generator at a site within the United States and its territories (the transport-based exclusion); and

4. Exclusion of HSMs that are exported from the United States for reclamation (the export-based exclusion).

The amendments also added a new procedure for obtaining exclusion by an administrative "non-waste" determination. This is a new type of determination (separate from the existing solid waste determination of 40 C.F.R. 260.30), which uses the existing procedure to determine that an HSM is not solid waste because the material is the subject of legitimate reclamation. This determination is contingent on the fact that the HSM is (1) indistinguishable from a product or intermediate; and (2) reclaimed in a continuous industrial process. The new procedure allows the HSM generator to petition USEPA or the authorized state for a determination.

Included in the federal amendments are extensive financial assurance requirements that apply to domestic facilities that manage HSMs that are reclaimed by an entity other than the generator.

Necessary Board action in response: The Board must incorporate the changes made by the federal DSWR amendments into the Illinois rules. This will involve extensive amendments to 35 Ill. Adm. Code 720 and 721, including the addition of the new "non-waste determination" procedure to 35 Ill. Adm. Code 720 and a new Subpart H to 35 Ill. Adm. Code 721 to set forth the new financial assurance requirements applicable to reclaimers and intermediate facilities managing HSMs under the transport-based exclusion.

December 1, 2008 (73 Fed. Reg. 64668): Alternative Standards for Academic Laboratories

Description of the USEPA action: USEPA adopted a set of optional alternative hazardous waste generator requirements applicable to college and university laboratories and other facilities affiliated with colleges and universities. The facilities to which the standards would apply are designated "eligible academic entities." An eligible academic entity may opt to comply with the alternative standards in lieu of the generally applicable large-quantity waste generator, small-quantity waste generator, or conditionally exempt small-quantity generator waste regulations.

The alternative standards designate laboratory waste as "unwanted material," and they include provisions relating to waste labeling and accumulation, worker training, hazardous waste determination, and removal from the laboratory. The alternative rules require annual laboratory cleanouts and the assembly of a written "laboratory management plan" that describes the procedures the laboratory will use for managing its waste.

Necessary Board action in response: The Board must incorporate these federal amendments into the Illinois rules. This will involve amending 40 C.F.R. 721 and adding a new subpart to 35 Ill. Adm. Code 722 to correspond with the new alternative standards of new subpart K of 40 C.F.R. 262.

December 19, 2008 (73 Fed. Reg. 77954): Exclusion of Emission-Comparable Fuel from the Definition of Solid Waste

Description of the USEPA action: USEPA added exclusion for emission-comparable fuel (ECF) to its existing excluded fuels rule, which previously excluded only "comparable fuels" and "synthesis gas fuels" from the definition of solid waste. USEPA further amended the comparable fuels exclusion to accommodate the addition of the exclusion for ECF and to make a series of technical corrections to what was previously known "syngas/comparable fuels" rule, and which is now called the as the "excluded fuels" rule.

"Comparable fuels" are secondary materials that have fuel value and which contain hazardous constituents at levels comparable to fuel oil. These are excluded from the definition of solid waste. The new exclusion of ECF overlaps and extends the existing comparable fuels exclusion. ECF is an HSM that results in emissions comparable to the burning of fuel oil.

ECF must fulfill all the requirements for a comparable fuel, except for the standards for maximum oxygenates and hydrocarbons contents limits. Thus, USEPA stated that use of ECF is comparable to use of fuel oil, from the standpoint of emissions, but oxygenate and hydrocarbons contents may be higher in ECF than those found in fuel oil.

On June 15, 2010 (at 75 Fed. Reg. 33712), USEPA withdrew the ECF rule. The withdrawal removed all segments relative to the ECF rule, but retained the technical corrections to the balance of the excluded fuels rule.

Necessary Board action in response: The withdrawal of the ECF rule prompts the Board to not include those portions of the USEPA amendments relative to ECF. The Board must complete the technical corrections to the excluded fuels rule. This will require amendment of 35 Ill. Adm. Code 721.138 and 721.Appendix Y.

Docket R10-4: January 1, 2009 through June 30, 2009 Amendments

USEPA amended the federal hazardous waste regulations once during the period January 1, 2009 through June 30, 2009, as is summarized below:

June 25, 2009 (74 Fed. Reg. 30228): Changed USEPA Office Name

Description of the USEPA action: USEPA amended various segments of its regulations to reflect reorganization within its various offices. Among the amendments were revisions to hazardous waste rules. USEPA changed "Office of Solid Waste" to the new name, "Office of Resource Conservation and Recovery."

Necessary Board action in response: The Board must change "Office of Solid Waste," wherever this name appears in the Illinois rules, to appear as "Office of Resource Conservation and Recovery." This will require examining the entire body of the Illinois regulations, not only those provisions that directly correspond with the regulations amended by USEPA, since the two respective bodies of rules do not correlate in a linear way.

Later RCRA Subtitle C (Hazardous Waste) Amendments of Interest

The Board engages in ongoing monitoring of federal actions. As of the date of this opinion and accompanying order, the Board has identified one USEPA action since June 30, 2009 that further affected the RCRA Subtitle C hazardous waste rules in a way that requires immediate Board attention. That action is summarized as follows:

June 15, 2010 (75 Fed. Reg. 33712)

Description of the USEPA action: USEPA withdrew the ECF rule from the December 19, 2008 amendments to the excluded fuels rule. The corrective and clarifying amendments of December 19, 2008.

Prospective necessary Board action in response: The Board should include this action in the amendments in docket R09-16/R10-4, in order to avoid adopting the ECF rule in this docket, then nearly immediately removing the ECF rule from the Illinois regulations in the future in docket R11-2.

When the Board observes an action outside the nominal timeframe of a docket that requires expedited consideration, the Board will expedite consideration of those amendments in the pending docket. Federal actions that could warrant expedited consideration include those that directly affect the amendments involved in this docket, those for which compelling reasons would warrant consideration as soon as possible, and those for which the Board has received a request for expedited consideration.

If the Board identifies any federal actions that fulfill these criteria prior to final action on the present amendments, the Board may include those amendments in the present consolidated docket, R09-16/R10-4.

The Board notes that USEPA presently contemplates revising or withdrawing major segments of the amendments that underlie this docket. On May 27, 2009 (at 74 Fed. Reg. 25200), USEPA published a notice of public hearing on the October 30, 2008 amendments to the DSWR. USEPA stated that it was entertaining further amendment of the Rule, USEPA solicited public comments on a number of aspects of the rule, and USEPA conducted a public hearing on the Rule on June 30, 2009. The concluding segment of discussion of the October 30, 2008 DSWR amendments (beginning on page 217 below) outlines the potential areas for revision that USEPA mentioned in the May 27, 2009 request for comments.

Further, on December 9, 2009 (at 74 Fed. Reg. 64643), USEPA proposed withdrawal of the December 19, 2008 Emissions-Comparable Fuels Rule. The Board has used this proposal as the basis for removing the Emissions-Comparable Fuel Rule from this proposal. USEPA recently represented that final adoption of the proposal is imminent, and that USEPA did not receive comments on the proposal to withdraw the Emissions-Comparable Fuels Rule. PC 2. The Board has decided that removing the December 19, 2008 amendments from this proposal on the basis of the December 9, 2009 USEPA proposal is appropriate in this context. The discussion of the December 19, 2008 amendments considers the June 15, 2010 withdrawal of the Emissions-Comparable Fuels Rule (beginning on page 266 below).

Summary Listing of the Federal Actions Forming the Basis of the Board's Actions in This Docket

Based on the foregoing, the five federal actions that form the basis for Board action in this update docket are the following, listed in chronological order:

October 30, 2008 (73 Fed. Reg. 64668)	Adoption of DSWR: (1) exclusion of HSMs that are the subject of "legitimate reclamation" from the definition of solid waste; (2) addition of a procedure for an administrative "non-waste" determination for HSMs that are used like a product or intermediate in a continuous industrial process; and (3) addition of financial assurance requirements applicable to entities other than the generator that manage HSMs.

December 1, 2008 (73 Fed. Reg. 64668)	Adoption of optional alternative hazardous waste generator requirements applicable to "eligible academic entities" (college and university laboratories and other facilities affiliated with colleges and universities). The alternative standards will apply in lieu of the pertinent of the generally applicable large-quantity waste generator, small-quantity waste generator, or conditionally exempt small-quantity generator waste regulations.
December 19, 2008 (73 Fed. Reg. 77954)	Addition of "emission-comparable fuel" (ECF) to the existing "comparable fuels" exclusion from the definition of solid waste, including ancillary amendments to accommodate the addition of ECF.
June 25, 2009 (74 Fed. Reg. 30228)	USEPA amended references to reflect the change in name of the "Office of Solid Waste" to its new name, "Office of Resource Conservation and Recovery."
June 15, 2010 (75 Fed. Reg. 33712)	USEPA withdrew the emission-comparable fuel rule from the December 19, 2008 amendments to the excluded fuels rule. The corrective and clarifying amendments of December 19, 2008 were unaffected. (The Board included this action in the amendments in docket R09-16/R10-4, which included the December 19, 2008 amendments.)

Other Federal Actions Having a Direct Impact on the Illinois RCRA Subtitle C Regulations

In addition to the amendments to the federal RCRA Subtitle C regulations, amendments to certain other federal regulations occasionally have an effect on the Illinois hazardous waste rules. Most notably, 35 Ill. Adm. Code 720.111 includes several incorporations of federal regulations by reference. The incorporated regulations include segments of various USEPA environmental regulations, Nuclear Regulatory Commission (NRC) rules, and United States Department of Transportation (USDOT) hazardous materials transportation regulations that USEPA has incorporated into the federal hazardous waste rules.

The latest available version of the *Code of Federal Regulations* is now the 2010 edition for pertinent segments of Title 10. The latest available version is the 2009 edition for each of Titles 33, 40, and 49. These are all incorporated by reference in Section 720.111 of the hazardous waste regulations. The Board will amend the incorporations of these federal regulations by reference to include this edition of the *Code*. This will assure that all NRC (10 C.F.R.) regulations up to January 1, 2010 and all USEPA (40 C.F.R.), Coast Guard (33 C.F.R.),

and USDOT (49 C.F.R.) regulations up to July 1, 2009 will be included in the incorporations of the pertinent regulations by reference.

As of the date of this proposal for public comment, the Board has found only minor sets of amendments to the incorporated materials in Section 720.111 past the date of the 2009 edition of the *Code of Federal Regulations*. These amendments update incorporated segments of the *Code of Federal Regulations*, but an effect on the implementation of the federal hazardous waste requirements is unlikely based on those amendments. Nevertheless, the Board proposes to update the incorporations to include the later federal amendments. The *Federal Register* citations to the later amendments that are added to the incorporations by reference are listed in Table A, which begins on page 271 towards the end of this opinion.

PUBLIC COMMENTS

The Board will receive public comments on this proposal for a period of 45 days following its publication in the *Illinois Register*. The presently projected date for publication is in the July 16, 2010 issue of the *Illinois* Register. If the Board manages to gain publication on that date, the public comment period would end on September 7, 2010. After that time, the Board will immediately consider adoption of the amendments, making any necessary changes made after consideration of the public comments. Of course, an earlier or later date of publication would result in an earlier or later expiration of the 45-day public comment period.

The Board will delay filing any adopted rules with the Secretary of State for 30 days after adoption, particularly to allow additional time for USEPA to review the adopted amendments before they are filed and become effective. If USEPA expressly waives this 30-day review period in writing, the Board could file the adopted amendments prior to expiration of the 30-day period.

Prior to adoption of the proposal for public comment in this matter, the Board received two public comments from USEPA. Both are e-mail exchanges between USEPA and Board staff wherein Board staff sought clarification of aspects of the USEPA amendments included in the docket. The comments are described as follows:

PC 1 December 18, 2009 e-mail from Tracy Atagi, USEPA, Office of Resource Conservation and Recovery, Materials Recovery and Waste Management Division, in response to a December 17, 2009 e-mail from Michael J. McCambridge, Board hearing officer, to Marilyn Goode, Office of Resource Conservation and Recovery, Materials Recovery and Waste Management Division. (Docketed December 21, 2009.)

PC 2 March 18, 2010 e-mail from Mary Jackson, USEPA, Office of Resource Conservation and Recovery, Materials Recovery and Waste Management Division, in response to a March 17, 2010 e-mail from Michael J. McCambridge, Board hearing officer. (Docketed March 30, 2010.)

By PC 1, USEPA clarified certain points in response to questions from Board staff relative to the interplay between the 2008 DSWR amendments and recycling-related provisions of the existing hazardous waste regulations. By PC 2, USEPA indicated the current status of the December 9, 2009-proposed withdrawal of the Comparable-Emissions Fuel rule, which USEPA adopted on December 19, 2009. USEPA indicated that there were no comments on the proposal to withdraw the amendments, and that USEPA was trying to convince the Office of Management and Budget to waive the customary three-month review of the proposed amendments.

DUE DATE AND TIMETABLE FOR COMPLETION

Under Section 7.2 of the Act (415 ILCS 5/7.2(b) (2008)), the Board must complete this rulemaking within one year of the date of the earliest set of federal amendments considered in this docket. USEPA adopted the earliest federal amendments that required Board attention on October 30, 2008, so that the nominal statutory deadline for Board adoption of these amendments was October 30, 2009.

By an order dated October 15, 2009, the Board again found that delay was necessary and unavoidable in this matter. That order extended the deadline for completion from October 30, 2009 until April 15, 2010. A Notice of Public Information Pursuant to 415 ILCS 5/7.2(b) appeared in the Illinois Register on October 30, 2009, at 33 Ill. Reg. 14841.

By a subsequent order dated March 18, 2010, the Board once more found that delay was necessary and unavoidable in this matter. That order extended the deadline for completion from April 15, 2010 until September 13, 2010. A Notice of Public Information Pursuant to 415 ILCS 5/7.2(b) relative to that extension of time until September 13, 2010 based on the March 18, 2010 Board order appeared in the *Illinois Register* on April 16, 2010, at 34 Ill. Reg. 5791.

Fulfilling the schedule projected in the March 18, 2010 order anticipated that the Board would adhere to the following schedule of intermediate actions:

Due date:	**September 13, 2010**
Date of Board vote to propose amendments:	**April 15, 2010**
Submission for *Illinois Register* publication:	April 26, 2010
Probable *Illinois Register* publication date:	May 7, 2010
Probable End of 45-day public comment period:	June 21, 2010
Date of Board vote to adopt amendments:	**August 5, 2010**
End of 30-day hold period for USEPA review:	September 5, 2010
Probable filing and effective date:	**September 13, 2010**
Probable *Illinois Register* publication date:	September 25, 2010

Since that has not occurred, the Board finds that further delay is required. Principally, review of the draft of this opinion and removing the December 19, 2008 ECF amendments from the draft opinion and order based on USEPA's December 8, 2009 proposal to withdraw those amendments, have required additional time. Based on proposal of this opinion and the accompanying order on this date, the Board again finds that delay for completion of these

amendments is necessary, from September 13, 2010 until November 15, 2010, according to the following schedule:

Due date:	**November 15, 2010**
Date of Board vote to propose amendments:	**June 17, 2010**
Submission for *Illinois Register* publication:	July 6, 2010
Probable *Illinois Register* publication date:	July 16, 2010
Probable End of 45-day public comment period:	September 7, 2010
Date of Board vote to adopt amendments:	**September 16, 2010**
End of 30-day hold period for USEPA review:	October 18, 2010
Probable filing and effective date:	**October 25, 2010**
Probable *Illinois Register* publication date:	November 5, 2010

DISCUSSION

The following discussion begins with a description of the types of deviations the Board makes from the literal text of federal regulations in adopting identical-in-substance rules. This description is followed by a series of three substantive discussions of the federally derived amendments involved in this docket. This series is organized by federal subject matter, appearing in chronological order of the relevant *Federal Register* notices involved.

General Revisions and Deviations from the Federal Text

In incorporating the federal rules into the Illinois system, some deviation from the federal text is unavoidable. This deviation arises primarily through differences between the federal and state regulatory structure and systems. Some deviation also arises through errors in and problems with the federal text itself. The Board works to conform the federal text to the Illinois rules and regulatory scheme and corrects errors found in the text in the course of these routine update rulemakings.

In addition to the amendments derived from federal amendments, the Board often makes necessary alterations in the text of various passages of the existing rules as provisions are opened for update in response to USEPA actions. This involves correcting deficiencies, clarifying provisions, and making other changes that are necessary to establish a clear set of rules that closely parallel the corresponding federal requirements within the codification scheme of the *Illinois Administrative Code*.

The Board updates the citations to the *Code of Federal Regulations* to the most recent version available. The federal Government Printing Office releases several updated titles of the *Code of Federal Regulations* every calendar quarter. This occurs in a cycle that assures a new edition of each title of the *Code* every year. The most recent versions of the *Code of Federal Regulations* available are the January 1, 2010 edition for NRC regulations (Title 10) and the July 1, 2009 edition for Coast Guard regulations (Title 33) and USEPA regulations (Title 40), and the October 1, 2009 edition for USDOT regulations (Title 49). Thus, the Board has updated all citations to Title 10 to the 2010 edition of the *Code of Federal Regulations* and citations to Titles

33, 40, and 49 to the 2009 edition. The Board has added the *Federal Register* citation, where necessary, for amendments that occurred after the *Code of Federal Regulations* edition date but before July 1, 2009, the cutoff date for amendments included in this docket. Table A, which begins on page 271 of this opinion, lists the *Federal Register* citation for each set of later federal amendments included in this docket.

The Board substituted "or" for "/" in most instances where this appeared in the federal base text, using "and" where more appropriate. The Board further used this opportunity to make a number of corrections to punctuation, grammar, spelling, and cross-reference format throughout the opened text. The Board changed "who" to "that" and "he" or "she" to "it," where the person to which the regulation referred was not necessarily a natural person, or to "he or she," where a natural person was evident; changed "which" to "that" for restrictive relative clauses; substituted "must" for "shall"; capitalized the section headings and corrected their format where necessary; and corrected punctuation within sentences.

In addition, the federal rules have been edited to establish a uniform usage throughout the Board's regulations. For example, with respect to "shall," "will," and "may," "must" is used when an action is required by the rule, without regard to whether the action is required of the subject of the sentence or not. "Shall" is no longer used, since this word is not used in everyday language. Thus, where a federal rule uses "shall," the Board substitutes "must." This is a break from our former practice where "shall" was used when the subject of a sentence has a duty to do something. "Will" is used when the Board obliges itself to do something. "May" is used when choice of a provision is optional. "Or" is used rather than "and/or," and denotes "one or both." "Either . . . or" denotes "one but not both." "And" denotes "both."

The Joint Committee on Administrative Rules has requested that the Board refer to the United States Environmental Protection Agency in the same manner throughout all of our bodies of regulations—*i.e.*, air, water, drinking water, RCRA Subtitle D (municipal solid waste landfill), RCRA Subtitle C (hazardous waste), underground injection control (UIC), etc. The Board has decided to refer to the United States Environmental Protection Agency as "USEPA." The Board will continue this conversion in future rulemakings as additional sections become open to amendment. The Board will further convert "EPA" used in federal text to "USEPA," where USEPA is clearly intended.

The Board has assembled tables to aid in the location of these alterations and to briefly outline their intended purpose. Table B sets forth the miscellaneous deviations from the federal text, and Table C itemizes the corrections to the pre-amended base text of the rules in detail. Table B begins on page 276 of this opinion, and Table C begins on page 361. There is no further discussion of most of the deviations and revisions elsewhere in this opinion.

Discussion of the Particular Federal Actions Involved in This Docket

Amendment of the Definition of Solid Waste Rule: Excluding HSMs That Are Reclaimed—Sections 703.Appendix A, 720.110, 720.130, 720.133, 720.134, 720.142, 720.143, 721.101, 721.102, and 721.104 and Subpart H of Part 721[1]

On October 30, 2008 (73 Fed. Reg. 64668), USEPA adopted amendments to the definition of solid waste. The DSWR amendments exclude certain materials that are reclaimed from the definition of solid waste. USEPA explained that the DSWR amendments were in response to judicial decisions, and USEPA intended them to encourage resource conservation and recycling. The DSWR amendments added a definition of "hazardous secondary material" (HSM) to the hazardous waste regulations.[2] HSM is material that undergoes reclamation but which would constitute hazardous waste if discarded. The DSWR amendments exclude specified HSMs from the definition of solid waste. The new exclusions are embodied in four self-implementing exclusions and a pair of exclusions that are available through an administrative determination.

Exclusion of Generator-Reclaimed HSM. The first two self-implementing exclusions are for HSM that is generated and reclaimed under the control of the generator. The Board has called this material "generator-reclaimed HSM" and refers to the exclusions involving this material "generator-reclaimed HSM exclusions" in the following discussions.[3] A new definition spells out what constitutes "generated and reclaimed under the control of the generator."[4] One

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[1] Sections 721.240, 721.241, 721.242, 721.243, 721.247, 721.248, 721.249, 721.250, and 721.251.

[2] This was not the first use of the term "hazardous secondary material" in the context of an exclusion from the definition of solid waste. USEPA used the term in the 1994 exclusion for oil-bearing waste and the 2002 exclusions relating to zinc fertilizers. *See* 40 C.F.R. 261.4(a)(12), (a)(21), and (a)(22) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(12), (a)(21), and (a)(22)); *see also* Table 2 beginning on page 165 of this opinion. USEPA further added use of the term to the excluded fuels rule by the December 19, 2008 amendments to that rule (discussed beginning at page 272 of this opinion). *See* 40 C.F.R. 261.38(b)(6)(i)(B) (2009) (Dec. 19, 2008) (corresponding with 35 Ill. Adm. Code 721.138(b)(6)(A)(ii)).

[3] USEPA added a definition of "hazardous secondary material generated and reclaimed under the control of the generator" to 40 C.F.R. 261.10, which the Board has added to corresponding 35 Ill. Adm. Code 720.110. For the purposes of this opinion, however, the Board uses "generator-reclaimed HSM" to mean the class of HSM designated by the new USEPA definition.

[4] It is reclamation at the same facility where the HSM was generated or reclamation at another site that is under the control of either (1) the generator; or (2) a person that also controls the generator (but not a contractor). *See* 40 C.F.R. 260.10 (2009) (definition of "hazardous secondary material generated and reclaimed under the control of the generator") (corresponding with 35 Ill. Adm. Code 721.110).

generator-reclaimed HSM exclusion applies where the generator does not manage the HSM in land-based units. The Board has referred to this as "non-land-based" when referring to the reclamation activity, to the HSM reclaimed in this manner, and to the exclusion of HSM reclaimed in these units. The other generator-reclaimed exclusion is for HSM that the generator manages in land-based units. The Board has referred to this exclusion as "land-based" when referring to this reclamation activity, to the HSM reclaimed in this manner, and to the exclusion of HSM reclaimed in these units. Different conditions apply to each of these exclusions.[5] *See* 40 C.F.R. 261.2(a)(2)(ii) and 261.4(a)(23) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B) and 721.104(a)(23)). Discussion of the non-land-based and land-based exclusions for generator-reclaimed HSM appears below, beginning on page 156 of this opinion.

Transfer-Based HSM Exclusion (Exclusion of Independently Reclaimed HSM). The third and fourth HSM exclusions involve HSM that is transferred for reclamation. USEPA refers to these collectively as the "transfer-based" exclusion.[6] 73 Fed. Reg. 64668, 64669-70 (Oct. 30, 2008). The Board has collectively referred to this pair of exclusions and the material subject to them as "independently reclaimed HSM" in this opinion[7]. One of the independently reclaimed

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[5] The Board regards the non-land-based generator-reclaimed HSM exclusion and the land-based generator-reclaimed HSM exclusion as distinct. Significant differences exist between them, and they are codified in two separate provisions. *Compare* 40 C.F.R. 261.2(a)(2)(ii), as added at 73 Fed. Reg. at 64760 *with* 40 C.F.R. 261.4(a)(23), as added at 73 Fed. Reg. at 64760 (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B) and 721.104(a)(23), respectively). Similarly, the differences between the domestically reclaimed offsite HSM exclusion and the exclusion for exported HSM are sufficient to consider them distinct from one another, and USEPA codified them as separate provisions. *Compare* 40 C.F.R. 261.4(a)(24), as added at 73 Fed. Reg. at 64760 *with* 40 C.F.R. 261.4(a)(25), as added at 73 Fed. Reg. at 64760 (corresponding with 35 Ill. Adm. Code 721.102(a)(24) and 721.104(a)(25), respectively). As to the exclusion of HSM by an administrative non-waste determination, USEPA enunciated two bases for obtaining a non-waste exclusion, and the Board considered these as two distinct exclusions because the bases are distinct. *See* 40 C.F.R. 260.34(b) and (c), as added at 73 Fed. Reg. at 64758 (corresponding with 35 Ill. Adm. Code 720.134(b) and (c)). Discussion of the self-implementing exclusions begins on page 158 of this opinion, and on page 186 for the non-waste determinations.

[6] Unlike the HSM that is generated and reclaimed under control of the generator, USEPA did not include a formal definition of HSM that is transferred for reclamation. *See* 40 C.F.R. 260.10 (2009).

[7] The Board made this choice to mirror using "generator-reclaimed HSM" to describe the first pair of exclusions. Further, while "transfer-based" can describe the reclamation and the exclusion, it cannot so readily describe the material itself. USEPA consistently refers to HSM managed under either of the transfer-based exclusions in descriptive terms, such as "hazardous secondary materials that are transferred for the purpose of legitimate reclamation." *See, e.g.,* 73 Fed. Reg. 64668, 69, 80, 731 (Oct. 30, 2008); 40 C.F.R. 261.4(a)(24), as amended at 74 Fed.

HSM exclusions applies to HSM that is "transferred to another person" for reclamation within the United States.[8] *See* 40 C.F.R. 261.4(a)(24) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)). The other independently reclaimed HSM exclusion applies to HSM that is "exported from the United States and reclaimed at a reclamation facility located in a foreign country." *See* 40 C.F.R. 261.4(a)(25) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(25)). Different conditions apply to the each of these two exclusions, with significant financial assurance requirements imposed on domestic reclaimers and intermediate facilities that manage independently reclaimed HSM. Different conditions apply to each of these exclusions. *See* 40 C.F.R. 261.4(a)(24) and (a)(25) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24) and (a)(25)). Discussion of the independently reclaimed HSM exclusions appears below, beginning on page 161 of this opinion.

Exclusion of HSM by an Administrative Non-Waste Determination. The fifth and sixth exclusions involve HSM that has been administratively determined "non-waste" using a new provision and an existing procedure. The provision for a "non-waste" determination, in new 40 C.F.R. 260.34 (corresponding with 35 Ill. Adm. Code 720.134), is separate from the existing provision for a "variance from classification as solid waste," in 40 C.F.R. 260.33 (corresponding with the "solid waste determination" of 35 Ill. Adm. Code 721.133 in the Illinois rules). USEPA, however, uses the same administrative procedure for the non-waste determination as has been used for the solid waste variance. *See* 40 C.F.R. 260.30 (2009) (corresponding with 35 Ill. Adm. Code 720.134).

The non-waste determination is available for two types of HSM: (1) HSM that is "reclaimed in a continuous industrial process"; and (2) HSM that is "indistinguishable in all relevant aspects from a product or intermediate." 40 C.F.R. 260.34(b) and (c) (2009) (corresponding with 35 Ill. Adm. Code 720.34(b) and (c)). For a non-waste determination based on HSM reclamation in a continuous industrial process, the person requesting exclusion must demonstrate that the HSM is "part of the production process and is not discarded." 40 C.F.R.

Reg. at 64761. USEPA did not include a formal definition of this class of HSM. *See* 40 C.F.R. 260.10 (2009).

[8] USEPA calls this a "conditional exclusion," stating that the exclusion applies so long as the HSM is managed under the conditions of the exclusion. 73 Fed. Reg. at 64669-70, 83; *see* 40 C.F.R. 261.4(a)(24), as added at 73 Fed. Reg. at 64761 (providing that the HSM is not solid waste "provided that" the conditions are fulfilled) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)). Further, USEPA calls HSM managed under this exclusion "conditionally exempt." *See, e.g.,* 73 Fed. Reg. at 64697. The exclusions for land-based generator-reclaimed HSM and independently reclaimed HSM that is exported for reclamation are also conditional in the same sense, and they include similar "not solid waste, provided that" language. *See* 40 C.F.R. 261.4(a)(23) and (a)(25), as added at 73 Fed. Reg. at 64760, 62 (corresponding with 35 Ill. Adm. Code 721.104(a)(23) and (a)(25)). USEPA, however, does not refer to those other exclusions as conditional. *See* 73 Fed. Reg. at 64780-82, 98. The fact that a failure to fulfill the conditions for independently reclaimed HSM reclaimed at a facility within the U.S. triggers obligations under the financial assurance provisions may justify an enhanced focus on the conditional nature of the exclusion. *See* 73 Fed. Reg. at 64794-98.

260.34(b) (2009) (corresponding with 35 Ill. Adm. Code 720.34(b)). A non-waste determination based on the fact that the HSM is indistinguishable from a product or intermediate, the person seeking exclusion must demonstrate that the HSM is "comparable to a product or intermediate and is not discarded." 40 C.F.R. 260.34(c) (2009) (corresponding with 35 Ill. Adm. Code 720.34(c)).

The non-waste determination provision sets forth specific factors for making a non-waste determination to exclude HSM. One set of factors focuses on the extent to which the HSM and its constituents are part of and will remain in the industrial process, and the other focuses on comparison with and use of the HSM in place of a product or intermediate. Essentially, however, consideration of either set of factors focuses the determination "based on whether the [HSM] is legitimately recycled" and that "the [HSM] is not discarded." 40 C.F.R. 260.34(b) through (b)(4) and (c) through (c)(5) (2009) (corresponding with 35 Ill. Adm. Code 720.34(b) through (b)(4) and (c) through (c)(5)). The Board refers to HSM excluded by a non-waste determination as the "non-waste HSM."

USEPA intended the non-waste determination to be ancillary to the self-implementing HSM exclusions. USEPA described the non-waste determination as alternative to the self-implementing exclusions. The non-waste determination is a means by which a person may obtain a formal determination that an HSM is excluded from the definition of solid waste. 73 Fed. Reg. at 64710. USEPA further described the non-waste determination as lacking the fixed conditions that apply to the self-implementing exclusions. USEPA observed that the administrative body that grants a non-waste determination may impose whatever conditions the body deems necessary. *Id*. Analysis of the non-waste determination, however, indicates conditions precedent to obtaining the determination are in many ways similar to those that are precedent to the self-implementing exclusions. Discussion of the independently reclaimed HSM exclusions appears below, beginning on page 161 of this opinion.

Impact of the DSWR Amendments. The six new exclusions from the definition of solid waste that the DSWR amendments added are significant. USEPA estimated that the exclusions could have a significant positive economic impact on HWM operations. USEPA estimated that 5,600 facilities in 280 industries and 21 economic sectors may potentially take advantage of the DSWR exclusions to manage HSM. The DSWR could affect the disposition of about 1.5 million tons of HSM per year, allowing estimated annualized regulatory and materials recovery cost savings of about $95 million (range: $19 to $333 million). USEPA's stated purpose for the DSWR amendments was to "encourage safe, environmentally sound recycling and resource conservation." 73 Fed. Reg. at 64668, 754-55.

The Board does not review the substance and merits of the underlying federal action in an identical-in-substance proceeding, except to the extent that incorporation of the federal provisions into the Illinois regulations is necessary. Persons interested in the details of the federal amendments should consult the October 30, 2008 *Federal Register* notice.

The Board has incorporated the October 30, 2008 federal DSWR amendments into the Illinois HWM regulations without substantive deviation from the corresponding federal text. The Board restricted deviations from the text of the federal amendments to those structural and

stylistic changes needed to make the text comport with the *Illinois Register* format, to the Board's preferred style and to add clarity and ease of use for the regulated community, and to account for differences between the federal and Illinois regulatory schemes. Table B, which begins on page 276 of this opinion, itemizes the various revisions made in adapting the federal text into the State regulations.

Before discussing the federally derived DSWR amendments, the Board will briefly describe a minor revision that is prompted by but not derived from the 2008 federal DSWR amendments. The Board has codified the table that USEPA has appended to 40 C.F.R. 261.2(c) (2009) (corresponding with 35 Ill. Adm. Code 721.102(c)) as Appendix Z to 35 Ill. Adm. Code 721. The table has no title in the federal regulations other than "Table 1." The Board entitled Appendix Z as "Table to Section 721.102."

In this proceeding, the Board has proposed revising Appendix Z to provide a description of the subject matter. The Board proposes revision of the title to read, "Table to Section 721.102: Recycled Materials That Are Solid Waste." The Board further proposes adding a descriptive preamble paragraph that explains the contents of the table. That paragraph would explain the contents as follows:

> The following table lists the instances when a recycled secondary material is solid waste, based on the type of secondary material and the mode of material management during recycling. This table supports the requirements of the recycling provision of the definition of solid waste rule, at Section 721.102(c).

The Board believes that these minor changes will aid understanding and use of the regulations. The title will clearly signal the importance of Appendix Z. The preamble will add further insight as to the significance of the contents of the table. Both revisions are listed among the non-federally derived amendments included in this rulemaking in Table B (beginning on page 276 of this opinion).

Expanded Discussion of the 2008 DSWR Amendments. The 2008 DSWR amendments are unique among RCRA Subtitle C hazardous waste amendments. The 2008 DSWR amendments are voluminous, they affect a fundamental provision of the hazardous waste regulatory scheme, they afford new avenues for regulatory relief, and they introduce substantive requirements for management of secondary materials that are excluded from the definition of solid waste.

The Board here engages in more extended discussion of the 2008 DSWR amendments than is usual in an identical-in-substance proceeding. The Board believes that extended discussion is necessary for a variety of reasons. The Board outlines a handful of those reasons here:

1. The context and content of the DSWR amendments are complex. Expanded discussion will aid understanding the 2008 DSWR amendments and the nature of the key provisions (*e.g.*, management requirements for excluded secondary

materials, financial assurance requirements for reclamation facilities, the availability of a "non-waste determination," etc.).

2. The 2008 DSWR amendments are another step in the evolution of how recycling affects the definition of solid waste. Principally, the 2008 DSWR amendments modify recycling-based requirements initiated by DSWR amendments adopted by USEPA in 1985 (1985 DSWR amendments).[9] *See* 50 Fed. Reg. 614 (Jan. 4, 1985). Understanding what USEPA's four new self-implementing exclusions and two new exclusions available through an administrative non-waste determination added that did previously not exist based on the 1985 DSWR amendments is important.

3. Expanded discussion will aid the Board, the Agency, and the regulated community in using the new non-waste determination procedure that USEPA added by the 2008 DSWR amendments. The new procedure closely resembles the existing "variance" procedure[10] established by the 1985 DSWR amendments. The non-waste determination could be construed as an extension of the variance procedure to additional secondary materials and circumstances. USEPA chose to direct use of the existing procedure for seeking a variance for an interested person seeking a non-waste determination. On the other hand USEPA codified the non-waste determination in a separate provision from the variance procedure, and several of the considerations for granting a non-waste determination do not apply to granting a "variance."

4. Expanded discussion will also allow an enhanced opportunity for comments from the Agency, USEPA, and the regulated community. Historically, the Board has generally received more comments on issues expressly raised in the opinions accompanying identical-in-substance proposals than on issues the Board has not mentioned.

5. As is explained more fully below beginning on page 217, USEPA has invited comments on aspects of the DSWR amendments. *See* 74 Fed. Reg. 25200 (May 27, 2009). The expanded discussion of the DSWR amendments will allow the Board to examine USEPA's requests for comments.

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[9] Discussion of the 1985 amendments appears in various segments of the following discussion—most notably at pages 22 of this opinion.

[10] USEPA's "variance" procedure is called a "solid waste determination" in Illinois. *Compare* 35 Ill. Adm. Code 720.131 *with* 40 C.F.R. 720.31. Further explanation appears at pages 200 of this opinion.

Outline of Discussion of the 2008 DSWR Amendments

Preliminary Issues. Prior to discussion of the 2008 DSWR amendments, the Board engages here in introductory discussions. These introductory segments will prepare the reader for the substantive discussions that follow. One preliminary discussion outlines the regulatory context for the current amendments. Two preliminary discussions relate to the definition of key terms used in following segments of discussion. First, the Board outlines the historical development of the definition of solid waste. The second segment explains the choice of the term "secondary material" to refer to substances whose regulatory status is determined by resort to the definition of solid waste. Third, the Board extracts the meanings of the key terms "recycling" and "reclamation" from USEPA sources. A final preliminary segment will introduce the basic definition of solid waste.

The first introductory discussion begins immediately below with an outline of the historical evolution of the definition of solid waste.

Historical Development of the Definition of Solid Waste. USEPA adopted the initial definition of solid waste in the initial wave of hazardous waste regulations in 1980. That initial version of the DSWR was simple and straightforward in its treatment of recycling of secondary materials. Essentially, the definition deemed discarded (or "sometimes discarded") materials as

solid waste. *See* 40 C.F.R. 261.2(a) and (b) (1980). The term "discarded" was defined as follows:

> (c) A material is "discarded" if it is abandoned (and not used, re-used, reclaimed or recycled) by being:
>
> (1) Disposed of; or
>
> (2) Burned or incinerated, except where the material is being burned as a fuel for the purpose of recovering usable energy; or
>
> (3) Physically, chemically, or biologically treated (other than burned or incinerated) in lieu of or prior to being disposed of. 40 C.F.R. 261.2(c) (1980) (emphasis added); *see also* 45 Fed. Reg. 33084, 90-95 (May 19, 1980) (discussing the rationale and scope of the initial definition).

Recycling and reclamation activities were regulated under a provision that provided "special requirements" on these activities. In essence, a hazardous waste was excluded from regulation if it fulfilled one of two conditions:

> (1) It is being beneficially used or re-used or legitimately recycled or reclaimed.
>
> (2) It is being accumulated, stored, or physically, chemically or biologically treated prior to beneficial use or re-use or legitimate recycling or reclamation. 40 C.F.R. 261.6(a)(1) and (a)(2) (1980).

Transportation and storage of listed hazardous waste that was recycled was subject to selected segments of the RCRA standards that applied generally to hazardous waste generators; transporters; or treatment, storage, or disposal (T/S/D) facilities. *See* 40 C.F.R. 261.6(b) (1980). Under the 1980 scheme of regulation, any "discarded" material that was "legitimately" recycled, used or reused, or reclaimed was subject to reduced hazardous waste requirements.

When adopting the initial 1980 definition of solid waste, USEPA stated as follows with regard to regulation of recycling activities:

> [W]e have not been able to formulate more appropriate standards to date. We are therefore deferring Subtitle C regulation of the actual use and re-use of hazardous wastes and hazardous waste recycling and reclamation activities until such standards can be developed. . . .
>
> This temporary deferral, is should be noted, is confined to *bona fide* "legitimate" and "beneficial" uses and recycling of hazardous wastes. Sham uses and recovery or reclamation activities—*e.g.*, "landfilling or "land reclamation" which is actually disposal and burning organic wastes that have little or no heat

> value in industrial boilers under the guise of energy recovery—are not within its scope . . . . *See* 45 Fed. Reg. at 33093 (citation omitted).

USEPA determined that even though it was not prepared to impose standards hazardous waste recycling, it would impose the generator; transporter; and selected segments of the hazardous waste T/S/D facility standards on recycled hazardous wastes. *Id.*; *see* 40 C.F.R. 261.6 (1980).

USEPA adopted the first of standards for recycling and reclamation of secondary materials in 1985. The 1985 DSWR amendments elaborated the initial definition of solid waste by adding the definitions of "use or re-use," "recycling," and "reclamation," as they now exist. *See* 50 Fed. Reg. 614, 63-64; *compare* 40 C.F.R. 261.1(c)(4), (c)(5), and (c)(7) (2009) *with* 40 C.F.R. 261.1(c)(4), (c)(5), and (c)(7) (1985). The amendments provided what recycling, use or reuse, and reclamation activities exclude secondary materials from the definition of solid waste and which do not.[11]

When USEPA adopted the 1985 DSWR amendments, USEPA observed the objectives of RCRA as follows:

> [T]he Agency is guided by the principle that the paramount and overriding statutory objective of RCRA is protection of human health and the environment. The statutory policy of encouraging recycling is secondary and must give way if it is in conflict with the principal objective. 50 Fed. Reg. at 618.

USEPA perceived that the primary focus of the 1985 DSWR amendments was to define the extent to which RCRA authority extended to regulation of recycled secondary materials. By the 1985 amendments, USEPA defined the limits of RCRA Subtitle C authority in that regard. USEPA stated as follows:

> [T]he grant of authority in RCRA over recycling activities is not unlimited. Specifically, we do not believe our authority extends to certain types of recycling activities that are shown to be very similar to normal production operations or to normal uses of commercial products. 50 Fed. Reg. at 616-17; *see* 50 Fed. Reg. 638.

Accordingly, by the 1985 DSWR amendments, USEPA excluded recycled secondary materials from the definition of solid waste, with limited exceptions, but not those secondary

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[11] By the 1985 DSWR amendments, USEPA established the definition of solid waste; the definitions of all terms relevant to recycling, reclamation, and exclusions from the definition of solid waste; and added the first two recycling-related exclusions from the definition. *See* 40 C.F.R. 261.1(c)(4), (c)(5), (c)(7), and (c)(8); 261.2; and 261.4(a)(6) and (a)(7) (1985); *see also* 50 Fed. Reg. at 663-65 (Jan. 4, 1985) (adopting these provisions). Table 2, which begins on page 165 of this opinion, is a summary listing of all of the exclusions from the definition of solid waste that USEPA has adopted to date. That table indicates the nature of each exclusion, where it is located in the regulations, and when USEPA adopted it.

materials that were the subject of reclamation. USEPA observed the limits of its RCRA authority by excluding "use or reuse" of secondary materials from the definition of solid waste, but with the following limitations:

> [T]here are several such use/reuse circumstances where the nature of the material or the nature of the recycling activity indicates that RCRA jurisdiction exists:
>
> ● Where the material being used is inherently waste-like;
>
> ● Where insufficient amounts of the material are recycled;
>
> ● Where the material is incorporated into a product that is used in a manner constituting disposal or where the material is used directly in a manner constituting disposal; and
>
> ● Where the material is used by being incorporated into a fuel, or being burned directly as a fuel.
>
> In addition, when a component of the material is recovered as an end product, the material is being reclaimed, not reused. 50 Fed. Reg. at 638.

Thus, avowedly pursuing the limits of its RCRA authority, USEPA generally excluded recycled secondary materials from the definition of solid waste, with a few exceptions, except where reclamation was involved. *See* 40 C.F.R. 261.2(a), (c), and (e) (2008) (corresponding with 35 Ill. Adm. Code 721.102(b), (c), and (e) (2008)). Thus, USEPA excluded "use or reuse" of secondary materials where minimal processing of those materials was necessary before the use or reuse. *See*, *e.g.*, 50 Fed. Reg. at 619; *see also* 40 C.F.R. 260.30(c) and 260.31(c) (2009) (allowing a variance for partially reclaimed secondary materials where the reclamation is nearly complete and the secondary materials are commodity-like). Thus also, USEPA used the term "reclaim" in a way that had the effect of including materials within the definition of solid waste. USEPA further used the term "reclaim" and its derivatives very infrequently in the text of the rules.

The result was a definition of solid waste that balances between waste-related activities that are within the regulatory authority of RCRA and product-like management that is outside the RCRA authority. The definition made broad designations of the materials that are solid waste based on the more waste-like management practices that are within RCRA authority. The definition then broadly excluded recycled secondary materials from the definition that are managed in a more product-like way that USEPA felt were beyond the RCRA authority. USEPA excluded the recycling activities that were akin to product management from the secondary materials designated solid waste. USEPA similarly excepted from exclusion those types of recycling that were within the RCRA statutory authority. USEPA explained the approach of the 1985 DSWR amendments as follows:

> The revised definition of solid waste states that any material that is abandoned by being disposed of, burned, or incinerated—or stored, treated, or accumulated before or in lieu of these activities—is a solid waste. The remainder of the definition states which materials are wastes when recycled.
>
> The amended definition adopts the approach that for secondary materials being recycled, one must know both what the material is and how it is being recycled before determining whether or not it is a Subtitle C waste. * * * In understanding the revised definition, therefore, one must consider the types of secondary materials in conjunction with types of recycling practices. 50 Fed. Reg. at 618.

The second segment of preliminary discussion continues with consideration of the terms "secondary material" and "hazardous secondary material."

Use of Terms 1: "Secondary Material" and "Hazardous Secondary Material."

USEPA has used both of the terms, "secondary material" and "hazardous secondary material," in the past without definition. USEPA has now added a formal definition of "hazardous secondary material" to the regulations. This definition narrows the range of interpretation of the term. While adding the formal definition of the term, USEPA has expanded its use in a series of new exclusions from the definition of solid waste. The Board uses the terms "secondary material" and "hazardous secondary material" ("HSM") in this opinion to mean two distinct types of material, basing their meanings on the meanings given them by USEPA.

In an established general environmental guidance document, USEPA defined the term "secondary materials" in very basic terms. That definition appeared as follows:

> Secondary Materials: Materials that have been manufactured and used at least once and are to be used again. *Terms of Environment: Glossary, Abbreviations, and Acronyms* (Dec. 1997), USEPA, Office of Communications, Education, and Community Affairs, doc. no. EPA-175-B-97-001, at p. 42.

The definition for the term "hazardous secondary material," which the recent DSWR amendments added to the regulations, is based on the term "secondary material," adding definition of the base term by example. "Hazardous secondary material" is defined as follows:[12]

> *Hazardous secondary material* means a secondary material (*e.g.*, spent material, by-product, or sludge) that, when discarded, would be identified as hazardous

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[12] Based on this definition and the requirement that recycling of the material must be "legitimate," the fact that a material is not discarded is a pre-condition to all of the exclusions made available by the DSWR amendments. *See* 40 C.F.R. 40 C.F.R. 260.10 (2009) (definition of "hazardous secondary material; corresponding with 35 Ill. Adm. Code 720.110); 260.34(a), 260.43(a), 261.2(a)(2)(ii), and 261.4(a)(23)(v), (a)(24)(iv), and (a)(25), as added at 73 Fed. Reg. at 64758-62 (corresponding with 35 Ill. Adm. Code 260.134(a)).

> waste under part 261 of this chapter. 40 C.F.R. 260.10 (2009) (corresponding with 35 Ill. Adm. Code 720.110).

The 2008 DSWR amendments was not the first time that USEPA has used the term "hazardous secondary material," but was the most systematic and extensive use of the term. USEPA used the term "hazardous secondary material" three times in the *Federal Register* notice adopting the 1985 DSWR amendments.[13] *See* 50 Fed. Reg. at 616 & n. 4, 17, and 34. In the notice discussion of the 1985 DSWR amendments, USEPA stated as follows:

> Throughout this preamble, [US]EPA refers for convenience to "secondary materials." We mean a material that potentially can be a solid and hazardous waste when recycled. The rule itself refers to the following types of secondary materials: Spent materials, sludges, by-products, scrap metal, and commercial chemical products recycled in ways that differ from their normal use. The rule does not use the term secondary materials. 50 Fed. Reg. at 616, n. 4.

USEPA also used the term "hazardous secondary material" in the text of three of the exclusions from the definition of solid waste that it adopted between 1994 and 2002. *See* 40 C.F.R. 261.4(a)(12) (2009) (petroleum refinery- generated HSM, adopted in 1994; corresponding with 35 Ill. Adm. Code 721.104(a)(12)); 40 C.F.R. 261.4(a)(20) and (a)(21) (2009) (HSM used to make zinc fertilizer and fertilizer made from HSM, adopted in 2002; corresponding with 35 Ill. Adm. Code 721.104(a)(20) and (a)(21)). In the *Federal Register* notice adopting recent DSWR amendments, however, USEPA used "hazardous secondary material" more than 1,500 times in the combined *Federal Register* discussion and rules text.

As defined by USEPA, the term "secondary material" is a more general term than "hazardous secondary material." The term "secondary material" could be used to describe any manufactured materials that are used and which are intended for recycling. USEPA ascribed a narrower meaning to "hazardous secondary material" in the new definition of that term. First, the requirement that the material becomes hazardous waste when discarded excludes "secondary material" that does not either exhibit a characteristic of hazardous waste or fulfill the description of a listed hazardous waste.[14] Second, the prior use of the term "hazardous secondary material," followed by recent formal definition, all within the context of exclusions from the definition of solid waste, has made "hazardous secondary material" a term of art—one with a meaning that connotes material which is the subject of an exclusion from the definition of solid waste.

Under the federal definition, USEPA has intended "secondary material" to refer to used manufactured material that has not been discarded and which will be used again. USEPA gives

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[13] USEPA asserted at one point in that discussion: "We agree that RCRA embodies a general principle that most hazardous secondary materials are considered to be hazardous wastes when recycled." 50 Fed. Reg. at 616 (footnote omitted).

[14] See the discussion of the definition of hazardous waste that appears below (at page 38 of this opinion).

spent material, by-product material, and sludge as examples of secondary materials. If the secondary material would become hazardous waste when "discarded," it is described as "hazardous secondary material." Thus, "hazardous secondary material" is a subset of "secondary material," distinguished on the basis of it either exhibiting a characteristic of hazardous waste or falling within the description of a listed hazardous waste, but further implying that this meaning is intended within the context of exclusion from the definition of solid waste.

For the sake of general discussion of recycling and reclamation, where description or characteristics of the material is immaterial, the Board has used the term, "secondary material." As defined by USEPA, the term "hazardous secondary material" is very close to the term "secondary material." Yet, the term "secondary material" is sufficiently distinct from the term "hazardous secondary material" that its use by the Board in this opinion will not cause confusion with the HSM that is the subject of the exclusions added by the recent DSWR amendments. This use of similar terms lends itself well to subsequent discussion of the DSWR amendments, without causing confusion with "hazardous secondary materials" when discussion of the new exceptions added by the amendments begins below (at page 85 of this opinion).

Use of Terms 2: "Recycling" and "Reclamation"; the Shift within the 2008 DSWR Amendments. "Recycling" and "reclamation" are the object of the 2008 DSWR amendments. The new exclusions use both of the terms "recycling" and "reclamation" in various contexts throughout the text of the DSWR amendments and the preamble discussion of those amendments. USEPA appears to make shifting use of the two terms. While uses may seem somewhat random at first blush, analysis indicates that USEPA indeed used each term with precision. Clear meaning is derived from the 2008 DSWR amendments only based on a clear understanding of the overlap and differences in meaning of the two terms "recycle" and "reclaim" and their derivatives.

The objective of this segment of introductory discussion is to distinguish what constitutes "recycling" and what constitutes "reclamation." The 2008 DSWR amendments did not alter the basic meanings of the terms "recycle" and "reclaim." In quoted segments of text set forth in this discussion and in the following segment on the basic definition of solid waste, 2008 DSWR amendments in the text are indicated by underlining and overstrike, even though the indicated changes are not the object of this introductory discussion. The changes are indicated for the convenience of the reader and to aid references to the text in subsequent discussion of the 2008 amendments.

Two Distinct Terms. That the word "recycling" is distinct from the word "reclamation" is illustrated in the segments of the definition of solid waste added by the 1985 DSWR amendments and in USEPA's *Federal Register* discussions of those amendments. The main part of the definition deems that certain secondary materials are "discarded material" that is solid waste if they are "recycled" in specified ways. One of those specific ways is by being "reclaimed." 40 C.F.R. 261.2(a)(1), (a)(2), and (c)(3) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(1), (a)(2), and (c)(3)). In another provision of the definition that USEPA added by the 1985 DSWR amendments, the recycling of secondary material is excluded from the definition of solid waste, so long as reclamation does not occur. 40 C.F.R. 261.2(e) (2009)

(corresponding with 35 Ill. Adm. Code 721.102(e)). The text of the definition solid waste appears in the next introductory discussion segment (beginning on page 42 of this opinion), so they are not cited here.

A segment of the *Federal Register* discussion accompanying the 1985 DSWR amendments further highlights the significance of USEPA's distinction between the terms "recycling" and "reclamation."[15] That segment stated as follows:

> [T]o determine if a secondary material is a RCRA solid waste when recycled, one must examine both the material and the recycling activity involved. A consequence is that the same material can be a waste if it is recycled in certain ways, but would not be a waste if it is recycled in other ways. For example, an unlisted by-product that is reclaimed is not defined as a solid waste. However, the same by-product is defined as a waste if it is recycled by [use that constitutes disposal or burning for energy recovery]. 50 Fed. Reg. at 619 (*re* secondary materials that are solid waste when managed in certain ways).
>
> * * *
>
> When secondary materials are *directly* used as an ingredient or a feedstock, we are convinced that the recycled materials are usually functioning as raw materials and therefore should not ordinarily be regulated under Subtitle C. . . . However, when distinct components of the material are recovered as separate end products . . ., the secondary material is not being used, but rather reclaimed and thus, would not be excluded under this provision. *Id.* (*re* secondary materials that are not solid waste).

Thus, the two terms "recycle" and "reclaim" have different meanings under the hazardous waste regulations, with some overlap in meaning between the two terms. Understanding the relative meanings of the two terms is necessary for understanding the definition of solid waste and the 2008 DSWR amendments.

The new HSM exclusions from the definition of solid waste that the 2008 DSWR amendments added are based on reclamation of secondary materials. As subsequent discussion will manifest (at pages 114 and 193 of this opinion), the 2008 DSWR amendments and accompanying *Federal Register* discussions extensively use the term "recycling," yet all of the new exclusions more specifically refer to "reclamation." Understanding the meanings of the terms "recycled" and "reclaimed," and the distinctions between them, is important to understanding the scope of the new HSM exclusions and the ancillary provisions added with them.

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[15] The two statements in this segment of text appear to come to opposite conclusions with regard to reclamation *vis-à-vis* recycling, but the types of recycling mentioned in the two paragraphs are distinct. The first statement relates to use constituting disposal, and the second relates to use or reuse in a production process.

Defining the Terms and Their Derivatives. Defining the terms "recycling" and "reclamation" depends on existing regulatory definitions and what is implicit in the usage of words and the context of the rules. The terms "recycling" and "reclamation" are not themselves defined in the DSWR provisions. Rather, "recycled" and "reclaimed" are defined. These definitions provide a starting point for analysis, and the use of derivative terms in the rules provides basis for further inferring definitions for the two terms and their derivatives that are not directly defined.

In short, reclamation is a single mode of recycling. Recycling includes use, reuse, and reclamation of secondary material. Thus, a reference to recycling embraces reclamation, including those modes of recycling other than reclamation: use and reuse. A reference to reclamation refers to recycling, but excludes use and reuse of secondary material.

The words "recycled" and "reclaimed" (as participles) are explicitly defined in the rules in terms that describe the action performed on secondary materials. The basic definitions appear as follows in the purpose and scope provision of the identification of hazardous waste regulations (indicating with underlining the material added by the 2008 DSWR amendments):

> (c) For the purposes of §§ 261.2 and 261.6:
>
> * * *
>
> (4) A material is "reclaimed" if it is processed to recover a usable product, or if it is regenerated. Examples are recovery of lead values from spent batteries and regeneration of spent solvents. <u>In addition, for purposes of §§ 261.2(a)(2)(ii), 261.4(a)(23), and 261.4(a)(24) smelting, melting and refining furnaces are considered to be solely engaged in metals reclamation if the metal recovery from the hazardous secondary materials meets the same requirements as those specified for metals recovery from hazardous waste found in § 266.100(d)(1)–(3) of this chapter, and if the residuals meet the requirements specified in § 266.112 of this chapter.</u>
>
> (5) A material is "used or reused" if it is either:
>
> (i) Employed as an ingredient (including use as an intermediate) in an industrial process to make a product (for example, distillation bottoms from one process used as feedstock in another process). However, a material will not satisfy this condition if distinct components of the material are recovered as separate end products (as when metals are recovered from metal-containing secondary materials); or
>
> (ii) Employed in a particular function or application as an effective substitute for a commercial product (for example, spent pickle liquor used as phosphorous precipitant and sludge conditioner in wastewater treatment).

* * *

(7) A material is "recycled" if it is used, reused, or reclaimed. 40 C.F.R. 261.1(c) (2009) (corresponding with 35 Ill. Adm. Code 721.101(c)).[16]

Rather than the defined terms "recycled" and "reclaimed," however, the regulations more often use the present-tense verb forms ("recycle"/"recycles" and "reclaim"/"reclaims") and the noun and adjective derivatives of these words ("recycling"/"recycler"/"recyclable" and "reclamation"/"reclaimer").[17] These derivative words acquire meaning by inference from the given definitions.

What follows focuses on definition of the noun-forms of the defined terms "recycling" and "reclamation," since it is the defined activities that are the primary object of this discussion. Further, having once defined the activities represented, subsidiary word forms (like "recycle"/"recycler" and "reclaim"/"reclaimer") acquire meanings.

Using the basic USEPA definitions of "recycled" and "reclaimed," quoted above from the regulations, the Board suggests the following definitions for the nouns "reclamation" and "recycling":

Reclamation: processing a secondary material to either recover a usable product from it or to regenerate the material for further use.

Recycling: (1) the use or reuse of a secondary material as an ingredient in an industrial process to make a product, so long as distinct components of the secondary material are

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[16] The indicated DSWR amendments added language that specifically included industry-specific processing in certain facilities within the scope of two of the new HSM exclusions. Smelting, melting, and refining furnaces that process hazardous waste solely for metal recovery are considered to be engaged in reclamation for the purposes of the generator-reclaimed HSM exclusion (both the non-land-based only and land-based unit exclusions) and the independently-reclaimed HSM exclusion applicable to HSM reclaimed within the United States. *See* 40 C.F.R. 261.1(c)(4) and 266.100(d) (2009) (corresponding with 35 Ill. Adm. Code 721.101(c)(4) and 726.200(d)). This inclusion did not materially affect the meanings of "recycled" or "reclaimed" in any general way that is germane to this segment of the discussion.

[17] *See, e.g.*, 40 C.F.R. 260.30(b)(2) (2009) ("reclamation"; corresponding with 35 Ill. Adm. Code 720.130(b)(2)); 260.32(a)(2) and (b)(6) (2009) ("recycling" and "reclaims"; corresponding with 35 Ill. Adm. Code 720.132(a)(2) and (b)(6)); 260.33(b) (2009) ("recycler"; corresponding with 35 Ill. Adm. Code 720.133(b)); 260.40(a) (2009) ("recyclable"; corresponding with 35 Ill. Adm. Code 720.140(a)); 261.4(a)(8)(i) (2009) ("reclamation"; corresponding with 35 Ill. Adm. Code 721.104(a)(8)(A)); 261.5(f)(3)(vi)(A) (2009) ("recycles" and "reclaims"; corresponding with 35 Ill. Adm. Code 721.105(f)(3)(F)(i)); 261.6(c)(2) ("recycle recyclable"; corresponding with 35 Ill. Adm. Code 721.106(c)(2)); and 262.20(e)(1)(ii) (2009) ("reclaimer"; corresponding with 35 Ill. Adm. Code 722.120(e)(1)(ii)).

> not recovered as separate end-products; (2) the use or reuse of a secondary material in a function or application as an effective substitute for a commercial product; or (3) the reclamation of a secondary material.

This definition of reclamation is consistent with segments of the preamble discussion of the 1985 DSWR amendments. In that preamble, USEPA described reclamation as follows:

> In essence, reclamation involves regeneration or material recovery. Wastes are regenerated when they are processed to remove contaminants in a way that restores them to their usable original condition. 50 Fed. Reg. at 633 (discussion of regulatory definition of the term).

In a separate segment, USEPA listed "reclamation" as an activity that would subject a secondary material to RCRA Subtitle C regulation.[18] That listing included the following description of reclamation:

> ● *Reclamation*. This activity involves the regeneration of wastes or the recovery of material from wastes. *Id*. at 618.

The USEPA guidance publication, *Terms of Environment*, includes a definition of "reclamation." The definition of "reclamation" is very close to the definition suggested by the Board and set forth above. That definition is as follows:

> Reclamation: (In recycling) Restoration of materials found in the waste stream to a beneficial use which may be for purposes other than original use. *Terms of Environment: Glossary, Abbreviations, and Acronyms* (Dec. 1997), USEPA, Office of Communications, Education, and Community Affairs, doc. no. EPA-175-B-97-001, at p. 39; *see also Dictionary.com Unabridged (v 1.1),* Random House, Inc. http://dictionary.reference.com/browse/reclamation (accessed: August 19, 2009 (sense 4: "the process or industry of deriving usable materials from waste, by-products, etc.").

This *Terms of Environment* USEPA definition of "reclamation" emphasizes two aspects of reclamation: (1) the object of the reclamation could be a purpose other than the original use of the material; and (2) reclamation can involve extraction of components from the material to make it useful.

There is no comparable USEPA definition of "recycle" in *Terms of Environment*. The definition that does appear is for "recycle/reuse." That definition appears as follows:

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[18] The others were "use constituting disposal," "burning waste or waste fuels for energy recovery, or using wastes to produce a fuel," and "speculative accumulation." Use constituting disposal and burning for energy recovery (or use to produce a fuel) are briefly discussed below (beginning at page 39 of this opinion). Speculative accumulation is more fully discussed below (beginning at page 59 of this opinion).

> Recycle/Reuse: Minimizing waste generation by recovering and reprocessing usable products that might otherwise become waste (*i.e.* recycling of aluminum cans, paper, and bottles, etc.). *Terms of Environment: Glossary, Abbreviations, and Acronyms* (Dec. 1997), USEPA, Office of Communications, Education, and Community Affairs, doc. no. EPA-175-B-97-001, at p. 39.

This definition emphasizes the objective of "minimizing waste generation" and the concept of collection and reclamation of secondary material, but it conveys no concept of use of the material. This adds little to the Board's effort to define the term "recycling."

Thus, USEPA rules and guidance indicate that recycling and reclamation are closely related practices, but they are not synonymous. Reclamation is one mode of recycling. Use or reuse is the other.[19] The term "reclamation" connotes performing some operation on a secondary material to either (1) extract something useful from the secondary material for further use; or (2) extract something from it to make the secondary material suitable for further use. The term "recycling" would thus embrace any form of further using, reusing, or reclaiming the secondary material. This is without regard to whether the secondary material is processed to extract material or simply used or reused. The Board reads the term "recycling" to include use and reuse, while the term "reclamation" does not.[20] Where USEPA has intended to exclude reclamation, USEPA has specified use and reuse and/or expressly excluded reclamation. *See* 40 C.F.R. 261.2(e)(1)(i) through (e)(1)(iii) (2009) (corresponding with 35 Ill. Adm. Code 721.102(e)(1)(A) through (e)(1)(C)); *see also* 40 C.F.R. 260.30 preamble and (b) (2009) (describing the "recycled materials" for which an administrative "variance" from the definition of solid waste is available as "materials that are reclaimed and then reused in the original production process in which they were generated").

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[19] "Use or reuse" is defined as a single term by the hazardous waste regulations. *See* 40 C.F.R. 261.1(c)(5) (2009) (corresponding with 35 Ill. Adm. Code 721.101(c)(5)). Thus, the Board has treated this as a single mode of recycling, even though distinction between use and reuse is possible.

[20] There Board believes that there is no need to distinguish "use" from "reuse" in this opinion. USEPA has employed both together as "use or reuse." 40 C.F.R. 261.1(c)(5) (2009) (corresponding with 35 Ill. Adm. Code 721.101(c)(5)). The Board will follow USEPA's lead and use the collective term "use or reuse." It would be easy to infer that "use" applies when the use is independent of the process that generated the secondary material, and "reuse" applies when the use is within the generating process, but making such a distinction is unnecessary. The only thing that is pertinent here is that "reclamation" does not occur in "use or reuse." *See* 40 C.F.R. 261.1(c)(5)(i) (2009) (use as an ingredient in an industrial process, excluding where "recovery" (reclamation) occurs; corresponding with 35 Ill. Adm. Code 721.101(c)(5)(A)); *but see* 40 C.F.R. 261.1(c)(5)(ii) (2009) (use as a substitute for a commercial product, lacking exclusion of reclamation; corresponding with 35 Ill. Adm. Code 721.101(c)(5)(B)).

A final note on recycling and reclamation relates to the point at which a secondary material becomes subject to the hazardous waste regulations. The rules provide that hazardous waste generated in a tank, vessel, pipeline, or other specified form of containment is generally exempt from regulation until it exits the containment in which it was generated. 40 C.F.R. 261.4(c) (2009) (corresponding with 35 Ill. Adm. Code 721.104(c)). Thus, until the point that the material exits the vessel, the nature of any recycling activity that occurs on the secondary material is immaterial so long as the material remains within the vessel in which it was generated. No hazardous waste regulations apply to the material until it exits the vessel.

Usage in the 1985 and 2008 DSWR Amendments. Words related to both "recycling" and "reclamation" appear to be used interchangeably by USEPA in the text of the 2008 DSWR amendments and in the discussion of them. For example, the new "legitimacy rule" that the 2008 DSWR amendments added refers to "legitimate recycling." *See* 40 C.F.R. 260.43 (2009) (corresponding with 35 Ill. Adm. Code 720.143)). All of the new self-implementing HSM exclusions, however, require determination whether the reclamation of the HSM is legitimate. *See* 40 C.F.R. 261.2(a)(2)(ii) and 261.4(a)(23)(v), (a)(24)(iv), and (a)(25)(i)(G) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B) and 721.104(a)(23)(E), (a)(24)(D), and (a)(25)(A)(vii)) *but see* 40 C.F.R. 260.34(b) (2009) (using legitimate "recycling" for the non-waste determination; corresponding with 35 Ill. Adm. Code 720.134(b)).

The relative frequencies of occurrence of the terms "recycling" and "reclamation" could imply that USEPA has used the terms interchangeably, but careful examination of the uses in context reveals that this did not occur. The use of "recycling" consistently embraces "reclamation," or "use or reuse," or both; the use of the term "reclamation" consistently excludes "use or reuse."

In total, the word "recycle" and its derivatives ("recycled," recycling," etc.) are used more than 1,100 times in USEPA's *Federal Register* discussion of the 2008 DSWR amendments, but fewer than 30 times within the text of the amendments themselves. The overwhelming preponderance of the appearances of "recycle" in the text of the amendments relate to the "legitimacy rule" (40 C.F.R. 260.43 (2009) (corresponding with 35 Ill. Adm. Code 720.143)). In the *Federal Register* discussion, however, the use of "recycle" and its derivatives is fairly evenly split among references to the legitimacy rule, to recycling as a process or facility, and to recycled HSM.

The word "reclaim," however, appears about 720 times in the *Federal Register* discussion of the amendments and 85 times in the text of the amendments themselves. The use of "reclaim" and its derivatives ("reclamation," "reclaimed," "reclaimer," etc.) is fairly evenly split between references to reclamation as a process or facility and to reclaimed HSM, in both the preamble discussion and the text of the amendments; very few uses of "reclaim" and its derivatives (about 10 appearances in each of the discussion and the text) pertain to the legitimacy rule (40 C.F.R. 260.43 (2009) (corresponding with 35 Ill. Adm. Code 720.143).

By contrast, "recycle" and its derivatives were used about 370 times in the *Federal Register* discussion of the 1985 DSWR amendments, and about 60 times within the text of the amendments themselves. The vast majority of uses of "recycle" in the text of the regulations

pertain to exclusion from the definition of solid waste or imposition of special requirements on recycling activities. "Reclaim" and its derivatives appear about 210 times in the *Federal Register* discussion of the 1985 DSWR amendments, and fewer than 25 times within the text of the amendments. Nearly all appearances of "reclaim" relate to limiting exclusions and including material within the definition of solid waste.

The Shift in USEPA Focus with the 2008 DSWR Amendments. The shifts in USEPA's use of the terms "recycle" and "reclaim" is rooted in a shift in emphasis within the RCRA regulations. The meanings of the words have not changed. Whether USEPA uses "recycle" or "reclaim" still depends on whether USEPA intended inclusion of the meaning "use or reuse" within the term chosen. This is consistent with the definitions of the terms discussed above. Precision is necessary in the use of these defining terms. References that pertain to the scope of activities excluded from the definition of solid waste mark the boundary between the universe of recycling activities that are governed by the hazardous waste regulations and those that are not. The shift in use of terms "recycle" and "reclaim" indicates that a change in the scope of secondary materials and recycling activities excluded from the definition of solid waste shifted with the advent of the 2008 DSWR amendments.

RCRA Subtitle C mandated that USEPA establish criteria for identifying hazardous waste and standards for management of hazardous waste from the point of generation, through transportation, to final treatment, storage, and disposal. *See generally* 42 U.S.C. §§ 6921-6925 (2006). The objective was protection of human health and the environment. *See, e.g.,* 42 U.S.C. § 6903(5) (2006) (definition of hazardous waste); 42 U.S.C. § 6922(a) (2006) (mandate for development of generator standards); 42 U.S.C. § 6923(a) (2006) (mandate for development of transporter standards); 42 U.S.C. § 6924(a) (2006) (mandate for development of T/S/D facility standards).

The general provisions state the objectives of RCRA in a way that may imply that the objective of fostering resource conservation is secondary to the primary objective of protecting human health and the environment, as follows:

> The objectives of this chapter are to promote the protection of health and the environment and to conserve valuable material and energy resources . . . . 42 U.S.C. § 6902(a) (2006).

The non-hazardous solid waste disposal provisions recite the objectives of RCRA Subtitle D in a way which more clearly subordinates the of resource conservation objective to the primary objective of protecting human health and the environment. RCRA Subtitle D recites its objectives as follows:

> The objectives of this [Subtitle D] are to assist in developing and encouraging methods for the disposal of solid waste which are environmentally sound and which maximize the utilization of valuable resources including energy and materials which are recoverable from solid waste and to encourage resource conservation. 42 U.S.C. § 6941 (2006).

The hazardous waste provisions of RCRA Subtitle C contain no similar statement which would indicate that resource conservation is a secondary objective to protection of human health and the environment. Nevertheless, USEPA has regulated recycling under Subtitle C in a way that clearly subordinates resource conservation as a secondary objective. This is apparent in the history of regulation of recycling and in USEPA's observations on this point.

The advent of the 2008 DSWR amendments indicate a shift in focus as USEPA expanded exclusion of "recycling" to embrace exclusion of "reclamation" of secondary materials. This shift arose in the evolving balance between protection of human health and the environment, on the one hand, and encouragement of resource conservation, on the other. Insight into the historical evolution of the definition of solid waste aids understanding the shift in balance that has now occurred.

The primary focus of the 2008 DSWR amendments was not on the bounds of RCRA authority—*i.e.,* on the mandates for protection of human health and the environment. Rather, USEPA focused on resource conservation. This shift in focus also marked a shift in the balance between the two sometimes inconsistent objectives of RCRA. This shift is illustrated in the following observation that USEPA made in the *Federal Register* discussion when adopting the 2008 DSWR amendments:

> The purpose of this final rule is to encourage safe, environmentally sound recycling and resource conservation and to respond to several court decisions concerning the definition of solid waste.
>
> * * * * *
>
> By removing unnecessary controls over certain hazardous secondary materials, and by providing more explicit and consistent factors for determining the legitimacy of recycling practices, [US]EPA expects that today's action will encourage and expand the safe, beneficial recycling of additional hazardous secondary materials. Today's action is consistent with [US]EPA's longstanding policy of encouraging the recovery, recycling, and reuse of valuable resources as an alternative to disposal (*i.e.*, landfilling and incineration), while at the same time maintaining protection of human health and the environment. It also is consistent with the resource conservation goal of the Congress in enacting the RCRA statute (as evidenced by the statute's name), and with [US]EPA's vision of how the RCRA program could evolve over the long term to promote economic sustainability and more efficient use of resources. 73 Fed. Reg. at 64668.

The 2008 DSWR amendments placed a greater emphasis on resource conservation. The 2008 amendments excluded secondary materials that were clearly within the scope of RCRA authority, as interpreted in the 1985 amendments. USEPA did not change the universe of recycled secondary materials already excluded from the definition of solid waste. Instead, USEPA added exclusions for specified reclaimed secondary materials. Thus, the use of "reclaim" in the rule had the effect of excluding materials from the definition of solid waste. USEPA used the term "reclaim" and its derivatives very frequently.

Thus, in the regulations that resulted from the 2008 DSWR amendments, USEPA used the term "reclaim" in a sense that would exclude secondary materials from the definition of solid waste. The prior use actually excepted secondary materials from such exclusion. The term "reclaim" still means not including "use or reuse," but the implication that the secondary material may be excluded from regulation is new to the term.

Where exclusion of "use or reuse" is either redundant or not necessary, USEPA has used the term "recycle." An instance of redundancy or lack of necessity in the 2008 DSWR amendments, where exclusion of "use or reuse" is not necessary, would include the "legitimacy rule." That new rule provides in part as follows:

> Persons regulated under [a non-waste determination] or claiming to be excluded from hazardous waste regulation under [one of the four self-implementing HSM exclusions] because they are engaged in reclamation must be able to demonstrate that the recycling is legitimate. Hazardous secondary material that is not legitimately recycled is discarded material and is a solid waste. In determining if their recycling is legitimate, persons must address the requirements of [this section]. 40 C.F.R. 260.43(a) (2009) (corresponding with 35 Ill. Adm. Code 720.143(a)) (emphasis added).

In a similar way, USEPA shifted usage in a provision that sets forth the factors that a generator must consider before sending HSM offsite for reclamation. The generator point of inquiry that contains the shifted usage states as follows:

> Does the available information indicate that the reclamation facility and any intermediate facility that is used by the hazardous secondary material generator have the equipment and trained personnel to safely recycle the hazardous secondary material? In answering this question, the generator may rely on a description by the reclamation facility or by an independent third party of the equipment and trained personnel to be used to recycle the generator's hazardous secondary material. 40 C.F.R. 261.4(a)(24)(v)(B)(*4*) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)(H)(iv)) (emphasis added).

In this latter instance, however, added meaning may be apparent for the term "recycle." If so, the added meaning could relate also to the use in the "legitimacy rule" cited above. The generator inquiry passage could indicate that USEPA used "recycle" to mean "reclamation and use or reuse." In other words, the use of the term "recycle" could mean (1) that the generator must assure that the processing of the HSM is adequate to remove contaminants and restore it to a state suitable for use or reuse; and (2) that there exists adequate capacity to use the reclaimed material.

Does USEPA Also Intend "Use or Reuse"? Later segments of this discussion consider the "legitimacy rule" and the prohibition against "speculative accumulation" (beginning at pages 90 and 112 of this opinion). Both are based on rules that use the term "recycling" to describe the activity intended. *See* 40 C.F.R. 260.43 and 261.1(c)(8) (2009) (corresponding with 35 Ill. Adm.

Code 720.143 and 721.1(c)(8)). With regard to exclusion of reclaimed HSM, there is a significant difference in the requirements and impact of the regulations depending on whether "use and reuse" is intended within the meaning of "recycled," as the term appears in these provisions, and the scope of meaning attributed to the term "used or reused"—*i.e.*, does the term mean in the reclamation process itself, or does the term embrace the products of the reclamation process.

As is explained in that segment of discussion, the Board believes that the focus under the "legitimacy rule" must extend past the process to the "use or reuse" of the product to a greater extent than when determining whether "speculative accumulation" is occurring. The Board concludes that "legitimate recycling" and "speculative accumulation" determinations are to be made based on the circumstances of an individual case. Situations could arise where "legitimate recycling" is occurring, and "speculative accumulation" does not occur—*i.e.*, the "recycling" is completed, where the product of the reclamation process is stockpiled for future use. These situations would arise where the product is essentially similar to a commodity that is used for other production processes, the product has value sufficient to ensure that the stockpiled product will find "use or reuse" within a reasonable time, and the stockpiling will result in no threat to human health and the environment that is not comparable to that posed by a comparable commodity.

"Reclamation" Never Includes "Use or Reuse." Each of the new HSM exclusions added by the 2008 DSWR amendments relates to the "reclamation" of HSM or to "reclaimed" HSM. *See* 40 C.F.R. 260.30(d); 260.34(b); 261.2(a)(2)(iv); and 261.4(a)(23), (a)(24), and (a)(25) (2009) (corresponding with 35 Ill. Adm. Code 720.130(d); 720.134(b); 721.102(a)(2)(D); and 721.104(a)(23), (a)(24), and (a)(25)). While the degree to which "use or reuse" may vary with the context in which the word "recycling" is used, there is no ambiguity with regard to the use of the word "reclaim." Where USEPA has used "reclaim," "use or reuse" is never intended.

This means that none of the six new provisions for exclusion of HSM, each of which is based on "reclamation," applies to HSM that is "used or reused" under similar circumstances. The 2008 DSWR amendments apply exclusively to "reclamation," and not to "recycling" (*see id.*), which would include applicability to "use or reuse" of HSM. *See* 40 C.F.R. 261.1(c)(7) (2009) (corresponding with 35 Ill. Adm. Code 721.101(c)(7)).

Thus, the four self-implementing HSM exclusions and the HSM exclusion available through a non-waste determination, each of which pertains by its own terms to "reclamation" of HSM, can all exclude the "use" of HSM from the definition of solid waste. Again, "use or reuse" are "recycling" under the meanings of the terms derived from USEPA's given definitions, but they are not "reclamation." This would be an inconsistent use of the word "reclamation," unless the use of the term can find explanation on some other level. An explanation is available through USEPA's claimed foundation of the legitimacy rule.

Having defined the terms that are used throughout the regulations that determine whether a secondary material that is the subject of recycling is solid waste, the Board can shift attention to the definition itself, then to the various exclusions from that definition.

The Definition of Solid Waste. USEPA has codified the definition of solid waste as a single provision in the federal rules. As the foregoing discussion has manifested, other provisions play important roles in determining whether a specific secondary material is solid waste, this single provision sets forth the basic definition of solid waste.

The Board presents here the basic federal definition of solid waste—in its entirety, including the table appended to subsection (c) (35 Ill. Adm. Code 721.Appendix Z in the Illinois rules). The discussions in this opinion refer often to this definition. Examination of the text of the basic definition of solid waste, will aid later discussions of determining whether secondary material is solid waste.

Structure and Content of the Definition. Under the structure of the regulations, the inquiry begins with determination whether the secondary material is excluded from the definition of solid waste. 40 C.F.R. 261.2(a)(1) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)). The exclusions from the definition of solid waste are the next segment of this discussion (beginning on page 85 of this opinion). What appears here is a very broad overview of the exclusions.

Exclusion from the definition of solid waste is possible based on express, self-implementing exclusions or by an administrative determination of exclusion. The administrative determinations are available based on consideration of specified criteria, pursuant to a fixed procedure, and made based on a petition filed by the generator of the secondary material. Exclusion has been possible since the 1985 DSWR amendments by self-implementing exclusions or by an administrative "variance" determination (a "solid waste determination" in Illinois) on one of three bases prescribed by rule. Since the 2008 DSWR amendments, an administrative "non-waste" determination has been added, which is procedurally similar to the "variance" determination. There are two bases for exclusion by a non-waste determination.

"Discarded Material" is Solid Waste. If not excluded, the second inquiry is whether the material is "discarded." 40 C.F.R. 261.2(a)(2) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)). "Discarded material" is defined as secondary material that is "abandoned," "recycled," "inherently waste-like," and "military munitions identified as solid waste" pursuant to special provisions that apply only to military munitions.[21] This is the core determination whether a particular secondary material that is not excluded from the definition is solid waste. There is interplay among the terms "abandoned," "recycled," and "inherently waste-like," with special provisions defining some of the contours of these concepts. These concepts can be perceived as creating implicit exclusions from the definition of solid waste; what is not "discarded material" (*i.e.*, that which is not "abandoned," "recycled," or "inherently waste-like") is not solid waste.

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[21] *See* 40 C.F.R. 266.202 (2009) (corresponding with 35 Ill. Adm. Code 726.302). Military munitions are not discussed further in this opinion. They are a special case, as they are managed exclusively by the United States military and the various National Guards. *See* 40 C.F.R. 260.10 (2009) (definition of "military munitions") (corresponding with 35 Ill. Adm. Code 720.110).

A material is "abandoned" when it is disposed of, burned or incinerated, or stored prior to either being disposed of or burned or incinerated. 40 C.F.R. 261.2(b) (2009) (corresponding with 35 Ill. Adm. Code 721.102(b)). To determine exceptions from the general designation of "recycled" material from definition of solid waste, the definition divides secondary materials and types of recycling activities into distinct categories for the purposes of analysis. The categories are based on the materials' mode of generation, their properties, and how they are managed after generation. The universe of combinations of secondary materials and modes of recycling are, thus, arranged into a four-by-seven array (seven categories of secondary materials and four categories of recycling activities), and the array designates whether each combination of secondary material and recycling activity is solid waste. *See* 40 C.F.R. 261.2(c) and table 1 (2009) (corresponding with 35 Ill. Adm. Code 721.102(c) and 721.Appendix Z).

Significantly, "use constituting disposal" (*i.e.*, placement on land or use in a product that is placed on land) and "burning for energy recovery" (*i.e.*, use as a fuel or use to make a fuel or fuel additive) are recycling that nearly always renders the secondary material a "discarded material."[22] 40 C.F.R. 261.2(c)(1), (c)(2) and table 1 (2009) (corresponding with 35 Ill. Adm. Code 721.102(c)(1) and (c)(2) and 721.Appendix Z). Note the similarity between "use constituting disposal" and "burning for energy recovery," on the one hand, and these two forms of "recycling." *Compare* 40 C.F.R. 261.2(b) (2009) *with* 40 C.F.R. 261.2(c)(1) and (c)(2) (2009) (corresponding with 35 Ill. Adm. Code 721.102(b), (c)(1), and (c)(2)). Also significantly, secondary materials are usually deemed "discarded material" when "reclaimed," with limited exceptions.[23] 40 C.F.R. 261.2(c)(3) and table 1 (2009) (corresponding with 35 Ill. Adm. Code 721.102(c)(3) and 721.Appendix Z). Reclamation was the entire focus of the 2008 DSWR amendments. Finally, a secondary material is "discarded material" if it is "speculatively accumulated," with a single exception.[24] 40 C.F.R. 261.2(c)(4) and table 1 (2009) (corresponding with 35 Ill. Adm. Code 721.102(c)(4) and 721.Appendix Z).

The definition of solid waste includes three additional provisions that further define the universe of solid waste. These provisions are all recycling-related. They all arose as part of the 1985 DSWR amendments, and they remained unchanged by the 2008 DSWR amendments.

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[22] Except where the secondary material is a commercial chemical product and the ordinary manner of use for the product is either (1) land application (or use in a product that is land applied) or use as fuel (or use in blending a fuel), in which case the material is not a solid waste. 40 C.F.R. 261.2(c)(1)(ii) and (c)(2)(ii) (2009) (corresponding with 35 Ill. Adm. Code 721.102(c)(1)(B) and (c)(2)(B)).

[23] By-products and sludges that exhibit a characteristic of hazardous waste (*i.e.*, they are not "listed waste" (see discussion below beginning on page 74 of this opinion)) and commercial chemical products. 40 C.F.R. 261.2(c)(3) and table 1 (2009) (corresponding with 35 Ill. Adm. Code 721.102(c)(3) and 721.Appendix Z).

[24] Commercial chemical products. 40 C.F.R. 261.2(c)(4) and table 1 (2009) (corresponding with 35 Ill. Adm. Code 721.102(c)(3) and 721.Appendix Z).

"Inherently Waste-Like Material" is Solid Waste. The first provision of the definition of solid waste states that specified materials are "inherently waste-like materials," which are solid waste no matter how they are recycled.[25] USEPA has designated two types of secondary material that are "inherently waste-like materials": (1) specified listed hazardous wastes[26] and (2) secondary materials that are fed into a halogen acid furnace, with limited exceptions for certain brominated materials.[27] *See* 40 C.F.R. 261.2(d)(1) and (d)(2) (2009) (corresponding with 35 Ill. Adm. Code 721.102(d)(1) and (d)(2)).

The "inherently waste-like materials" provision sets forth the criteria by which USEPA may designate more "inherently waste-like materials." These criteria are significant because they echo considerations under the "legitimacy rule" (discussed below (beginning on page 90 of this opinion): the materials contain toxic constituents at levels not normally found in the raw materials or products for which they substitute and the hazardous constituents are not used or reused during the recycling process. 40 C.F.R. 261.2(d)(3)(i)(A) (2009) (corresponding with 35 Ill. Adm. Code 721.102(d)(3)(A)(i)); *see* 40 C.F.R. 260.42(c)(2)(i) and (c)(2)(ii) (2009) (corresponding with 35 Ill. Adm. Code 721.102(c)(2)(A) and (c)(2)(B)). Another significant criterion is that "[t]he materials are ordinarily disposed of, burned, or incinerated"—*i.e.*, the materials are ordinarily "abandoned," as such is defined in the beginning of the definition of solid waste. *See* 40 C.F.R. 261.2(b) (2009) (corresponding with 35 Ill. Adm. Code 721.102(b)). The final criterion is that "the material may pose a substantial hazard to human health and the environment when recycled." 40 C.F.R. 261.2(d)(3)(ii) (2009) (corresponding with 35 Ill. Adm. Code 721.102(d)(3)(B)). Although similar words are not used, the "legitimacy rule" includes the following recitation that appears to convey the same concept:

> In evaluating the extent to which these factors are met and in determining whether a process that does not meet one or both of these factors is still legitimate, persons can consider the protectiveness of the storage methods, exposure from toxics in

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[25] These include (1) specified listed hazardous wastes (USEPA hazardous waste numbers F020 through F023, F026, and F028) and (2) secondary materials that are either listed hazardous waste that exhibits a characteristic of hazardous waste or characteristic hazardous waste that are fed into a halogen acid furnace, with limited exceptions for certain brominated materials. *See* 40 C.F.R. 261.2(d)(1) and (d)(2) (2009) (corresponding with 35 Ill. Adm. Code 721.102(d)(1) and (d)(2)).

[26] Principally acutely hazardous wastes from production of chlorinated cyclic organic compounds designated by USEPA hazardous waste numbers F020 through F023 and F026, and listed hazardous waste number F028). *See* 40 C.F.R. 261.2(d)(1) (2009) (corresponding with 35 Ill. Adm. Code 721.102(d)(1)).

[27] The secondary materials are listed or characteristic hazardous waste that exhibits a characteristic of hazardous waste. The limitations specify (1) a minimum bromine content, (2) a maximum toxic organic chemical content, (3) that conveyance to the furnace is by direct conveyance, and that the processing occurs continually on-site. *See* 40 C.F.R. 261.2(d)(2) (2009) (corresponding with 35 Ill. Adm. Code 721.102(d)(2)).

the product, the bioavailability of the toxics in the product, and other relevant considerations. 40 C.F.R. 260.42(c)(3) (2009) (corresponding with 35 Ill. Adm. Code 721.102(c)(3)).

Broken Complementarities Between "Discard" and Recycling. The second provision of the definition of solid waste expressly excludes certain recycled materials from the definition of solid waste. The provision states that the following secondary materials are not solid waste: (1) those used or reused in an industrial process to produce a product without reclamation; (2) those used or reused as effective substitutes for commercial products; and (3) those returned to the process that generated them as substitutes for feedstock materials without reclamation or placement on land prior to use of reuse. 40 C.F.R. 261.2(e) (2009) (corresponding with 35 Ill. Adm. Code 721.102(e)). This is the general exclusion for "recycling" that the 1985 DSWR amendments added. Use of a prohibition against recycling in the first and third recitations of excluded recycled materials, and express use of the words "use or reuse" in the second recitation, clearly state that only "use or reuse" without "reclamation" were excluded by this provision. This was the starting point for the 2008 DSWR amendments, which extended exclusion to "reclaimed" secondary materials.

The recycling provision makes explicit what is implied in the "discarded material" segment of the definition as it stood prior to the 2008 DSWR amendments. The "discarded material" segment deemed secondary materials subjected to specified modes of "recycling" as "discarded material": (1) "use constituting disposal"; (2) "burning for energy recovery" or use as or in fuel; (3) "reclamation"; and (4) "speculative accumulation." 40 C.F.R. 260.2(c) and table 1 (2009) (corresponding with 35 Ill. Adm. Code 721.102(c) and 721.Appendix Z). The "discarded material" segment did not exclude "use or reuse" of secondary materials in processes or products that were not one of these four designated modes of "recycling."

The 2008 DSWR amendments changed the "discarded material" segment of the definition of solid waste. The amendments added exceptions for the new HSM exclusions from the general designation of "reclamation" as "recycling" that deems secondary material "discarded material." *See* 40 C.F.R. 261.2(c), table 1 (2009) (corresponding with 35 Ill. Adm. Code 721.Appendix Z). The amendments, however, did not similarly revise the language of the express "recycling" exclusion to similarly except the new HSM exclusions from the inclusion of "reclamation" as "recycling" that would deem the secondary material "discarded material." *See* 73 Fed. Reg. at 64760 (amending 40 C.F.R. 261.2). USEPA's inclusion of such an amendment would not have affected the scope of the new reclamation-based HSM exclusions, but their omission created a significant difference between the "discarded material" provision of the definition and the "recycling" segment. The "recycling" exclusion no longer mirrors the "recycling" segment of the "discarded material" provision.

A final observation about the structure of the definition of solid waste relates to a change made by the 2008 DSWR amendments. The 2008 amendments incorporated one of the reclamation-based exclusions directly into the definition of solid waste. The exclusion of generator-reclaimed HSM that is managed in non-land-based units is incorporated into the regulations as an exception to the "discarded material" provision. *See* 40 C.F.R. 261.2(a)(2)(ii) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B)). Additional discussion of this

exclusion appears below (beginning on page 156 of this opinion). All of the other reclamation-based HSM exclusions were added in the exclusions provision that sets forth nearly all of the exclusions from the definition of solid waste. *See* 40 C.F.R. 261.4(a)(23) through (a)(25) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(23) through (a)(25)). The segment of this discussion that introduces the exclusions provision is contained within a larger segment that embraces all of the exclusions from definition as solid waste (beginning on page 46 of this opinion). That discussion follows the presentation of the definition of solid waste immediately below.

The Text of the Definition. The USEPA definition of solid waste provision appears as follows (indicating changes made by the 2008 DSWR amendments using overstrike and underlining):

§ 261.2 Definition of solid waste.

(a)(1) A *solid waste* is any discarded material that is not excluded by § 261.4(a) or that is not excluded by variance granted under §§ 260.30 and 260.31 or that is not excluded by a non-waste determination under §§ 260.30 and 260.34.

(2)(i) A *discarded material* is any material which is:

(~~i~~A) ~~*Abandoned,*~~ Abandoned, as explained in paragraph (b) of this section; or

(~~ii~~B) ~~*Recycled,*~~ Recycled, as explained in paragraph (c) of this section; or

(~~iii~~C) Considered ~~*inherently waste-like,*~~ inherently waste-like, as explained in paragraph (d) of this section; or

(~~iv~~D) A ~~*military munition*~~ military munition identified as a solid waste in § 266.202.

(ii) A hazardous secondary material is not discarded if it is generated and reclaimed under the control of the generator as defined in § 260.10, it is not speculatively accumulated as defined in § 261.1(c)(8), it is handled only in non-land- based units and is contained in such units, it is generated and reclaimed within the United States and its territories, it is not otherwise subject to material-specific management conditions under § 261.4(a) when reclaimed, it is not a spent lead acid battery (see § 266.80 and § 273.2), it does not meet the listing description for K171 or K172 in § 261.32, and the reclamation of the material is legitimate, as specified under § 260.43. (See also the notification requirements of § 260.42). (For hazardous secondary materials managed in land-based units, see § 261.4(a)(23)).

(b) Materials are solid waste if they are *abandoned* by being:

(1) Disposed of; or

(2) Burned or incinerated; or

(3) Accumulated, stored, or treated (but not recycled) before or in lieu of being abandoned by being disposed of, burned, or incinerated.

(c) Materials are solid wastes if they are *recycled*—or accumulated, stored, or treated before recycling—as specified in paragraphs (c)(1) through (4) of this section.

(1) Used in a manner constituting disposal. (i) Materials noted with a "*" in Column 1 of Table 1 are solid wastes when they are:

(A) Applied to or placed on the land in a manner that constitutes disposal; or

(B) Used to produce products that are applied to or placed on the land or are otherwise contained in products that are applied to or placed on the land (in which cases the product itself remains a solid waste).

(ii) However, commercial chemical products listed in § 261.33 are not solid wastes if they are applied to the land and that is their ordinary manner of use.

(2) Burning for energy recovery. (i) Materials noted with a "*" in column 2 of Table 1 are solid wastes when they are:

(A) Burned to recover energy;

(B) Used to produce a fuel or are otherwise contained in fuels (in which cases the fuel itself remains a solid waste).

(ii) However, commercial chemical products listed in § 261.33 are not solid wastes if they are themselves fuels.

(3) *Reclaimed*. Materials noted with a "—"in column 3 of Table 1 are not solid wastes when reclaimed. Materials noted with a "*" in column 3 of Table 1 are solid wastes when reclaimed ~~(except as provided under § 261.4(a)(17))~~. ~~Materials noted with a "—"in column 3 of Table 1 are not solid wastes when reclaimed~~ unless they meet the requirements of §§ 261.2(a)(2)(ii), or 261.4(a)(17), or 261.4(a)(23), or 261.4(a)(24) or 261.4(a)(25).

(4) Accumulated speculatively. Materials noted with a "*" in column 4 of Table 1 are solid wastes when accumulated speculatively.

TABLE 1

	Use constituting disposal (§ 261.2(c)(1))	Energy recovery/fuel (§ 261.2(c)(2))	Reclamation (§ 261.2(c)(3)), (except as provided in §§ 261.2(a)(2)(ii), 261.4(a)(17), 261.4(a)(23), 261.4(a)(24), or 261.(a)(25) ~~for mineral processing secondary materials~~)	Speculative accumulation (§ 261.2(c)(4))
	1	2	3	4
Spent Materials	(*)	(*)	(*)	(*)
Sludges (listed in 40 CFR Part 261.31 or 261.32	(*)	(*)	(*)	(*)
Sludges exhibiting a characteristic of hazardous waste	(*)	(*)	—	(*)
By-products (listed in 40 CFR 261.31 or 261.32)	(*)	(*)	(*)	(*)
By-products exhibiting a characteristic of hazardous waste	(*)	(*)	—	(*)
Commercial chemical products listed in 40 CFR 261.33	(*)	(*)	—	—
Scrap metal other than excluded scrap metal (see 261.1(c)(9))	(*)	(*)	(*)	(*)

NOTE: The terms “spent materials,” “sludges,” “by-products,” and “scrap metal” and “processed scrap metal” are defined in § 261.1.

(d) *Inherently waste-like materials.* The following materials are solid wastes when they are recycled in any manner:

(1) Hazardous Waste Nos. F020, F021 (unless used as an ingredient to make a product at the site of generation), F022, F023, F026, and F028.

(2) Secondary materials fed to a halogen acid furnace that exhibit a characteristic of a hazardous waste or are listed as a hazardous waste as defined in subparts C or D of this part, except for brominated material that meets the following criteria:

(i) The material must contain a bromine concentration of at least 45%; and

(ii) The material must contain less than a total of 1% of toxic organic compounds listed in appendix VIII; and

(iii) The material is processed continually on-site in the halogen acid furnace via direct conveyance (hard piping).

(3) The Administrator will use the following criteria to add wastes to that list:

(i)(A) The materials are ordinarily disposed of, burned, or incinerated; or

(B) The materials contain toxic constituents listed in appendix VIII of part 261 and these constituents are not ordinarily found in raw materials or products for which the materials substitute (or are found in raw materials or products in smaller concentrations) and are not used or reused during the recycling process; and

(ii) The material may pose a substantial hazard to human health and the environment when recycled.

(e) *Materials that are not solid waste when recycled*. (1) Materials are not solid wastes when they can be shown to be recycled by being:

(i) Used or reused as ingredients in an industrial process to make a product, provided the materials are not being reclaimed; or

(ii) Used or reused as effective substitutes for commercial products; or

(iii) Returned to the original process from which they are generated, without first being reclaimed or land disposed. The material must be returned as a substitute for feedstock materials. In cases where the original process to which the material is returned is a secondary process, the materials must be managed such that there is no placement on the land. In cases where the materials are generated and reclaimed within the primary mineral processing industry, the conditions of the exclusion found at § 261.4(a)(17) [corresponding with 35 Ill. Adm. Code 721.104(a)(17)] apply rather than this paragraph.

(2) The following materials are solid wastes, even if the recycling involves use, reuse, or return to the original process (described in paragraphs (e)(1) (i) through (iii) of this section):

(i) Materials used in a manner constituting disposal, or used to produce products that are applied to the land; or

(ii) Materials burned for energy recovery, used to produce a fuel, or contained in fuels; or

(iii) Materials accumulated speculatively; or

(iv) Materials listed [as inherently waste-like materials] in paragraphs (d)(1) and (d)(2) of this section.

(f) *Documentation of claims that materials are not solid wastes or are conditionally exempt from regulation.* Respondents in actions to enforce regulations implementing subtitle C of RCRA who raise a claim that a certain material is not a solid waste, or is conditionally exempt from regulation, must demonstrate that there is a known market or disposition for the material, and that they meet the terms of the exclusion or exemption. In doing so, they must provide appropriate documentation (such as contracts showing that a second person uses the material as an ingredient in a production process) to demonstrate that the material is not a waste, or is exempt from regulation. In addition, owners or operators of facilities claiming that they actually are recycling materials must show that they have the necessary equipment to do so. 40 C.F.R. 261.4 (2009) (corresponding with 35 Ill. Adm. Code 721.104).

Having thus presented the definition of solid waste, the next segment considers exclusion from the definition of solid waste. Consideration of exclusion is followed by a brief outline of the procedure for making a solid waste determination in the final introductory segment of this discussion.

Exclusion from the Definition of Solid Waste. As stated above, whether a secondary material is solid waste is the initial inquiry for determining the applicability of the hazardous waste regulations. Under the current definition of solid waste (presented above, beginning on page 38 of this opinion), whether a secondary material is expressly excluded precedes consideration of whether it is "discarded material." *See* 40 C.F.R. 261.2(a)(1) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(1)). Beyond express exclusion, however, the definition includes several implied exclusions that result from application of the "discarded material" and "recycling" segments of the definition. *See* 40 C.F.R. 261.2(c)(3), table 1, and (e) (2009) (corresponding with 35 Ill. Adm. Code 721.102(c)(3) and (e) and 721.Appendix Z).

The Board has surveyed the federal rules for general exclusions from the definition of solid waste and divided the exclusions into six categories. It is possible to categorize the secondary materials that are excluded from the definition of solid waste into six distinct

conceptual categories for the purposes of analysis. The regulations do not themselves expressly separate the exclusions from the definition of solid waste into categories. The Board has inferred these categories from the structure and content of the rules. The conceptual categories are useful for the purpose of analysis in the following discussions, in order to gain understanding of how recycling of secondary material affects the status of that material as waste. The ultimate objective here is to determine what USEPA added to the hazardous waste regulations that did not exist prior to the 2008 DSWR amendments.

The first two conceptual categories of exclusions are the express exclusions that the definition of solid waste excludes before engaging in the "discarded material" analysis. *See* 40 C.F.R. 261.2(a)(1) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(1)); 40 C.F.R. 261.4(a) (corresponding with 35 Ill. Adm. Code 721.104(a)). Of these two, the first conceptual category is a small category involving materials for which USEPA determined either that Congress did not intend to regulation of those materials under RCRA or that existing regulations under different statutes are adequate to protect human health and the environment. *See* 40 C.F.R. 261.4(a)(1)-(a)(5) (corresponding with 35 Ill. Adm. Code 721.104(a)(1)-(a)(5)). The second, larger conceptual category of express exclusions is all based on recycling of secondary material. *See* 40 C.F.R. 261.4(a)(6)-(a)(25) (corresponding with 35 Ill. Adm. Code 721.104(a)(6)-(a)(25)).

The third and fourth conceptual categories of exclusions are largely complimentary. They are also based on recycling. There are several implied exclusions within the "discarded materials" provision of the definition of solid waste. This third conceptual category of exclusions includes secondary materials that are not included within the definition of "discarded material"—*i.e.*, this is a group of materials that are implicitly excluded. The express exclusion of secondary materials from the definition of solid waste because they are recycled is the fourth conceptual category of exclusions. What emerges from analysis is a large measure of overlap between materials that are not solid waste because they are not designated "discarded material" (*see* 40 C.F.R. 261.2(c) and table 1 (2009) (corresponding with 35 Ill. Adm. Code 721.102(c) and 721.Appendix Z) and those expressly excluded from the definition of solid waste because they are recycled (*see* 40 C.F.R. 261.2(e) (2009) (corresponding with 35 Ill. Adm. Code 721.102(e)).

These third and fourth conceptual categories of recycled secondary materials have a slightly different status than the first two conceptual categories of express exclusions. They are not positioned in the regulation in a way that obviates the "discarded material" determination. In fact, the third conceptual category, which includes implied exclusions of recycled secondary materials, derives from the "discarded material" analysis, and the fourth conceptual category, including recycled materials expressly excluded in the rule, can be considered as reinforcing the implicit inclusions.

The Board has included consideration of the third and fourth conceptual categories of exclusions together with consideration of the express exclusions of the first two conceptual categories for two reasons. First, some of the implicit exclusions are straightforward and require little analysis. The purpose of considering exclusions as the first step in analysis is to foreshorten the solid waste analysis where one of the exclusions clearly applies. Second, consideration of all of the exclusions from the definition of solid waste in a single segment of

discussion can help form a more cohesive picture of what types of recycling activities form the basis for excluding secondary materials from definition as solid waste.

A fifth conceptual category of exclusions is unique. The fifth conceptual category embraces secondary materials excluded from the definition of solid waste by an administrative determination. While the first four conceptual categories are provided by self-implementing provisions of the rules, the fifth is obtained by an administrative determination made on a case-by-case basis. There are two possible administrative determinations available. The first, established by the 1985 DSWR amendments, is called a "solid waste variance." *See* 40 C.F.R. 260.30 and 260.31 (2009); *see also* 50 Fed. Reg. at 661-62 (adding the "variance" provision). In Illinois, this is called a "solid waste determination." *See* 35 Ill. Adm. Code 720.130 and 720.131; RCRA Update, USEPA Regulations (April 24, 1984 through June 30, 1985), R85-22 (Jan. 9, 1986), slip op. at 5 (opinion discussing substitution of terms). The second administrative determination, added by the 2008 DSWR amendments, is the "non-waste determination." *See* 40 C.F.R. 260.30 and 260.34 (2009) (corresponding with 35 Ill. Adm. Code 720.130 and 720.134).

The regulations provide the criteria for each type of administrative determination, together with factors for administrative consideration for each. The rules provide three bases for exclusion using the "solid waste variance" procedure and two using the "non-waste determination" procedure. The rules further mandate the considerations on which each type of administrative determination must be based. *See* 40 C.F.R. 260.30, 260.31, and 260.34 (2009) (corresponding with 35 Ill. Adm. Code 720.130, 720.131, and 720.134).

The sixth conceptual category of secondary materials that the Board has found in the hazardous waste regulations is an express exclusion that USEPA added as a parenthetical in the definition of hazardous waste. In fact, it is part of the so-called "derived-from" rule, which designates materials derived from listed hazardous waste as hazardous waste. The parenthetical states that a product derived from reclamation of hazardous waste is not solid waste. *See* 40 C.F.R. 261.3(c)(2)(i) (2009) (corresponding with 35 Ill. Adm. Code 721.103(c)(2)(A)).

Generally, under the definition of solid waste, as it stood prior to the 2008 DSWR amendments, secondary materials that were the subject of reclamation were specifically designated "discarded material," thus becoming solid waste. *See* 40 C.F.R. 261.2(c)(3) (2009) (corresponding with 35 Ill. Adm. Code 721.102(c)(3)). Thus, materials subjected to reclamation were solid waste, but the usable product of the reclamation process was excluded from being solid waste, as explained by this parenthetical in the derived-from rule.

Table 5 (beginning on page 203 of this opinion) presents a summary listing of all the exclusions that the Board found in the federal rules. The listing follows a chronological order by the dates that USEPA adopted the various exclusions, from the inception of the RCRA Subtitle C regulations and continuing through the 2008 DSWR amendments. Included are provisions that have the practical effect of excluding a secondary material from designation as solid waste, even though those provisions are not ordinarily viewed as exclusions from the definition of solid waste. The following discussion of exclusions is organized by the conceptual categories outlined in the preceding paragraphs.

Thus, recycling is the basis for the preponderance of the exclusions from the definition of solid waste, but there are three modes of exclusion for these materials: self-implementing express exclusions, both in a separate provision for exclusions and within the definition of solid waste; self-implementing non-inclusions within the definition of solid waste (implied exclusions); and exclusion by an administrative determination that a specific recycled secondary material is not solid waste.

The following segments of discussion outline what materials are excluded from regulation as "solid waste." Those materials are presented in the six categories listed above, with discussion of the scope and content of each category of exclusions. The purpose is to understand what types of secondary materials have been excluded from the definition of solid waste in the past and to lay the groundwork for understanding the nature of the changes made by the 2008 DSWR amendments.

Board-Designated Conceptual Category 1 Exclusions: Materials that Congress Did Not Intend to Include and Those Governed by Other Laws. The first conceptual category of excluded secondary materials are five specific classes of materials that USPEA determined not to regulate under its RCRA Subtitle C authority for a variety of reasons: (1) the Congress did not intend their regulation as hazardous waste; (2) the materials were expressly excluded from the statutory definition of "solid waste" (42 U.S.C. § 6903(27) (2007)); or (3) the materials are governed by other bodies of regulations. *See* 45 Fed. Reg. 33084, 96 (May 19, 1980). Included among this group of excluded materials are domestic sewage and mixtures of sewage (40 C.F.R. 261.4(a)(1) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(1))), industrial wastewater discharges regulated under the Clean Water Act (42 U.S.C. § 1251 *et seq.* (2007)) (40 C.F.R. 261.4(a)(2) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(2))), irrigation return flows (40 C.F.R. 261.4(a)(3) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(3))); specified materials regulated under the Atomic Energy Act of 1954 (42 U.S.C. § 2014 *et seq.* (2007)) (40 C.F.R. 261.4(a)(4) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(4))), and certain mining-generated materials that are not removed from the ground as part of the extraction process (40 C.F.R. 261.4(a)(5) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(5))).[28]

USEPA included these five exclusions in the initial hazardous waste regulations that it adopted in 1980. *See* 40 C.F.R. 261.4 (1980); 45 Fed. Reg. at 33120. Any material identified within any of these five exclusions is not solid waste. The determination that a secondary

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[28] Concurrent regulation by other laws did not result in similar exclusion of waste industrial ethyl alcohol from the definition of solid waste. Industrial ethyl alcohol production is regulated by the Bureau of Alcohol, Tobacco and Firearms (ATF), and USEPA called the ATF regulations a "comprehensive cradle-to-grave existing regulatory system." 50 Fed. Reg. at 649. Further, USEPA believed that high taxes imposed on ethyl alcohol are not ordinarily remitted for alcohol spilled or leaked. *Id*. Despite this, USEPA did not exclude waste industrial ethyl alcohol from the definition of solid waste. As a result, the material is defined as hazardous waste. Instead, USEPA excluded waste industrial ethyl alcohol from regulation as hazardous waste. *See* 40 C.F.R. 261.6(a)(3)(i) (2009) (corresponding with 35 Ill. Adm. Code 721.106(a)(3)(A)).

material falls within any of these five exclusions is the end of inquiry; the excluded secondary material is not solid waste, and the excluded material is not subject to the hazardous waste regulations.[29]

Board-Designated Conceptual Category 2 Exclusions: Recycled Materials Expressly Excluded. There are several exclusions in the second conceptual category of exclusions from the definition of solid waste. This second conceptual category is very similar to the first one, and most of the second category exclusions are codified in the same provision that sets forth the entire first category of exclusions.

USEPA adopted this second conceptual category of exclusions in several separate actions, beginning with the 1985 DSWR amendments (45 Fed. Reg. 614 (Jan. 4, 1985)) and continuing through the 2008 SDWR amendments (73 Fed. Reg. 64668 (Oct. 30, 2008)). Table 5, which begins on page 203 of this opinion is a summary listing of the exclusions from the definition of solid waste adopted by USEPA to date. The table outlines the nature of each exclusion, any conditions that apply to the exclusion, when USEPA adopted the exclusion, and the citation to where the exclusion appears in the federal (and corresponding Illinois) regulations.

There are similarities and differences between the first conceptual category express exclusions and those in the second. The chief similarity among nearly all of the express exclusions is that each describes particular secondary materials and, often, modes of recycling those materials that are excluded from the definition of solid waste. The main difference is that the exclusions in the second conceptual category are all based on some form of recycling of the excluded secondary materials. *See* 40 C.F.R. 261.2(a)(2)(ii) and 261.4(a)(6)-(a)(25) (2009).

The inquiry with regard to the second conceptual category of exclusions is similar to that for the first, but there is a second element, and often a third element, in the inquiry that do not exist with regard to the first conceptual category of exclusions. The question common to both the first and second conceptual categories of exclusions is whether the secondary material falls within the express terms of the exclusion. For the first conceptual category, that is the end of the inquiry. For the second conceptual category, the inquiry continues. The second question is whether the specific mode of material management falls within the exclusion. The third question, necessary for most of the exclusions in the second conceptual category, is whether the secondary material management fulfills the conditions of the exclusion.

With this second conceptual category of express recycling-based exclusions, the secondary material is not solid waste if any conditions that apply to the recycled material and the particular mode of recycling are fulfilled. As with the first conceptual category of exclusions, an

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[29] The generator of any waste bears the responsibility to determine whether its solid waste is hazardous waste. *See* 40 C.F.R. 262.11 (2009) (corresponding with 35 Ill. Adm. Code 722.111). Thus, the generator would bear an implicit obligation to determine that is secondary material is not a solid waste.

affirmative determination that an exclusion applies to the secondary material ends further inquiry.[30]

Two express exclusions of secondary materials from the definition of solid waste warrant specific note because they differ from all the others. The exclusion of "excluded scrap metal" is unique in that the exclusion is written into a segment of the definition of solid waste as well as appearing in the exclusions provision of the rules. See 40 C.F.R. 261.2(c), table 1 and 261.4(a)(13) (2009) (corresponding with 35 Ill. Adm. Code 721.Appendix Z and 721.104(a)(13)). The exclusion of generator-reclaimed HSM that is managed in non-land-based units appears within the definition of solid waste, but not in the express exclusions provision.[31] *See* 40 C.F.R. 261.2(a)(2)(ii) and 261.4(a) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B) and 721.104(a)). USEPA added this generator-reclaimed HSM exclusion by the 2008 DSWR amendments. *See* 73 Fed. Reg. at 64760. This is the only exclusion in the second category that does not appear in the express exclusions provision.

Board-Designated Conceptual Category 3 Exclusions: Recycled Materials Implicitly Excluded. The third conceptual category of exclusions from the definition of solid waste is also based on recycling. It is conceptually different from the other exclusions. Technically, this third conceptual category is not a set of exclusions at all. Rather, this conceptual category is more aptly described as secondary materials that are not included within the definition of solid waste. These "exclusions" are a limited number of specified types of secondary materials subjected to specified types of recycling activities that USEPA did not deem "discarded material." There is a relationship, however, between this third conceptual category of implied exclusions and the fourth conceptual category of express recycling-based exclusions, discussed below (beginning at page 54 of this opinion).

Secondary materials are not solid waste unless they fall within the definition of "discarded material." *See* 40 C.F.R. 261.2(a)(2) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)). This determination whether a secondary material is "discarded material" is the core of the definition of solid waste. Discussion above (beginning at page 38 of this opinion) elaborated further, since "discard" is closely related to recycling activities. If a secondary material is not defined as "discarded material," the material is not solid waste. The material is implicitly excluded from definition as solid waste.

The determination under the first and second conceptual categories of exclusion, as described above, is that a specific secondary material is not solid waste because it is expressly

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[30] This does not end the inquiry under some of the exclusions added by the 2008 DSWR amendments, as is discussed below (beginning at page 169 of this opinion).

[31] The significance of inclusion at this location in the rules is unclear, as is discussed below (beginning at page 158 of this opinion).

excluded from the definition of solid waste.[32] The determination under the third conceptual category of exclusion is that a specific secondary material is not "discarded material" (and, thus, is not solid waste) because the particular combination of recycling activity and type of secondary material is not expressly included within the definition of solid waste. In essence, the secondary material is implicitly excluded from the definition of solid waste. Although the conceptual mechanics of inquiry is different, the effect is the same. The secondary material is not solid waste.

All of the implicit exclusions from the definition of solid waste are based on recycling. They all pertain to recycled materials that USEPA has not included within the definition because they are not "discarded material." USEPA explained in the preamble discussion of the 1985 DSWR amendments that RCRA was not intended to regulate all forms of recycling, but that many forms of recycling either constituted a form of disposal or potentially threatened releases of waste or waste constituents to the environment. USEPA observed:

> We agree that RCRA embodies a general principle that most hazardous secondary materials are considered to be hazardous wastes when recycled. Congress enacted a regulatory approach to deal with the problem of ensuring safe hazardous waste management. * * * We believe, however, that the grant of authority in RCRA over recycling activities is not unlimited. Specifically, we do not believe our authority extends to certain types of recycling activities that are shown to be very similar to normal production operations or to normal uses of commercial products. 50 Fed. Reg. at 616-17.

USEPA sought by the 1985 DSWR amendments to derive a standard that would divide between what recycled secondary materials are solid and hazardous waste and those recycled secondary materials are not solid and hazardous waste. USEPA explored various options for making the determination when recycled secondary material is waste. These options ranged from regulating all recycling activities to not regulating any recycling activities. USEPA examined a narrative standard based solely on the character of the secondary material, but concluded that such a standard would be inadequate. *Id*. at 617. USEPA instead derived a standard that depended on both the character of the secondary material and on the mode of its recycling. *Id*. at 617-18. USEPA stated: "[O]rdinarily one must know both what a material is and how it is being recycled before knowing whether it is a solid waste." *Id*. at 616; *see also id.* at 617, 618 (repeating this assertion in different terms).

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[32] This includes the fact that the material is managed as required by the conditions within the applicable exclusion. *See, e.g.,* 40 C.F.R. 261.4(a)(8), (a)(10), and (a)(12) (2009) (exclusions for secondary materials reclaimed and returned to the process that generated them, coking wastes that are either returned to the coke ovens or mixed with coal tar, and oil-bearing HSM or recovered oil from petroleum refining that is recycled by reintroduction to the refining process). Table 2 below (beginning at page 165 of this opinion) lists all of the exclusions and indicates any conditions that apply to each.

By the 1985 DSWR amendments, USEPA established a definition of solid waste that divided secondary materials into categories, and it divided the dispositions of those materials into categories, in order to determine when a secondary material is "discarded material." *See* 40 C.F.R. 261.2(a) and (c) (2009) (corresponding with 35 Ill. Adm. Code 720.102(a) and (c)). The first categorization is by material type, including by the status that the secondary materials would have as hazardous waste (*i.e.*, as characteristic waste or listed hazardous waste; described more fully below, beginning on page 76 of this opinion). The material type categories are the following: spent materials, sludges that would be listed hazardous waste, sludges that would be characteristic hazardous waste, by-products that would be listed hazardous waste, by-products that would be characteristic hazardous waste, commercial chemical products that would be listed hazardous waste, and scrap metal that is not excluded scrap metal. The second categorization is how the particular secondary material is managed (*i.e.*, by direct or indirect application to land in a way that constitutes disposal, by burning for energy recovery, by reclamation, or by use or reuse and whether the material is speculatively accumulated). *See* 40 C.F.R. 261.2(c) (2009) (corresponding with 35 Ill. Adm. Code 721.102(c)).

More detailed discussion of the definition of "solid waste," including this table and the definition of "discarded material" appears above (beginning on pages 42 and 68 of this opinion). Identification of the material type categories and modes of management that are not categorized as "discarded material" is sufficient for this segment of the discussion. The secondary materials that are not designated as "discarded material" are not solid waste. These are the following secondary materials:[33]

1. Sludges that exhibit a characteristic of hazardous waste (*i.e.*, they are not listed hazardous wastes) and which are reclaimed;

2. By-products that exhibit a characteristic of hazardous waste (*i.e.*, they are not listed hazardous wastes) and which are reclaimed;

3. Commercial chemical products that would be listed hazardous waste and which are the subject of reclamation;

4. Commercial chemical products that would be listed hazardous waste and which are the subject of speculative accumulation;

5. Commercial chemical products that would be listed hazardous waste which are used in a manner that constitutes disposal (*i.e.*, they are applied to land or used in a product that is applied to land) where that is their usual manner of use; and

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[33] Certain recycled mining wastes that are included among the express exclusions from the definition at 40 C.F.R. 261.4(a)(17) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(17)) are excluded also in this "discarded material" segment of the definition at 40 C.F.R. 261.2(c)(3) (2009) (corresponding with 35 Ill. Adm. Code 721.104(c)(3)). The Board does not list this expressly excluded material as implicitly excluded in this listing.

6. Commercial chemical products that would be listed hazardous waste which are burned for energy recovery where they are themselves fuels. *See* 40 C.F.R. 261.2(c)-(c)(4) (2009) (corresponding with 35 Ill. Adm. Code 721.102(c)-(c)(4)); *see also* 40 C.F.R. 261.1(c)(5) and (c)(7) (2009) (corresponding with 35 Ill. Adm. Code 721.101(c)(5) and (c)(7)) (defining "used or reused" and "recycled," respectively).

The general exclusion of recycled materials is implied in the "discarded material" segment of the definition of solid waste. USEPA, however, included a separate provision within the definition of solid waste that expressly excludes materials that are recycled without being reclaimed. *See* 40 C.F.R. 261.2(e) (corresponding with 35 Ill. Adm. Code 721.102(e)). This express provision complements the implied exclusions in the "discarded material" segment of the definition. That express exclusion is the topic of the following discussion.

Board-Designated Conceptual Category 4 Exclusions: Recycled Materials That Are Not Reclaimed, with Limited Exceptions. The 1985 DSWR amendments not only restructured the core definition of "solid waste" by adding the concept of "discarded material," the amendments also added a general exclusion for recycled materials that are used or reused, but which are not reclaimed, but with certain limited exceptions. The general exclusion for recycled materials is complementary to the core "discarded material" segment of the definition.

As stated in the immediately foregoing discussion, the 1985 DSWR amendments divided types of secondary materials and modes of recycling into categories in order to determine when a secondary material is "discarded material." The secondary materials not specifically included within the definition of "discarded material" were not solid waste. The 1985 DSWR amendments further divided types of secondary materials and modes of recycling in a general exclusion for recycled secondary materials. This appears in a separate segment within the definition of solid waste. Similar to the divisions within the "discarded material" segment of the definition, the general exclusion appears to state in affirmative terms what is implied by the "discarded material" segment of the definition. *Compare* 40 C.F.R. 261.2(c) and table 1 (2009) *with* 40 C.F.R. 261.2(e) (2009) (corresponding with 35 Ill. Adm. Code 721.102(c) and (e) and 721.Appendix Z).

The general exclusion for recycled secondary materials excluded materials that are recycled without being reclaimed from being designated solid waste. More precisely, the exclusion applies to the following materials:

1. Secondary materials that are used or reused to produce a product, provided that the materials are not reclaimed;

2. Secondary materials that are used or reused as effective substitutes for commercial chemical products; and

3. Secondary materials that are returned to the original process that generated them as substitutes for feedstock materials, provided that the secondary materials are not reclaimed or land disposed and, where the original process that generated the

materials is a secondary process, the materials are managed in a way that does not involve placement on land. *See* 40 C.F.R. 261.2(e)(1) (2009) (corresponding with 35 Ill. Adm. Code 720.102(e)(1)).

USEPA, however, added four specific exceptions to the general exclusion of recycled secondary materials that are not reclaimed. These exceptions are in the form of designations of secondary materials as solid waste without regard to how they are recycled. The first exception does not allow reclamation to occur. It is written into the two pertinent general exclusions for recycling. *See* 40 C.F.R. 261.2(e)(1)(i) and (e)(1)(iii) (2009) (corresponding with 35 Ill. Adm. Code 720.102(e)(1)(A) and (e)(1)(C)). The other four of these exceptions are as follows:

1. Secondary materials that are used in a manner that constitutes disposal or which are used in products that are applied to land;

2. Secondary materials that are burned for energy recovery, used to produce a fuel, or contained in fuels;

3. Secondary materials that are speculatively accumulated; or

4. Secondary materials that are designated as "inherently waste-like materials." *See* 40 C.F.R. 261.2(e)(2) (2009) (corresponding with 35 Ill. Adm. Code 720.102(e)(2)).

"Inherently waste-like materials" are designated by a separate segment of the definition as solid waste when they are recycled in any manner. Two narrowly defined wastes or recycling practices are specified to be "inherently waste-like material." These are (1) listed hazardous wastes from the production of various polychlorinated organic compounds and (2) secondary materials fed into a halogen arc furnace, with a limited exception for brominated secondary material. *See* 40 C.F.R. 261.2(d) (2009) (corresponding with 35 Ill. Adm. Code 720.102(d)).

The complementarities of the "abandoned materials" segment of the definition of solid waste and the general exclusion of recycled materials are significant. "Use constituting disposal" and "burning for energy recovery" or use to produce a fuel similarly cause all types of secondary material to become solid waste. *Compare* 40 C.F.R. 261.2(c)(1), (c)(2), and table 1 (2009) with 40 C.F.R. 261.2(e)(2)(i) and (e)(2)(ii) (2009) (corresponding with 35 Ill. Adm. Code 721.102(c)(1), (c)(2), (e)(2)(A) and (e)(2)(B) and 721.Appendix Z); *see also* 40 C.F.R. 261.2(a)(2)(i)(A) and (b) (2009) (designating secondary materials that are disposed of or burned or incinerated as "abandoned," which is "discarded material"). The same is true of "inherently waste-like material." *Compare* 40 C.F.R. 261.2(a)(2)(i)(C) (2009) with 40 C.F.R. 261.2(e)(2)(iv) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(A)(iii) and (e)(2)(D)).

The complementarities between what is not included in the designations of "abandoned materials" and what is designated as excluded in the express recycling exclusion are also apparent. For example, "use or reuse" of secondary materials (*i.e.,* "recycling" without "reclamation") is not a basis for designation as "discarded material," and "use or reuse" is a basis

for the secondary material falling under the recycling exclusion. *Compare* 40 C.F.R. 261.2(c) and table 1 (2009) *with* 40 C.F.R. 261.2(e)(1) (2009) (corresponding with 35 Ill. Adm. Code 721.102(c) and (e)(1)).

All the complementarities between the "abandoned material" segment of the definition of solid waste and the express recycling exclusion do not give rise to any symmetry between "abandoned material" and material that is excluded as recycled. For example, under the "discarded materials" determination, sludges and by-products that exhibit a characteristic of hazardous waste (*i.e.,* they are not "listed waste") and commercial chemical products that would be listed hazardous waste if designated as solid waste are specifically not included within the designations of "discarded material." *See* 40 C.F.R. 261.2(c)(3) and table 1 (2009) (corresponding with 35 Ill. Adm. Code 721.102(c)(3) and 721.Appendix Z). Such materials are not similarly included in the text of the express recycling exclusion. *See* 40 C.F.R. 261.2(e) (2009) (corresponding with 35 Ill. Adm. Code 721.102(e)). Similarly, the express recycling provision deems that secondary materials "accumulated speculatively" are solid waste, "even if the recycling involves use, reuse, or return to the original process." *See* 40 C.F.R. 261.2(e)(2) and (e)(2)(iii) (2009) (corresponding with 35 Ill. Adm. Code 721.102(e)(2) and (e)(2)(C)). Under the "discarded material" segment of the definition, however, "speculative accumulation" of commercial chemical products that would be listed hazardous waste if designated as solid waste is specifically not included within the designations of recycled secondary materials that are deemed "discarded materials." *See* 40 C.F.R. 261.2(c)(4) and table 1 (2009) (corresponding with 35 Ill. Adm. Code 721.102(c)(4) and 721.Appendix Z).

That several provisions of the "discarded materials" segment complement segments of the express recycling exclusion does not mean that there is complete symmetry between the two. Since there is no complete symmetry between the two provisions, their respective coverages are not the same. There is a possibility that there are some recycled secondary materials that are not "discarded materials" (*i.e.,* some implicitly excluded materials) that are not covered by the express recycling exclusion. Further, while only those three types of "used or reused" secondary materials that are expressly described are covered by the express recycling provision, there may be other types that are recycled which are implicitly excluded by the "discarded materials" segment of the definition.

The 2008 DSWR amendments deepened the distinctions between the two segments of the definition. As was described above with regard to the structure and content of the definition of solid waste (at page 41 of this opinion), the 2008 DSWR amendments changed text in the "discarded materials" segment of the definition without altering the text of the express recycling exclusion. USEPA excepted the five new self-implementing HSM exclusions from the "reclamation" designation that renders secondary material "abandoned material." *See* 40 C.F.R. 261.2(c), table 1 and (e)(1) (2009) (corresponding with 35 Ill. Adm. Code 721.102(e)(1) and 721.Appendix Z); *see* also 73 Fed. Reg. at 64760 (amending 40 C.F.R. 261.2).

This ends discussion of the self-implementing exclusions of secondary materials from the definition of solid waste. What remains for examination is USEPA's established mechanism for case-by-case designations of exclusion by administrative determination.

Board-Designated Conceptual Category 5 Exclusions: Recycled Materials That Are Excluded by Administrative Determination. In establishing the current definition of solid waste by the DSWR amendments of 1985, USEPA acknowledged that it had trouble devising a universal standard for all recycled materials under all modes of recycling. USEPA excluded recycled materials that would find legitimate use or reuse from the definition of solid waste. USEPA included materials for which there was a significant risk of disposal. USEPA divided secondary materials into seven basic categories and recycling activities into five basic categories to erect a self-implementing "if . . . then" regulatory structure for determining whether secondary materials are solid waste. *See* 40 C.F.R. 261.2(a), (c), and table 1 (2009) (corresponding with 35 Ill. Adm. Code 721.102(a) and (c) and 721.Appendix Z). USEPA opted in favor of regulating recycled secondary materials where there was no assurance of safe management. USEPA explained as follows:

> [T]he Agency is guided by the principle that the paramount and overriding statutory objective of RCRA is protection of human health and the environment. The statutory policy of encouraging recycling is secondary and must give way if it is in conflict with the principal objective. 50 Fed. Reg. at 618.

As already seen in the foregoing discussions, the 1985 DSWR amendments determined that some types of secondary materials are solid waste under all circumstances, notwithstanding how they are recycled. Such materials would include inherently waste-like materials. *See* 40 C.F.R. 261.2(d) (2009) (corresponding with 35 Ill. Adm. Code 721.102(d)). Other materials are ordinarily solid waste unless managed in very particular ways, such as spent materials or listed byproducts, unless the materials are recycled by use or reuse without reclamation, and they are not used in a manner that constitutes disposal (or used to make a product that is used in such a manner), burned for energy recovery (or used to make a fuel), or accumulated speculatively. *See* 40 C.F.R. 261.2(c), (e), and table 1 (2009) (corresponding with 35 Ill. Adm. Code 721.102(c) and (e) and 721.Appendix Z).

At the other end of the spectrum, other recycled secondary materials are not solid waste unless managed in certain ways. For example, commercial chemical products that are listed hazardous waste are not solid waste, unless they are used in a manner that constitutes disposal (or are used to make a product that is used in such a manner) or burned for energy recovery (or used to make a fuel), when such is not the normal use for that commercial product. *See* 40 C.F.R. 261.2(c)(1) and (c)(2) and table 1 (2009) (corresponding with 35 Ill. Adm. Code 721.102(c)(1) and (c)(2) and 721.Appendix Z).

To create some flexibility, USEPA established a mechanism for obtaining a case-by-case administrative determination that a particular recycled secondary material is not solid waste based on its character and mode of recycling. This mechanism is deemed a "variance" by USEPA, but the mechanism is known as a "solid waste determination" in Illinois. *Compare* 40 C.F.R. 260.30 (2009) *with* 35 Ill. Adm. Code 720.130. This "variance" is available for secondary materials that are the subject of speculative accumulation and, more important to subsequent discussion, to materials that are reclaimed before recycling. The federal provision for case-by-case solid waste determinations appears as follows (indicating the changes made to

the 1985 DSWR by the 2008 DSWR amendments with overstrike and underlining for the convenience of the reader):

> § 260.30 Variances from classification as a solid waste.
>
> In accordance with the standards and criteria in § 260.31 and § 260.34 and the procedures in § 260.33, the Administrator may determine on a case-by-case basis that the following recycled materials are not solid wastes:
>
> (a) Materials that are accumulated speculatively without sufficient amounts being recycled (as defined in § 261.1(c)(8) of this chapter);
>
> (b) Materials that are reclaimed and then reused within the original production process in which they were generated; and
>
> (c) Materials that have been reclaimed but must be reclaimed further before the materials are completely recovered. [sic]
>
> (d) Hazardous secondary materials that are reclaimed in a continuous industrial process; and
>
> (e) Hazardous secondary materials that are indistinguishable in all relevant aspects from a product or intermediate. 40 C.F.R. 260.30 (2009) (corresponding with 35 Ill. Adm. Code 720.130).

USEPA thus sought to expand the exclusion for recycled secondary materials by allowing exclusion of some recycled materials that are the subject of speculative accumulation or which undergo reclamation from the definition of solid waste, but USEPA allowed exclusion only on a case-by-case basis—*i.e.*, by an affirmative administrative determination made by evaluation of specified criteria. Further, USEPA narrowly defined the types of materials for which such an exclusion will be available. The following briefly elaborates the exclusions:

Materials that Are Speculatively Accumulated. The regulations define the term "speculatively accumulated" in functional terms. All secondary materials accumulated for recycling are accumulated speculatively unless the person accumulating the material can make affirmative demonstrations relative to the recycling. First, the generator must show that the material is capable of recycling. Second, the person must show a present means for recycling the material. Finally, the person must show that at least 75 percent of the material is actually recycled (or transferred for recycling by another person) in the calendar year. 40 C.F.R. 261.1(c)(8) (2009) (corresponding with 35 Ill. Adm. Code 721.101(c)(8)). Where a generator is able to make these demonstrations, the generator's secondary material is not considered solid

waste. If the generator fails to recycle or transfer for recycling at least 75 percent of the waste accumulated in a calendar year, the remaining waste is solid waste.[34]

For those instances where a generator fails to recycle the required 75 percent of the waste, USEPA provided a mechanism for relief from designation of the material as solid waste. The generator may petition for an administrative solid waste determination that the secondary materials were not speculatively accumulated. To obtain such a determination, the generator must demonstrate that an adequate amount of the secondary material will recycled or transferred for recycling in the following year to account for the shortfall for the year during which it accumulated the secondary material. When granted, a solid waste determination relative to speculative accumulation is good only for that following calendar year, although the regulations provide that the determination is renewable. The administrative evaluation and determination is made based on considerations specified by rule. 40 C.F.R. 260.31(a) (2009) (corresponding with 35 Ill. Adm. Code 720.131(a)).

Materials That Are First Reclaimed, Then Used in the Original Process That Generated Them. Where a secondary material undergoes reclamation, but then is returned to the original process from which the material was generated, USEPA allows a solid waste determination. USEPA explained that it had originally considered blanket exclusion of this type of recycled secondary materials, by deeming that they were not solid waste. USEPA, however, ultimately determined that a case-by-case administrative determination is the more appropriate mode of exclusion of these materials. 50 Fed. Reg. at 654.

The rules provide that exclusion of reclaimed secondary materials that are recycled into the original production process that generated them must be based on the administrative determination that "the reclamation operation is an essential part of the production process." 40 C.F.R. 260.31(b) (2009) (corresponding with 35 Ill. Adm. Code 720.131(b)). As for speculative accumulation, the rules specify the considerations for the administrative evaluation and determination. *Id.*

Reclaimed Materials That Must Be Further Reclaimed Before They Are Completely Recovered. Where a secondary material undergoes reclamation, but then is returned to the original process from which the material was generated, USEPA allows a solid waste determination. USEPA explained that it had originally considered blanket exclusion of this type

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[34] The regulations do not require actually making these showings before the secondary material is excluded from regulation as solid waste, although compliance with the 75 percent recycling requirement is required absent a solid waste determination. To gain exclusion from designation of speculative accumulation, compliance with the ability to show a present means of recycling or transfer for recycling at least 75 percent of the secondary material is required before recycling begins and continues throughout the course of the recycling. Compliance with the 75 percent recycling requirement would necessarily be determined after the end of each calendar year. 50 Fed. Reg. at 634; *see* 40 C.F.R. 260.30(a), 260.31(a), 261.1(c)(8), and 261.2(b)(3), (c), (c)(4), and table (2009) (corresponding with 35 Ill. Adm. Code 720.130(a), 720.131(a), 721.101(c)(8), 721.102(b)(3), (c), and (c)(4), and 721.Appendix Z.

of recycled secondary materials, by deeming that they were not solid waste. USEPA, however, ultimately determined that a case-by-case administrative determination is the more appropriate mode of exclusion of these materials. 50 Fed. Reg. at 654.

The administrative determination required for a grant of this exclusion is that "after initial reclamation, the resulting material is commodity-like (even though it is not yet a commercial product, and has to be reclaimed further)." 40 C.F.R. 260.31(c) (2009) (corresponding with 35 Ill. Adm. Code 720.131(c)). In its preamble discussion of this exclusion, USEPA explained the exclusion as follows:

> The final variance from being a solid waste is for materials that have been reclaimed but must be reclaimed further before recovery is completed. We indicated in the proposal that reclamation processes are not completed until the end-product of the process is recovered . . .. The material being reclaimed thus remains a waste until reclamation is finished. We think this principle is generally sound, but that there may be some exceptions where the initial reclamation step is so substantial that the resulting material is more commodity-like than waste-like even though no end-product has been recovered. . . . We consequently are allowing the Regional Administrator to grant a variance for materials that have been reclaimed, not completely recovered, but after initial reclamation are commodity-like in spite of having to be reclaimed further. 50 Fed. Reg. at 655.

As is the case for the exclusion of secondary materials that are speculatively accumulated and those reused within the process that generated them, the rules specify the considerations for the administrative evaluation and determination to exclude commodity-like partially reclaimed secondary materials. 40 C.F.R. 260.31(c) (2009) (corresponding with 35 Ill. Adm. Code 720.131(c)). These considerations further illustrate the nature of the determination made, and the character of the secondary material for which it is made. For the exclusion of incompletely reclaimed secondary materials, USEPA presented the following factors for consideration:

> (1) The degree of processing the material has undergone and the degree of further processing that is required;
>
> (2) The value of the material after it has been reclaimed;
>
> (3) The degree to which the reclaimed material is like an analogous raw material;
>
> (4) The extent to which an end market for the reclaimed material is guaranteed;
>
> (5) The extent to which the reclaimed material is handled to minimize loss; [and]
>
> (6) Other relevant factors. 40 C.F.R. 260.31(c) (2009) (corresponding with 35 Ill. Adm. Code 720.131(c)).

The objective here, as is also apparent in the segment of the *Federal Register* discussion quoted above, is to determine whether the character of the reclaimed secondary material (including market value) and circumstances of the reclamation are such that discard of the material is not likely to occur prior to use or reuse of the reclaimed elements of the material. *See* 42 U.S.C. § 6903(27) (2006) (statutory definition of "solid waste" centered on "discarded material"); 40 C.F.R. 261.2(a) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)); 73 Fed. Reg. at 64671 (discussing secondary materials subject to "sham recycling" as "discarded" materials based on the statutory definition of "solid waste").

HSMs That Are Reclaimed in a Continuous Industrial Process. This is a category of reclaimed secondary material added by the 2008 DSWR amendments. This exclusion is available based on an administrative determination that the generator has demonstrated "that the [HSM] is a part of the production process and is not discarded" and that the "[HSM] is legitimately recycled." The Board calls this the "process-based non-waste determination." The regulations specify factors for consideration in the administrative determination. 40 C.F.R. 260.30(d) and 260.34(b) (2009) (corresponding with 35 Ill. Adm. Code 720.130(d) and 720.134(b)). The regulations further set forth criteria for determination whether the HSM is the subject of "legitimate recycling." 40 C.F.R. 260.43 (2009) (corresponding with 35 Ill. Adm. Code 720.143).

The nature of the process-based non-waste exclusion is considered more fully in a subsequent segment of this opinion (beginning at page 183). The determination of "legitimate recycling" is also considered more fully in a subsequent segment (beginning at page 90). The Board has added mention of this exclusion in this segment of the discussion for the sake of a more complete presentation of the context of the regulations.

HSMs That Are Indistinguishable in All Relevant Aspects from a Product or Intermediate. This is a category of reclaimed secondary material added by the 2008 DSWR amendments. This exclusion is available based on an administrative determination that the generator has demonstrated "that the [HSM] is comparable to a product or intermediate and is not discarded" and that the "[HSM] is legitimately recycled. The Board calls this the "product-based non-waste determination." The regulations specify factors for consideration in the administrative determination. 40 C.F.R. 260.30(e) and 260.34(c) (2009) (corresponding with 35 Ill. Adm. Code 720.130(e) and 720.134(c)). The regulations further set forth the same criteria for determination of "legitimate recycling" as are used for HSM reclaimed in a continuous industrial process.[35] 40 C.F.R. 260.43 (2009) (corresponding with 35 Ill. Adm. Code 720.143).

The nature of the product-based exclusion is considered more fully in a subsequent segment of this opinion (beginning at page 183). The Board has added mention of this exclusion

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[35] These criteria are also the same for the new self-implementing exclusions in the 2008 DSWR amendments. *See* 40 C.F.R. 260.34(b) and (c), 260.43(a), 261.2(a)(2)(ii), and 261.4(a)(23)(v), (a)(24)(iv), and (a)(25), as added at 64758-64 (corresponding with 35 Ill. Adm. Code 720.134(b) and (c), 720.143(a), 721.102(a)(2)(ii), and 721.104(a)(23)(E), (a)(24)(D), and (a)(25)).

in this segment of the discussion for the sake of a more complete presentation of the context of the regulations.

Having completed discussion of the self-implementing exclusions from the definition of solid waste and the exclusions available through an administrative determination, the Board must consider one more unique exclusion from definition as solid waste. It is an express exclusion that was added as a parenthetical in an unusual location in the rules.

Board-Designated Conceptual Category 6 Exclusions: Materials Reclaimed from Solid Waste That Are Used Beneficially. There is a final group of materials that are excluded from the definition of solid waste. These are materials that are reclaimed from secondary materials and solid waste and which are subsequently used beneficially. The limitations (aside from that of beneficial use) are that the reclaimed materials may not be burned for energy recovery or used in a manner that constitutes disposal. USEPA added this exclusion by the 1985 DSWR amendments, but in the 1985 DSWR amendments USEPA codified the exclusion as a parenthetical to the so-called "derived-from rule," as follows:

> Any solid waste generated from the treatment, storage, or disposal of a hazardous waste, including any sludge, spill residue, ash, emission control dust, or leachate (but not including precipitation run-off) is a hazardous waste. (However, materials that are reclaimed from solid wastes and that are used beneficially are not solid wastes and hence are not hazardous wastes under this provision unless the reclaimed material is burned for energy recovery or used in a manner constituting disposal.) 40 C.F.R. 261.3(c)(2) (2009) (emphasis added) (corresponding with 35 Ill. Adm. Code 721.103(c)(2)); *see* 50 Fed. Reg. at 634.

Adding an important exclusion by way of a parenthetical in a provision that does not directly relate to the definition of solid waste or to exclusions from solid waste seems a bit unusual, but USEPA explains the addition as a clarifying amendment. The *Federal Register* preamble discussion of this addition asserted that the fact that materials reclaimed from solid waste are not solid waste is a fundamental concept that is beyond question. The discussion also indicates a relationship with the solid waste determination. USEPA stated as follows:

> [C]ommercial products reclaimed from hazardous wastes are products, not wastes, and so are not subject to the RCRA Subtitle C regulations. * * * Thus, regenerated solvents are not wastes. Similarly, reclaimed metals that are suitable for direct use, or that only have to be refined to be usable are products, not wastes. * * *
>
> We caution, though, . . . that this principle does not apply to reclaimed materials that are not ordinarily considered to be commercial products, such as waste-waters or stabilized wastes. The provision also does not apply when the output of the reclamation process is burned for energy recovery or placed on the land. These activities are controlled by the provisions of the definition dealing with using hazardous wastes as ingredients in fuels or land-applied products. . . . [W]aste-derived fuel is still subject to RCRA jurisdiction.

> The principle also does not apply to wastes that have been processed minimally, or to materials that have been partially reclaimed but must be reclaimed further before recovery is completed. * * * For this last situation—where materials are partially reclaimed but must be reclaimed further until recovery is completed—we are providing a variance procedure for situations in which the initially reclaimed material is commodity-like in spite of the need for additional processing before it is finally reclaimed. 50 Fed. Reg. at 634 (citations and footnote omitted).

Thus, the useful, commodity-like elements that are extracted from hazardous waste by reclamation are not solid waste. Where the elements are less than commodity-like, the generator must seek a solid waste determination.

Prior to the 2008 DSWR amendments, however, the as-generated material from the time of generation until the time reclamation was complete was not excluded from the definition of solid waste by this exclusion. Rather, the material was previously solid waste because it was "recycled" in a way that involved reclamation.[36] *See* 40 C.F.R. 261.2(a)(2)(ii), (c)(3), and (e) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B), (c)(3), and (e)).

The 2008 DSWR amendments, as will be discussed more fully below (beginning on page 85 of this opinion), significantly changed this presumption that reclaimed secondary materials are solid waste until rendered product-like and useful. The 2008 DSWR amendments created broader exclusions for the HSM from the time of generation until the time when reclamation is complete. *See* 40 C.F.R. 261.2(a)(2)(ii), (c)(3), and (e) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B), (c)(3), and (e)), and 40 C.F.R. 261.4(a)(23) through (a)(25) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(23) through (a)(25)). In this way, USEPA attempted to draw the boundary between what is solid waste and what is not solid waste as closely as possible to the point where secondary material is "discarded." As stated by USEPA:

> [T]he concept of "discard" is the central organizing idea behind the revisions to the definition of solid waste being finalized today . . . . Basing the revisions on "discard" reflects the fundamental logic of the RCRA statute. As stated in RCRA Section 1004(27) [42 U.S.C. § 6903(27) (2006)], "solid waste" is defined as "* * * [sic] any garbage, refuse, sludge from a waste treatment plant, or air pollution control facility and other discarded material [. . .] resulting from industrial, commercial, mining and agricultural activities. * * *" [sic] Therefore, in the context of this final rule, a key issue is the circumstances under which a

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[36] There were limited exclusions to the general rule that reclaimed secondary materials were considered discarded. These were sludges or by-products that exhibit a characteristic of hazardous waste (*i.e.*, they were not listed waste) and commercial chemical products. 40 C.F.R. 261.2(c)(3) and table 1 (2009) (corresponding with 35 Ill. Adm. Code 721.102(c)(3) and 721.Appendix Z).

> hazardous secondary material that is recycled by reclamation is or is not discarded. 73 Fed. Reg. at 64675 (citation omitted).

After consideration of whether any of the exclusions from the definition of solid waste discussed apply, the analysis ends under the hazardous waste regulatory framework if the secondary material is excluded from definition as solid waste. A secondary material that is not solid waste is not hazardous waste.[37]

If the secondary material is "discarded material" that is not excluded from the definition of solid waste, further inquiry is necessary.[38] The focus of the further inquiry shifts to whether the material is hazardous waste, then again to how it is regulated as such.

Solid Waste and Hazardous Waste Determinations. Under the RCRA Subtitle C regulatory scheme, a secondary material becomes subject to regulation as hazardous waste as the result of a series of determinations made in a prescribed regulatory framework. The series of determinations designates whether the secondary material is subject to regulation and, if so, the nature of the regulations that apply to the material.

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[37] An exception to this has been introduced by the 2008 DSWR amendments involved in this proceeding. As is discussed below, beginning at page 169 of this opinion, an off-site reclaimer or intermediate facility managing HSM is subject to financial assurance, notification, recordkeeping, reporting, and material management requirements; and the HSM generator bears responsibility for undertaking reasonable efforts to assure the legitimate recycling of the HSM that it generates. *See* 40 C.F.R. 261.2(a)(2)(ii) and 261.4(a)(23), (a)(24), and (a)(25), added at 73 Fed. Reg. at 64760-64 (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B) and 721.104(a)(23), (a)(24), and (a)(25)). These requirements are presented as conditions on the exclusions. *See, e.g.,* 73 Fed. Reg. at 64670 (discussing the conditional nature of the "transfer-based" exclusions). Further, USEPA stated that fulfillment of the conditions is necessary to assure that the HSM is not discarded to become solid waste. *See, e.g.,* 73 Fed. Reg. at 64680 (discussing the conditions attached to the generator-reclaimed HSM exclusions).

[38] The wording of this statement is based on the structure of the definition of solid waste, which has the applicability of any exclusion (other than the generator-reclaimed exclusion for HSM reclaimed in non-land-based units) as separate from the "discarded material" determination. 40 C.F.R. 261.2(a)(1) and (a)(2) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(1) and (a)(2)). USEPA asserted that the 2008 DSWR amendments seek to distinguish between materials that are reclaimed and those that are "discarded," and that this distinction underlies all aspects of the exclusions. 73 Fed. Reg. at 64675-79; *see* 74 Fed. Reg. at 25202. Thus, USEPA combined the "discarded material" determination into the applicability of an HSM exclusion, so that HSM is not "discarded material" if covered by an HSM exclusion. (The applicability of the HSM exclusion is part of the "discarded material" determination in the case of the generator-reclaimed exclusion for HSM reclaimed in non-land-based units. *See* 40 C.F.R. 261.2(a)(2)(ii) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B)).)

The initial determination is whether a secondary material is solid waste. If the material is solid waste, the second determination is whether the material is hazardous waste. If the material is hazardous waste, a series of determinations follows to ascertain the regulatory status of the material.

The following discussion briefly outlines the analytical sequence for determining whether a secondary material is a solid waste and, if so, whether it is a hazardous waste. This discussion omits significant elements of the analytical sequence that are not important to the present context, which is examining how the addition of the exclusions the 2008 DSWR amendments affects the hazardous waste regulatory scheme. For this reason, the major focus is on the solid waste determination.[39] Further, the limited segments of the solid waste determination that have no bearing on recycling in any form are given limited consideration in this segment of the discussion. The discussion of the structure and content of the definition of solid waste (beginning above at page 38 of this opinion) considered those segments of the definition in greater detail. This discussion concludes with only a brief outline of the hazardous waste determination and the series of regulatory determinations that follow. The discussion of the hazardous waste determination will include fuller explanation of the two bases for designation as hazardous waste, characteristic hazardous waste and listed hazardous waste, since those bases play into the solid waste determination.

The structure of the definition of solid waste is such that the determination whether a secondary material is solid waste is bifurcated. The preliminary determination whether the material is excluded from the definition of solid waste precedes substantive examination of the material. This substantive examination involves a determination whether the secondary material is "discarded material." This is the core determination under the basic definition of solid waste. *See* 40 C.F.R. 261.2(a) and (c) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a) and (c)). The discussion that follows will follow the analytical sequence of the solid waste determination and consider the applicability of any express exclusion and the "discarded material" determination as separate steps in the analysis.

The hazardous waste determination follows a determination that a secondary material is solid waste. The hazardous waste determination is also bifurcated; a preliminary determination whether the solid waste is excluded from designation as hazardous waste precedes substantive evaluation of the character of the waste. *See* 40 C.F.R. 261.3(a) (2009) (corresponding with 35 Ill. Adm. Code 721.103(a)). For the purposes of this discussion, however, the entire hazardous waste determination and series of questions to determine the regulatory status of the hazardous waste are considered together in a single segment of discussion.

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[39] In this immediate segment of the discussion, "basic solid waste determination" means the basic determination whether a material is "discarded material" pursuant to 40 C.F.R. 261.2 (corresponding with 35 Ill. Adm. Code 721.102). This is not to be confused with the "solid waste determination" referred later in this discussion (beginning at page 58) that is available in Illinois as an administrative determination that a particular secondary material is not solid waste pursuant to 35 Ill. Adm. Code 720.130 and 720.133 (corresponding with 40 C.F.R. 260.30 and 260.33).

The essence of the analytical sequence, as it relates to the definition solid waste, is that a material is not hazardous waste if it is not solid waste. *See* 40 C.F.R. 261.3(a) (2009) (corresponding with 35 Ill. Adm. Code 721.103(a)). Thus, the definition of solid waste and the exclusions provided from that definition, discussed above (at beginning on page 46 of this opinion) are critical to regulation as hazardous waste

Solid Waste Determination 1: Whether Excluded from the Definition. The first step in regulatory analytical sequence is whether a secondary material is expressly excluded from the definition of solid waste. A determination that a recycled secondary material is excluded from the definition of solid waste ends further inquiry into the character of the secondary material and how the material is managed after initial generation. Conversely, a determination that no express exclusion applies prompts a second step of inquiry into whether the secondary material is "discarded material."

The first analytical determination whether an exclusion applies to the secondary material would end inquiry before it proceeded to the second analytical step of determining whether the material is "discarded material" or excluded recycled material. *See* 40 C.F.R. 261.2(a)(1) and (c), table 1 (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(1) and 721.Appendix Z).

A secondary material that is governed by an express exclusion is not "discarded material" and, hence, that material is not solid waste. The inquiry ends upon a determination that an express exclusion applies because that secondary material is not governed by the hazardous waste regulations.[40] Thus, consideration of whether the secondary material is excluded from the definition of solid waste may be more convenient than determining whether the secondary material is "discarded."

The opening provision of the definition of solid waste is set forth above on page 42 of this opinion. The foregoing discussions of exclusion from the definition of solid waste (beginning on page 46 of this opinion) segregated the several exclusions of secondary materials becoming deemed "solid waste" into six separate categories based on the nature of each exclusion and its location in the regulations. The opening provision states in significant part that "any discarded material that is not excluded by § 261.4(a)" (the express exclusions provision) (corresponding with 35 Ill. Adm. Code 721.104(a)) and which is not excluded by an administrative determination, is solid waste. *See* 40 C.F.R. 261.2(a)(1) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(1)). The second segment of this opening provision defines "discarded materials." *See* 40 C.F.R. 261.2(a)(2)(i) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(A)). A third segment, added by the 2008 DSWR amendments, further provides that HSM that is reclaimed under the control of the generator in non-land-based units (non-land-based unit generator-reclaimed HSM). *See* 40 C.F.R. 261.2(a)(2)(ii) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(ii)).

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[40] Note, however, that several conditions apply to the four new self-implementing HSM exclusions added by the 2008 DSWR amendments. Some of the conditions impose a substantial burden of compliance, as is discussed below (beginning on page 158 of this opinion).

The only exclusions included within the introductory statement of the definition of solid waste are those that the Board designated as categories 1, 2, and 5.[41] Primarily, these categories 1 and 2 exclusions are the express exclusions set forth in the exclusions provision of 40 C.F.R. 261.4(a) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)). The introductory statement of the definition deems any "discarded material" solid waste unless it is expressly excluded by that exclusions provision. *See* 40 C.F.R. 261.2(a)(1) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(1)).

The third segment of the introductory statement that the 2008 DSWR amendments added embraces another express exclusion that is not cited among the express exclusions provision of 40 C.F.R. 261.4(a) (corresponding with 35 Ill. Adm. Code 721.104(a)). This is the new exclusion applicable to generator-reclaimed HSM managed only in non-land-based units. USEPA paired this HSM exclusion with the "abandoned materials" segment of the definition. *See* 40 C.F.R. 261.2(a)(2) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)). This exclusion obviates analyzing whether HSM is "discarded material," since it deems that the HSM to which it applies is "not discarded." 40 C.F.R. 261.2(a)(2)(ii) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B)). Thus, this single HSM exclusion has the same status as the express exclusions, and whether the non-land-based unit generator-reclaimed HSM exclusion should be considered in this initial stage of inquiry with the express exclusions.[42] The *Federal Register* discussion of the non-land-based unit generator-reclaimed HSM exclusion of 40 C.F.R. 261.2(a)(2)(ii) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B)) does not indicate that USEPA intended different consideration than what is given the land-based unit exclusion of 40 C.F.R. 261.4(a)(23) (corresponding with 35 Ill. Adm. Code 721.104(a)(23)). *See, e.g.*, 73 Fed. Reg. at 64669-70, 64680-81.

The analysis at this preliminary stage of the solid waste analysis is aimed at excluding secondary materials before engaging in the "discarded material" analysis, which is the core of

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[41] Category 1 includes materials that Congress did not intend to regulate under RCRA and those that are governed by other laws. See the discussion that begins on page 50 of this opinion. Category 2 includes recycled materials expressly excluded. See the discussion that begins on page 51 of this opinion. Category 5 includes secondary materials excluded by an administrative determination (*i.e.*, by a "variance"—a "solid waste determination" in Illinois—or by a "non-waste determination). See the discussion that begins on page 58 of this opinion.

[42] The other three self-implementing HSM exclusions (the land-based unit generator-reclaimed HSM exclusion, the domestic independently reclaimed HSM exclusion, and the exported independently reclaimed HSM exclusion) are all within the express exclusions provision. *See* 40 C.F.R. 261.2(a)(1) and 261.4(a)(23), (a)(24), and (a)(25) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(1) and 721.104(a)(23), (a)(24), and (a)(25)). As is discussed later in this opinion (beginning on page 158), the reasons that USEPA codified the non-land-based unit generator-reclaimed HSM exclusion within the "abandoned material" segment of the definition are unclear.

the definition. This initial inquiry focuses on what is not solid waste. That focus is the reverse of the "discarded material" segment of the determination.

Aside from these express exclusions cited in the introductory "discarded materials" segment of the definition of solid waste, it may be possible to include consideration of the express recycling provision that is codified within the definition of solid waste in this first segment of the solid waste determination. But the Board does not do so. First of all, the express recycling exclusion is not cited in the opening provision of the definition of solid waste as obviating further analysis. Secondly, to do so would not facilitate solid waste determinations. As discussed above (beginning on page 41 of this opinion), there is a relationship between the "discarded materials" analysis under 40 C.F.R. 261.2(a)(2)(i), (b), (c), and (d) (corresponding with 35 Ill. Adm. Code 721.2(a)(2)(A), (b), (c), and (d)) (designated by the Board as conceptual category 3 implied exclusions) and the express recycling exclusion of 40 C.F.R. 261.2(e) (corresponding with 35 Ill. Adm. Code 721.2(e)) (designated by the Board as conceptual category 4 express exclusions). The interplay among these provisions favors postponing consideration of this recycling exclusion for consideration concurrent with the "discarded materials" analysis.

Solid Waste Determination 2: Recycling and Determination Whether "Discarded Material." The second step in the regulatory analytical sequence, assuming that the material was not determined expressly excluded under step 1, is whether a secondary material is "discarded material." As detailed below, this is, perhaps, the most difficult analytical step for secondary material that is recycled.

The foregoing discussions of the structure and content of the definition of solid waste and of categories 3 and 4 exclusions outlined the "discarded material" analysis in detail.[43] Refer to those discussions (on pages 38, 51, and 54 of this opinion) for greater detail.

The definition of solid waste deems any material that is "abandoned," "recycled," or considered "inherently waste-like" to be "discarded material." 40 C.F.R. 261.2(a)(2)(i) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(A)). As discussed with regard to the first analytical step, immediately above, "discarded material" that is not excluded is deemed "solid waste." 40 C.F.R. 261.2(a)(1) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(1)).

Secondary material is "abandoned" when it is "disposed of," "burned or incinerated," or managed prior to or in lieu of being disposed of or burned or incinerated. 40 C.F.R. 261.2(b) (2009) (corresponding with 35 Ill. Adm. Code 721.102(b)). Since neither "disposed of" nor "burned or incinerated" arguably involves recycling, "abandoned" is of secondary importance in

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[43] Conceptual category 3 includes materials that are implicitly excluded under the "discarded materials" provision. See discussion beginning on page 52 of this opinion. Conceptual category 4 includes recycled materials covered by the recycling exclusion set forth within the definition of solid waste. See discussion beginning on page 55 of this opinion. The "inherently waste-like materials" provision in the definition of solid waste is an exception to both the implied (conceptual category 3) and express (conceptual category 4) recycling-based exclusions.

the present context. Nevertheless, the similarity between "disposed of" and "burned or incinerated" and the "applied to or placed on the land" and "burned for energy recovery" limitations on recycling are noteworthy. (See the discussion of the structure and content of the definition of solid waste above, beginning on page 38 of this opinion.)

A secondary material is "recycled" in a way that renders it "discarded material" when any of the following occurs:

1. The material is "applied to or placed on the land in a manner that constitutes disposal" (or used in products that are placed on the land, excluding specified commercial chemical products for which this is the normal use);

2. The material is "burned for energy recovery" (or used to produce a fuel, excluding specified commercial chemical products for which this is the normal use);

3. The material is "reclaimed" (excluding sludges and by-products that are characteristic hazardous waste and commercial chemical products); or

4. The material is "accumulated speculatively" (excluding commercial chemical products, materials that are recycled without reclamation, and HSM that is the subject of any of five specified express exclusions). 40 C.F.R. 261.2(c) and table 1 (2009) (corresponding with 35 Ill. Adm. Code 721.102(c) and 721.Appendix Z).

There are many recycled secondary materials that are omitted from being designated "discarded material" (implicitly excluded from designation as solid waste) by these "abandoned material" provisions.

The express recycling exclusion in the definition of solid waste excludes "recycled" material that is not "reclaimed." 40 C.F.R. 261.2(e) (2009) (corresponding with 35 Ill. Adm. Code 721.102(e)). The express recycling exclusion complements the "recycled" segment of the "discarded material" provision. To a major degree, the express recycling exclusion restates the express recycling exclusion that USEPA included within the definition. *See* 40 C.F.R. 261.2(c)(3) and table 1 (2009) (corresponding with 35 Ill. Adm. Code 721.102(c)(3) and 721.Appendix Z). The Board separately designated materials implicitly excluded by the "discarded material" provision as conceptual category 3 implied exclusions and those expressly excluded by the recycling provision as conceptual category 4 exclusions in earlier discussion. While combination of the two categories might be possible, the Board would prefer to consider them as two separate categories of exclusions. The overlap imperfect between conceptual category 3 implied exclusion and conceptual category 4 recycling-based exclusion (discussed above, beginning at pages 51 and 54 of this opinion) is imperfect, and it is conceivable that some recycled materials excluded by the "discarded material" analysis would not be covered by the express recycling exclusion, and *vice versa*.

Nevertheless, it is possible to combine the concepts of the two provisions into a variety of single, cohesive analytical sequences of inquiries that helps visualize the direction taken by the

regulations. One possible summary of an analytical sequence for determining whether a recycled secondary material is excluded by the conceptual category 3 implied and conceptual category 4 express recycling-based exclusions, as they stood prior to the 2008 DSWR amendments, is outlined as follows:

1. Is the material disposed of or burned or incinerated? If so, it is solid waste.

2. Is the material placed on the land or used in a product that is placed on the land? If so, it is solid waste, unless it is a commercial chemical product that is ordinarily used in this manner.

3. Is the material burned for energy recovery, used to produce fuel, or used in a product that is added to fuel? If so, it is solid waste, unless it is a commercial chemical product that is ordinarily used in this manner.

4. Is the material speculatively accumulated? If so, it is solid waste, unless it is a commercial chemical product.

5. Is the material recycled without reclamation? If so, it is solid waste, if it is an "inherently waste-like material."

6. Is the material recycled in a way that involves reclamation? If so, it is solid waste, unless it is a sludge or by-product that exhibits a characteristic of hazardous waste (and it is not listed hazardous waste), or it is a commercial chemical product.

In this analysis, an affirmative answer at any step means that the secondary material is "discarded material" and solid waste.

The fact is worthy of note that the analysis based directly on the 1985 DSWR amendments is designed to determine what is solid waste, rather than to determine what is not. This is likely due to the fact that USEPA at that time was using the "discarded material" analysis and the recycling exclusion to define the limits of RCRA authority. (Discussion of this appears below at page 109 of this opinion.) Thus, the determination of what is not solid waste follows from what is not affirmatively determined solid waste. A secondary material under scrutiny is not solid waste if the determination on every step of analysis is negative.

All of the express exclusions relating to HSM that are cited in the "discarded material" segment of the definition. They appear in the table used for the "discarded material" determination.[44] *See* 40 C.F.R. 261.2(c)(3) and table 1 (2009) (corresponding with 35 Ill. Adm.

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[44] Actually, the first express exclusion added in this table was to the exclusion for secondary materials returned to the original process that generated them as substitutes for feedstock. *See* 40 C.F.R. 261.2(c), table 1 (2009) (corresponding with 35 Ill. Adm. Code 721.Appendix Z); 40

Code 721.102(c)(3) and 721.Appendix Z). These added references could be perceived as adding an inquiry as to what is not solid waste to the "discarded material" segment of the analysis. Under this potentially shifted analysis, the initial five inquiries remain the same, but consideration whether the secondary material is excluded HSM is added into the sixth step, and a seventh step of inquiry into whether the management of the HSM conforms to the conditions of an applicable HSM exclusion is added to the inquiry. The revised sixth step of inquiry and added seventh step would appear as follows:

> 6. Is the material recycled in a way that involves reclamation? If so, it is solid waste, unless it is a sludge or by-product that exhibits a characteristic of hazardous waste (and it is not listed hazardous waste), it is a commercial chemical product, or it is an excluded HSM that is the subject of reclamation.
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> 7. Is the material that is the subject of reclamation an excluded HSM (*i.e.*, is it generator-reclaimed HSM that is managed in non-land-based or land-based units, is it independently reclaimed HSM that is either reclaimed within the United States or exported for reclamation outside the United States)? If so, it is solid waste, unless the reclamation fulfills each of the conditions applicable to the particular HSM exclusion.

Thus, as a result of the 2008 DSWR amendments, consideration of the HSM exclusions appears to have been brought to bear in the "discarded material" analysis. But such is likely not the case, as discussed below.

It is not likely that the 2008 DSWR amendments changed the analysis in this way. The addition of the references to the express HSM exclusions was likely a companion amendment to the added HSM exclusions added to the express exclusions provision. As such, the references in the "abandoned materials" segment of the definition of solid waste were intended to clarify that HSM reclaimed in any of the manners described in the new exclusions is not solid waste. Thus, the operative consideration of whether any of the new HSM exclusions applies to a secondary material is appropriate in the first analytical determination, together with consideration of all other conceptual category 1 and conceptual category 2 exclusions. And it would appear that the addition of the references to the HSM exclusions in the "abandoned material" segment of the definition did not change the analytical sequence at all.

One unusual inquiry enters into the second segment of the solid waste determination of whether a secondary material is "abandoned material." This is the status that the material would have as hazardous waste. As the foregoing paragraphs have indicated, sludges and by-products that would be listed hazardous waste are "abandoned materials" when recycled. Sludges and by-products that only exhibit a characteristic of hazardous waste (*i.e.*, which would not be listed waste) are not "abandoned materials." *See* 40 C.F.R. 261.2(c) and table 1 (2009) (corresponding with 35 Ill. Adm. Code 721.102(c) and 721.Appendix Z. Thus, elements of the next level of

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C.F.R. 261.4(a)(17) (2009). This exclusion was added to the table in 1998. 63 Fed. Reg. 33782 (June 19, 1998).

inquiry—*i.e.*, whether the solid waste is hazardous waste—become an element in the solid waste determination.

Hazardous Waste Determination and Determination of Regulatory Status. The hazardous waste determination follows the solid waste determination. *See* 40 C.F.R. 261.3(a) (2009) (corresponding with 35 Ill. Adm. Code 721.103(a)). Much of the hazardous waste inquiries are beyond the direct scope of the DSWR amendments. Some elements, however, play a role at the level of exclusion from the definition of solid waste and in determining whether a secondary material is "abandoned material," and, hence, is solid waste.

This segment of discussion briefly outlines the hazardous waste determination and the consequences of a secondary material fulfilling a criterion for designation as hazardous waste. Important to the subject matter of this proceeding are two areas where the definition of hazardous waste plays a significant role in determining the status of secondary material as solid waste. These are (1) the solid waste determination sometimes requires consideration of elements of the hazardous waste determination procedure, since that status is an element of the "discarded material" analysis for some materials; and (2) the definition of "hazardous secondary material" requires that HSM would become hazardous waste if discarded.

This segment will conclude with an outline of the consequences of a secondary material being designated hazardous waste. This brief examination will provide further context for the solid waste determination and further highlight the importance of exclusion from the definition of solid waste.

Making Hazardous Waste Determinations. The hazardous waste determination follows a determination that a secondary material is solid waste. The opening statement of the definition of hazardous waste begins with the assertion that a solid waste is hazardous waste if certain conditions are fulfilled. *See* 40 C.F.R. 261.3(a) (2009) (corresponding with 35 Ill. Adm. Code 721.103(a)). After a determination that a material is solid waste, the generator must determine whether its "waste" is hazardous waste. 40 C.F.R. 262.11 (2009) (corresponding with 35 Ill. Adm. Code 722.111). The solid waste determination is the preliminary step of hazardous waste inquiry.[45]

USEPA has structured the hazardous waste determination into a sequence of determinations made in a specified order. The first segment of hazardous waste inquiry parallels the first segment of the solid waste inquiry. The second segment is whether the waste is characteristic hazardous waste. The third segment is whether the waste exhibits a characteristic of hazardous waste.

Initially, the generator must determine whether its solid waste is excluded from the definition of hazardous waste. 40 C.F.R. 262.11(a) (2009) (corresponding with 35 Ill. Adm.

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[45] There is no express language requiring a solid waste determination, but the obligation to make a solid waste determination is implied in the fact that a secondary material must be solid waste for the designation "hazardous waste" to apply.

Code 722.111(a)); *see* 40 C.F.R. 261.3(a)(1) (2009) (corresponding with 35 Ill. Adm. Code 721.103(a)(1)); *see also* 40 C.F.R. 261.31(a) and 261.32(a) (2009) (corresponding with 35 Ill. Adm. Code 721.131(a) and 721.132(a)) (hazardous waste listings reciting the exclusion language). The same provision that sets forth all but one[46] of the express exclusions from the definition of solid waste also sets forth the exclusions from the definition of hazardous waste. *See* 40 C.F.R. 261.4(b) (2009) (corresponding with 35 Ill. Adm. Code 721.104(b)).

There are 16 exclusions from the definition of hazardous waste. These exclusions range from exclusion of household hazardous waste, exclusion of specified materials used as fertilizers, and exclusion of certain mining and drilling wastes to specified chemical, mineral, and process wastes that fulfill certain requirements.[47] *See* 40 C.F.R. 261.4(b) (2009) (corresponding with 35 Ill. Adm. Code 721.104(b)). The generator must proceed with the hazardous waste inquiry if its solid waste that does not fulfill the conditions of one of these exclusions.[48] 40 C.F.R. 262.11(b) and (c) (2009) (corresponding with 35 Ill. Adm. Code 722.111(b) and (c)).

The second and third segments of the inquiry involve determinations whether one of two alternative conditions exist with regard to the waste. There are the two bases for designation as hazardous waste. These are that the waste is "listed hazardous waste," which is a waste specifically listed by USEPA as hazardous (*see* 40 C.F.R. 261, subpart D (2009) (corresponding with 35 Ill. Adm. Code 721.Subpart D) or that the waste is "characteristic waste" (*see* 40 C.F.R. 261, subpart C (2009) (corresponding with 35 Ill. Adm. Code 721.Subpart C). The inquiry

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[46] The one express exclusion is the non-land-based generator-reclaimed HSM exclusion, which is discussed above (at page 158 of this opinion). USEPA codified that one exclusion within the definition of solid waste. *See* 40 C.F.R. 261.2(a)(2)(ii) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B)).

[47] Two additional exclusions apply only to waste generated at specified facilities outside Illinois. *See* 40 C.F.R. 261.4(b)(17) and (b)(18) (2009) (corresponding with 35 Ill. Adm. Code 721.104(b)(17) and (b)(18)).

[48] One provision, which USEPA included in a section that sets forth exceptions from full regulation as hazardous waste for specified materials, generally excludes recycled used oil that is not characteristic hazardous waste from all of the hazardous waste requirements, including the provisions that require determination whether secondary materials are solid waste and hazardous waste. 40 C.F.R. 261.6(a)(4) (2009) (corresponding with 35 Ill. Adm. Code 721.106(a)(4)). All of the other exceptions in this section only go so far as to waive specific hazardous waste requirements, impose alternative requirements, or generally waive the hazardous waste management requirements. Those other exceptions still impose the requirements for solid waste hazardous waste identification. *See* 40 C.F.R. 261.6 (2009) (corresponding with 35 Ill. Adm. Code 721.106). To the extent that the recycled used oil exclusion requires compliance with the alternative used oil regulations of 40 C.F.R. 279 (corresponding with 35 Ill. Adm. Code 739), however, it is like all the other provisions in this section.

whether the waste is listed precedes inquiry into whether the waste exhibits a characteristic of hazardous waste.

The second segment of the hazardous waste inquiry is whether USEPA has listed the waste as hazardous waste. 40 C.F.R. 262.11(b) (2009) (corresponding with 35 Ill. Adm. Code 722.111(b)); 40 C.F.R. 261.2(a)(2)(ii) and 261.30(a) (2009) (corresponding with 35 Ill. Adm. Code 721.103(a)(2)(B) and 721.130(a)). There are six bases for USEPA listing a waste as hazardous. The first four bases are those used for designation of characteristic waste, discussed below. The two additional bases for USEPA listing a waste as hazardous waste are (1) acute toxicity (called "acute hazardous waste") and (2) the presence of hazardous constituents in the waste (called "toxic waste"). *See* 40 C.F.R. 261.11(a) (2009) (corresponding with 35 Ill. Adm. Code 721.111(a)); *see also* 40 C.F.R. 261.130(b) (2009) (indicating the six criteria for listing) (corresponding with 35 Ill. Adm. Code 721.130(b)).[49]

To date, USEPA has established four separate listings of hazardous waste.[50] The regulatory status of the waste does not significantly differ based on the listing in which USEPA included the waste, with the exception that USEPA has designated all of the wastes in the third listing as acute hazardous waste.[51] *See* 40 C.F.R. 261.33(e) (2009) (corresponding with 35 Ill. Adm. Code 721.133(e)).

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[49] Hazardous waste designated by USEPA by regulatory listing is sometimes known as "listed waste" or "listed hazardous waste." *See, e.g.,* 40 C.F.R. 260.22(d) (2009) (provision for facility-specific waste delistings) (corresponding with 35 Ill. Adm. Code 720.122(d)); 40 C.F.R. 261.3(b)(2) (2009) (hazardous waste "mixtures" rule, including mixtures of listed waste within the definition of hazardous waste) (corresponding with 35 Ill. Adm. Code 721.103(b)(2)); 40 C.F.R. 268.2(h) (2009) (defining "hazardous debris" for the purposes of the land disposal restrictions) (corresponding with 35 Ill. Adm. Code 728.102(h)); 40 C.F.R. 268.3(d) (2009) (prohibiting dilution as a form of waste treatment) (corresponding with 35 Ill. Adm. Code 728.103(d)); 73 Fed. Reg. at 64691 (discussing management of reclamation residuals that are hazardous waste); 50 Fed. Reg. at 633 (discussing exemption of hazardous waste burned for energy recovery from the definition of solid waste because it is not listed waste).

[50] USEPA publishes the rationale behind each listing decision that it makes. USEPA has done this in background documents or listing documents or in the *Federal Register* notice of adoption of the listing. *E.g.*, 45 Fed. Reg. at 33113 (the listings in the original hazardous waste rules); 65 Fed. Reg. 67068 (Nov. 8, 2000) (adopting listings for two wastes from the chlorinated aliphatic chemicals production industry and deciding not to list four other wastes from that industry). Access to this information can aid a petition for hazardous waste delisting. *See*, e.g., 50 Fed. Reg. 28702, 27 & n. 25, 40 (July 15, 1985) (explaining that USEPA must consider factors other than those for which it originally listed the waste).

[51] The major difference between acute hazardous waste and other hazardous waste is that the threshold quantities of waste that trigger various regulatory provisions is lower by three or four orders of magnitude for acute hazardous waste. *See, e.g.,* 40 C.F.R. 261.4(e) (2009) (exclusion of 10,000 kg of media contaminated with non-acute hazardous waste, 1,000 kg of non-acute

The first listing of hazardous waste includes wastes that USEPA has designated as from non-specific sources.[52] The wastes from non-specific sources include 26 wastes described by their chemical composition and/or the process that generated them. The tabular sub-heading for these wastes is "generic." 40 C.F.R. 261.31(a) (2009) (corresponding with 35 Ill. Adm. Code 721.131(a)).

The second listing includes hazardous waste that USEPA has designated as from specific sources.[53] This listing includes 121 wastes from specific sources described by the industrial process that generated them. USEPA grouped the wastes from specific sources by industry category and assigned each grouping an industry-specific sub-heading.[54] 40 C.F.R. 261.32(a) (2009) (corresponding with 35 Ill. Adm. Code 721.131(a)).

The third and fourth hazardous waste listings include the following secondary materials: commercial chemical products and manufacturing chemical intermediates, off-specification products that would have been such products and intermediates were they not off-specification, residues of these products and intermediates in containers, and contaminated soils and debris from the cleanup of spilled commercial chemical products and manufacturing chemical intermediates. *See* 40 C.F.R. 261.33(a)-(d) (2009) (corresponding with 35 Ill. Adm. Code 721.133(a)-(d)). The difference between the third and fourth listings of hazardous waste is in the regulatory status of the two listings. The third listing includes 123 chemical compounds and

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contaminated waste, or 1 kg of acute hazardous waste in samples for treatability studies) (corresponding with 35 Ill. Adm. Code 721.104(e)); 40 C.F.R. 261.5(e) (2009) (setting an upper limit of 100 kg of hazardous waste or 1 kg of acute hazardous waste generated per month to maintain status as a conditionally exempt small quantity generator) (corresponding with 35 Ill. Adm. Code 721.105(e)); 40 C.F.R. 262.34(c)(1) (2009) (allowing accumulation of up to 55 gallons of non-acute hazardous waste at an accumulation point, but only allowing accumulation of one quart of acute hazardous waste at a single accumulation point).

[52] Hazardous wastes listed by USEPA as from non-specific sources have a hazardous waste number that begins with "F." *See* 40 C.F.R. 261.31(a) (2009) (corresponding with 35 Ill. Adm. Code 721.131(a)).

[53] Hazardous wastes listed by USEPA as from non-specific sources have a hazardous waste number that begins with "K." *See* 40 C.F.R. 261.32(a) (2009) (corresponding with 35 Ill. Adm. Code 721.132(a)).

[54] The industry-specific sub-headings are "wood preservation;" inorganic pigments," "organic chemicals," "inorganic chemicals," "pesticides," "explosives," "petroleum refining," "iron and steel," "primary aluminum," "secondary lead," "veterinary pharmaceuticals," "ink formulation," and "coking." *See* 40 C.F.R. 261.32(a) (2009) (corresponding with 35 Ill. Adm. Code 721.132(a)). The table includes the additional sub-headings "primary copper," "primary lead," "primary zinc," and "ferroalloys," but not wastes are listed under these sub-headings. *See id.*

species, all of which are acute hazardous waste.[55] *See* 40 C.F.R. 261.33(e) (2009) (corresponding with 35 Ill. Adm. Code 721.133(e)). The fourth listing includes 248 chemical compounds and chemical species that are not acute hazardous waste.[56] *See* 40 C.F.R. 261.33(f) (2009) (corresponding with 35 Ill. Adm. Code 721.133(f)).

The second basis for designation as hazardous waste is that the waste exhibits a characteristic of hazardous waste. 40 C.F.R. 261.2(a)(2)(i) and 261.20(a) (2009) (corresponding with 35 Ill. Adm. Code 721.103(a)(2)(A) and 721.120(a)). The characteristics are ignitability, corrosivity, reactivity, and toxicity. The determinations of characteristics are based on a specified protocol and criteria. 40 C.F.R. 261, subpart C (2009) (corresponding with Subpart C of 35 Ill. Adm. Code 721).[57] As mentioned above, these characteristics of hazardous waste have acted as bases for USEPA listing wastes as hazardous.

The Role That Prospective Status as Hazardous Waste Plays in Solid Waste Determinations. The status that a secondary material would acquire as hazardous waste plays a significant role in the solid waste determination for some secondary materials. This is true of both the determination whether the secondary material is "discarded material" and the determination whether the HSM exclusions apply to the secondary material.

Under the "discarded material" segment of the definition of solid waste, whether a secondary material is "discarded material" (*i.e.*, whether the material is solid waste)—can

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[55] Hazardous wastes listed by USEPA as acute hazardous waste commercial chemical products and manufacturing chemical intermediates have a hazardous waste number that begins with "P." *See* 40 C.F.R. 261.33(e) (2009) (corresponding with 35 Ill. Adm. Code 721.133(e)).

[56] Hazardous wastes listed by USEPA as non-acute hazardous waste commercial chemical products and manufacturing chemical intermediates have a hazardous waste number that begins with "U." *See* 40 C.F.R. 261.33(f) (2009) (corresponding with 35 Ill. Adm. Code 721.133(f)).

[57] Characteristic hazardous wastes are designated by a USEPA hazardous waste number that begins with "D." *See* 40 C.F.R. 261.21(b), 261.22(b), 261.23(b) and 261.24(b) (2009) (corresponding with 35 Ill. Adm. Code 721.121(b), 721.122(b), 721.123(b) and 721.124(b)). Hazardous waste designated as such on the basis of exhibiting a characteristic of hazardous waste is sometimes called "characteristic waste." *See, e.g.,* 40 C.F.R. 268.1(e)(4) (2009) (excluding *de minimis* losses of characteristic waste from the land disposal restrictions) (corresponding with 35 Ill. Adm. Code 728.101(e)(4)); 40 C.F.R. 268.4(d) (2009) (prohibiting dilution of characteristic waste that contains lead) (corresponding with 35 Ill. Adm. Code 728.104(d)); 50 Fed. Reg. at 647 (discussing exemption of certain characteristic waste from the definition of solid waste). Alternatively, they are sometimes referred as exhibiting a "characteristic" or "hazardous characteristic." *See, e.g.,* 40 C.F.R. 260.43(c)(2)(iii), as added at 73 Fed. Reg. at 64759 (properties of the product of recycling as a factor for determining legitimacy of the recycling) (corresponding with 35 Ill. Adm. Code 720.143(c)(2)(C)); 40 C.F.R. 268.2(h) (2009) (defining "hazardous debris" for the purposes of the land disposal restrictions) (corresponding with 35 Ill. Adm. Code 728.102(h)).

depend on the status that the material would have as hazardous waste. As was discussed above (beginning at page 53 of this opinion), the fact that a sludge or by-product would be a characteristic waste or a listed waste or whether a secondary material would be a listed waste as a commercial chemical product can make a difference when determining whether it is "discarded material." *See* 40 C.F.R. 261.2(c) and table 1 (2009) (corresponding with 35 Ill. Adm. Code 721.102(c) and 721.Appendix Z).

The fact that a secondary material would be hazardous waste also figures into the HSM exclusions. The definition of "hazardous secondary material" provides as follows:

> Hazardous secondary material means a secondary material (*e.g.*, spent material, by-product, or sludge) that, when discarded, would be identified as hazardous waste under part 261 of this chapter. 40 C.F.R. 260.10 (2009) (corresponding with 35 Ill. Adm. Code 720.110).

Under this definition, the status as hazardous waste enters into the determination whether the material is HSM or not.

The applicability of the HSM exclusions relies on the status that the secondary material would have as hazardous waste. If the secondary material is not hazardous waste when discarded, the hazardous waste regulations would not apply. If the secondary material would be hazardous waste when discarded, it would not be regulated as hazardous waste because it is HSM that is excluded from the definition of solid waste.

While it might appear that there is little difference between two types of secondary material that escape hazardous waste regulation, the difference is significant. The secondary material that has escaped hazardous waste regulation because it was not "discarded material" escapes regulation under the hazardous waste rules. The secondary material that escapes hazardous waste regulation because it is excluded HSM can remain subject to significant regulation. As segments of this discussion indicate (at pages 86 and 156 below), conditions apply to many of the solid waste exclusions.

Table 5, which appears below (beginning at page 203 of this opinion), outlines the several exclusions from the definition of solid waste. The table indicates that the most significant conditions apply to HSM exclusions. Taking advantage of one of the self-implementing HSM exclusions can require compliance with significant conditions that resemble operational requirements. In fact, many segments of the HSM exclusions have the appearance of standards for material management. The most significant example is the off-site HSM reclamation facility that must comply with financial assurance requirements which closely resemble those that apply to hazardous waste T/S/D facilities. *Compare* 40 C.F.R. 261, subpart H (2009) (corresponding with 35 Ill. Adm. Code 721.Subpart H) with 40 C.F.R. 264, subpart H, 265, subpart H, 267, subpart H (2009) (corresponding with 35 Ill. Adm. Code 724.Subpart H, 725.Subpart H, 727.Subpart H).

Despite the significant burden of regulation that would apply to a reclaimed secondary material which is designated HSM because it would become hazardous waste when discarded,

the hazardous waste status of a secondary material plays only a secondary role. The primary, determining considerations relate to the factors that exclude the material from the definition of solid waste. These are whether the material undergoes legitimate reclamation,[58] who controls the reclamation process,[59] whether the reclamation occurs in land-based or non-land-based units,[60] and where the reclamation occurs.[61]

From the perspective of the material as hazardous waste, the burden of regulation that applies to excluded HSM is not to be contrasted against the burden that would apply were the material not "discarded material." Instead, the contrast should be against the rules that would apply were the material considered "discarded material" because it is "reclaimed." *See* 40 C.F.R. 261.2(a)(2)(ii), (c), and table 1 (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B), (c), and table 1). This is the status the secondary material would acquire were it not subject to the HSM exclusion.

Were HSM not excluded by one of the exclusions added by the 2008 DSWR amendments, it would be regulated as hazardous waste. The regulations would require that only a hazardous waste T/S/D facility (on-site or off-site) could reclaim (treat) the material. *See* 40 C.F.R. 261.6(a)(1), 264.1(b), 264.10(a), 265.1(b), and 265.10(a) (2009) (corresponding with 35 Ill. Adm. Code 721.106(a)(1), 724.101(b), 724.110(a), 725.101(b), and 725.110(a)). The regulations that apply to hazardous waste treatment are much more significant than those that apply to reclamation of excluded HSM. *Compare* 40 C.F.R. 264 and 265 (2009) (the hazardous waste T/S/D facility standards) *with* 40 C.F.R. 261.2(a)(2)(ii) and 261.4(a)(23), (a)(24), and (a)(25) (2009) (the four self-implementing exclusions for reclaimed HSM) (35 Ill. Adm. Code 724, 725, 721.102(a)(2)(B), and 721.104(a)(23), (a)(24), and (a)(25)).

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[58] "Reclamation" and "legitimate recycling" are both central to each of the HSM exclusions. 40 C.F.R. 260.34(b) and (c), 261.2(a)(2)(ii), and 261.4(a)(23), (a)(23)(v), (a)(24), (a)(24)(iv), and (a)(25) (2009) (corresponding with 35 Ill. Adm. Code 721.134(b) and (c), 721.102(a)(2)(ii), and 721.104(a)(23), (a)(23)(v), (a)(24), (a)(24)(iv), and (a)(25)).

[59] This is either the generator or a person other than the generator. 40 C.F.R. 261.2(a)(2)(ii), and 261.4(a)(23), (a)(24), and (a)(25) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(ii) and 721.104(a)(23), (a)(24), and (a)(25)).

[60] This is for generator-reclaimed HSM only. 40 C.F.R. 261.2(a)(2)(ii) and 261.4(a)(23) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(ii) and 721.104(a)(23)).

[61] *I.e.*, within the United States or outside the jurisdiction of the United States. 40 C.F.R. 261.2(a)(2)(ii), and 261.4(a)(23), (a)(23)(v), (a)(24), (a)(24)(iv), and (a)(25) (2009) (corresponding with 35 Ill. Adm. Code 721.134(b) and (c), 721.102(a)(2)(ii), and 721.104(a)(23), and (a)(25)). Although the exclusion for HSM domestically reclaimed at an off-site facility does not expressly require that the reclamation occur within the United States, the management requirements imposed on the reclamation facility presume location within the jurisdiction of USEPA. *See* 35 Ill. Adm. Code 261.4(a)(24)(vi) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)(F)).

Regulatory Consequences of the Hazardous Waste Determination. After a solid waste is determined a hazardous waste, the hazardous waste regulatory scheme includes subsequent determinations of regulatory status of the material. This final segment of discussion of the solid and hazardous waste determinations outlines those determinations and the regulatory consequences that follow. The determination that a material is hazardous waste is of secondary interest relative to the 2008 DSWR amendments, yet knowledge of the consequences of a material becoming hazardous waste highlights the importance of exclusion from regulation.

The determination that a solid waste is hazardous waste can subject those managing the waste to significant requirements. A person that generates, transports, stores, treats, or disposes of hazardous waste must notify the regulatory authorities of the location and nature of its hazardous waste activities. 42 U.S.C. 6930 (2006); *see* 40 C.F.R. 262.12, 263.11, 264.11, 265.11, and 267.12 (2009) (corresponding with 35 Ill. Adm. Code 722.112, 723.111, 724.111, 725.111, and 727.110(c) (facility identification number requirement for generators, transporters, permitted T/S/D facilities, interim status T/S/D facilities, and standardized permit T/S/D facilities, respectively). The hazardous waste regulations include standards for the generation (40 C.F.R. 262 (2009) (corresponding with 35 Ill. Adm. Code 722)); transportation (40 C.F.R. 263 (2009) (corresponding with 35 Ill. Adm. Code 723)); and treatment, storage, and disposal (40 C.F.R. 264-268 (2009) (corresponding with 35 Ill. Adm. Code 724-728)) of hazardous waste. Permits are required for hazardous waste T/S/D facilities, which can impose a significant operational and administrative burden. *See, e.g.*, 40 C.F.R. 270, subparts B and D (2009) (corresponding with 35 Ill. Adm. Code 703.Subparts D and G) (permit application and modification requirements).

The operational and permit requirements that apply to a facility depend on the nature of the owner's or operator's hazardous waste-related activity and the type and volume of waste involved. For example, there are standards that apply to the accumulation of the waste at the generator facility (40 C.F.R. 262, subpart C (2009) (corresponding with 35 Ill. Adm. Code 722.Subpart C)); there are requirements that apply to emergency preparedness at hazardous waste T/S/D facilities (40 C.F.R. 264, subparts C and D and 265, subparts C and D) (2009) (corresponding with 35 Ill. Adm. Code 724.Subparts C and D and 725.Subparts C and D)); and there are specialized requirements for types of equipment and facilities used to treat, store, or dispose of hazardous waste (*see, e.g.*, 40 C.F.R. 264, subparts J, L, and W (2009) (corresponding with 35 Ill. Adm. Code 724.Subparts J, L, and W) (relating to tanks, surface impoundments, and drip pads, respectively). Equally significant are a series of land disposal restrictions that apply to hazardous waste, which do not apply to non-hazardous wastes. *See* 40 C.F.R. 268, subparts C and D (2009) (corresponding with 35 Ill. Adm. Code 728.Subparts C and D).

The regulations further provide a reduced burden of compliance on various types of wastes, facilities, and activities. While significant requirements usually still apply in these special cases, they may not be the same requirements that apply to hazardous waste management generally.

One example relates to wastes that are generated in small quantities. Most of the general hazardous waste requirements do not apply to hazardous waste generated by a small quantity

hazardous waste generator. Only a subset of the requirements apply to this waste, which is called "conditionally exempt small-quantity generator waste," so long as the generator does not exceed a specified volume of waste generated in a single month. 40 C.F.R. 261.5 (2009) (corresponding with 35 Ill. Adm. Code 721.105).

Another series of examples relates to hazardous waste that is recycled.[62] Hazardous waste that is recycled is designated as "recyclable material." 40 C.F.R. 261.6(a)(1) (2009) (corresponding with 35 Ill. Adm. Code 721.106(a)(1)). The general T/S/D facility standards do not apply to facilities managing recyclable materials, except as segments of those standards are specifically applied to recycling the particular material. *See* 40 C.F.R. 264.1(g)(2) and 265.1(c)(6) (2009) (corresponding with 35 Ill. Adm. Code 724.101(g)(2) and 725.101(c)(6)). This series of examples is of particular interest in the context of this proceeding, since the recycled secondary materials that fail to escape definition as hazardous waste may fall within one of these categories.

Based on the specific regulations that apply, recyclable materials can be viewed as falling into six distinct categories. These categories are the following: (1) specifically excluded recyclable materials that are subject to no requirements other than the hazardous waste identification requirements of 40 C.F.R. 261 (corresponding with 35 Ill. Adm. Code 721); (2) specified recyclable materials that are subject to the specialized facility/specialized waste standards of 40 C.F.R. 266 (corresponding with 35 Ill. Adm. Code 726); (3) used oil regulated under 40 C.F.R. 279 (corresponding with 35 Ill. Adm. Code 739); (4) universal waste regulated under 40 C.F.R. 273 (corresponding with 35 Ill. Adm. Code 733); (5) hazardous waste that is exported for recycling; and (6) all other recyclable materials.

The specifically excluded wastes in the first category of recyclable materials are not subject to the hazardous waste management standards (except the identification of hazardous waste requirements of 40 C.F.R. 261 (corresponding with 40 C.F.R. 721). The first category embraces a limited number of specified hazardous wastes: (1) industrial ethyl alcohol that is reclaimed,[63] (2) non-excluded scrap metal,[64] and (3) certain fuels produced from oil-bearing

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[62] This does not include recycled materials that are excluded from the definition of solid waste, as discussed above (at pages 55 of this opinion).

[63] *See supra* note 28.

[64] Discussion of excluded scrap metal appears below (beginning on page 100 of this opinion). *See* 40 C.F.R. 261.1(c)(6) and (c)(9) and 261.2(c) and table 1 (2009) (corresponding with 35 Ill. Adm. Code 721.101(c)(6) and (c)(9), 721.102(c), and 721.Appendix Z) (definitions of "scrap metal" and "excluded scrap metal" and designation of non-excluded scrap metal as "discarded material").

hazardous wastes.[65] *See* 40 C.F.R. 261.6(a)(3) (2009) (corresponding with 35 Ill. Adm. Code 721.106(a)(3)).

The wastes in the second category of recyclable materials include specified recyclable materials for which USEPA has established specialized rules. These include materials that are used in a manner that constitutes disposal[66] (40 C.F.R. 261.6(a)(2)(i) and 266, subpart C (2009) (corresponding with 35 Ill. Adm. Code 721.6(a)(2)(A) and 266.Subpart C)); materials burned for energy recovery[67] (40 C.F.R. 261.6(a)(2)(ii) and 266, subpart H (2009) (corresponding with 35 Ill. Adm. Code 721.6(a)(2)(B) and 266.Subpart H)); those from which precious metals are extracted[68] (40 C.F.R. 261.6(a)(2)(iii) and 266, subpart F (2009) (corresponding with 35 Ill. Adm. Code 721.6(a)(2)(C) and 266.Subpart F)); and spent lead-acid batteries that are being reclaimed[69] (40 C.F.R. 261.6(a)(2)(iv) and 266, subpart G (2009) (corresponding with 35 Ill. Adm. Code 721.6(a)(2)(D) and 266.Subpart G)).

The third category of recyclable materials includes used oil that is hazardous waste based on characteristic (*i.e.*, the oil is not listed hazardous waste). None of the hazardous waste regulations apply to this used oil. Rather, the alternative standards of the used oil rules apply instead. 40 C.F.R. 261.6(a)(4) (2009) (corresponding with 35 Ill. Adm. Code 721.6(a)(4)). The used oil standards include requirements applicable to used oil generators (40 C.F.R. 279, subpart C (corresponding with 35 Ill. Adm. Code 739.Subpart C)), collection centers and aggregation points (40 C.F.R. 279, subpart D (corresponding with 35 Ill. Adm. Code 739.Subpart D)), transporters (40 C.F.R. 279, subpart E (corresponding with 35 Ill. Adm. Code 739.Subpart E)), processors and refiners (40 C.F.R. 279, subpart F (corresponding with 35 Ill. Adm. Code 739.Subpart F)), burners (40 C.F.R. 279, subpart G (corresponding with 35 Ill. Adm. Code

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[65] This includes fuel produced in the course of normal refinery operations and hazardous waste fuels that are produced in separate operations, but it does not include oil-bearing secondary materials that are excluded from the definition of solid waste by 40 C.F.R. 261.4(a)(12) (corresponding with 35 Ill. Adm. Code 721.104(a)(12)). *See* 40 C.F.R. 261.6(a)(3)(iii) and (a)(3)(iv) (2009) (corresponding with 35 Ill. Adm. Code 721.106(a)(3)(C) and (a)(3)(D)) Refer to Table 2 (on page 165 of this opinion) for an outline of the oil-bearing waste exclusion.

[66] Designated "discarded material" in the definition of solid waste, as discussed above (beginning at page 39 of this opinion). *See* 40 C.F.R. 261.2(c)(1) (2009) (corresponding with 35 Ill. Adm. Code 721.102(c)(1)).

[67] Designated "discarded material" in the definition of solid waste, as discussed above (beginning at page 39 of this opinion). *See* 40 C.F.R. 261.2(c)(2) (2009) (corresponding with 35 Ill. Adm. Code 721.102(c)(2)).

[68] See the discussion of "legitimate recycling" below (beginning at page 92 of this opinion).

[69] A person managing spent lead-acid batteries may alternatively choose to manage the batteries as "universal waste," depending on the nature of the recycling activity engaged in. *See* 40 C.F.R. 266.80 and 273.2 (2009) (corresponding with 35 Ill. Adm. Code 726.180 and 733.102)).

739.Subpart G)), and marketers (40 C.F.R. 279, subpart H (corresponding with 35 Ill. Adm. Code 739.Subpart H)).

The fourth category of recyclable materials is "universal waste." Universal waste is hazardous waste that USEPA has designated as such. To date, USEPA has designated four categories of "universal waste": (1) batteries, (2) pesticides, (3) mercury-containing equipment, and (4) lamps. 40 C.F.R. 273.1(a) and 273.9 (definition of "universal waste") (2009) (corresponding with 35 Ill. Adm. Code 733.101(a) and 733.9). USEPA has recited the factors that it considers when designating "universal waste." These include the fact that the waste is generated by a wide variety of generators and by various industries, frequently in small quantities. The factors further include consideration whether regulation as "universal waste" will divert significant quantities of the waste from non-hazardous waste management systems and whether the waste can be accumulated, transported, and managed as "universal waste" in a way that is protective of human health and the environment. 40 C.F.R. 273.81 (2009) (corresponding with 35 Ill. Adm. Code 733.181).

The universal waste requirements apply in lieu of the hazardous waste regulations to "universal waste." 40 C.F.R. 273.1(b) (2009) (corresponding with 35 Ill. Adm. Code 733.101(b)). The universal waste rules impose requirements on small-quantity and large-quantity generators (40 C.F.R. 273, subparts B and C (corresponding with 35 Ill. Adm. Code 733.Subparts B and C), transporters (40 C.F.R. 273, subpart D (corresponding with 35 Ill. Adm. Code 733.Subpart D), and destination facilities (40 C.F.R. 273, subpart E (corresponding with 35 Ill. Adm. Code 733.Subpart E). Destination facilities are subject to the generally applicable hazardous waste T/S/D facility standards. 40 C.F.R. 273.60(a) (2009) (corresponding with 35 Ill. Adm. Code 733.160(a)).

The fifth category of recyclable materials are those exported from the United States to an Organization for Economic Cooperation and Development (OECD) country for recycling. The hazardous waste generator standards include requirements for export of hazardous waste. *See* 40 C.F.R. 262, subpart H (corresponding with 35 Ill. Adm. Code 722.Subpart H). Those export requirements apply to recyclable materials that are subject to either the hazardous waste manifest requirements (40 C.F.R. 262, subpart B (corresponding with 35 Ill. Adm. Code 722.Subpart B)) or to the universal waste standards (40 C.F.R. 273 (corresponding with 35 Ill. Adm. Code 733)).

The sixth category of recyclable materials includes all other recyclable materials. Reclaimed secondary materials that are not excluded from the definition of solid waste fall into this category. The generator and transporter of these non-specified recyclable materials must comply with the RCRA notification requirement of section 3010 of RCRA (42 U.S.C. 6930 (2006)) and the applicable hazardous waste generator and transporter requirements (40 C.F.R. 262 and 263 (corresponding with 35 Ill. Adm. Code 722 and 723)). 40 C.F.R. 261.6(b) (2009) (corresponding with 35 Ill. Adm. Code 721.106(b)). The recycling facility, however, must comply with T/S/D facility standards only if it stores the recyclable materials before they are recycled. 40 C.F.R. 261.6(a)(1) and (c)(1) (2009) (corresponding with 35 Ill. Adm. Code 721.106(a)(1) and (c)(1)).

If the recycling facility does not store reclaimable material before recycling, very limited segments of the hazardous waste T/S/D facility standards apply to the facility. The specific requirements that apply are the hazardous waste notification requirements (42 U.S.C. 6930 (2006)), the hazardous waste manifest requirements (40 C.F.R. 265.71 and 265.72 (2009) (corresponding with 35 Ill. Adm. Code 725.171 and 725.172)), and, if the facility is subject to the RCRA permit requirements, the air emission control requirements applicable to process vents and equipment leaks (40 C.F.R. 264, subpart AA or BB or 265, subpart AA or BB (corresponding with 35 Ill. Adm. Code 264.Subpart AA or BB or 265, subpart AA or BB). 40 C.F.R. 261.6(c)(2) and (d) (2009) (corresponding with 35 Ill. Adm. Code 721.106(c)(2) and (d)). The regulations do not generally apply to the recycling process itself, but only the air emission control requirements applicable to process vents and equipment leaks (40 C.F.R. 264, subpart AA or BB or 265, subpart AA or BB (corresponding with 35 Ill. Adm. Code 264.Subpart AA or BB or 265, subpart AA or BB). *See* 40 C.F.R. 261.6(c)(1) and (d) (2009) (corresponding with 35 Ill. Adm. Code 721.106(c)(1) and (d)); 50 Fed. Reg. at 643.

If the recycling facility stores reclaimable material before recycling, more extensive segments of the T/S/D facility standards relating to storage apply to the facility. The specific requirements that apply are the hazardous waste notification requirements (42 U.S.C. 6930 (2006)); the RCRA permit requirements (40 C.F.R. 270 (corresponding with 35 Ill. Adm. Code 702 and 704)); and most of the substantive T/S/D facility requirements.[70] Indeed, the list of

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[70] The applicable requirements are the T/S/D facility general provisions (40 C.F.R. 264, subpart A or 265, subpart A (corresponding with 35 Ill. Adm. Code 724.Subpart A or 725.Subpart A)); the general facility standards (40 C.F.R. 264, subpart B or 265, subpart B (corresponding with 35 Ill. Adm. Code 724.Subpart B or 725.Subpart B)); the preparedness and prevention provisions (40 C.F.R. 264, subpart C or 265, subpart C (corresponding with 35 Ill. Adm. Code 724.Subpart C or 725.Subpart C)); the contingency plan and emergency preparedness procedures provisions (40 C.F.R. 264, subpart D or 265, subpart D (corresponding with 35 Ill. Adm. Code 724.Subpart D or 725.Subpart D)); the manifest system, recordkeeping, and reporting requirements (40 C.F.R. 264, subpart E or 265, subpart E (corresponding with 35 Ill. Adm. Code 724.Subpart E or 725.Subpart E); the hazardous waste releases requirements (40 C.F.R. 264, subpart F or 265, subpart F (corresponding with 35 Ill. Adm. Code 724.Subpart F or 725.Subpart F)); the closure and post-closure care requirements (40 C.F.R. 264, subpart G or 265, subpart G (corresponding with 35 Ill. Adm. Code 724.Subpart G or 725.Subpart G)); the financial responsibility requirements (40 C.F.R. 264, subpart H or 265, subpart H (corresponding with 35 Ill. Adm. Code 724.Subpart H or 725.Subpart H)); the requirements for management of containers (40 C.F.R. 264, subpart I or 265, subpart I (corresponding with 35 Ill. Adm. Code 724.Subpart I or 725.Subpart I)); the requirements for tank systems (40 C.F.R. 264, subpart K or 265, subpart K (corresponding with 35 Ill. Adm. Code 724.Subpart K or 725.Subpart K)); the waste pile requirements (40 C.F.R. 264, subpart L or 265, subpart L (corresponding with 35 Ill. Adm. Code 724.Subpart L or 725.Subpart L)); the air emissions requirements applicable to process vents, equipment leaks, and tanks, surface impoundments, and containers (40 C.F.R. 264, subparts AA, BB, and CC or 265, subparts AA, BB, and CC (corresponding with 35 Ill. Adm. Code 724.Subparts AA, BB, and CC or 725.Subparts AA, BB, and CC)).

T/S/D facility requirements that do not apply to a facility recycling recyclable materials is much shorter than the list of those that do.[71]

The analytical sequence put forward by USEPA at the time of the 1985 DSWR amendments has changed since, but only to accommodate additional bodies of specialized regulations, like the universal waste rule, the used oil rules, and exports to OECD countries. *See* 40 C.F.R. 261.6(a)(3)(iii), (a)(3)(iv), (a)(4), and (a)(5) (2009) (corresponding with 35 Ill. Adm. Code 721.6(a)(3)(C), (a)(3)(iv), (a)(4), and (a)(5)). The bottom line of the analytical sequence, however, has remained the same: if recyclable materials do not fall within a body of specialized regulations, the generator and transporter standards apply to the material, but the only significant T/S/D facility standards that apply to the recycling are the storage-related provisions. *See* PC 1.

It is noteworthy that the distinction between use or reuse and reclamation, which was so important in the context of the definition of solid waste, is not made at this point.[72] While this distinction is important for the purposes of the definition of solid waste and exclusion from the definition of solid waste, it is immaterial once the material is designated hazardous waste.[73]

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[71] The requirements that do not apply are the land treatment unit requirements (40 C.F.R. 264, subpart M or 265, subpart M (corresponding with 35 Ill. Adm. Code 724.Subpart M or 725.Subpart M))—principally because land-based recycling is "use constituting disposal," which is governed by specialized rules (40 C.F.R. 261.6(a)(2)(i) (2009) (corresponding with 35 Ill. Adm. Code 721.106(a)(2)(A)); *see* 40 C.F.R. 266, subpart C (2009) (corresponding with 35 Ill. Adm. Code 726.Subpart C)); the hazardous waste incinerator requirements (40 C.F.R. 264, subpart O or 265, subpart O (corresponding with 35 Ill. Adm. Code 724.Subpart O or 725.Subpart O))—principally because incineration is "burning for energy recovery," which is governed by specialized rules (40 C.F.R. 261.6(a)(2)(ii) (2009) (corresponding with 35 Ill. Adm. Code 721.106(a)(2)(B); *see* 40 C.F.R. 266, subpart C (2009) (corresponding with 35 Ill. Adm. Code 726.Subpart C)), unless the unit burning the recyclable material is an incinerator that is regulated under the hazardous waste incinerator requirements; the thermal treatment requirements (40 C.F.R. 265, subpart P (corresponding with 35 Ill. Adm. Code 725.Subpart P)); the standards for chemical, physical, and biological treatment (40 C.F.R. 265, subpart Q (corresponding with 35 Ill. Adm. Code 725.Subpart Q)); the underground injection provision (40 C.F.R. 265, subpart R (corresponding with 35 Ill. Adm. Code 725.Subpart R)); the corrective action management unit and temporary unit requirements (40 C.F.R. 264, subpart S (corresponding with 35 Ill. Adm. Code 724.Subpart S)); the drip pad requirements (40 C.F.R. 264, subpart W or 265, subpart W (corresponding with 35 Ill. Adm. Code 724.Subpart W or 725.Subpart W)); and the miscellaneous units standards (40 C.F.R. 264, subpart X (corresponding with 35 Ill. Adm. Code 724.Subpart X))

[72] Except with regard to materials from which precious metals are being recovered and spent lead-acid batteries that are being reclaimed. *See* 40 C.F.R. 261.6(a)(2)(iii) and (a)(2)(iv) (2009) (corresponding with 35 Ill. Adm. Code 721.6 (a)(2)(C) and (a)(2)(D)).

[73] The above discussions of the distinctions between "recycling" and "reclamation" (beginning on page 27 of this opinion) and the definition of solid waste (beginning on page 38 of this opinion) highlight the difference in regulatory impact under the definition of solid waste.

Further, even though a recyclable material is reclaimed, that reclamation facility can escape the major burden of hazardous waste regulation if it does not store the recyclable material before recycling. The greatest beneficiary of this provision may be the hazardous waste generator that engages in reclaiming its own waste. The generator would have available a 90 day accumulation period to recycle the waste before being deemed to have stored the waste. *See* 40 C.F.R. 262.34 (2009) (corresponding with 35 Ill. Adm. Code 722.134); *see also* 50 Fed. Reg. 452 n. 42. The 2008 DSWR amendments, however, affected this aspect of the regulations significantly. An HSM that is excluded is not a solid waste. If the HSM is not solid waste, it is not hazardous waste, so the HSM cannot be a recyclable material. Thus, the recyclable materials provisions (40 C.F.R. 261.6 (corresponding with 35 Ill. Adm. Code 721.6)) do not apply to excluded HSM. Analysis of the conditions that apply to excluded HSM in the following discussion will provide a basis for understanding whether the HSM exclusions added by the 2008 DSWR amendments impose a lighter or heavier burden of compliance on reclaimed materials.

The New Reclamation-Based Exclusions of HSM from the Definition of Solid Waste. Prior discussion introduced the six new exclusions from the definition of solid waste added by the 2008 DSWR amendments (beginning on page 12 of this opinion). Four of the new exclusions are self-implementing. Two of the self-implementing exclusions, which the Board has called the "generator-reclaimed HSM exclusions," apply to HSM reclaimed by the generator of the HSM. The two other self-implementing exclusions, which the Board has called the "independently reclaimed HSM exclusions" apply to HSM that are shipped by the generator for reclamation by another person. The Board has designated these as conceptual category 2 express exclusions in the discussion above (at page 50 of this opinion). Two additional HSM exclusions are available by case-by-case administrative determinations, called "non-waste determinations." The Board assigned those as conceptual category 5 case-by-case exclusions in the discussion above (at page 57 of this opinion). All six of the new exclusions pertain to reclamation of HSM.

Having examined the regulatory context into which USEPA added these new exclusions, the following discussion considers these exclusions in detail. The first discussion segment considers the elements that are common among four self-implementing exclusions. This includes consideration of some of the more fundamental aspects of HSM exclusions, including materials that are excepted from the exclusions, the "legitimacy" requirement, the prohibition against speculative accumulation, the "contained" requirement, and the notification requirement.

The second discussion segment considers each of the four self-implementing conditions. This discussion has three parts. The first part briefly considers what is a generator of HSM, and what is "under the control of the generator." The second part discusses the two generator-reclaimed HSM exclusions. The third part considers the two independently reclaimed HSM exclusions.

The third discussion segment considers those available by a non-waste determination. This includes discussion of the following topics: (1) the bases for an administrative non-waste determination, consideration whether the non-waste determination should be combined with the existing "solid waste determination," (2) the information requirements that USEPA has set forth for the petition for a non-waste determination, and (3) the Board's selection of the adjusted standard procedure for making non-waste determinations.

The Universal Conditions to the Self-Implementing HSM Exclusions. Conditions attach to each of the four self-implementing HSM exclusions. Many of the conditions act as the threshold for exclusion, and others appear to be constraints of operating under each of the exclusions. As is discussed more fully below (beginning on page 136 of this opinion), USEPA has made it clear that some of the conditions act as conditions precedent for exclusion of HSM. On the other hand, USEPA has stated that at least one is only an operating requirement whose non-fulfillment does not affect the regulatory status of the HSM as excluded from the definition of solid waste.

Some conditions are common among all four of the reclaimed HSM exclusions. The Board has called these common conditions "universal conditions" in the following discussions. Examples of the universal conditions, presented here without citation but set forth more fully in the more detailed examination of the new exclusions in the ensuing discussions, are the following requirements:

- The requirement that the HSM must not be subject to another self-implementing exclusion from the definition of solid waste;

- The requirement that the HSM cannot be lead-acid batteries or USEPA hazardous waste numbers K171 or K172;[74]

- The requirement that the reclamation of the HSM must be "legitimate recycling";

- The requirement that the HSM must not be "speculatively accumulated";

- The requirement that the HSM must be "contained" before and during reclamation; and

- The requirement that the generator of the HSM, the reclaimer, and any intermediate facility submit notification of their activities to USEPA prior to beginning reclamation of the HSM.

Other conditions are shared by two of the exclusions. Examples of conditions shared between two exclusions, presented here without citation, are those applicable to the two generator-reclaimed HSM exclusions. These require that (1) the HSM is generated and reclaimed under the control of the generator; and (2) the generation and reclamation both occur within the United States and its territories.

Other conditions are unique to a particular exclusion. An example of a condition that is unique to a single exclusion, more fully presented below with citations, is the imposition of financial assurance requirements on any off-site reclamation or intermediate facility that processes HSM within the United States. Another condition is that the State Department notice

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[74] Spent hydrotreating catalyst and spent hydrorefining catalyst, respectively, from petroleum refining.

to the government of the receiving country is required before export of HSM from the United States is permissible—quite similar to what is required for exports of hazardous waste.

The discussion of the self-implementing HSM exclusions begins below with consideration of each of these universal conditions in turn. These are the requirements that (1) certain specified materials cannot be HSM[75]; (2) the secondary material must be legitimately recycled; (3) speculative accumulation is prohibited; (4) the HSM must be contained; and (5) that generators, intermediate facilities, and reclaimers submit notification to USEPA prior to commencing reclamation under the exclusion. The Board has prefaced the discussions with a brief segment on the limitations on exclusion that derive from the definition of solid waste, rather than from an express condition on exclusion.

Limitations Imposed by the Definition of Solid Waste. The definition of solid waste precludes exclusion of certain, specified secondary materials. 40 C.F.R. 261.2(e)(2) (corresponding with 35 Ill. Adm. Code 721.102(e)(2)). These are inherently waste-like materials as designated in 40 C.F.R. 261.2(d) (corresponding with 35 Ill. Adm. Code 721.102(d)); materials that are used in a manner that constitutes disposal or which are used to make a product that is applied to or placed on land, as described in 40 C.F.R. 261.2(c)(1) (corresponding with 35 Ill. Adm. Code 721.102(c)(1); and materials that are burned for energy recovery or which are used to produce a fuel, as described in 40 C.F.R. 261.2(c)(2) (corresponding with 35 Ill. Adm. Code 721.102(c)(2). 73 Fed. Reg. at 64669-70. The exceptions are commercial chemical products that are placed on or applied to land or which are burned for energy recovery or used to produce a fuel, and that is their normal mode of use. 40 C.F.R. 261.2(c)(1)(ii) and (c)(2)(ii) (2009) (corresponding with 35 Ill. Adm. Code 721.102(c)(1)(B) and (c)(2)(B))

These exceptions appear within the definition of solid waste, not within the conditions on exclusion of HSM. The reclaimed HSM exclusions also include express exceptions that cannot be excluded from definition as solid waste. Those exceptions appear within two conditions imposed on the four self-implementing exclusions. The exception of these materials is the first of the universal conditions.

The Excepted Materials. One universal condition for exclusion is that the HSM may not be any of a limited number of designated substances. The HSM exclusions are unavailable for these substances. Basically, USEPA excepts three types of materials from consideration as excluded HSM.

The first type of excepted material is HSM that is already excluded from the definition of solid waste by 35 Ill. Adm. Code 261.4(a) (corresponding with 35 Ill. Adm. Code 721.104(a)). 40 C.F.R. 261.2(a)(2)(ii) and 261.4(a)(23)(iii), (a)(24)(i), and (a)(25) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B) and 721.104(a)(23)(iv), (a)(24)(iii), and (a)(25)). USEPA

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[75] The Board has combined consideration of the materials specifically excepted from exclusion with consideration of the materials that are excepted from exclusion because they are the subject of other, pre-existing exclusions from the definition of solid waste.

stated that it did not wish to affect the status of the existing exclusions from the definition of solid waste. USEPA stated as follows:

> The final rule will not supersede any of the current exclusions or other prior solid waste determinations or variances . . . . If a hazardous secondary material has been determined not to be a solid waste, for whatever reason, such a determination will remain in effect, unless the regulatory agency decides to revisit the regulatory determination under their current authority. 73 Fed. Reg. 64713.

Later in the *Federal Register* discussion, USEPA elaborated two primary reasons for this. First, USEPA felt that an HSM exclusion would either not apply or would offer no benefit not already conferred by the existing exclusion.

> Under today's final rule, if a hazardous secondary material is subject to material-specific management conditions under 40 [C.F.R.] 261.4(a) when reclaimed, such a material is not eligible for the final rule exclusions. For most of the exclusions in 40 [C.F.R.] 261.4(a)[76], this provision will have no practical effect because the current exclusion either (1) has no conditions, (2) has conditions that overlap with those of the final rule exclusions (*i.e.*, no speculative accumulation, or land disposal), (3) does not involve reclamation, or (4) involves hazardous secondary materials burned for energy recovery or used in a manner constituting disposal. *Id* (footnote and citation omitted).

Second, USEPA felt the conditions that apply to the existing specific-material exclusions were more suitable than the more general exclusions for HSM.

> The exclusions in 40 [C.F.R.] 261.4(a) that are for a specific material[77] and include conditions that are more specific than those included for the exclusions being finalized today . . . . For each of these cases, [US]EPA has made a material-specific determination of when such a material is not discarded and therefore not a solid waste and such a determination is more appropriately applied to these materials than the general conditions of today's final rule. *Id* at 64713-14 (citations omitted).

With one of these material-specific exclusions, however, USEPA found an area where an HSM exclusion could apply. This is the special instance of wood preserving waste. The existing exclusion applies only to on-site generator-controlled reclamation. Where the waste is shipped off-site, USEPA stated that an HSM exclusion could apply. *Id*. (citing the wood preserving

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[76] USEPA cited 40 C.F.R. 261.4(a)(1)-(a)(7), (a)(10)-(a)(13), (a)(15)-(a)(16), (a)(18), and (a)(20)-(a)(21) (corresponding with 35 Ill. Adm. Code 721.104(a)(1)-(a)(7), (a)(10)-(a)(13), (a)(15)-(a)(16), (a)(18), and (a)(20)-(a)(21)) in this regard.

[77] USEPA cited 40 C.F.R. 261.4(a)(9), (a)(14), (a)(17), (a)(19), and (a)(22) (corresponding with 35 Ill. Adm. Code 721.104(a)(9), (a)(14), (a)(17), (a)(19), and (a)(22)) in this regard.

exclusion of 40 C.F.R. 261.4(a)(9) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(9))).

USEPA found that only one of the existing exclusions would allow alternative use of an HSM exclusion. This was the only exclusion for which USEPA did not specifically enunciate a reason for not allowing exclusion under an HSM exclusion.[78] This exclusion is called the "closed-loop exclusion," codified at 40 C.F.R. 261.4(a)(8) (corresponding with 35 Ill. Adm. Code 721.104(a)(8)). USEPA stated that a generator operating under the closed-loop exclusion could alter its process slightly and take advantage of an HSM exclusion, as follows:

> Finally, the closed-loop exclusion 40 CFR 261.4(a)(8) is not specific to a material, but rather identifies a recycling process. * * * [C]losed loop recycling is a subset of materials reclaimed in a continuous industrial process, since materials may be reclaimed in a continuous process outside of a closed loop system. * * * Today's exclusions . . . allow any hazardous secondary materials to be excluded if reclamation meets the restrictions and/or conditions set forth in the rules. Thus, a facility currently engaged in closed-loop recycling could change their processes and still be excluded, as long as all applicable restrictions and/or conditions are met. *Id* (citation omitted).

The second type of material excepted from the HSM exclusions is secondary materials that fulfill the listing description for K171 or K172 waste. 40 C.F.R. 261.2(a)(2)(ii) and 261.4(a)(23)(iii), (a)(24)(i), and (a)(25) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B) and 721.104(a)(23)(D), (a)(24)(C), and (a)(25)). K171 listed waste is spent hydrotreating catalyst from petroleum refining, and K172 waste is spent hydrorefining catalyst from petroleum refining. *See* 40 C.F.R. 261.32(a) (2009) (corresponding with 35 Ill. Adm. Code 721.132(a)). USEPA stated that these materials can present unique hazards,[79] and a future rulemaking will separately consider conditional exclusion of these two materials. 73 Fed. Reg. at 64714.

The third type of material excepted from the HSM exclusions is spent lead-acid batteries. 40 C.F.R. 261.2(a)(2)(ii) and 261.4(a)(23)(iii), (a)(24)(i), and (a)(25) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B) and 721.104(a)(23)(D), (a)(24)(C), and (a)(25)). Such batteries are already regulated under the waste-specific standards (40 C.F.R. 266, subpart G (corresponding with 35 Ill. Adm. Code 726.Subpart G)) or the universal waste rule (40 C.F.R. 273.2 (corresponding with 35 Ill. Adm. Code 733.102)). USEPA stated that these regulations are not exclusions, but are actually hazardous waste rules which are effectively working to assure recycling of spent lead-acid batteries. USEPA believes that the unique character of these batteries requires continued regulation as hazardous waste. 73 Fed. Reg. at 64714.

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[78] *See supra* notes 76 and 77 and accompanying text.

[79] These materials are toxic, and they display pyrophoric properties. 73 Fed. Reg. at 64714.

Legitimate Recycling Is Required. The second universal condition imposed on all of the HSM exclusions is that the reclaimed HSM must be "legitimately recycled" 40 C.F.R. 261.2(a)(2)(ii) and 261.4(a)(23)(v), (a)(24)(vi), and (a)(25) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B) and 721.104(a)(23)(E), (a)(24)(F), and (a)(25)). The "legitimacy rule," codified by the 2008 DSWR amendments, is one of the most important conditions imposed on the exclusion of reclaimed HSM.

The "legitimacy rule" is derived from a long-standing USEPA policy against "sham recycling." 73 Fed. Reg. at 64670. USEPA has long regarded "sham recycling"[80] as the opposite of "legitimate recycling." The *Federal Register* discussion of "sham recycling" accompanying the 1985 DSWR amendments gave the following examples of "sham recycling": (1) the use of materials that contain hazardous constituents where those constituents do not contribute to the use; (2) the use of material that provides an excess of hazardous constituents over what is normally needed for the process; and (3) a use where the hazardous constituents actually detract from the process. 50 Fed. Reg. at 638.

USEPA asserted that the new "legitimacy rule" represents policies and guidance pursued by USEPA prior to the 2008 amendments, as follows:

> The concept of legitimacy being finalized in today's rule as a restriction or a condition for the final exclusions and the non-waste determinations is not substantively different from [USEPA]'s longstanding policy that has been expressed in our earlier preamble discussions and policy statements. 73 Fed. Reg. at 64700.

As the following discussions indicate, the "legitimacy determination" arose with the 1985 DSWR amendments and evolved over the years. While the new "legitimacy rule" has its roots in the older "legitimacy determination," the new rule represents a shift in focus that places greater emphasis on the economics of recycling a particular secondary material.

For the purposes of distinction in the following discussions, the Board calls the test for making the uncodified USEPA policy for making the distinction between "legitimate recycling" and "sham recycling" the "legitimacy determination." The "legitimacy determination" still underlies all exclusions from the definition of solid waste that predate the 2008 amendments, and the "legitimacy determination" remains significant in determining whether any recycling other than reclamation of HSM is "legitimate recycling." 73 Fed. Reg. at 64707-08. The Board calls the codified test for making the determination the "legitimacy rule." The "legitimacy rule" applies exclusively to determining whether reclamation of HSM under one of the exclusion added by the 2008 DSWR amendments is "legitimate recycling."

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[80] USEPA actually used the term "sham use." It is to be remembered that "use or reuse" were the only forms of recycling excluded from the definition of solid waste by the 1985 DSWR amendments.

The Inception of the Legitimacy Inquiry. In the preamble discussion of the 2008 DSWR amendments, USEPA summarized the history of development of the "legitimacy rule." USEPA stated that the concept of "legitimacy" originated in the preamble discussion of the 1985 DSWR amendments. *Id*. There, USEPA discussed distinguishing "legitimate recycling" from "sham situations," and USEPA outlined considerations for making the distinctions. *See* 50 Fed. Reg. at 638. The preamble to the 2008 amendments explained the importance of the distinction between "legitimate recycling" and "sham recycling," as follows:

> Under the RCRA Subtitle C definition of solid waste, many existing hazardous secondary materials are not solid wastes and, thus, not subject to RCRA's "cradle to grave" management system if they are recycled. The basic idea behind this construct is that recycling of such materials often closely resembles normal industrial manufacturing rather than waste management. However, since there can be a significant economic incentive to manage hazardous secondary materials outside the RCRA regulatory system, there is a potential for some handlers to claim that they are recycling, when, in fact, they are conducting waste treatment and/or disposal in the guise of recycling. To guard against this, [US]EPA has long articulated the need to distinguish between "legitimate" ([*i.e.*], true) recycling and "sham" ([*i.e.*], fake) recycling, beginning with the preamble to the 1985 regulations that established the definition of solid waste . . . . 73 Fed. Reg. at 64700 (footnote omitted).

In the earlier 1985 DSWR amendments, USEPA discussed the same principle of economics prompting sound management of secondary materials in different terms. Rather than discussion of the "legitimacy" of recycling, USEPA discussed the bounds of its RCRA authority:

> [USEPA] has [previously] determined that it is necessary to regulate hazardous waste storage in order to protect human health and the environment. . .. These prior findings are relevant to the question of regulating hazardous waste storage before recycling. There is a risk, as stated above, that spills and leaks of hazardous waste will occur, even if the wastes eventually will be recycled. Spills and leaks are the principal example of uncontrolled hazardous waste releases from storage and thus ordinarily require regulatory control. [USEPA] is persuaded that its existing findings [that recycled secondary materials must be managed as hazardous waste] are valid for hazardous wastes stored before recycling except in those situations in which wastes are so economically valuable that there is an economic imperative to avoid release. 50 Fed. Reg. at 618; *see also* 50 Fed. Reg. at 648 (*re* conditional exemption for reclamation of precious metals-containing secondary materials).

It is clear that economic considerations are important, whether USEPA is discussing the bounds of its authority under RCRA to regulate recycled secondary materials or the legitimacy of a recycling operation. That a secondary material has economic value can indicate the positive contribution that it is making to the recycling. In the parlance of the context, economic value can indicate whether "legitimate recycling" is occurring.

There are other considerations, however, that could act as indicators of value. USEPA discussed these in the preamble to the 1985 DSWR amendments. Interesting to note is the fact that most of these considerations are also related to the value of the secondary material to the recycling process, even though they are not couched in terms of the economic value of the reclaimed material:

> First, where a secondary material is ineffective or only marginally effective for the claimed use, the activity is not recycling but surrogate disposal. An example (provided in comments) is use of certain heavy metal sludges in concrete. The sludges did not contribute any significant element to the concrete's properties, and so we would not regard this activity as legitimate recycling.
>
> A second example of sham use occurs when secondary materials are used in excess of the amount necessary for operating a process. Examples are when secondary materials which contain chlorine are used as ingredients in a process requiring chlorine but are used in excess of the chlorine levels required. An indication that secondary materials are *not* being used in excess is if the recycler requires product specifications on incoming secondary materials, and these specifications are in accord with those generally in use in the industry.
>
> Another indication that a claimed recycling use is a sham is if the secondary material is not as effective as what it is replacing. Conversely, where the secondary material is as effective as the alternative virgin material, the activity is much more likely to be considered legitimate recycling. Spent pickle liquor, for example, is known to be as effective as virgin materials when used as a phosphorous precipitant in wastewater treatment. This reuse is legitimate. A secondary material considerably less effective, however, could well be viewed as not being used legitimately.
>
> Absence of records regarding the recycling transaction is another indication of a sham situation. Records ordinarily are kept documenting use of raw materials and products. Records likewise are usually retained to document secondary material use and reuse. [USEPA] consequently views with skepticism situations where secondary materials are ostensibly used and reused but the generator or recycler is unable to document how, where, and in what volumes the materials are being used and reused. The absence of such records in these situations consequently is evidence of sham recycling.
>
> A final indication of sham use is if the secondary materials are not handled in a manner consistent with their use as raw materials or commercial product substitutes. Thus, if secondary materials are stored or handled in a manner that does not guard against significant economic loss ([*i.e.*], the secondary materials are stored in leaking surface impoundments, or are lost through fires or explosions), there is a strong suggestion that the activity is not legitimate recycling.

> A recurring type of situation posing the potential for sham use involves using corrosive wastes as neutralizing agents. The potential for disposal in these situations is high since a waste acid can be dumped into (or onto) other materials, and any resulting change in pH would be incidental to the disposal purpose of the transaction. Accordingly, [US]EPA will not accept a claim that a corrosive secondary material is being used as a substitute for virgin acid or caustic unless indicia of legitimate recycling are present. These include that the secondary acid or caustic meet relevant commercial specifications, that they be as effective as the virgin material for which they substitute, that they be used under controlled conditions, and that in a two-party transaction there be consideration (usually monetary) for use of the material. In addition, the more contaminated the acid or caustic is in relation to virgin material, the less likely [USEPA] is to view its application as legitimate recycling. 50 Fed. Reg. at 648 (citation omitted).

In each situation cited by USEPA in the above text, the value of the secondary material to the recycling process is considered. When considering the amount of secondary material needed to complete the process or the effectiveness of the secondary material in the process, what is more directly considered is whether the process is being used to consume a maximum amount of a valueless secondary material in lieu of disposal. Similarly, consideration of the effectiveness in the process, how the secondary material is managed prior to recycling, or the records kept by the recycler of the secondary material used in the process is consideration of the value of the material to the recycler. While consumers are more likely to assign a greater economic value to items that they find useful and valuable, economics alone cannot be used to determine whether an operation constitutes "legitimate recycling" or "sham recycling."

The Regulatory Objective of the Legitimacy Determination. Another way to characterize the "legitimacy determination" is as the most significant portion of the determination not to regulate a specific secondary material under the hazardous waste regulations. With this in mind, it is useful to remember the context of USEPA's above-quoted discussion of "legitimacy," as was discussed above (on page 91 of this opinion). In the context of the 1985 DSWR amendments, USEPA was not only defining what recycling would be excluded from regulation, but also the outer bounds of its RCRA authority to regulate recycling at all. Thus, USEPA was inclined to maintain jurisdiction over any recycling activities that appeared more to substitute for disposal than to act as a means of recovering useful resources from secondary materials. Further, USEPA's emphasis on protection of human health and the environment over resource conservation, where the two might conflict, tempered any consideration of the value of secondary material as a resource in recycling.

Bearing in mind that the ultimate determination is whether any form of recycling of secondary material is to be regulated, one more fact must be borne in mind. As also previously discussed, USEPA has provided exclusions at various levels of the rules. The level that is of direct interest in this proceeding is that of the definition of solid waste.[81] USEPA also provided

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[81] The contours of the definition of solid waste are outlined beginning at page 38 of this opinion. The exclusions from the definition of solid waste are outlined at pages 47 of this opinion.

exclusions from the definition of hazardous waste[82] and varying degrees of exclusion from hazardous waste regulation.[83] Thus, USEPA has used considerations at least quite similar to the "legitimacy" considerations to determine what level of regulation should apply to many particular secondary materials that are recycled.

The Lowrance Memo, Which Applies to Existing Exclusions. Subsequent to the 1985 DSWR amendments, USEPA established an interpretive policy that it used to guide determination of "legitimate recycling" that is excluded from hazardous waste regulation. The USEPA, Office of Solid Waste issued a 1989 memorandum that consolidated all of USEPA's pronouncements relating to this "legitimacy" into a single policy statement. 73 Fed. Reg. at 64700; *see* Memorandum, re: F006 Recycling, from Sylvia K Lowrance, Director, Office of Solid Waste, to Hazardous Waste Management Division Directors Regions I-X (Apr. 26, 1989), OSWER Directive, USEPA document number EPA-HQ-RCRA-2000-0014-0008, RCRA Online number 11426, RPPC number 9441.1989(19) (available online at http://www.epa.gov/epawaste/inforesources/online/index.htm). The legitimacy policy was embodied in the "Lowrance memo." USEPA stated as follows with regard to the "Lowrance Memo":

> On April 26, 1989, the Office of Solid Waste (OSW) issued a memorandum that consolidated preamble statements concerning legitimate recycling that had been articulated previously into a list of criteria to be considered in evaluating legitimacy [OSWER directive 9441.1989(19)]. This memorandum, known to many as the "Lowrance Memo," has been a primary source of guidance for the regulated community and for implementing agencies in distinguishing between legitimate and sham recycling for many years. 73 Fed. Reg. at 64700.

While the "Lowrance memo" pertains directly to recycling USEPA hazardous waste number F006 (electroplating sludges), USEPA has applied it more generally to evaluate whether recycling activities are legitimate in other contexts. *See* 73 Fed. Reg. at 63700.

The Lowrance Memo remains important for understanding the "legitimacy determination" for all recycling activities—both for the recycling-based exclusions the predated the 2008 amendments and for the reclaimed HSM exclusions added by those amendments. USEPA stated that the policy outlined in the Lowrance Memo still applies to all existing recycling-based exclusions. This means that the Lowrance Memo has continuing relevance with regard to the existing recycling-based exclusions from the definition of solid waste:

> [US]EPA is codifying a legitimacy provision in this final rule as part of the final exclusions and non-waste determinations, but stresses that [US]EPA retains its long-standing policy that all recycling of hazardous secondary materials must be legitimate. If a facility is engaged in sham recycling, this, by definition, is not

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[82] The exclusions are outlined at pages 51 of this opinion.

[83] The assignment of limited regulations to specified hazardous waste is discussed at pages 74 of this opinion.

> real recycling and that material is being discarded. The legitimacy policy continues to apply to all hazardous secondary materials that are excluded or exempted from Subtitle C regulation because they are recycled and to recyclable hazardous wastes that remain subject to the hazardous waste regulations. This policy is well-understood throughout the regulated community and among the state implementing agencies. 73 Fed. Reg. at 64707-08.

Although USEPA limited application of the Lowrance Memo to the exclusions that existed prior to the new reclaimed HSM exclusions, the memo is also relevant to the new reclaimed HSM exclusions. The Lowrance Memo ultimately formed the basis for the four new "factors" for consideration under the "legitimacy rule" added by the 2008 DSWR amendments. 73 Fed. Reg. at 64700, 708.

> [US]EPA believes that the four legitimacy factors being codified in 40 [C.F.R.] 260.43 are substantively the same as the existing legitimacy policy. These factors are a simplification and clarification of the policy statements in the 1989 Lowrance Memo and in various Definition of Solid Waste [*Federal Register*] notices.[84]
>
> * * * * *
>
> [US]EPA . . . developed the legitimacy factors in 40 [C.F.R.] 260.43 by closely examining the questions and sub-questions in the Lowrance Memo and in the [*Federal Register*] preambles and converting them into four more direct questions. 73 Fed. Reg. at 64708.

The attachment to the Lowrance Memo set forth five questions and "other factors" for distinguishing "recycling and treatment." The Board sets forth the entire text of the attachment as follows:[85]

> The difference between recycling and treatment is sometimes difficult to distinguish. In some cases, one is trying to interpret intent from circumstantial evidence shoving mixed motivation, always a difficult proposition. The potential for abuse is such that great care must be used when making a determination that a

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[84] The *Federal Register* notices to which USEPA referred are "the October 2003 proposal and March 2007 supplemental proposal," which ultimately resulted in the 2008 DSWR amendments. 73 Fed. Reg. at 64700; *see* 63 Fed. Reg. 61558, 582-89 (Oct. 28, 2003) (DSWR proposal); 72 Fed. Reg. 14172, 198-201 (Mar. 26, 2007) (supplemental DSWR proposal).

[85] The Board found it difficult to obtain a copy of the memo. Although USEPA restated the primary Lowrance Memo inquiries in the *Federal Register* discussion of the "legitimacy rule" (*see* 73 Fed. Reg. at 64708-10), this restatement differs from the original memo. Presenting the text of the attachment to the Lowrance Memo in this opinion will enhance understanding of subsequent discussion.

particular recycling activity is to go unregulated ([*i.e.*], it is one of those activities which is beyond the scope of our jurisdiction). In certain cases, there may be few clear-cut answers to the question of whether a specific activity is this type of excluded recycling (and, by extension, that a secondary material is not a waste, but rather a raw material or effective substitute); however, the following list of criteria may be useful in focusing the consideration of a specific activity. Here too, there may be no clear-cut answers but, taken as a whole, the answers to these questions should help draw the distinction between recycling and sham recycling or treatment.

(1) Is the secondary material similar to an analogous raw material or product?

- Does it contain Appendix VIII constituents not found in the analogous raw material/product (or at higher levels)?
- Does it exhibit hazardous characteristics that the analogous raw material/product would not?
- Does it contain levels of recoverable material similar to the analogous raw material/product?
- Is much more of the secondary material used as compared with the analogous raw material/product it replaces? Is only a nominal amount of it used?
- Is the secondary material as effective as the raw material or product it replaces?

(2) What degree of processing is required to produce a finished product?

- Can the secondary material be fed directly into the process ([*i.e.*], direct use) or is reclamation (or pretreatment) required?
- How much value does final reclamation add?

(3) What is the value of the secondary material?

- Is it listed in industry news letters [sic], trade journals, etc.?
- Does the secondary material have economic value comparable to the raw material that normally enters the process?

(4) Is there a guaranteed market for the end product?

- Is there a contract in place to purchase the "product" ostensibly produced from the hazardous secondary materials?
- If the type of recycling is reclamation, is the product used by the reclaimer? The generator? Is there a batch tolling agreement? (Note that since reclaimers are normally TSDFs, assuming they store before reclaiming, reclamation facilities present fewer possibilities of systemic abuse).
- Is the reclaimed product a recognized commodity? Are there industry-recognized quality specifications for the product?

(5) Is the secondary material handled in a manner consistent with the raw material/product it replaces?

- Is the secondary material stored on the land?
- Is the secondary material stored in a similar manner as the analogous raw material ([*i.e.*], to prevent loss)?
- Are adequate records regarding the recycling transactions kept?
- Do the companies involved have a history of mismanagement of hazardous wastes?

(6) Other relevant factors

- What are the economics of the recycling process? Does most of the revenue come from charging generators for managing their wastes or from the sale of the product?
- Are the toxic constituents actually necessary (or of sufficient use) to the product or are they just "along for the ride." [sic]

These criteria are drawn from 53 [Fed. Reg.] at 522 (January 8, 1988); 52 Fed. Reg. at 17013 (May 6, 1987); and 50 Fed. Reg. at 638 (January 4, 1985). Attachment to Lowrance Memo.

The Lowrance memo did not prioritize the inquiries that it set forth. It is apparent that consideration of all of the Lowrance Memo inquiries resulted in determination whether a

particular activity was "legitimate recycling." As described within the text of the Lowrance Memo, the "legitimacy determination" is a determination that "the secondary material is commodity-like." Lowrance Memo at p. 2. USEPA summarized the Lowrance Memo considerations as follows:

> The main environmental considerations are (1) whether the secondary material truly has value as a raw material/product ([*i.e.*], is it likely to be abandoned or mismanaged prior to reclamation rather than being reclaimed?) and (2) whether the recycling process (including ancillary storage) is likely to release hazardous constituents (or otherwise pose risks to human health and the environment) that are different from or greater than the processing of an analogous raw material/product. *Id.*

These two considerations ultimately became two sets of two factors each (four factors total) under the "legitimacy rule" of 40 C.F.R. 260.43 (corresponding with 35 Ill. Adm. Code 720.143), as added by the 2008 DSWR amendments.

The Divergent Metals Reclamation Examples. The Board can illustrate the "legitimacy determination" as it stood prior to the 2008 DSWR amendments using two examples of USEPA's considerations of the degree to which reclaimed secondary materials should be excluded from regulation as hazardous waste. This is despite the fact that one example resulted in designation of material as "recyclable material," rather than exclusion from the definition of solid waste. The designation as "recyclable material" constituted a partial exclusion from the hazardous waste regulations. These two examples will help highlight the shift that occurred with adoption of the 2008 DSWR amendments.

The two examples involve reclamation of metals from secondary materials. The first is the example of "excluded scrap metal," which USEPA excluded from the definition of solid waste. The second is precious metals-containing secondary materials, which USEPA declined to exclude, although USEPA designated this as "recyclable material" that is not subject to the generally applicable hazardous waste rules. These two examples diverge as to regulatory result, illustrating that economic considerations are balanced against risks to human health and the environment.

While "scrap metal" is defined as "discarded" in all columns in table 1 to 40 C.F.R. 261.2(c) (2009) (corresponding with 35 Ill. Adm. Code 721.102(c)) (*i.e.*, use constituting disposal, burning for energy recovery, reclamation, and speculative accumulation), USEPA specifically excluded "excluded scrap metal" from the definition of solid waste.[86] *See* 40 C.F.R. 261.1(c)(9), 261.2(c), table 1, and 261.4(a)(13) (2009) (corresponding with 35 Ill. Adm. Code

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[86] USEPA added "excluded scrap metal" to the exclusions provision (40 C.F.R. 261.4(a)(13) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(13)) and further added an express exclusion from the "discarded material" designation within the definition of solid waste (40 C.F.R. 261.4(a)(13) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(13)).

721.101(c)(9), 721.104(a)(13), and 721.Appendix Z). USEPA's discussion of "excluded scrap metal" illustrates some of the balancing that occurs in a legitimacy determination.

"Excluded scrap metal" is defined as embracing the three types of metal secondary materials:

> "Processed scrap metal": scrap metal processed to separate the metal into distinct materials to increase its market value or to improve handling the metal;
>
> Unprocessed "home scrap metal": metal generated by refineries, foundries, and steel mills; and
>
> Unprocessed "prompt scrap metal": metal generated by metalworking and fabrication industries. 40 C.F.R. 261.1(c)(6) and (c)(9) through (c)(12) and 261.4(a)(13) (2009) (corresponding with 35 Ill. Adm. Code 721.101(c)(6) and (c)(9) through (c)(12) and 721.104(a)(13)).

When excluding these materials, USEPA determined that regulation of processed scrap metal was not necessary because this material is commodity-like and sufficient markets exist for its recycling. USEPA included unprocessed "home scrap metal" and "prompt scrap metal" within its designation "excluded scrap metal" because these materials do not need processing (reclamation) before recycling. 62 Fed. Reg. 25998, 26011 (May 12, 1997). This is the only express exclusion within the definition of "discarded material," which a previous segment of this discussion has shown (at pages 51 of this opinion) to contain implicit exclusions.

The exclusion of "excluded scrap metal" clearly illustrates one main focus of any determination to exclude secondary material from the definition of solid waste: the nature of the secondary material is such that its value in recycling will assure that it is managed so as to prevent losses to the environment. This issue of value-based incentive for sound management most often relates to reclamation of secondary materials, where the entire volume of secondary material will not find use or reuse. Thus, USEPA's considerations relating to value-based incentive appear in segments of discussion of reclamation.

The second example involved reclamation of secondary materials that tend to have a very high value: secondary materials that contain precious metals. While USEPA did not exclude those materials from the definition of solid waste, USEPA used very similar considerations to designate precious metal-containing secondary materials as "recyclable materials." This occurred as part of the 1985 DSWR amendments.[87] *See* 40 C.F.R. 261.6(a)(2)(iii) and 266.70 (2009) (corresponding with 35 Ill. Adm. Code 271.106(a)(2)(C) and 726.170); 50 Fed. Reg. at

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[87] Discussion of "recyclable materials" appears above (beginning at page 74 of this opinion).

643, 48-49. USEPA discussed that the value of the secondary material tends to support sound management of the material, but that spills and leaks of the materials could still occur[88]:

> Although [US]EPA has concluded that most of the proposed conditional exemptions are unwarranted, we continue to believe that the exemption [from full regulation as hazardous waste] for precious metal-containing wastes being reclaimed for their precious metal content remains justified because of the high value of the metals being reclaimed. [A] decision on how carefully wastes are stored before reclamation turns largely on a weighing of how valuable the wastes are and the cost of buying virgin products to replace reclaimed materials. The precious metals being reclaimed from these wastes are at the high end of the value continuum . . . .
>
> An examination of how these wastes are managed confirmed that they are accorded special care due to their value. Management of these materials ordinarily is characterized by very careful handling from point of generation to point of recovery. * * * Wastes are containerized before reclamation; [USEPA] is not aware that open piles or impoundments are used for storage. Accumulation time by reclaimers also tends to be short (less than one month), because reclaimers often are required to return the reclaimed metal (or cash) to the generator within that time.
>
> [USEPA] thus believes that the value of the contained rentals, corroborated by the usual management practices for these wastes, supports the partial exemption. At the same time, [USEPA] does not believe a complete exemption is warranted. As pointed out in the proposal, individual precious metal operations have caused environmental harm, and some of the wastes being reclaimed—such as spent cyanide solutions—are very hazardous. 50 Fed. Reg. at 648-49 (footnote omitted).

This example of precious metals-containing secondary material illustrates three facets of the "legitimacy" considerations. First, the example illustrates that a valuable secondary material is significantly more likely to be subjected to sound management from generation through ultimate reclamation. Valuable materials are more likely to be managed like commodities or raw materials. This is bolstered by USEPA's discussion of materials of lesser value, where USEPA

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[88] USEPA considered four conditional exclusions and adopted only one relating to precious metals recovery. The other three conditional exclusions considered eventually formed the basis for the 2008 DSWR amendments, although the exclusions ultimately adopted changed in scope. The three proposed exclusions included the following: (1) a generator reclaiming its own waste (*see* 40 C.F.R. 261.2(a)(2)(ii) and 261.4(a)(23) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B) and 721.104(a)(23))); (2) an exclusion for a person reclaiming waste for that person's own use; and (3) an exclusion for reclamation under a batch tolling arrangement (*see* 40 C.F.R. 261.4(a)(24) and (a)(25) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24) and (a)(25))). 50 Fed. Reg. at 643.

observed that market forces were insufficient to assure sound management of the secondary material:[89]

> [USEPA] thus finds that the factual basis for most of the conditional exemptions [aside from that for precious metals recovery] in the proposal was not justified, and that [USEPA]'s general findings as to the need to control hazardous waste storage are valid for these recycling situations. Hazardous wastes stored before reclamation—even where there is minimal risk of overaccumulation [sic]—still can present significant potential for harm to human health and the environment if mismanaged, and market mechanisms are insufficient to prevent mismanagement from occurring. Regulation thus is called for. 50 Fed. Reg. at 618 (discussing extent of RCRA authority to regulate recycling activities).

The second thing that the example of precious metals-containing secondary materials demonstrates is that even significant value of the secondary material and demonstrated careful management of the material from generation through the recycling process is not dispositive. In this example, there was a significant risk to human health and the environment and a history of environmental problems caused by recycling operations. Thus, USEPA determined that the balance disfavored exclusion from the definition of solid waste, notwithstanding the significant incentives that favored sound management of the material. USEPA chose not to exclude precious metals wastes from the definition of solid waste. 50 Fed. Reg. at 648. Instead, USEPA designated precious metals-containing secondary materials as "recyclable material," which conferred on the material and precious metals reclamation a partial but significant exemption from regulation as hazardous waste.[90] *See* 40 C.F.R. 261.6(a)(2)(iii) and 266.70 (2009) (corresponding with 35 Ill. Adm. Code 271.106(a)(2)(C) and 726.170); 50 Fed. Reg. at 643, 48-49.

The Legitimacy Rule, Which Applies to the Reclaimed HSM Exclusions. USEPA added a "legitimacy rule" by the 2008 DSWR amendments. The "legitimacy rule" foundation was in the Lowrance Memo. USEPA associated Lowrance Memo inquiries with the four factors of the new rule. 73 Fed. Reg. at 64701-06, 08-10. USEPA stated, however, that it was unnecessary to include some of the Lowrance inquiries because USEPA did not believe them

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[89] The same is true even of precious metals recovery where the amounts of precious metals recovered have little economic value. USEPA called such recovery operations "sham recycling" operations. 50 Fed. Reg. at 648-49.

[90] The hazardous waste requirements that continue to apply to the precious metals are the RCRA notification and definition of hazardous waste requirements; limited aspects of the hazardous waste generator, transporter, and T/S/D facility standards pertaining to hazardous waste manifesting and export of hazardous waste; and special recordkeeping and reporting requirements. 40 C.F.R. 266.70(b) and (c) (2009) (corresponding with 35 Ill. Adm. Code 726.170(b) and (c)). The precious metals-containing recyclable materials are subject to full regulation as hazardous waste when speculatively accumulated. 40 C.F.R. 266.70(d) (2009) (corresponding with 35 Ill. Adm. Code 726.170(d)).

relevant to the determination of "legitimacy." 73 Fed. Reg. at 64709-10 (questions intended to distinguish direct use or re-use from reclamation, storage of recycled materials on land, and the economics of the recycling process).

The resulting four factors of the "legitimacy rule" are divided into two provisions that each include two factors. Factors 1 and 2 are paired in one provision, and factors 3 and 4 are paired in a second. The significance of this two-segment consideration is in the rigidity or flexibility of applying each pair of factors. Although the Lowrance Memo did not place particular emphasis on any of its individual inquiries, the "legitimacy rule" does. Factors 1 and 2 are phrased in mandatory terms, stating what "legitimate recycling must involve." 40 C.F.R. 260.43(b) (2009) (corresponding with 35 Ill. Adm. Code 720.143(b)). Factors 3 and 4 are phrased in mandatory terms also, but stating what "must be considered in making a determination." 40 C.F.R. 260.43(b) (2009) (corresponding with 35 Ill. Adm. Code 720.143(b)). USEPA describes each of the first two factors as "a factor that must be met" and each of factors three and four as "a factor that must be considered." 73 Fed. Reg. at 64704 (specifically discussing factor 4).

USEPA stated in the preamble to the 2008 DSWR that the core legitimacy determination is based on consideration of two factors: (1) that the HSM make a useful contribution to the recycling process and (2) that the product of the recycling process is valuable. USEPA made consideration of these factors the first segment of the legitimacy determination. 73 Fed. Reg. at 64701; *see* 40 C.F.R. 260.43(b) (2009) (corresponding with 35 Ill. Adm. Code 720.143(b)). These first two factors are rigidly applied: the HSM must make a useful contribution, and the product of recycling must have value. *See* 73 Fed. Reg. at 64701-02. As stated by USEPA with regard to the useful contribution requirement:

> This factor is an essential element to legitimate recycling because real recycling is not occurring if the hazardous secondary materials being added or recovered do not add anything to the process. *Id*.

And as also stated with regard to the valuable product requirement:

> This factor is also an essential element of the concept of legitimate recycling because recycling cannot be occurring if the product or intermediate of the recycling process is not of use to anyone and, therefore, is not a real product. *Id*.

USEPA called these two the "core" factors of the "legitimacy rule." 73 Fed. Reg. at 64701, 02. The two core factors for making a "legitimate recycling" determination are summarized as follows:

Factor 1: "Useful Contribution": "Legitimate recycling must involve a hazardous secondary material that provides a useful contribution to the recycling process or to a product or intermediate of the recycling process . . . ." 40 C.F.R. 260.43(b) and (b)(1) (2009) (corresponding with 35 Ill. Adm. Code 720.143(b) and (b)(1)) (emphasis added); *see* 73 Fed. Reg. at 64701-02.

The rule provides as follows with regard to establishing that the HSM makes a "useful contribution" under factor 1:

> (1) The hazardous secondary material provides a useful contribution if it
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> (i) Contributes valuable ingredients to a product or intermediate; or
>
> (ii) Replaces a catalyst or carrier in the recycling process; or
>
> (iii) Is the source of a valuable constituent recovered in the recycling process; or
>
> (iv) Is recovered or regenerated by the recycling process; or
>
> (v) Is used as an effective substitute for a commercial product. 40 C.F.R. 260.43(b)(1) (2009) (corresponding with 35 Ill. Adm. Code 720.143(b)(1)).

Factor 2: "Valuable Product or Intermediate": "[T]he recycling process must produce a valuable product or intermediate." 40 C.F.R. 260.43(b) and (b)(2) (2009) (corresponding with 35 Ill. Adm. Code 720.143(b) and (b)(2); *see* 73 Fed. Reg. at 64702-03.

The rule provides as follows with regard to establishing that the product of the reclamation process is a valuable product or intermediate under factor 2:

> (2) The product or intermediate is valuable if it is
>
> (i) Sold to a third party; or
>
> (ii) Used by the recycler or the generator as an effective substitute for a commercial product or as an ingredient or intermediate in an industrial process. 40 C.F.R. 260.43(b)(2) (2009) (corresponding with 35 Ill. Adm. Code 720.143(b)(2)).

Thus, under the "legitimacy rule" added by the 2008 DSWR amendments, "legitimate recycling" requires, at a minimum, that (1) the HSM make a useful contribution to the recycling process, and (2) the product of intermediate made by the recycling process must be valuable.[91] That value may be market value, or the product or intermediate may derive value by substituting for a commercial raw material or ingredient, which implicitly has market value. USEPA stated that the value can be to a third party, to the generator, or to the recycler, any of which "would

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[91] The discussion of terms above (beginning at page 27 of this opinion) concluded that "recycling" includes "use or reuse" and "reclamation." It raised the issue whether "legitimate recycling" requires "use or reuse" and concluded that this was so under the "legitimacy rule" because of this second factor.

otherwise have to buy or obtain" another material for a process. 73 Fed. Reg. at 64702. USEPA stated further that the recycler does not need to make a profit from selling the product or intermediate—so long as the product or intermediate has value to the user:

> A product of the recycling process may be sold at a loss in some circumstances, but the recycler would have to be prepared to show how the product is clearly valuable to the purchaser. 73 Fed. Reg. at 64703.

The first two factors of the legitimacy rule consider the economics and utility of the recycling process on two levels. The first level is that of the use of the HSM going into the reclamation process. The second level is that of the use of the product or intermediate that comes out of the reclamation process. If either the HSM does not make the required useful contribution to the reclamation process, or the intermediate or product of the recycling does not have value, the reclamation process constitutes "sham recycling."

Note that there is a residual issue at this segment of the analysis. This is whether "use or reuse" is required to constitute "legitimate recycling." A similar issue is involved in "speculative accumulation." There, the issue is whether "use or reuse" is required to complete "recycling" for the purposes of determining compliance with the portion of secondary "recycled" within the required time. A segment of discussion that follows consideration of the prohibition against "speculative accumulation" (on page 114 of this opinion) covers the "use or reuse" issues in both contexts.

The second segment of the legitimacy determination is consideration of two factors: (1) how the HSM is managed (*i.e.*, more like a valuable commodity or more like waste) and (2) the presence of hazardous constituents in the HSM and product (*vis à vis* the product or intermediate that the HSM replaces). Factors 3 and 4 are different from the first two factors in three principal ways.

First, the focus of inquiry under factors 3 and 4 is different from that of the first two factors. Factors 1 and 2 focus on facts that would indicate the contribution that the HSM makes to the recycling process and how the HSM contributes to a product or intermediate that has value. By focusing on the way that the HSM will be managed and the contribution of hazardous constituents and characteristics to the process or the ultimate product or intermediate made, factors 3 and 4 essentially gauge the potential impact of the HSM reclamation on human health and the environment.

Second, factors 3 and 4 are phrased in mandatory terms as to what "must be considered in making a determination as to the overall legitimacy of a specific recycling activity." 40 C.F.R. 260.43(c) (2009) (corresponding with 35 Ill. Adm. Code 720.143(c)) (emphasis added). How the HSM is managed and the presence of hazardous constituents from the HSM in the ultimate product or intermediate do not determine whether recycling is legitimate. Instead, these can indicate whether the recycling is "legitimate" or "sham." 40 C.F.R. 260.43(c)(3) (2009) (corresponding with 35 Ill. Adm. Code 720.143(c)(3)).

Third, factors 3 and 4 cannot be read as imposing any limitation as to what constitutes "legitimate recycling." Factors 3 and 4 do not impose either operational conditions on recycling or limits on what can be determined "legitimate recycling." Instead, factors 3 and 4 impose conditions on the decision-making procedure for determining "legitimacy." For example, it is possible that management of the HSM through the recycling process would not parallel management of the product or raw material for which the HSM substitutes,[92] and it is possible that the HSM could contribute hazardous characteristics or constituents to the product or intermediate made that would not have resulted from the use of that product or raw material.

USEPA stated that when the HSM contributes significant hazardous characteristics or contaminants to the product or intermediate over the contribution of an analogous raw material, "the recycler should look more closely at the factors to determine the overall legitimacy of the process." 73 Fed. Reg. at 64705. Citing the example of foundry sand that is recycled in a closed loop within a foundry (where accumulated lead cannot escape to the environment), USEPA observed as follows:

> [USEPA] has determined that it is appropriate for this factor to be considered in legitimacy determinations under the final exclusions and in the non-waste determinations in this action, but thinks that there may be situations in which the factor is not met but the recycling would still be considered legitimate. *Id*.

USEPA continued, however, that the use or reuse of this same foundry sand would not be "legitimate recycling" in a situation where the accumulated lead could impact human health or the environment. USEPA stated as follows:

> If the used foundry sand were being recycled into a different product, such as a material used on the ground or in children's play sand, the legitimacy determination would be very different and significant levels of metals would likely render the recycling illegitimate. *Id*.

Thus, the impact of the "toxics along for the ride"[93] is more important than the fact that the toxics are present in elevated quantities. *See* 73 Fed. Reg. at 64704-05.

With regard to factors 3 and 4, USEPA stated as follows:

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[92] As is evident in segments of text quoted immediately below, USEPA used mandatory language in the *Federal Register* discussion, but advisory language in the text of the rule. *Compare* 40 C.F.R. 260.43(c)(1) (2009) (corresponding with 35 Ill. Adm. Code 720.143(c)(1)) *with* 73 Fed. Reg. at 64704.

[93] USEPA stated with regard to factor 4:

> This factor, therefore, is designed to determine when toxics that are "along for the ride" are discarded in a final product and, therefore, the hazardous secondary material is not being legitimately recycled. 73 Fed. Reg. at 64705.

> The second part of legitimacy is two factors that must be considered when a recycler is making a legitimacy determination. [US]EPA believes that these two factors are important in determining legitimacy, but has not made them factors that must be met because [USEPA] knows that there will be some situations in which a legitimate recycling process does not conform to one or both of these two factors, yet the reclamation activity would still be considered legitimate. [US]EPA does not believe that this will be a common occurrence, but in recognition that legitimate recycling may occur in these situations, [US]EPA has made management of the hazardous secondary materials and the presence of hazardous constituents in the product of the recycling process to be factors that must be considered in the overall legitimacy determination, but not factors that must always be met. 73 Fed. Reg. at 64701.

The third factor, which must be considered when making a "legitimate recycling" determination, is summarized as follows:

Factor 3: "Managed as a Valuable Commodity": "The generator and the recycler should manage the hazardous secondary material as a valuable commodity." 40 C.F.R. 260.43(c)(1) (2009) (corresponding with 35 Ill. Adm. Code 720.143(c)(1)); *see* 73 Fed. Reg. at 64703-04.

The rule elaborates on two points that appear to elaborate as to what constitutes "manage . . . as a valuable commodity." The first point relates to the situation where the HSM substitutes for analogous raw material:

> Where there is an analogous raw material, the hazardous secondary material should be managed, at a minimum, in a manner consistent with the management of the raw material. 40 C.F.R. 260.43(c)(1) (2009) (corresponding with 35 Ill. Adm. Code 720.143(c)(1)).

The second point relates to the situation where there is no analogous raw material:

> Where there is no analogous raw material, the hazardous secondary material should be contained. *Id.*

USEPA explained that these two points are surrogates for a regulatory standard for HSM management that it could not develop. USEPA stated as follows:

> [G]iven the nature of the legitimacy factors and their need to apply to all the practices covered by the exclusions in this final rule, it is not appropriate or practicable for [US]EPA to develop a specific management standard." 73 Fed. Reg. at 64704.

Noteworthy, however, is USEPA's recitation of the two points in mandatory terms, as follows:

> In the absence of such a management standard, [US]EPA is using this factor: materials must be managed as analogous raw materials or, if there are no analogous raw materials, the materials must be contained. *Id.* (emphasis added).

Avoiding the HSM becoming "discarded material" is the objective of this factor. *Id.* USEPA appended a statement to the end of the two-point elaboration that clarifies the consequence of failure to contain the HSM:

> Hazardous secondary materials that are released to the environment and are not recovered immediately are discarded. 40 C.F.R. 260.43(c)(1) (2009) (corresponding with 35 Ill. Adm. Code 720.143(c)(1)).

Thus, a failure to manage the HSM as a valuable commodity that results in escape of HSM or HSM constituents to the environment causes the HSM to become solid waste and hazardous waste. *See* 40 C.F.R. 261.2(a)(2) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)).

The fourth and final factor, which must be considered when making a "legitimate recycling" determination," requires comparison between the product made by reclamation of HSM and analogous products made by a normal production process using non-waste raw materials. Factor 4 requires consideration of the following:

Factor 4: "Comparison of Toxics in the Product": The product of the recycling process does not acquire specified attributes of hazardous waste that analogous products do not possess. 40 C.F.R. 260.43(c)(2) (2009) (corresponding with 35 Ill. Adm. Code 720.143(c)(2)); *see* 73 Fed. Reg. at 64704-05.

Factor 4 recites three bases for comparison. Each basis for comparison gauges the degree to which the product of the recycling process has acquired attributes of hazardous waste that are not exhibited by analogous products. USEPA explained the three bases for consideration as follows:

> Any of the following three situations could be an indicator of sham recycling: a product that contains significant levels of hazardous constituents that are not found in the analogous products; a product with hazardous constituents that were in the analogous products, but contains them at significantly higher concentrations; or a product that exhibits a hazardous characteristic that analogous products do not exhibit. Any of these situations could indicate that sham recycling is occurring because in lieu of proper hazardous waste disposal, the recycler could have incorporated hazardous constituents into the final product when they are not needed to make that product effective in its purpose. This factor, therefore, is designed to determine when toxic constituents that are "along for the ride" are discarded in a final product and, therefore, the hazardous secondary material is not being legitimately recycled. 73 Fed. Reg. at 64704; *see* 40 C.F.R. 260.43(c)(2) through (c)(2)(iii) (2009) (corresponding with 35 Ill. Adm. Code 720.143(c)(2) through (c)(2)(C)); *see* Lowrance Memo, Attachment at p. 2 (using the "along for a ride" phrase).

USEPA uses the phrase "analogous product" in this passage of the *Federal Register* discussion of factor 4. *See* 40 C.F.R. 260.43(c)(2) (2009) (corresponding with 35 Ill. Adm. Code 720.143(c)(2)); 73 Fed. Reg. at 64704. What is intended under factor 4 is more fully described in the following segment of the *Federal Register* discussion: "To evaluate this factor, a recycler will ordinarily compare the product of the recycling process to an analogous product made of raw materials." 73 Fed. Reg. at 64704. Thus, the focus under factor 4 is on the analogous product made using raw materials, where there are such raw materials. *See* 40 C.F.R. 260.43(c)(1) (2009) (corresponding with 35 Ill. Adm. Code 720.143(c)(1)).

Alternatively, USEPA allows the comparison between the HSM and the raw material for which it substitutes. USEPA stated:

> There may be cases in which it is easier to compare feedstocks than it is to compare products because the recycler knows that the hazardous secondary material is very similar in profile to the raw material. A comparison of feedstocks may also be easier in cases where the recycler creates an intermediate which is later processed again and may end up in two or more products, when there is no analogous product, or when production of the product of the recycling process has not yet begun. 73 Fed. Reg. at 64704.

The basis for this comparison of feedstocks does not shift the focus to the HSM and raw materials going into the process, which is the focus of factor 3. The focus under factor 4 remains on the potential for release of hazardous constituents or the effects of hazardous characteristics in the product of the reclamation that would result from the use of HSM in the process. With regard to factor 3, USEPA used the phrase "analogous raw material." 73 Fed. Reg. at 64703-04. With regard to factor 4, USEPA used the phrase "analogous product." 73 Fed. Reg. at 64704. The focus of factor 4 is always on the ultimate disposition of hazardous constituents or any hazardous characteristics in the product that are derived from use of the HSM in the reclamation process.

Another difference between factor 3 and factor 4 lies in the result of the situation where there are no analogous products for comparison. Factor 3 requires consideration whether the HSM will be contained in the process. Factor 3 acknowledges that there are instances where there are no analogous raw materials. In this instance, factor 3 requires alternative consideration whether the HSM "should be contained" in this instance. *See* 40 C.F.R. 260.43(c)(1) (2009) (corresponding with 35 Ill. Adm. Code 720.143(c)(1)). Under factor 4, however, there is no similar consideration of the situation where there is no analogous raw material. In fact, USEPA has stated with regard to factor 4:

> In many cases, there is not an analogous product to compare the products of these processes so this factor may not be relevant because of the nature of the operations. 73 Fed. Reg. at 64705.

Thus, factor 4 may become irrelevant where the HSM does not replace another raw material.

While, as mentioned, consideration of factors 3 and 4 is required, this consideration is not dispositive. The "legitimacy rule" requires evaluation of all factors and consideration of "legitimacy as a whole." 40 C.F.R. 260.43(c)(3) (2009) (corresponding with 35 Ill. Adm. Code 720.143(c)(3)). USEPA states that further information that can be taken into account, seemingly in mitigation of any failure to fulfill either of factors 3 and 4:

> In evaluating the extent to which these factors are met and in determining whether a process that does not meet one or both of these factors is still legitimate, persons can consider the protectiveness of the storage methods, exposure from toxics in the product, the bioavailability of the toxics in the product, and other relevant considerations. *Id*.

Although the function of distinguishing "legitimate recycling" from "sham recycling" remains the same, USEPA has significantly altered the analysis with the "legitimacy rule." First, USEPA prioritized two factors over all others and removed consideration of those two factors from any balancing against all other factors. Thus, the 2008 DSWR amendments shifted the inquiry by emphasizing two factors over the other two. Second, USEPA has more clearly indicated the objectives of the balancing involved with the remaining two factors. The first two factors mandate that the HSM provide value to the reclamation process, and that the HSM has sufficient value to ensure that it is managed as a material that has value. The second two factors require consideration of the potential incremental impact of reclamation of the HSM on human health and the environment, including consideration of ways that persons in the chain of generation-reclamation-product use may mitigate any potential threats.

Taking the "legitimacy rule" as a whole, the analysis begins with a pair of threshold determinations relating to how the HSM is used and the value of the HSM in that use. Factors 1 and 2 require something positive (other than avoidance of waste treatment or disposal costs) to result from reclamation of the HSM. USEPA has elevated these two factors above the level of "considerations" weighed in a balancing. Factors 1 and 2 set the threshold for determining whether the reclamation is "legitimate recycling."

Factors 3 and 4 gauge the potential threats to human health and the environment arising through reclamation of the HSM. Consideration of these two factors is mandatory, but an affirmative determination on each factor is not necessary to a "legitimacy determination." That the reclamation would result in increased risks does not preclude a conclusion that the recycling is "legitimate." That the reclamation would pose enhanced risks is part of a balancing that allows consideration of aspects of the recycling that would mitigate or minimize the risks. Further, consideration of additional factors relating to protection of human health and the environment is possible, including consideration of factors that would tend to mitigate any threats.

The Shifted Focus of the Legitimacy Rule from 1985 to 2008. Sometimes conflicting principles underlie the 1985 DSWR amendments, the Lowrance Memo, and the 2008 DSWR amendments. Recycling of secondary materials conserves resources. The "legitimacy determination" and "legitimacy rule" seek to balance the conflicts.

Removing secondary materials from regulation can encourage recycling by removing the disincentive presented by regulation. But this could result in disposal under the guise of recycling and mismanagement of materials that are actually waste. 50 Fed. Reg. at 619, 38, 40; *see* 73 Fed. Reg. at 64702. Where the possibility of exclusion from regulation exists by recycling, there is a possibility that someone will engage in some activity and falsely call it recycling, just to gain the exclusion from regulation. *See* 50 Fed. Reg. at 617; *see also* 73 Fed. Reg. at 64734. USEPA called this "sham recycling." *See* 50 Fed. Reg. at 638. "Sham recycling" is the opposite of "legitimate recycling." *See* 74 Fed. Reg. at 64670.

Improper disposal of hazardous waste can threaten human health and the environment. Regulation of recycling can minimize the risks by helping assure sound management and disposal, but this may come at the expense of increased economic costs and a burden of compliance. This expense can act as a disincentive to recycling. 73 Fed. Reg. at 64677.

In reality, there is a continuum ranging from production that uses valuable resources (which happen to be secondary materials) at one extreme and waste treatment and/or disposal on the other. Recycling activities each lie at some point on this continuum, and rarely at either extreme. The "legitimacy determination," which culminated in the Lowrance Memo, and the "legitimacy rule," as now codified in 40 C.F.R. 260.43 (corresponding with 35 Ill. Adm. Code 720.143), are tools devised by USEPA to ascertain the regulatory status of recycling activities along this continuum in a binary way, as an either-or determination.

The "legitimacy determination" weighs various aspects of the recycling to make this determination. As discussed, the factors consider the economics of using the secondary material, the value of the product made, how the recycler will manage the secondary material, how the product will be used, the danger that might be posed by mismanagement of the secondary material, the danger than might arise from hazardous constituents contributed to the product, etc.

As pointed out early in this discussion (at page 34), USEPA sought to define the extent of its authority to regulate recycling under RCRA when it originally devised the "legitimacy determination." Under the 1985 DSWR amendments, USEPA stated that the priorities under RCRA favor environmental protection:

> [T]he paramount and overriding statutory objective of RCRA is protection of human health and the environment. The statutory policy of encouraging recycling is secondary and must give way if it is in conflict with the principal objective. 50 Fed. Reg. at 618.

Thus, USEPA placed a very heavy emphasis on regulating recycling activities unless they were clearly beyond the scope of RCRA regulation. 50 Fed. Reg. at 616-17.

In the "legitimacy determination," USEPA did not emphasize any aspects of the recycling activity to determine whether the activity was "legitimate recycling" or "sham recycling." USEPA weighed the value of the material to the process as an indicator that the secondary material was being used for resource value. USEPA weighed the economics of using secondary material in the process as an indicator that the recycler would properly manage that

material. As observed with regard to the example of the precious metals-containing secondary materials, however, the value of the secondary material to the process and a significant economic value were not enough when consideration of threats to human health and the environment tipped the balance towards continued regulation under the RCRA waste regulations.

By the 2008 DSWR amendments, the "legitimacy rule" shifted the emphasis in the "legitimacy" inquiry. USEPA sought to encourage recycling and facilitate resource conservation, by extending exclusion to reclamation of secondary materials. 73 Fed. Reg. at 64668. Accompanying this shift was a change in the focus of the "legitimacy rule." As discussed above, the useful contribution that the HSM makes to the process and the fact that the product of the recycling has value have become mandatory conditions to a determination of "legitimacy." This forces consideration of these two factors first—emphasizing their importance over any considerations that are to follow. These are threshold determinations, since "legitimate recycling" is not possible unless both conditions are fulfilled.

What follows the threshold determinations is mandatory consideration of the contaminants added by using HSM and how the HSM is managed to protect human health and the environment. The mandatory factors for consideration are not dispositive on the issue of "legitimacy," as are the two mandatory conditions. Further, USEPA now allows consideration of mitigating factors on issues relating to human health and the environment. While distinguishing "sham recycling" from "legitimate recycling" remains important, the 2008 DSWR amendments have elevated the economic and utility considerations in relative importance: they are now conditions precedent to a determination of "legitimate recycling," at least as to reclaimed secondary materials.

In response to public comments received, USEPA is considering changes to the legitimacy rule.[94] First, USEPA is entertaining the possibility of applying the codified "legitimacy rule" to existing exclusions, in place of the "legitimacy determination," which relies on consideration of the non-codified factors set forth in the Lowrance memo. 74 Fed. Reg. at 25203. Second, USEPA is considering revision of the "legitimacy rule" with regard to the two factors that are mandated for consideration yet not mandatory for determination. *See* 40 C.F.R. 260.43(c)(1) and (c)(2) (2009) (corresponding with 35 Ill. Adm. Code 720.143(c)(1) and (c)(2)). One possible alternative raised by USEPA would make all four factors mandatory, but providing for the possibility of exclusion based on an administrative determination, like a non-waste determination, that the recycling is legitimate notwithstanding the fact that one of the factors is not fulfilled. 74 Fed. Reg. at 25203-04.

The determination whether a process involves "legitimate recycling" using the "legitimacy rule" (or the "legitimacy determination") is a complex procedure that involves a balancing of considerations based on a number of factors. "Legitimacy" can seem a somewhat amorphous concept. This is not true of the third condition that is imposed in common among all of the HSM exclusions: the prohibition against speculative accumulation.

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[94] The potential future amendments to the DSWR are discussed below (beginning on page 222 of this opinion).

Prohibition Against Speculative Accumulation. The third universal condition imposed on all of the HSM exclusions is that the reclaimed HSM must not be "speculatively accumulated" Each of the prohibitions against "speculative accumulation" refers to the definition of this term at 40 C.F.R. 261.1(c)(8) (corresponding with 35 Ill. Adm. Code 721.101(c)(8)). *See* 40 C.F.R. 261.2(a)(2)(ii) and 261.4(a)(23)(iii), (a)(24)(i), and (a)(25) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(ii) and 721.104(a)(23)(iii), (a)(24)(i), and (a)(25)).

USEPA combined two concepts into the prohibition against "speculative accumulation." The first was what USEPA described as "when [secondary materials] are being stored with a legitimate expectation of eventual recycling but have never been recycled, or cannot feasibly be recycled." 50 Fed. Reg. at 634. The second was "overaccumulation," which USEPA described as "secondary materials that accumulate at a site for over a year without 75 percent being recycled." *Id*. This resulted in a definition of "speculatively accumulated" that had two tests to satisfy. *See* 40 C.F.R. 261.1(c)(8) (2009) (corresponding with 35 Ill. Adm. Code 721.101(c)(8)).

USEPA intended that "speculative accumulation" act as the test to determine when reclaimed HSM becomes solid waste. *See* 40 C.F.R. 261.2(a)(1), (a)(2)(i)(A), and (b)(3) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(1), (a)(2)(A)(i), and (b)(3)). USEPA stated as follows:

> [US]EPA is using speculative accumulation (as defined in 40 C[.]F[.]R[.] 261.1(c)(8)) as the method for determining when a hazardous secondary material is discarded by abandonment. For the non-waste determination, a person does not need to demonstrate that the hazardous secondary material meets the speculative accumulation limits per 40 C[.]F[.]R[.] 261.1(c)(8), but he must . . . demonstrate that the hazardous secondary material will in fact be reclaimed in a reasonable time frame and will not be abandoned. [US]EPA is not explicitly defining "reasonable time frame" . . . , therefore, determining this time frame should be made on a case-specific basis. However, a person may still choose to use the speculative accumulation time frame as a default. 73 Fed. Reg. at 64711.

The regulations define "speculative accumulation" in precise terms that provide the time-frame and portion of secondary material that must be recycled. The definition states as follows:

> (8) A material is "accumulated speculatively" if it is accumulated before being recycled. A material is not accumulated speculatively, however, if the person accumulating it can show that the material is potentially recyclable and has a feasible means of being recycled; and that—during the calendar year (commencing on January 1)—the amount of material that is recycled, or transferred to a different site for recycling, equals at least 75 percent by weight or volume of the amount of that material accumulated at the beginning of the period. In calculating the percentage of turnover, the 75 percent requirement is to be applied to each material of the same type (*e.g.*, slags from a single smelting process) that is recycled in the same way (*i.e.,* from which the same material is

> recovered or that is used in the same way). Materials accumulating in units that would be exempt from regulation under § 261.4(c) are not to be included in making the calculation. (Materials that are already defined as solid wastes also are not to be included in making the calculation.) Materials are no longer in this category once they are removed from accumulation for recycling, however. 40 C.F.R. 261.1(c)(8) (2009) (corresponding with 35 Ill. Adm. Code 721.101(c)(8)).

This definition basically designates all materials accumulated for recycling as "speculatively accumulated" unless certain conditions are fulfilled. There are two conditions: (1) the person (generator, recycler, broker, etc.) accumulating the secondary material must be able to show that the material is capable of being recycled by a means presently possessed by that person and (2) that person either recycles or ships offsite for recycling at least 75 percent of the secondary material (by weight or volume) that had accumulated prior to the beginning of the calendar year.

This definition appears clear by its own terms. The additional included language clarifies ambiguities pertaining to how the quantities of secondary material are counted (each type of secondary material is regarded apart from all others, materials already designated solid waste are excluded, and secondary materials are excluded that have not yet exited the unit in which they were generated[95]). By the end of a given calendar year, the person accumulating the secondary material must recycle or ship for recycling at least 75 percent of the material that it had accumulated before the beginning of that year. Thus, it is conceivable that accumulation could occur for nearly two years before recycling occurs—so long as 75 percent of the accumulated secondary material on hand before January 1 of the calendar year, which could have been accumulated as early as January 1 of the preceding year, is recycled or shipped to another site for recycling before January 1 of the following year. Further, since the requirement is that the accumulated material be recycled or shipped to another site for recycling, the actual recycling may occur two years or more after the accumulation of the material.[96]

One issue remains with regard to speculative accumulation. The issue is whether "use or reuse" of the product or intermediate made by the recycling process is necessary to satisfy the requirement that 75 percent or more of the secondary material be "recycled" before the end of the calendar year following the year in which it was accumulated. The inclusion of "use or reuse" within the term "recycling" is an issue previously discussed above (on page 36 of this opinion). That discussion of "use or reuse" as a single mode of "recycling" indirectly introduced the concept of "speculative accumulation." A similar issue also arises with regard to "legitimate recycling," whether "use or reuse" is necessary for "recycling" to be deemed "legitimate." The

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[95] *See* 50 Fed. Reg. at 635-36 (discussing these conditions).

[96] Note also that the required portion of secondary material that must be recycled is 75 percent (volume or weight) of the gross amount accumulated by the end of the prior year. This could extend the accumulation time for some of the secondary material (up to 25 percent) beyond two years as well.

following discussion jointly considers whether "use or reuse" is required to satisfy the "legitimate recycling" requirement and the prohibition against "speculative accumulation."

Is Actual "Use or Reuse" of the Product Necessary? Previous discussion (beginning at page 27 of this opinion) indicated that "use or reuse" and "reclamation" are included within the term "recycling." Discussion of "use or reuse" as a single mode of "recycling" indirectly introduced the concept of "speculative accumulation" (on pages 36 of this opinion). The present discussion considers what is intended by use of the term "recycle" in the two segments of the regulations that set forth the "legitimacy rule" and the prohibition against "speculative accumulation."

The issue is whether the recycling is complete at the end of the reclamation process, with completion of the use of HSM in the recycling process, or the recycling is complete only when the product of recycling is "used or reused." With regard to "legitimate recycling," the issue is whether the "use or reuse" necessary for "recycling" to be deemed "legitimate" refers to the HSM entering the reclamation process or to the ultimate product or intermediate made by the process. Similarly, with regard to "speculative accumulation," the question is whether the 75 percent "recycled" requirement refers to the portion of the HSM going through the reclamation process, or the requirement further intends "use or reuse" the product or intermediate made by the reclamation process.

Prior to the 2008 DSWR amendments, there were two occasions for evaluation to determine whether "speculative accumulation" and "legitimate recycling" occurred for the purposes of exclusion from the definition of solid waste. The first occasion was where "recycling" actually meant "use or reuse." The second was where "reclamation" fell within one of the narrow exceptions to a general rule that "reclaimed" secondary materials are solid waste. At that time, nearly all excluded "recycling" involved "use or reuse" of secondary materials. As a result of the 1985 DSWR amendments, with limited exceptions,[97] a secondary material destined for reclamation was solid waste from the point of generation and through the reclamation process:

> Under the final rule, spent materials, listed sludges, and listed-by-products that are processed to recover usable products, or that are regenerated—*i.e.*, that are reclaimed—are solid wastes. If the material is to be put to use after it has been reclaimed, it still is a solid waste until reclamation has been completed. Thus, the fact that wastes may be used after being reclaimed does not affect their status as wastes before and while being reclaimed. 50 Fed. Reg. at 633; *see* 40 C.F.R. 261.2(c)(3) and table 1 (2009) (corresponding with 35 Ill. Adm. Code 721.102(c)(3) and 721.Appendix Z); *see also, e.g.*, 50 Fed. Reg. at 619.

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[97] *I.e.*, sludges or by-products that exhibit a characteristic of hazardous waste and commercial chemical products that are listed hazardous waste. 40 C.F.R. 261.2(c)(3) and table 1 (2009) (corresponding with 35 Ill. Adm. Code 721.102(c)(3) and 721.Appendix Z).

For this reason, most instances of "recycling" (evaluated by a "legitimacy determination" or which had to comply with the prohibition against "speculative accumulation") involved "use or reuse" of secondary materials. The "recycling" was not "reclamation." In this way, "recycled" usually meant "use or reuse" of the secondary material in the recycling process. The narrow exceptions were special instances of "reclaimed" secondary materials that USEPA had excluded from the definition of solid waste.[98]

"Reclaimed" secondary materials generally were deemed "solid waste" from the point of generation through the reclamation process, and the product of reclamation was considered separately. A product derived through reclamation of secondary material was not solid waste if "used beneficially." 40 C.F.R. 261.3(c)(2) (2009) (corresponding with 35 Ill. Adm. Code 721.103(c)(2)). The product of reclamation that was "used beneficially" was excluded from the definition of solid waste:

> [C]ommercial products reclaimed from hazardous wastes are products, not wastes. and so are not subject to the RCRA Subtitle C regulations. . . . Similarly, reclaimed metals that are suitable for direct use, or that only have to be refined to be usable[,] are products, not wastes. 50 Fed. Reg. at 634; *see* 40 C.F.R. 261.3(c)(2) (2009) (corresponding with 35 Ill. Adm. Code 721.103(c)(2)).

In this way, exclusion of materials extracted from "reclaimed" secondary materials requires examination beyond the reclamation process to "use or reuse" of the product of the reclamation. Note, however, that the "use or reuse" needed to gain exclusion of the product "reclaimed" from secondary materials may not be actual "use or reuse" of the product. Two facts are necessary to deem the "reclaimed" product as no longer solid waste: (1) the product of reclamation needs to be "used beneficially" (40 C.F.R. 261.3(c)(2) (2009) (corresponding with 35 Ill. Adm. Code 721.103(c)(2))); and (2) the product needs to become "suitable for direct use or [needs] to be refined to be usable" (50 Fed. Reg. at 634). Thus, the product of "reclamation"

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[98] USEPA did not include sludges or by-products that exhibit a characteristic of hazardous waste and commercial chemical products that would be listed hazardous waste within the definition of solid waste when they are "reclaimed." *See supra* note 97. The Board has called these "category 3 exclusions" in discussion above (beginning on page 52 of this opinion). USEPA further excluded (1) pulping liquors that are reclaimed in a pulping liquor recovery furnace and then reused in the pulping process and (2) spent sulfuric acid that is used to produce virgin sulfuric acid. 40 C.F.R. 261.4(a)(6) and (a)(7) (corresponding with 35 Ill. Adm. Code 721.104(a)(6) and (a)(7)). USEPA further made exclusion by an administration determination possible for (1) secondary materials that are reclaimed then used in the original process that generated them if the reclamation process is an integral part of the original production process and (2) reclaimed secondary materials that have been reclaimed but which must be further reclaimed before recovery is complete. 40 C.F.R. 260.30(b) and (c) and 260.31(b) and (c) (corresponding with 35 Ill. Adm. Code 720.130(b) and (c) and 720.131(b) and (c)). USEPA subsequently added self-implementing exclusions for other secondary materials. *E.g.*, 40 C.F.R. 261.4(a)(8), (a)(9), and (a)(10) (corresponding with 35 Ill. Adm. Code 721.104(a)(8), (a)(9), and (a)(10)).

is excluded from definition as solid waste because it has acquired a character that assures that it will be "used or reused," and actual "use or reuse" is not necessary.

What of secondary materials themselves that are excluded from the point of generation? Is the assumption reasonable that the "use or reuse" segment of the analysis with regard to these materials can be satisfied where the product of reclamation has acquired the character of a commodity that will be "used beneficially." The Board believes that this assumption is supported by the Lowrance Memo and the "legitimacy rule," as the following paragraphs will show.

There are indications in USEPA's discussion of the HSM reclamation-based exclusions that "use" of the HSM meant use within the reclamation process itself. In the discussion of the requirement that HSM remain contained during reclamation, USEPA gave an example of adequate containment. That example involved use of HSM:

> One specific example of "contained" hazardous secondary materials would be furnace bricks collected from production units and stored on the ground in walled bins before being used as feedstocks in the metals production process. 73 Fed. Reg. at 64681 (emphasis added).

This example cites "use" of the HSM, but that "use" is in a production process that actually extracts constituents from the HSM. This "use" actually describes "reclamation" of the HSM.

USEPA similarly chose to employ the word "use" in a reclamation process in setting out one of the factors for consideration in granting a non-waste determination for HSM reclaimed in a continuous industrial process. The factor requires consideration "[w]hether the capacity of the production process would use the hazardous secondary material in a reasonable time frame . . . ." 40 C.F.R. 260.34(b)(2) (2009) (corresponding with 35 Ill. Adm. Code 720.134(b)(2)); *see* 73 Fed. Reg. at 64670 (discussion of the non-waste determination including the word "use" of the HSM in a reclamation process). The word "use" also appears in the same way with regard to the non-waste determination for HSM that is indistinguishable in all relevant respects from a product or intermediate. 40 C.F.R. 260.34(c)(3) (2009) (corresponding with 35 Ill. Adm. Code 720.134(c)(3)); *see* 73 Fed. Reg. at 64670 (discussion of this non-waste determination including the word "use").

USEPA also chose to employ "use" in discussion of the "legitimacy determination" with regard to a "recycling" process. In the context of the discussion, however, the "recycling" was clearly "reclamation" of HSM. 73 Fed. Reg. at 64702. This also occurred in the following passage of the discussion:

> In cases where the hazardous component is not being used or recycled, [USEPA] stresses that the recycler is responsible for the management of any hazardous residuals of the recycling process. 73 Fed. Reg. at 64701 (emphasis added).

The Board does not believe that these discussions of "use" of secondary materials in "reclamation" processes establish that USEPA intended to look no further than the "reclamation"

process itself. Determining whether "recycling" is "legitimate" in the context of reclamation requires consideration of the product of the "reclamation."

The "legitimacy determination" has always weighed whether there was "a guaranteed market for the end product." Attachment to Lowrance Memo at p. 2 (quoted above on page 95 of this opinion); *see* 40 C.F.R. 260.43(b)(2) (2009) (corresponding with 35 Ill. Adm. Code 720.143(b)(2)) ("legitimacy rule" factor 2, considering the value of the product). The foregoing discussion of the "legitimacy rule" (at page 101) concluded that "legitimate recycling" requires consideration of the ultimate "use or reuse" of any product or intermediate made from HSM. *See* 40 C.F.R. 260.43(b), (b)(2), and (c)(2) (2009) (corresponding with 35 Ill. Adm. Code 720.143(b), (b)(2), and (c)(2)). Thus, "recycling"—*i.e.*, "reclamation"—is not "legitimate" unless "use or reuse" of the product also occurs.

In other words, the "recycling" of "reclaimed" secondary materials requires "use or reuse" of the product of "reclamation." This is true whether only the product of "reclamation" was excluded, or the secondary material is excluded before reclamation, as in the limited exceptions to the general rule that "reclaimed" secondary materials are solid waste. This is also equally true under the traditional "legitimacy determination" as it is under the new "legitimacy rule."

Thus, "reclamation" that does not result in actual "use or reuse" of the materials "reclaimed" from HSM could result in a determination that "legitimate recycling" is not occurring. In this way, USEPA's use of the term "recycling" includes "use" of the product of the "reclamation."

That is not to say, however, that actual "use or reuse" has occurred when the "recycling" is complete in a "reclamation" process. The Board believes that once the processing is sufficient to assure a market for the reclaimed product, a reclamation process is "legitimate recycling." In the 2008 DSWR amendments, USEPA discussed "use" of the product of "reclamation." This was in discussion of factor 2 of the "legitimacy rule." *Id.*; *see* 40 C.F.R. 260.43(b)(2) (2009) (corresponding with 35 Ill. Adm. Code 720.143(b)(2)). The intermediate or product of the recycling process must have value under the "legitimacy rule." *See* 40 C.F.R. 260.43(b) and (b)(2) (2009) (corresponding with 35 Ill. Adm. Code 720.143(b) and (b)(2)); 73 Fed. Reg. at 64702. This focus on the product of the reclamation relates to "use or reuse" of that product, since value is derived from utility:

> Legitimate recycling must involve a hazardous secondary material that provides a useful contribution to the recycling process or product and the recycling process must produce a valuable product or intermediate. In addition, as part of a legitimacy determination, persons must consider whether the hazardous secondary material is managed as a valuable product and must consider the levels of toxics in the product of the recycling process as compared to analogous products made from virgin materials. 73 Fed. Reg. at 64681; *see also* 73 Fed. Reg. at 64685 (same consideration re off-site reclamation).

The "legitimacy rule," therefore, appears to specifically require legitimate "use or reuse" of the reclaimed material. That the secondary material must provide "a useful contribution to the recycling process," and that the reclamation process must produce a "valuable product or intermediate" is explicit in the rule, as noted above. To the extent that being "valuable" assures "use or reuse" of the product of reclamation, "legitimate recycling" requires legitimate "use or reuse" of the reclaimed product and the use of the word "recycling" includes "use or reuse" within its meaning.

While one may argue that "recycling" in this context must have its customary meaning that includes "use or reuse," such a conclusion may be false. The 2008 DSWR amendments may not have expanded applicability of the prohibition against "speculative accumulation" to include the products of reclamation. If one were to read "use or reuse" into use of the word "recycle" in every instance, it may be possible to infer that "legitimate recycling" is only possible where ultimate beneficial "use or reuse" of the product of reclamation occurs.

Militating against such an interpretation, however, is the language of the definition of "speculative accumulation," which restricts attention to accumulation of secondary material before recycling. The prohibition against "speculative accumulation" is directed by its own terms to accumulation before recycling. *See* 40 C.F.R. 261.1(c)(8); 261.2(a)(2)(ii) and (c)(4); and 261.4(a)(23)(iii), (a)(24)(i), and (a)(25) (2009) (corresponding with 35 Ill. Adm. Code 721.101(c)(8); 721.102(a)(2)(ii) and (c)(4); and 721.104(a)(23)(iii), (a)(24)(i), and (a)(25)). The key sentence of the definition of "speculatively accumulated" states as follows: "A material is 'accumulated speculatively' if it is accumulated before being recycled." 40 C.F.R. 261.1(c)(8) (2009) (corresponding with 35 Ill. Adm. Code 721.101(c)(8)).

Thus, while "legitimate recycling" must assure that the product of reclamation must be a "valuable product or intermediate," the "legitimacy" of the ultimate "use or reuse" may focus on consideration of "value" and the impact of the use on human health and the environment.[99] This differs from the focus of "use or reuse" as it relates to "speculative accumulation," where the focus is on the volume of secondary material that is "recycled" within a calendar year. *See* 40 C.F.R. 261.1(c)(8) (corresponding with 35 Ill. Adm. Code 721.101(c)(8)).

The definition of "speculatively accumulated" substantively differs from the "legitimacy determination." USEPA's discussion of the prohibition against "speculative accumulation" largely focuses on "use or reuse" of secondary material, but there are instances where some valuable material is "recovered" from the secondary material—*i.e.*, the secondary material undergoes "reclamation." Throughout the discussion, USEPA does not focus beyond the initial "recycling" process in any instance. 50 Fed. Reg. at 634. The definition of "speculative accumulation" has never expressly included consideration of "use or reuse" beyond the secondary material completing the recycling process. *See* 40 C.F.R. 261.1(c)(8) (2009)

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[99] The fact that the "legitimacy rule" includes the words "or intermediate" may recognize that recycling can be completed before the product that emerges is actually "used or reused." *See* 40 C.F.R. 260.43(b) and (b)(2) (2009) (corresponding with 35 Ill. Adm. Code 720.143(b) and (b)(2)); 73 Fed. Reg. at 64702.

(corresponding with 35 Ill. Adm. Code 721.101(c)(8)). This might imply that "speculative accumulation," as it would relate to reclaimed secondary materials, is concerned only with the "reclamation" segment of "recycling," and that the ultimate "use or reuse" of the product of reclamation is unimportant. Nevertheless, USEPA used the word "recycled" when it imposed the amount of secondary material that must complete the process and the timeframe within which that completion must occur. *See* 40 C.F.R. 261.1(c)(8) (2009) (corresponding with 35 Ill. Adm. Code 721.101(c)(8)).

The issue is whether "use or reuse" of the product or intermediate made by the recycling of the secondary material—*i.e.*, the reclamation of the HSM under the 2008 DSWR amendments—is necessary to satisfy the prohibition against speculative accumulation. The *Federal Register* discussions of the 1985 and 2008 DSWR amendments do not directly resolve the issue.

The 2008 DSWR amendments used the existing prohibition against speculative accumulation as adopted in the 1985 amendments, without change. USEPA stated as follows:

> Restrictions on speculative accumulation have been an important element of the RCRA hazardous waste recycling regulations since they were promulgated on January 4, 1985. * * * It is also the same prohibition that is being promulgated today . . . . 73 Fed. Reg. at 64685.

The preamble to the 1985 amendments discussed the reasonableness of the 75 percent "turnover" requirement and the one-year limit, but did not explicitly otherwise discuss the meaning of "turnover" in a way that would indicate when "recycling" is complete. 50 Fed. Reg. at 634.

USEPA's subsequent observations with regard to speculative accumulation indicate that the term "recycling" had the same meaning that the term took relative to "legitimate recycling." USEPA observed as follows:

> [T]his provision applies to all spent materials, sludges, and byproducts not already defined as solid and hazardous wastes and that are accumulated before any type of recycling. The provision thus applies to . . . materials that are to be used as ingredients or as commercial product substitutes, to materials that are recycled in a closed-loop production process, to unlisted sludges and by-products that are to be reclaimed, and to black liquor and spent sulfuric acid being reclaimed. Thus, if one of these materials are [sic] overaccumulated, they [sic] would be considered to be hazardous wastes and would become subject to regulation . . . .
>
> The provision also continues to apply to one set of wastes which are ordinarily exempt from most regulation when recycled, precious metal wastes being reclaimed. Thus, if these wastes are overaccumulated [sic], they no longer are conditionally exempt from regulation . . ..

> The provision does *not* apply to secondary materials that already are wastes when they are recycled, for example scrap metal, secondary materials burned as fuels, or spent lead acid batteries being reclaimed. * * * Rate of turnover thus is not a factor in determining the extent of regulation for these wastes. 50 Fed. Reg. at 635 (citations omitted, emphasis in original).

Thus, with the limited exceptions of "unlisted sludges and by-products that are to be reclaimed, and to black liquor and spent sulfuric acid being reclaimed," USEPA's prohibition of speculative accumulation contemplated "use or reuse" as the primary mode of recycling.

Finally, USEPA stated that the prohibition against speculative accumulation does not apply to the accumulation of commercial chemical products until they become "discarded material." Instead, USEPA stated: "these materials are wastes when discarded or intended for discard (by means of abandonment), and are not wastes when stored for recycling." *Id*. This could indicate that USEPA regards the prohibition against "speculative accumulation" inapplicable to a material that has a product-like quality. The prohibition does not apply until the material has acquired a waste-like character. This would militate in favor of no longer ascribing a waste-like character to a secondary material that has undergone reclamation to the point where it has acquired a product-like character. This would agree with USEPA's rule that a product that emerges from a reclamation process is no longer solid waste. *See* 40 C.F.R. 261.3(c)(2) (2009) (corresponding with 35 Ill. Adm. Code 721.103(c)(2)); 50 Fed. Reg. at 634.

Based on the foregoing, the Board concludes that the "recycling" needed to satisfy the prohibition against "speculative accumulation" does not require actual "use or reuse" of the product of a reclamation process. Instead, the "use or reuse" segment of "recycling" is satisfied when the product of the process acquires the character of a valuable commodity or product sufficient to ensure that actual "use or reuse" will occur within a reasonable time.

"Recycling" is complete for the purposes of the prohibition against "speculative accumulation at the point where a reclamation process results in a product that is no longer solid waste. At this point, reclaimed material has always been understood by USEPA to lose the "solid waste" designation under the rules (*see* 50 Fed. Reg. at 634), without regard to whether the product has actually been "used or reused." This is the same interpreted meaning that the Board derived above with regard to the "legitimacy determination." Note, however, that this means a product of reclamation that does not acquire the character of a product has not been "recycled" for the purposes of either "speculative accumulation" or "legitimate recycling."

One might argue that the product of recycling would have no value if the product found no use, but this would paint an incomplete picture. The Board is mindful that a product could acquire value based on a speculative market, or that a downturn in the market could cause the product to lose value. Thus, ultimate use of the product of recycling must occur, or the product will lose its value and become "abandoned" or "discarded material. The regulations, however, would ignore the realities of commodities markets if actual "use or reuse" must occur before "recycling" is complete. The regulations would become unwieldy were they to require actual "use or reuse" before determining that "recycling" is complete.

USEPA raised alternative possibilities with regard to "valuable" as the word is used in the second factor[100] of the "legitimacy rule." *See* 40 C.F.R. 260.43(b)(2) (2009) (corresponding with 35 Ill. Adm. Code 720.143(b)(2)). This is enlightening for evaluating the "value" of a product of "recycling." "Value" is not restricted to market value. USEPA explained "valuable" as follows:

> [A] recyclable product may be considered "valuable" if it can be shown to have either economic value or a more intrinsic value to the end user. Evaluations of "valuable" for the purpose of this factor should be done on a case-by-case basis, but one way to demonstrate that the recycling process yields a valuable product would be the documented sale of a product of the recycling process to a third party. * * * This transaction could include money changing hands or . . . may involve trade or barter. A recycler . . . could establish value by demonstrating that it can replace another product or intermediate that is available in the marketplace. A product of the recycling process may be sold at a loss in some circumstances, but the recycler would have to be prepared to show how the product is clearly valuable to the purchaser.
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> [M]any recycling processes produce outputs that are not sold to another party, but are instead used by the generator or recycler. * * * Such recycled products or intermediates would be considered to have intrinsic value . . . . Demonstrations of intrinsic value could involve showing that the product of the recycling process or intermediate replaces an alternative product that would otherwise have to be purchased or could involve a showing that the product of the recycling process or intermediate meets specific product specifications or specific industry standards. Another approach could be to compare the product's or intermediate's physical and chemical properties or efficacy for certain uses with those of comparable products or intermediates made from raw materials.
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> Some recycling processes may consist of multiple steps that may occur at separate facilities. In some cases, each processing step will yield a valuable product or intermediate, such as when a metal-bearing hazardous secondary material is processed to reclaim a precious metal and is then put through another process to reclaim a different mineral. When each step in the process yields a valuable product or intermediate that is salable or usable in that form, the recycling activity would conform to this factor. 73 Fed. Reg. at 64702-03.

The two examples of metals recycling that appear above (at page 98 of this opinion), in the discussion of "legitimate recycling" involved "valuable" products. The end product of the

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[100] Whether the generator and reclaimer treat the HSM like a "valuable commodity" before "recycling" becomes a consideration under the third factor of the "legitimacy rule." *See* 40 C.F.R. 260.43(c)(1) (2009) (corresponding with 35 Ill. Adm. Code 720.143(c)(1)).

metals reclamation process in each example was a valuable commodity,[101] and USEPA did not inquire further as to the ultimate use of the products. The end product of metals reclamation is almost always some form of the metal that is either in a useful form for further use (such as sheet, bar, extruded shapes, etc.) or in some form suitable for storage or further processing (ingot, salts, nuggets, etc.). In many instances, this end product is set aside for future "use or reuse," and this setting aside could involve stockpiling the product for an extended period.

Constraining the completion of "recycling" to the actual "use or reuse" of the recovered metals would unduly burden both regulation of reclamation and the business of reclamation. The burden would be especially heavy when dealing with the one-year and 75-percent limitations of the prohibition against "speculative accumulation."

The prohibition against "speculative accumulation" could become unworkable if actual "use or reuse" of the product or intermediate is required within the time limit. Verifying actual "use or reuse" could require monitoring the flow of individual lots or units of reclaimed materials through the market to ultimate use. It would also require hair-splitting over when actual "use or reuse" occurs. For example, does actual "use or reuse" of scrap metal occur when the metal is used to produce an alloy, when the alloy is used to produced shaped metal, when the shaped metal is cut to size, when the cut metal parts are assembled into a product, or when "use or reuse" of the product begins?

Further, requiring actual "use or reuse" could produce an absurd result. The rule requires that the accumulated secondary material be "recycled" or "transferred to a different site for recycling" within the time limit. Shipping the secondary material offsite for further "recycling" would satisfy the prohibition. Thus, "recycling" is not even required at the accumulating facility. Once shipped from the recycling facility, whether processed into a commodity or not, the secondary material destined for recycling or the product of recycling is beyond the purview of RCRA regulation. Using the above example, if an initial reclamation facility produces metal pellets from secondary material for use as alloying agents, then ships them within the calendar-year timeframe to another facility for storage or "use or reuse," the prohibition is satisfied. *See* 40 C.F.R. 261.1(c)(8) (2009) (corresponding with 35 Ill. Adm. Code 721.101(c)(8)).

To require shipment of the product of recycling to complete the "recycling" and fulfill the prohibition against "speculative accumulation," however, is not necessary. USEPA acknowledged two facts in its discussion of the "legitimacy rule" that should equally apply to "speculative accumulation." First, USEPA acknowledged that "reclamation" can occur in several stages at several sites, with valuable products being extracted at each stage. *See* 73 Fed. Reg. at 64703. Second, USEPA acknowledged that the reclaimer itself could be the entity that "values" the product of "recycling," and the "use or reuse" could occur without the product leaving the site.

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[101] In fact, with regard to "excluded scrap metal," USEPA determined that the secondary materials themselves had sufficient value to warrant exclusion from regulation. *See* 62 Fed. Reg. at 26011.

Once a valuable commodity is produced from the recycling process, RCRA regulations do not apply to that product. This has been true since adoption of the 1985 DSWR amendments. 40 C.F.R. 261.3(c)(2) (2009) (corresponding with 35 Ill. Adm. Code 721.103(c)(2)); *see* 50 Fed. Reg. at 634. In the absence of a clear indication from USEPA on this point, the Board does not perceive that the prohibition against "speculative accumulation" universally includes "use or reuse" within the term "recycled." The Board perceives that for the purposes of "speculative accumulation," with reclamation of HSM, "recycling" can be complete when the HSM loses its character as secondary material and has acquired the character of a commodity that is comparable to a commodity that was made from raw materials. When the "recycling" is complete for the purposes of satisfying the prohibition against speculative accumulation would depend on the facts of the individual situation. When those facts indicate that the HSM has become comparable to a commodity, the "recycling" is complete—even if that commodity has not yet been actually "used or reused."

It is enough to view the product of the reclamation process as removed from regulation as waste. *See* 40 C.F.R. 261.3(c)(2) (2009) (corresponding with 35 Ill. Adm. Code 721.103(c)(2)); 50 Fed. Reg. at 634. That "use or reuse" of the product will occur to complete "recycling" is assured by the valuable commodity-like character that it acquires through the reclamation process—assuming that the product does indeed acquire such value. If the product of "reclamation" does not acquire a valuable commodity-like character, but retains a waste-like character, "recycling" is not complete for the purposes of either "legitimate recycling" or "speculative accumulation." The Board notes further, that if the product of "reclamation" becomes "abandoned" or "discarded material," it becomes solid waste—just like any other material. *See* 40 C.F.R. 261.2(a) and (b) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a) and (b)). Thus, if a reclaimed product loses its value, it once again becomes subject to hazardous waste regulation.

In summary, the Board does not believe that USEPA intended that "recycling" not be complete until such valuable commodities find ultimate "use or reuse." In the absence of a clear indication that USEPA intended otherwise, the Board believes that "recycling" is complete for the purposes of the "legitimacy determination" and the "legitimacy rule," so long as the product of the recycling process has acquired the character of a commodity made from raw materials and a commodity market value that is sufficient to ensure that "use or reuse" will occur in the future.

Thus, the Board believes that it is possible to complete recycling without actual "use or reuse" of the product—so long as the "reclamation" of the secondary material has fulfilled three conditions[102] repeated from earlier in this discussion:

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[102] A fourth condition relative to speculative accumulation would not be necessary. The alternative that accumulated secondary material can be "shipped to a different site for recycling" to satisfy the one-year/75-percent requirements suggests a limitation which would require off-site shipment. There is no added benefit in prohibiting on-site stockpiling once the "recycling" is complete as determined using the following three conditions. Nevertheless, should the product of "recycling" at one facility not fulfill the first three conditions to fulfill the "use or

1) The product must have acquired a valuable commodity-like character—*i.e.*, the product must have become "so valuable that safe handling is assured absent regulation" (50 Fed. Reg. at 617; *see* 40 C.F.R. 260.43(b) and (b)(2) (2009) (corresponding with 35 Ill. Adm. Code 720.143(b) and (b)(2)); 73 Fed. Reg. at 64702; 50 Fed. Reg. at 617-18, 636-37);

2) The product must be suitable for direct use or need only minimal processing to be usable (*see* 50 Fed. Reg. at 634); and

3) The product of reclamation must be "used beneficially" (*see* 40 C.F.R. 261.3(c)(2) (2009) (corresponding with 35 Ill. Adm. Code 721.103(c)(2))).

Any assessment of when recycling is complete depends on the facts surrounding the particular reclamation process, how value is ascribed to the product of the process, and consideration of the factors involved in the second segment of the legitimacy rule. For example, it may be unwise to consider a secondary material fully "recycled" before actual "use or reuse" is complete where the form in which the material exits the recycling process poses some risk to human health or the environment that is not posed by the product made by a raw material for which it substitutes. *See* 50 Fed. Reg. at 648-49 (retention of "solid waste" designation for precious metals-bearing secondary materials). In any such instance, the balancing of such a hazard is part of the "legitimacy determination" and the "legitimacy rule," and a determination that a particular mode of recycling a specific HSM poses an excessive risk should result in a conclusion that the "reclamation" does not constitute "legitimate recycling." *See* 40 C.F.R. 260.43(c) (2009) (corresponding with 35 Ill. Adm. Code 720.143(c)).

USEPA's new non-waste determination provision allows USEPA or an authorized state to determine that HSM subject to reclamation is not solid waste. There are two types of non-waste determination, and USEPA has assigned criteria for making either type of determination. 40 C.F.R. 260.30(d) and (e) and 260.34 (2009) (corresponding with 35 Ill. Adm. Code 720.130(d) and (e) and 720.134). It is possible to use the non-waste determination to obtain an administrative order that deems "recycling" as "legitimate." Thus, the factors discussed as to the non-waste determination can aid determination when "recycling" is complete. USEPA stated as follows:

> Today's rule establishes a non-waste determination process that provides persons with an administrative process for receiving a formal determination that their hazardous secondary materials are not discarded and, therefore, not solid wastes when legitimately reclaimed. This process is voluntary and is available in addition to the two self-implementing exclusions included in today's rule. There are two types of non-waste determinations: (1) A determination for hazardous secondary materials reclaimed in a continuous industrial process; and (2) a

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reuse" requirement, off-site shipment for further "recycling" would satisfy the prohibition against "speculative accumulation."

> determination for hazardous secondary materials indistinguishable in all relevant aspects from a product or intermediate.
>
> For hazardous secondary materials reclaimed in a continuous industrial process, the non-waste determination will be based on the following four criteria: (1) The extent that the management of the hazardous secondary material is part of the continuous primary production process; (2) whether the capacity of the production process would use the hazardous secondary material in a reasonable time frame; (3) whether the hazardous constituents in the hazardous secondary material are reclaimed rather than discarded to the air, water, or land at significantly higher levels from either a statistical or from a health and environmental risk perspective than would otherwise be released by the production process; and (4) other relevant factors that demonstrate the hazardous secondary material is not discarded.
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> For hazardous secondary materials which are indistinguishable in all relevant aspects from a product or intermediate, the non-waste determination will be based on the following five criteria: (1) Whether market participants treat the hazardous secondary material as a product or intermediate rather than a waste; (2) whether the chemical and physical identity of the hazardous secondary material is comparable to commercial products or intermediates; (3) whether the capacity of the market would use the hazardous secondary material in a reasonable time frame; (4) whether the hazardous constituents in the hazardous secondary material are reclaimed rather than discarded to the air, water, or land at significantly higher levels from either a statistical or from a health and environmental risk perspective than would otherwise be released by the production process; and (5) other relevant factors that demonstrate the hazardous secondary material is not discarded. 73 Fed. Reg. at 64670.

The Board believes that the interpretation of the federal requirements enunciated in this discussion is consistent with all that USEPA has stated with regard to recycling and the definition of solid waste. This position is also consistent with the fact that USEPA has always considered the product of reclamation to no longer be waste, as noted above. Should USEPA indicate that the Board errs in this position, the Board will alter the position to comport with the Board's understanding of what USEPA intended.

If the HSM reclamation satisfies the first three conditions—*i.e.*, (1) the HSM is not one of the secondary materials that are excepted from exclusion from the definition of solid waste, (2) the reclamation satisfies the "legitimacy rule," and (3) no "speculative accumulation" occurs—two additional conditions apply. These are the following requirements: (4) the HSM must be "contained" from the point of generation until the reclamation is complete, and (5) the generator and reclaimer must notify USEPA before beginning the reclamation. The following two segments of discussion consider each of these two conditions in turn.

The HSM Must Be Contained. The fourth universal condition common among all of the self-implementing HSM exclusions is that the reclaimed HSM must be "contained" This must

be within the non-land-based reclamation units for the generator-reclaimed non-land-based reclaimed HSM exclusion. 40 C.F.R. 261.2(a)(2)(ii) (2009) (corresponding with 35 Ill. Adm. Code 720.102(a)(2)(B)). The mode of containment is not elaborated in the generator-reclaimed land-based units reclaimed HSM exclusion or either of the independently reclaimed HSM exclusions. 40 C.F.R. 261.4(a)(23)(i), (a)(24)(v)(A), (a)(24)(vi)(D), and (a)(25) (2009) (corresponding with 35 Ill. Adm. Code 720.104(a)(23)(A), (a)(24)(E)(i), and (a)(25)).

USEPA did not include a definition of the term "contained" in the rule.[103] *See* 74 Fed. Reg. 25200, 02-03 (May 27, 2009). USEPA elaborated the "contained" requirement in a short discussion. While the immediate subject is the pair of exclusions for generator-reclaimed HSM, the underlying concept of "contained" is the same as for independently reclaimed HSM. The discussion explains USEPA's intended meaning for "contained."

In the first segment of the discussion, USEPA described the "contained" requirement in terms of controlled movement of HSM into the environment, as follows:

> Under these provisions, the hazardous secondary materials must be contained, whether they are stored in land-based units or non-land-based units. Generally, such material is "contained" if it is placed in a unit that controls the movement of the hazardous secondary material out of the unit and into the environment. These restrictions support [US]EPA's determination that materials managed in this manner are not discarded. 73 Fed. Reg. at 64681.

In the second segment of the discussion, USEPA explained that "reclamation" of excluded HSM can become hazardous waste treatment if the HSM is not "contained." USEPA did not enunciate a "bright line" approach to determining when this occurs. Rather, USEPA stated that a "significant" release of HSM will violate the "contained" condition. Such a violation has immediate consequences from an enforcement perspective: both the HSM that spilled or leaked and the HSM remaining "contained" within the process both become hazardous waste. USEPA described "contained" using the "valuable product" language that is familiar from the "legitimacy rule."

If the reclaimer immediately cleans up the release, however, it appears that the release is not "significant." Thus, whether a loss of HSM to the environment is a "significant" release or not will depend on the amount of HSM lost and the threat to human health and the environment posed by the release, as well as how quickly and diligently the facility owner or operator acted to recover the lost HSM. USEPA stated that the generator-reclaimer must manage the HSM undergoing reclamation the same way the generator-reclaimer would treat a "valuable raw material," as follows:

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[103] This was a source of significant comments on the rule, which has prompted USEPA to request comments on whether a definition is necessary and as to the possible contents of such a definition. 74 Fed. Reg. at 25202-03. The potential future amendments to the DSWR are discussed below (beginning on page 223 of this opinion).

> In the event of a release from a unit to the environment, the hazardous secondary materials that remain in the unit may or may not meet the terms of the exclusion. They would be considered solid wastes if they are not managed as a valuable raw material, intermediate, or product, and as a result, a "significant" release of hazardous secondary materials from the unit to the environment were to take place and the materials were not immediately recovered. If such a significant release were to occur . . . the unit would be subject to the appropriate hazardous waste regulations. * * * Thus, the unit and any remaining waste would be subject to Subtitle C controls . . . . In addition, any of the released materials that were not immediately recovered would also be considered discarded and, if hazardous, subject to appropriate federal or state regulations and applicable authorities. Thus, to be excluded from the definition of solid waste, the facility has an obligation to manage the material as it would any raw material, intermediate or product because of its value. . . . 73 Fed. Reg. at 64681.

Thus, USEPA appears to contemplate that some losses of HSM to the environment are tolerable, so long as the losses of HSM are no greater than would occur using a "valuable raw material" and the attempts to prevent and contain the losses of HSM are equivalent to what would occur using a "valuable raw material." In a later segment of the discussion of the DSWR amendments, however, USEPA made a strong statement that could indicate that no losses of HSM are acceptable. USEPA stated as follows in discussion of public comments on the "contained" requirement:

> By "contained," [US]EPA means not released to the environment. It is a self-evident fact that hazardous secondary materials released to the environment (*e.g.*, causing soil and groundwater contamination) are not "destined for recycling" or "recycled in a continuous process"; thus, they are part of the waste management problem. 73 Fed. Reg. at 64720.

Further, while the environmental consequences of losses of HSM to the environment can be the same as losses of "valuable raw material," the regulatory consequences can be much more significant—unless the lost HSM is contained or recovered before the material is considered "abandoned" or "discarded material." The hazardous waste regulations would apply to the lost material in both instances in the same way, at least with regard to management of the cleanup residue management requirements.[104] *See, e.g.*, 40 C.F.R. 261.5, 262.10(g) and (h), and 262.34

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[104] A material is considered "abandoned," and becomes solid waste, when it is "disposed of." 40 C.F.R. 261.2(b)(1) (2009) (corresponding with 35 Ill. Adm. Code 721.102(b)(1)). "Disposal" is defined as including "spilling" and "leaking." 40 C.F.R. 260.10 (2009) (definition of "disposal") (corresponding with 35 Ill. Adm. Code 720.110). The hazardous waste requirements that would apply to leaked raw material would include, at a minimum, the duty to determine if the material is solid waste, and if so, to package, label, and manage the material appropriately, to use the hazardous waste manifest system to track shipments of the material, and to maintain records of those shipments. *See* 40 C.F.R. 262.Subparts A through D (2009) (corresponding with 35 Ill. Adm. Code 722.Subparts A through D). Further, the site could be designated as a corrective

(2009) (corresponding with 35 Ill. Adm. Code 721.105, 722.110(g) and (h), and 722.134). Where the loss of HSM was "significant," however, one of the regulatory consequences of the loss is that the HSM which remained contained also becomes subject to the hazardous waste regulations. 73 Fed. Reg. at 64681.

USEPA did not apply the hazardous waste T/S/D facility standards for tanks, containers, and other containment vessels to units used for managing and reclaiming excluded HSM. *See, e.g.,* 40 C.F.R. 264.175, 264.193, 264.221, 264.251, 264.573, and 264.601 (containment system for containers, secondary containment for tanks, double liner and leachate collection system for surface impoundments, liner system for waste piles, drip pad liner, and performance standard for miscellaneous units, respectively) (2009) (corresponding with 35 Ill. Adm. Code 724.275, 724.293, 724.321, 724.351, 724.673, and 724.701). USEPA's discussion of proper management of releases in the third segment of the discussion, however, appears to involve vessels that comply with hazardous waste T/S/D facility management standards. Specifically, USEPA stated that a release is acceptable if it is contained by secondary containment or some other means of facilitating immediate recovery of escaped material. USEPA concluded the foregoing discussion of the "contained" requirement with the following observation as to an acceptable release of HSM:

> Conversely, a tank or a surface impoundment in good condition may experience small releases resulting from normal operations of the facility. Sometimes a material may escape from primary containment and may be captured by secondary containment or some other mechanism that would prevent the material from being released to the environment or would allow immediate recovery of the material. In that case, the unit would retain its exclusion from RCRA hazardous waste regulation and the hazardous secondary materials in the unit would still be excluded from the definition of solid waste, even though any such materials that had been released would be considered discarded if not immediately recovered . . . . 73 Fed. Reg. at 64681.

Thus, this segment of USEPA's discussion contemplates that a secondary material is "contained" for the purposes of this condition if spills or leaks of HSM are either "prevent[ed] from being released to the environment or . . . immediate[ly] recover[ed]." *Id.* This would support a conclusion that while this does not require that HSM management and reclamation occur in compliant vessels, a material is not "contained" if the system does not either prevent release or facilitate immediate recovery of spilled or leaked HSM. The final segment of this discussion of the "contained" requirement undercuts such a conclusion.

In the fourth and final segment of this discussion, USEPA further defined a "significant" release in terms that suggest that the potential environmental consequences of the release are primary considerations when determining whether a release is significant. USEPA stated that a small release could cause significant damage over time if not corrected, so that HSM is not

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action management unit or temporary unit that is subject to those segments of the hazardous waste T/S/D facility requirements. *See* 40 C.F.R. 264, subpart S (2009) (corresponding with 35 Ill. Adm. Code 724.Subpart S).

contained if a leak is allowed to continue. USEPA defined "significant" with regard to an continuing small release of HSM as follows:

> It should be noted that a "significant" release is not necessarily large in volume. Such a release could include an unaddressed small release to the environment from a unit that, if allowed to continue over time, could cause significant damage. Any one release may not be significant in terms of volume. However, if the cause of such a release remains unaddressed over time and hazardous secondary materials are managed in such a way that the release is likely to continue, the materials in the unit would not be contained. * * * . As a result, the hazardous secondary materials in the unit would be hazardous wastes and these units would be subject to the RCRA hazardous waste regulations. *Id*.

The Board believes that use of secondary containment or other means for preventing spilled or leaked HSM from entering the environment satisfies USEPA's requirement that HSM remain "contained" from the point of generation through reclamation. Further, the use of such means to facilitate recovery of spills or leaks that have escaped to the environment satisfies the "contained" requirement. USEPA outlined concrete examples of acceptable releases that involved such complete containment or recovery. USEPA was, thus, quite clear that complete containment or prompt recovery of spilled or leaked HSM satisfies the "contained requirement." USEPA has been equally clear that HSM is not contained where "significant" amounts of HSM have, in fact, escaped to the environment and have yet not been recovered, so that the HSM poses a threat to human health and the environment. Such a release could be sudden or occur unchecked over time.

USEPA, however, has created ambiguity in the area between these two extremes. USEPA cites an example of "very small releases" due to rain runoff from used furnace as not "significant." 73 Fed. Reg. at 64681. Further, in USEPA's examples of "significant" releases, qualifying words, such as "a slow, unaddressed leak to groundwater . . ., over time" and "without any provisions to prevent wind dispersal" combined with "if unaddressed over time and likely to continue," as leaving room for releases that are not "significant." *Id*. USEPA's discussion expressly contemplates that those releases that are large and small releases that continue over time and which "could cause significant damage" are "significant." The discussion nowhere requires immediate recovery of all releases to ensure that the secondary material is "contained." The discussion raises the possibility that some releases to the environment which are not recovered are not "significant." In this way, USEPA implies that some releases to the environment are not "significant."

On the other hand, USEPA has been clear on the consequences of a "significant" release of HSM. A "significant" release of HSM or hazardous constituents from HSM would violate the "contained" condition. This would result in the spilled or leaked HSM becoming hazardous waste. As well, the HSM that is still contained in containment or process units becomes hazardous waste. This is different from the result from the spill or leak of a product or raw

material. Spilled or leaked product or raw material can become hazardous waste.[105] The spill would not affect the regulatory status of product or raw material remaining within the containment or process units.

The final condition that applies to all of the reclaimed HSM exclusions is the notification requirement. The discussion that follows indicates that there are actually two notification requirements, and a failure to fulfill one of them does not affect the status of reclaimed HSM as excluded from the definition of solid waste.

The Notification Requirements. The fifth universal condition common among the HSM exclusions is unique from all the others. First, there are actually two notification requirements. One applies to HSM management and reclamation that occurs within the United States. The Board calls this the activity notification in the following discussions. The second notification requirement applies to export of HSM for reclamation. The Board calls this the export notification. USEPA has stated that the domestic prior notification requirement is not a condition precedent to exclusion. On the other hand, HSM export cannot occur without prior export notification. The activity and export notification requirements operate by different means and for different purposes, as outlined in the following paragraphs. The two notice requirements are wholly independent of one another.

The activity notification requirement, which applies to reclamation or management of HSM within the United States, requires notification to USEPA. *See* 40 C.F.R. 261.2(a)(2)(ii) and 261.4(a)(23)(vi), (a)(24)(vii), and (a)(25)(xii) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B) and 721.104(a)(23)(F), (a)(24)(G), and (a)(25)(L)). The activity notification is to occur using USEPA Form 8700-12, *Notification of RCRA Subtitle C Activity*. This is the same form that is used for notification of hazardous waste activity. 40 C.F.R. 260.42(a) (2009) (corresponding with 35 Ill. Adm. Code 720.142(a)); *see* 40 C.F.R. 262.2(b), 263.11(b), 264.1(j)(1), and 267.2 (2009) (corresponding with 35 Ill. Adm. Code 722.102(b), 723.111(b), 724.101(j)(1), and 727.100(b)). The activity notice is submitted to USEPA, Office of Resource Conservation and Recovery. USEPA Form 8700-12, *Notification of RCRA Subtitle C Activity* (Nov. 2009).

The export notification is also made to USEPA, but only informational content is specified by rule. No specific form is required. 35 Ill. Adm. Code 261.4(a)(25)(i) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(25)(A)). The export notification is nearly identical to the notification of intent to export hazardous waste. *Compare* 40 C.F.R. 261.4(a)(25)(i) (2009) *with* 40 C.F.R. 262.53 and 262.83 (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(25)(A), 722.153 and722.183, respectively). The export notification is submitted to USEPA, Office of Enforcement and Compliance Assurance. 40 C.F.R. 261.4(a)(25)(i) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(25)(A)); *see* 40 C.F.R. 262.53 and 262.83 (2009) (general hazardous waste export notification requirements and requirements for export to Organization for Economic Cooperation and Development countries) (corresponding with 35 Ill. Adm. Code 722.153 and722.183).

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[105] *See supra* note 104.

Any person that generates, manages, or reclaims HSM, including a generator-reclaimer that manages HSM only in non-land-based units, is required by new 40 C.F.R. 260.42 (corresponding with 35 Ill. Adm. Code 720.142) to submit the activity notification using USEPA Form 8700-12 before beginning to HSM under the exclusion. This notice provision states as follows:

> Hazardous secondary material generators, tolling contractors, toll manufacturers, reclaimers, and intermediate facilities managing hazardous secondary materials which are excluded from regulation under § 261.2(a)(2)(ii), § 261.4(a)(23), (24), or (25) must send a notification prior to operating under the exclusion(s) and by March 1 of each even numbered year thereafter . . . . 40 C.F.R. 260.42(a) (2009) (corresponding with 35 Ill. Adm. Code 720.142(a)); *see* 73 Fed. Reg. at 64681.

This language specifically requires that activity notification occur before beginning reclamation activities, and it makes the notice requirement appear to be a condition precedent to exclusion.

USEPA stated that the purpose of the activity notification requirements, at least as to HSM reclaimed within the United States, is to aid determination of the status of the HSM. USEPA stated as follows:

> This notification requirement is needed to enable credible evaluation of the status of hazardous secondary materials under RCRA and to ensure the terms of the exclusions are being met by generators and reclaimers. 73 Fed. Reg. at 64677, n. 1.

Not only is the requirement intended to aid regulators, activity notification to USEPA can provide a means whereby the generator can determine that an independent reclamation intermediate facility is properly managing or reclaiming the HSM that the generator ships them. *See* 40 C.F.R. 261.4(a)(24)(v)(B)(*2*) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)(H)(ii)). The activity notice requirement is, therefore, a compliance and enforcement tool.

USEPA requires not only activity notification of initiation of reclamation activities, but also of cessation (40 C.F.R. 260.42(b) (2009) (corresponding with 35 Ill. Adm. Code 720.142(b)), and biennial activity notification ongoing operation under an exclusion (40 C.F.R. 260.42(a) (2009) (corresponding with 35 Ill. Adm. Code 720.142(a)). A generator, reclaimer, or other facility that manages HSM under one of the exclusions must submit activity notification using USEPA's Notification of Waste Activity on March 1 of every other year, or within 30 days of the cessation of activities. Only one activity notification is required for a single facility, and activity notification of cessation is required only if the facility has ended all operations under an exclusion, not when the facility stops some operations. 73 Fed. Reg. at 64682.

What follows is separate discussion of the activity notification requirements related to each of the four reclaimed HSM exclusions. Discussion of the export notification requirements appears as a segment of the discussion of the notification requirements for HSM that is exported.

Discussion of the effect of a failure to submit activity notification follows that. The final segment considers whether USEPA's interpretation of the activity notification requirement creates ambiguity as to the status of other conditions.

Generator-Reclaimed HSM Exclusions. With regard to the two land-based unit generator-reclaimed HSM exclusions, there is specific mention of the activity notification requirement within the recitation of conditions to each. There is a difference between the two, however, in how the requirement is referenced. The generator-reclaimed HSM exclusion for management in non-land-based units includes a parenthetical reference to the activity notification requirement of 40 C.F.R. 260.42 (corresponding with 35 Ill. Adm. Code 720.142). That recitation appears as follows:

> (ii) A hazardous secondary material is not discarded if it is generated and reclaimed under the control of the generator . . . , [and it fulfills specified conditions]. (See also the notification requirements of § 260.42[.)] (For hazardous secondary materials managed in land-based units, see § 261.4(a)(23)). 40 C.F.R. 261.2(a)(2)(ii) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B)).

The exclusion for generator-reclaimed HSM managed in land-based units recites the activity notification requirement as one of the conditions to exclusion, as follows:

> (a) *Materials which are not solid wastes*. The following materials are not solid wastes for the purpose of this part:
>
> (23) Hazardous secondary material generated and reclaimed within the United States or its territories and managed in land-based units as defined in § 260.10 of this chapter is not a solid waste provided that:
>
> * * * * *
>
> (vi) In addition, persons claiming the exclusion under this paragraph (a)(23) must provide notification as required by § 260.42 of this chapter. * * * 40 C.F.R. 261.4(a) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)); *see* 40 C.F.R. 261.4(a)(24)(vii) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)(G)) (the same requirement worded similarly for independently reclaimed HSM).

Independently Reclaimed HSM Reclaimed Within the United States. The independently reclaimed HSM exclusion for HSM reclaimed within the United States similarly recited the activity notification requirement as a condition to the exclusion. The exclusion, however, applies in a broader context that embraces more than just the generator, so that the condition applies to the generator, any intermediate facilities managing the HSM, and to the independent reclamation facility, as follows:

(24) Hazardous secondary material that is generated and then transferred to another person for the purpose of reclamation is not a solid waste, provided that:

* * *

(v) The hazardous secondary material generator satisfies all of the following conditions:

* * *

(B) Prior to arranging for transport of hazardous secondary materials to a . . . facility (or facilities) where the management of the hazardous secondary materials is not addressed under a RCRA Part B permit or interim status standards, . . . [t]he hazardous secondary material generator must affirmatively answer all of the following questions for each reclamation facility and any intermediate facility:

* * *

(*2*) Does the publicly available information indicate that the reclamation facility and any intermediate facility that is used by the hazardous secondary material generator notified the appropriate authorities of hazardous secondary materials reclamation activities pursuant to § 260.42 of this chapter and have they notified the appropriate authorities that the financial assurance condition is satisfied per paragraph (a)(24)(vi)(F) of this section? In answering these questions, the hazardous secondary material generator can rely on the available information documenting the reclamation facility's and any intermediate facility's compliance with the notification requirements per § 260.42 of this chapter, including the requirement in § 260.42(a)(5) to notify [US]EPA whether the reclaimer or intermediate facility has financial assurance.

* * *

(vii) In addition, all persons claiming the exclusion under this paragraph (a)(24) of this section must provide notification as required under § 260.42 of this chapter. 40 C.F.R. 261.4(a)(24) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)).

There are additional burdens with regard to independently reclaimed HSM for which the reclamation occurs within the United States. First, each facility managing or reclaiming the HSM must submit the required activity notification. 40 C.F.R. 261.4(a)(24)(vii) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)(F)). Second, the HSM generator bears the added burden of making reasonable efforts to verify that each intermediate or reclamation facility that will manage or reclaim the generator's HSM has made this required activity notification. 40 C.F.R. 261.4(a)(24)(v)(B)(*2*) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)(H)(ii)).

Independently Reclaimed HSM That Is Exported for Reclamation. There are two notification requirements for independently reclaimed HSM that is exported for reclamation. The first is the required activity notification. The activity notification requirement applies to the segments of HSM management that occur within the United States. This activity notification requirement is the same requirement that applies to the other three self-implementing HSM exclusions. That requirement provides as follows:

> (25) Hazardous secondary material that is exported from the United States and reclaimed at a reclamation facility located in a foreign country is not a solid waste, provided that . . . the hazardous secondary material generator . . . complies with the following requirements:
>
> * * *
>
> (xii) All persons claiming an exclusion under this paragraph (a)(25) must provide notification as required by § 260.42 of this chapter. 40 C.F.R. 261.4(a)(25)(xii) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(25)(L)).

Export Notification. The second notification requirement is different. The export notification requirement is independent of the activity notification discussed above. For HSM that is exported the generator must submit to USEPA a notification of intent to export.[106] The export notification is intended to prompt USEPA to notify the government of the receiving country for authorization of the shipment. 73 Fed. Reg. at 64698. The notification of intent to export is more fully discussed below (beginning at page 168 of this opinion). The Board summarizes the export notification scheme here, to allow the reader to contrast it against the activity notification requirement.

Export notification must occur at least 60 days prior to export. 35 Ill. Adm. Code 721.4(a)(25)(i) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(25)(A)). Upon receipt of export notification, USEPA notifies the receiving country's government pursuant to international treaties based on this notice. *See* 35 Ill. Adm. Code 721.4(a)(25)(i) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(25)(A)); *see also* 40 C.F.R. 262, subpart H (2009) (corresponding with 35 Ill. Adm. Code 722.Subpart H) (similar requirements for trans-frontier shipments of hazardous waste). Shipment cannot occur until the receiving country consents to the shipment. 35 Ill. Adm. Code 721.4(a)(25)(vi) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(25)(F)). If the receiving country consents to the shipment, USEPA will issue an "Acknowledgement of Consent," and the export shipment may occur as consented. 35 Ill. Adm. Code 721.4(a)(25)(v) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(25)(E)). If the receiving country is a member of the Organization for Economic Cooperation and Development (OECD), in the absence of an objection, "tacit consent" to the

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[106] The obligation to verify that the receiving facility has submitted any required notification is expressly waived by the rules. *See* 40 C.F.R. 261.4(a)(25) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(25)).

shipment is assumed 30 days after USEPA received an acknowledgement that the foreign government received the notification of the intent to export HSM. 35 Ill. Adm. Code 721.4(a)(25)(vii) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(25)(G)).

The Effect of a Failure to Submit Activity Notification. USEPA stated that a failure to submit activity notification does not alter the regulatory status of the HSM as exempt from the definition of solid waste. This statement changes the activity notification requirement. Activity notification is not a condition precedents to exclusion. USEPA stated as follows with regard to the generator-reclaimed HSM exclusions:

> We note that the requirement to provide this notification is not a condition of the exclusion. Thus, failure to comply with the requirement constitutes a violation of RCRA, but does not affect the excluded status of the hazardous secondary materials. 73 Fed. Reg. at 64682; *see also* 73 Fed. Reg. at 64685 (making the same remark *re* the independently reclaimed HSM exclusions).

USEPA later repeated in its May 27, 2009 request for comments on future changes to the DSWR that the prior activity notification was not a condition precedent to any of the HSM exclusions. USEPA stated as follows:

> The DSW final rule required persons claiming one of the exclusions to notify the appropriate regulatory agency before operating under the exclusion. [US]EPA explained that the notification requirement under the authority of RCRA section 3007 would not be a condition of the exclusion, and failure to notify, while constituting a violation of the notification regulations, would not affect the excluded status of the hazardous secondary materials. In other words, generators or reclaimers could fail to notify yet still be considered to be legitimately recycling their hazardous secondary materials according to the conditions of the exclusion (73 [Fed. Reg. at] 64682). 74 Fed. Reg. 25200, 03 (May 27, 2009).

Thus, USEPA interpreted the mandatory language of the activity notification requirement in a way that draws other conditions into question. While the activity notification is still required, USEPA arguably overlooked the "prior to operating under the exclusion(s)" segment of the requirement (40 C.F.R. 260.42(a) (2009) (corresponding with 35 Ill. Adm. Code 720.142(a))). The preamble statement to each of the exclusions states that the HSM is excluded "provided that" the person claiming the exclusion has complied with the conditions of the exclusion. Further, there is no distinction among the conditions that would indicate that the "prior to operating" language is anything but mandatory. *See* 40 C.F.R. 261.4(a)(23)(vi), (a)(24)(vii), and (a)(25)(xii) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(23)(F), (a)(24)(G), and (a)(25)(L)). Thus, a segment of the requirement that appears a mandatory condition precedent to exclusion is actually an operating requirement, and compliance with the activity notification requirement does not affect the status of the HSM as excluded. This aspect of the 2008 DSWR amendments prompted significant public comments to USEPA. USEPA may

revise the activity notification requirement to make notification to USEPA or authorized state a clear condition precedent to exclusion.[107] 74 Fed. Reg. at 25203.

Does USEPA's Interpretation of the Activity Notification Requirement Affect Other Conditions? The Board perceives that two types of conditions are possible. The first type is a condition precedent to exclusion of the HSM. The second type is an operational condition, the non-fulfillment of which is a violation of the RCRA standards, but which does not affect the status of the HSM as excluded from the definition of solid waste.

The five universal conditions will act as the starting point for the Board's analysis. Aside from the activity notification requirement, USEPA did not distinguish which of the conditions that attach to the four self-implementing exclusions are conditions precedent to exclusion and which are operational conditions. If the prior activity notification requirement is not a condition precedent to exclusion, does that mean that others among the recited conditions to exclusion are also operational conditions? Would a failure to fulfill any others among the conditions not affect the viability of the exclusion? In other words, does non-fulfillment of any of the conditions change the regulatory status of the HSM as solid/hazardous waste, or does non-fulfillment similarly constitute a violation of the regulations and not result in a change in regulatory status?

The Board believes that the notification requirement is unique among the universal conditions. The other four universal conditions are conditions precedent to exclusion. Fulfillment of each the other universal conditions is essential to exclusion. Although compliance prior to exclusion is not explicitly required before operation under the exclusion, it would be impossible to operate under the exclusion without compliance with each of those four conditions. Violation of any of the other universal conditions causes a loss of the exclusion, and the HSM becomes hazardous waste, as discussed in the following paragraphs.

In the preamble discussion of the DSWR amendments, USEPA clearly stated that failing to fulfill the "contained" requirement could result in a loss of the exclusion. *See* 73 Fed. Reg. at 64681. Thus, the "contained" condition is a condition precedent to exclusion.

The "legitimacy" condition is also a condition precedent to exclusion. USEPA stated with regard to "sham recycling" as follows: "If a facility is engaged in sham recycling, this, by definition, is not real recycling and that material is being discarded." 73 Fed. Reg. at 64709.

The prohibition against "speculative accumulation" is based on the concept that speculatively accumulated HSM is discarded. USEPA stated:

> Historically, hazardous secondary materials excluded from the definition of solid waste generally become wastes when they are speculatively accumulated, because, at that point, they are considered to be unlikely to be recycled and therefore discarded. 73 Fed. Reg. at 64677.

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[107] The potential future amendments to the DSWR are discussed below (beginning on page 223 of this opinion).

As to the requirement that the HSM must be "contained," USEPA clearly stated that HSM becomes hazardous waste when it is not "contained." In fact, as discussed above (at page 125 of this opinion), in addition to the HSM that spilled or leaked, the HSM that remains "contained" within storage or the reclamation process also becomes hazardous waste.73 Fed. Reg. at 64681.

USEPA, however, has stated that the notification requirement lacks the status of a condition precedent to exclusion. The distinction between the notice requirement and the other conditions is made in a passage that clearly states that fulfilling each of the other universal the conditions is required to maintain the exclusion. The manner in which USEPA raised the notification requirement as a concluding remark clearly indicates a different status for this condition: the notification requirement is a point of compliance, not a precondition to operating under the exclusion. USEPA's observations appeared as follows:

> Under today's rule, hazardous secondary materials generated and legitimately reclaimed within the United States under the control of the generator are excluded from RCRA Subtitle C regulation, but are subject to certain restrictions, principally speculative accumulation, legitimate recycling, and containment. Persons that handle these hazardous secondary materials are responsible for maintaining the exclusion by ensuring that these restrictions are met. If the hazardous secondary materials are not managed pursuant to these restrictions, they are not excluded. They would then be considered solid and hazardous wastes if they were listed or they exhibited a hazardous waste characteristic for Subtitle C purposes from their point of generation. Persons operating under the exclusion are also required to notify [US]EPA or the authorized state. 73 Fed. Reg. at 64683.

Nothing in the text of the activity notification requirement would explicitly distinguish this requirement from all other universal conditions in a way that would support a conclusion that the others are conditions precedent to exclusion and the activity notification is simply a requirement that one must fulfill incident to exclusion. In fact, the activity notification requirement is the only condition applicable to the four reclaimed HSM exclusions that explicitly provides that compliance is required "prior to operating under the exclusion(s)." 40 C.F.R. 260.42(a) (2009) (corresponding with 35 Ill. Adm. Code 720.142(a)).

Is it possible to divide the conditions to the reclaimed HSM exclusions into two categories, with one category including conditions precedent to exclusion and the other including operational requirements that do not affect the exclusion? The Board believes that USEPA may have subtly done so in the language of the five universal conditions. Aside from the "prior" distinction to the activity notification requirement, there are two minor distinctions between the activity notification requirement and the other universal conditions. The first is that the notification requirement is prefaced with the introductory clause "in addition." *See* 40 C.F.R. 261.4(a)(23)(v) and (a)(24)(vii) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(23)(E) and (a)(24)(G)); *but see* 40 C.F.R. 261.4(a)(25)(xii) (2009) (lacking the introductory clause) (corresponding with 35 Ill. Adm. Code 721.104(a)(25)(L)). The Board does not believe that this

does not sufficiently distinguish the activity notification requirement in any way that would indicate that activity notification is a condition precedent to exclusion. The second distinction is in the phrasing of the requirement.

The activity notification requirement is phrased in active voice, in terms of what persons managing HSM must do. The exclusion for generator-reclaimed HSM that is reclaimed in land-based units is a prime example of the distinct phrasing of the conditions. This exclusion provides in pertinent part as follows:

> (23) Hazardous secondary material generated and reclaimed within the United States or its territories and managed in land-based units . . . is not a solid waste provided that:
>
> (i) The material is contained;
>
> (ii) The material is a hazardous secondary material generated and reclaimed under the control of the generator . . . ;
>
> (iii) The material is not speculatively accumulated . . . ;
>
> (iv) The material is not otherwise subject to material-specific management conditions . . . , it is not a spent lead acid battery . . . , and it does not meet the listing description for K171 or K172 . . . ;
>
> (v) The reclamation of the material is legitimate . . . ; and
>
> (vi) In addition, persons claiming the exclusion under this paragraph (a)(23) must provide [activity] notification a. . . . 40 C.F.R. 261.4(a)(23) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(23)).

The activity notification requirement is also phrased in term of what a person must do. It states as follows:

> (a) Hazardous secondary material generators, tolling contractors, toll manufacturers, reclaimers, and intermediate facilities managing [excluded HSM] must send a notification prior to operating under the exclusion(s) and by March 1 of each even numbered year thereafter . . . . 40 C.F.R. 260.42(a) (2009) (corresponding with 35 Ill. Adm. Code 720.142(a)).

All of the other four universal conditions are in either active or passive voice, but they always recite something that must be true of the HSM. The four other universal conditions are each phrased in terms of what must be true of the HSM to gain exclusion:

- The requirement that the HSM "must be contained."[108] 40 C.F.R. 261.2(a)(2)(ii) and 261.4(a)(23)(i), (a)(24)(v)(A), (a)(24)(vi)(D), and (a)(25) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B) and 721.104(a)(23)(A), (a)(24)(E)(i), (a)(24)(F)(iv), and (a)(25)).

- The requirement that the HSM must be "legitimately recycled." 40 C.F.R. 261.2(a)(2)(ii) and (a)(23)(vi), (a)(24)(iv), and (a)(25) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B) and 721.104(a)(23)(F), (a)(24)(D), and (a)(25)).

- The prohibition against "speculative accumulation." 40 C.F.R. 261.2(a)(2)(ii) and (a)(23)(iii), (a)(24)(i), and (a)(25) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B) and 721.104(a)(23)(C), (a)(24)(A), and (a)(25)).

- The limitations that certain materials cannot be excluded HSM. 40 C.F.R. 261.2(a)(2)(ii) and (a)(23)(iv), (a)(24)(iii), and (a)(25) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B) and 721.104(a)(23)(D), (a)(24)(C), and (a)(25)).

This raises two questions. Is it possible that USEPA, thus, intended to distinguish between conditions that apply to the activities of persons that manage HSM under the exclusion and the limitations imposed on the HSM that is excluded? Could the distinction between a condition imposed on a person and a condition imposed on the HSM define which are operational conditions and which are conditions precedent to exclusion? Based on examination of the various exclusion-specific conditions, the Board believes that some of these conditions also are conditions precedents to exclusion and that others impose operational constraints. Further, many of these are worded either as conditions that impose obligations on persons managing or reclaiming HSM or limitations on the HSM that is managed under the exclusion. This examination, however, does not support a conclusion that USEPA intended that a condition phrased in terms of a limitation on the HSM constitute a condition precedent to exclusion while a condition that imposes an obligation on a person act as an operational condition.

For example, the "contained" requirement, as it appears in the independently reclaimed HSM exclusion, combines the universal condition that the HSM "must be contained" with a requirement that the entities managing the HSM must do so "in a manner that is at least as protective as that employed for analogous raw material." 40 C.F.R. 261.4(a)(24)(vi)(D) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)(F)(iv)). The "contained" requirement combines both elements in a single provision.

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[108] *See infra* note 109 and accompanying text. The independently reclaimed HSM exclusion that applies to HSM reclaimed within the United States includes statements that the generator, reclaimer, and any intermediate facility must fulfill specified conditions, but the "contained" requirement is consistently phrase such that "contained" is a condition that must be true of the HSM. *See* 40 C.F.R. 261.4(a)(24)(v)(A) and (a)(24)(vi)(D) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)(E)(i) and (a)(24)(F)(iv)).

The condition that the HSM "must be contained" requirement is a universal condition, as discussed above (beginning on page 125 of this opinion). The requirement is worded in the passive-voice "must be contained" in every recitation of this universal condition in the rules. These appearances are as follows:

- In the non-land-based generator-reclaimed HSM exclusion:

> (ii) A hazardous secondary material is not discarded if . . . it is handled only in non-land-based units and is contained in such units . . . ." 40 C.F.R. 261.2(a)(2)(ii) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B)).

- In the land-based generator-reclaimed HSM exclusion:

> (23) Hazardous secondary material . . . is not a solid waste provided that:
>
> (i) The material is contained. 40 C.F.R. 261.4(a)(23) and (a)(23)(i) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(23) and (a)(23)(A)).

- With regard to the generator's obligations, in the independently reclaimed HSM exclusion for HSM that is reclaimed within the United States:

> (24) Hazardous secondary material . . . is not a solid waste, provided that:
>
> (v) The hazardous secondary material generator satisfies all of the following conditions:
>
> (A) The material must be contained. 40 C.F.R. 261.4(a)(24), (a)(24)(v), and (a)(24)(v)(A) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)), (a)(24)(E), and (a)(24)(E)(i)).

- With regard to the reclaimer's and intermediate facility's obligations, in the independently reclaimed HSM exclusion for HSM that is reclaimed within the United States:

> (24) Hazardous secondary material . . . is not a solid waste, provided that:
>
> (vi) Reclaimers of hazardous secondary material excluded from regulation under this exclusion and intermediate facilities . . . satisfy all of the following conditions:

> (D) The reclaimer and intermediate facility must manage the hazardous secondary material in a manner that is at least as protective as that employed for analogous raw material and must be contained. . . . 40 C.F.R. 261.4(a)(24), (a)(24)(vi), and (a)(24)(vi)(D) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24), (a)(24)(F), and (a)(24)(F)(iv)).

- With regard to the generator's obligations in the independently reclaimed HSM exclusion for HSM that is exported for reclamation: By requiring compliance with 40 C.F.R. 261.4(a)(24)(v)(A). *See* 261.4(a)(25) (2009) (cross-referencing the requirements of the domestically reclaimed HSM exclusion) (corresponding with 35 Ill. Adm. Code 721.104(a)(25)).

The language in the two generator-reclaimed HSM exclusions does not impose a duty on any person. Instead USEPA worded both generator-reclaimed HSM exclusions in a way that states what must be true of the HSM under the exclusion. 40 C.F.R. 40 C.F.R. 261.2(a)(2)(ii) and 261.4(a)(23) and (a)(23)(i) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B) and 721.104(a)(23) and (a)(23)(A)).

The duties recited in the independently reclaimed HSM exclusion for HSM reclaimed within the United States shifted this language. In this exclusion, USEPA combined a statement of personal duty with a statement of what must be true of the HSM managed under the exclusion. There are two of these provisions within this exclusion. One applies to the generator, and the other applies to reclaimers and intermediate facilities. Each provision states a duty of the entity or entities managing or reclaiming the HSM. 40 C.F.R. 261.4(a)(24)(v) and (a)(24)(vi)(2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)(E) and (a)(24)(F)). Each then states what must be true of the HSM: that the HSM "must be contained." 40 C.F.R. 261.4(a)(24)(v)(A) and (a)(24)(vi)(D) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)(E)(i) and (a)(24)(F)(iv)).

In the provision applicable to generators, the statement of the generator's obligations appears in one subsection and the appearance of the "must be contained" requirement appears in a subsidiary subsection. 40 C.F.R. 261.4(a)(24)(v) and (a)(24)(v)(A) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)(E) and (a)(24)(E)(i)) The provision applicable to reclamation and intermediate facilities is different in a way that even more strongly changes the statement of what must be true of the HSM into a duty imposed on the entities managing and reclaiming the HSM.

In the provision applicable to reclamation and intermediate facilities, USEPA followed the above-noted structure used in the segment applicable to the generator, but further combined a second statement of facilities' obligations under the exclusion. USEPA added an obligation "that is at least as protective as that employed for analogous raw material" in a single statement together with the "must be contained" requirement imposed on the HSM. 40 C.F.R. 261.4(a)(24)(vi) and (a)(24)(vi)(D) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)(F) and (a)(24)(F)(iv)). This combination strained the federal language of the provision, giving it a resulting literal meaning that the manner of HSM management, not the HSM itself "must be contained."

Thus, in the independently reclaimed HSM exclusions, USEPA still recited the "contained" requirements as something that must be true of the HSM in both instances, but imposed a duty of containment on the person managing the HSM. This duty is more strongly stated in the provision applicable to reclamation and intermediate facilities than in the one applicable to generators, but it occurs in both.

USEPA clearly intended that the HSM must be contained, since USEPA has stated that a failure to keep the HSM "contained" results in a loss of the exclusion. *See* 73 Fed. Reg. at 64681. It appears that USEPA wanted to use consistent language for the "contained" requirement in all of the reclaimed HSM exclusions—perhaps for consistency and to demonstrate that USEPA intended no shift in meaning. However, placing the "must be contained" phrase in the context of a statement of a person's obligation did not work well as worded by USEPA. This usage does not preclude the Board's interpretation that the "contained" requirement is a fundamental requirement that must be true of the HSM under the exclusion,[109] but this usage clearly mixed elements of a duty imposed on persons managing HSM with a limitation on the status of the HSM. At the very least, this usage weakens the Board's ability to draw conclusions based on such distinctions in language.

In addition to the universal notice requirement, which USEPA stated was an operational requirement, and not a condition precedent to exclusion, some exclusion-specific conditions are phrased in terms of what persons managing the HSM must do. Included among those other conditions are the following:

- The requirement that the generator undertake "reasonable efforts" to assure that offsite reclaimers and any intermediate facilities will properly manage its HSM. 40 C.F.R. 261.4(a)(24)(v)(B) (2009) (corresponding with 35 Ill. Adm. Code 724.104(a)(24)(E)(ii) and (a)(24)(H)).

- The requirements for retention of records by the generator, any intermediate facilities, and reclaimers. 40 C.F.R. 261.4(a)(24)(v)(C) and (a)(24)(vi)(A) (2009) (corresponding with 35 Ill. Adm. Code 724.104(a)(24)(E)(iii) and (a)(24)(F)(i)).

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[109] *See supra* note 108. The Board has endeavored throughout the federal text to replace passive-voice imperatives with direct statements of obligation on a specifically named person. In the instance of 40 C.F.R. 261.4(a)(24)(vi)(D), the Board has reworded the corresponding Illinois provision as follows:

The reclaimer or intermediate facility must manage the hazardous secondary material in a manner that is at least as protective of human health and the environment as that employed for analogous raw material, and the facility must contain the material. 35 Ill. Adm. Code 721.104(a)(24)(F)(iv).

The Board similarly used the active-voice in the companion "contained" provisions. *See* 35 Ill. Adm. Code 261.2(a)(2)(ii) and 721.104(a)(23)(A) and (a)(24)(E)(i).

- The requirement that an intermediate facility only forward the excluded HSM to the reclamation facility designated by the generator. 40 C.F.R. 261.4(a)(24)(vi)(B) (2009) (corresponding with 35 Ill. Adm. Code 724.104(a)(24)(F)(ii)).

- The requirement that independent reclamation facilities and any intermediate facilities maintain financial assurance. 40 C.F.R. 261.4(a)(24)(vi)(E) (2009) (corresponding with 35 Ill. Adm. Code 724.104(a)(24)(F)(v)).

- The requirement that independent reclamation facilities and any intermediate facilities manage the HSM that is independently reclaimed within the United States in a manner that is at least as protective of human health and the environment as the method for management of an "analogous raw material." 40 C.F.R. 261.4(a)(24)(vi)(D) (2009) (corresponding with 35 Ill. Adm. Code 724.104(a)(24)(F)(iv)).

- The requirements for export notification and export. 40 C.F.R. 261.4(a)(25)(i) through (a)(25)(vi) and (a)(25)(ix) through (a)(25)(xi) (2009) (corresponding with 35 Ill. Adm. Code 724.104(a)(25)(A) through (a)(25)(F) and (a)(25)(I) through (a)(25)(K)).

- The requirement that a reclaimer or intermediate facility manage the residues of the reclamation process in a manner that is protective of human health and the environment and that the management comply with RCRA Subtitle C hazardous waste requirements if they apply. 40 C.F.R. 261.4(a)(24)(vi)(E) (2009) (corresponding with 35 Ill. Adm. Code 724.104(a)(24)(F)(v)).

Each of these is worded as an obligation imposed on the person managing or reclaiming the HSM. Analysis of each further indicates that each is an operational constraint. Based on this alone, however, it is not possible for the Board to decisively conclude whether USEPA intended that these not act as conditions precedent to exclusion.

In addition to the four universal conditions that are conditions precedent to exclusion, some exclusion-specific conditions are phrased in terms of something that must be true of the HSM. These primarily include provisions that define the applicability of the exclusion. These include the following conditions:

- The conditions that the HSM is exclusively handled by the generator and that the HSM is managed only in non-land-based units in the generator-reclaimed exclusion for HSM that is managed only in non-land-based units. 40 C.F.R. 261.2(a)(2)(ii) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B)).

- The conditions that the HSM is exclusively handled by the generator and that management occurs in land-based units in the generator-reclaimed exclusion for HSM that is managed only in non-land-based units. 40 C.F.R. 261.4(a)(23) and (a)(23)(ii) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(23) and (a)(23)(B)).

- The condition that the HSM is generated and reclaimed within the United States in both of the generator-reclaimed HSM exclusions. 40 C.F.R. 261.2(a)(2)(ii) and 721.104(a)(23) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B) and 721.104(a)(23)).

- The conditions that the HSM is managed only by the generator and by the reclaimers and any intermediate facility designated by the generator and that storage in transportation may not exceed 10 days in the independently reclaimed HSM exclusion for reclamation within the United States (40 C.F.R. 261.4(a)(24)(ii) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)(B)).

Many of these conditions define whether exclusion under the particular provision is possible. Those conditions essentially include the defining characteristics of the particular exclusion. For example, the generator-reclaimed HSM exclusions do not allow transfer to another person for reclamation, and both generation and reclamation must occur within the United States. 73 Fed. Reg. 64680; *see* 40 C.F.R. 261.2(a)(2)(ii) and 261.4(a)(23) and (a)(23)(ii) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B) and 721.104(a)(23) and (a)(23)(B)). As another example, the exclusion applicable to generator-reclaimed HSM that is managed only in non-land-based units can only apply if the HSM is managed within non-land-based units. *See* 40 C.F.R. 261.2(a)(2)(ii) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B)). Finally, the condition that restricts management of independently reclaimed HSM to reclamation and intermediate facilities designated by the generator is a limitation on the HSM that can be excluded. 40 C.F.R. 261.4(a)(24)(ii) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)(B).

On the other hand, the 10-day limitation on holding HSM in transportation (40 C.F.R. 261.4(a)(24)(ii) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)(B)) does not define the exclusion. It is a limitation on management of the HSM.[110] Careful examination of the language of these conditions indicates little difference between the conditions that define the boundaries of the exclusion and the 10-day limitation on storage in transportation. This undercuts any conclusion that USEPA intended any distinctions based on subtleties in language.

A failure to comply with at least some of the conditions discussed above would cause the HSM to not be eligible for exclusion under the applicable exclusion. At least as to these conditions, which essentially define the exclusion itself, some of the exclusion-specific conditions are conditions precedent to exclusion. Thus, the Board perceives that some of the exclusion-specific conditions are also conditions precedent to exclusion. This would include those conditions that define the particular exclusion to which they apply. It might also include conditions that appear to impose operational conditions.

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[110] USEPA stated that a transportation facility that holds HSM for more than 10 days becomes an intermediate facility. 73 Fed. Reg. at 64730; *see* 40 C.F.R. 260.10 (2009) (definition of "intermediate facility") (corresponding with 35 Ill. Adm. Code 720.110).

In its discussion of one condition that would have seemed to impose operational constraints, USEPA made it clear that the exclusion would be lost upon non-compliance. Thus, USEPA considers the discussed conditions as conditions precedent to exclusion. This was in USEPA's discussion of the independently reclaimed HSM exclusion that applies to HSM that is reclaimed within the United States. USEPA stated as follows with regard to the duty of the generator to use "reasonable efforts" to ensure compliance of reclamation and intermediate facilities managing and reclaiming their HSM:

> [US]EPA intends that if a hazardous secondary material generator has met the reasonable efforts condition prior to transferring hazardous secondary materials to the reclamation or intermediate facility, then the reclaimer or intermediate facility, not the generator, would be liable under RCRA if the materials were discarded (*i.e.*, not properly and legitimately recycled). However, if the generator does not meet the reasonable efforts condition, then the generator is ineligible for the transfer-based exclusion and would be potentially liable in the event its hazardous secondary materials were discarded by a reclamation or intermediate facility. 73 Fed. Reg. at 64687 (emphasis added).

It becomes clear in the extended discussion of the "reasonable efforts" requirements, that USEPA intended that those reasonable efforts embrace the generator certification, recordkeeping, and reporting requirements. 73 Fed. Reg. at 64689-90; *see* 40 C.F.R. 261.4(a)(24)(v)(C) through (a)(24(v)(E) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)(E)(iii) through (a)(24)(E)(vi)). This would mean that USEPA's assertion applies equally to the certification, recordkeeping, and reporting requirements, making these all conditions precedent to exclusion.

In the discussion of the financial assurance requirements for off-site reclamation and intermediate facilities, USEPA made it clear in more general terms that a failure to operate within the reclamation and intermediate facility conditions of the independently reclaimed HSM exclusion could result in a loss of the exclusion. USEPA stated as follows:

> The financial assurance instruments for the trust fund, surety bond, letter of credit, and corporate guarantee have been revised so that [US]EPA can direct the financial assurance funds at the point the hazardous secondary material reclamation or intermediate facility no longer meets the exclusion and, therefore, is managing a hazardous waste. As long as a facility is operating under the transfer-based exclusion so that the hazardous secondary material is not being discarded, there would be no need to invoke the financial assurance instruments. 73 Fed. Reg. at 64693 (emphasis added).

The HSM is considered "discarded" when accumulated speculatively (40 C.F.R. 261.4(a)(2)(i), (a)(2)(i)(B), (c), and (c)(4) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(2)(A), (a)(2)(A)(ii), (c), and (c)(4))), when not "legitimately recycled" (40 C.F.R. 260.43(a) (2009) (corresponding with 35 Ill. Adm. Code 720.143(a))), and when not "contained" (73 Fed. Reg. at 64681). Thus, this passage would clearly indicate that the exclusion is lost when one of these three universal exclusions are violated. The question remains whether it could refer to non-

compliance with any of the exclusion-specific conditions. And USEPA may have indicated that such is the case because it may consider the HSM as "discarded material" upon any failure to fulfill a condition to the applicable exclusion.

Based on a later segment of USEPA's discussion of the independently reclaimed HSM exclusion, USEPA raised the possibility that an exclusion is lost upon a failure to meet any of the conditions in the exclusion. Thus, all of the conditions, except the notification requirement, may be conditions precedent to exclusion. USEPA stated as follows:

> Hazardous secondary materials transferred to a third party for the purpose of reclamation are excluded from RCRA Subtitle C regulation under certain conditions and restrictions. If a hazardous secondary material generator fails to meet any of the above-described conditions that are applicable to the generator, then the hazardous secondary materials would be considered discarded by the generator and would be subject to the RCRA Subtitle C requirements from the point at which such material was generated. In addition, if a reclaimer or an intermediate facility failed to meet any of the above-described conditions, then the hazardous secondary materials would be considered discarded by the reclaimer or intermediate facility and would be subject to the RCRA Subtitle C requirements from the point at which the reclaimer or intermediate facility failed to meet a condition or restriction, thereby discarding the material.
>
> It should be noted that the failure of the reclaimer or intermediate facility to meet the conditions of the exclusion does not mean that the hazardous secondary material was considered waste when handled by the generator, as long as the generator can adequately demonstrate that it has met its obligations, including the obligation . . . to make reasonable efforts to ensure that the hazardous secondary material will be reclaimed legitimately and properly managed. A hazardous secondary material generator that met its reasonable efforts obligations could, in good faith, ship its excluded materials to a reclamation facility or intermediate facility where, due to circumstances beyond [the generator's] control, [the excluded HSMs] were released and caused environmental problems at that facility. In such situations, and where the generator's decision to ship to that reclaimer or intermediate facility is based on an objectively reasonable belief that the hazardous secondary materials would be reclaimed legitimately and otherwise managed in a manner consistent with this regulation, the generator would not have violated the terms of the exclusion. 73 Fed. Reg. 64699-700.

Distinction between conditions precedent to exclusion and operational conditions may still be possible, but USEPA's usage with regard to the "contained" requirement in one of the exclusions subverts firm conclusions based on a distinction in the language used by USEPA in the particular condition. It is clear based on USEPA's discussions that four of the universal conditions are conditions precedent to exclusion, and one is an operational condition with no impact on whether the HSM is excluded or not. As to the exclusion-specific conditions, is a particular condition that defines the limits of that exclusion a condition precedent to the particular exclusion or an operational condition?

Because USEPA raised the possibility of an operational condition that is not a condition precedent to exclusion in the notification requirement, the possibility exists that others among the exclusion-specific conditions are operational conditions that have no impact on whether the status of the HSM as excluded. Although USEPA stated that the activity notification requirement is not a condition precedent to exclusion, there is nothing in the text of the notification requirement that indicates that this is true. Further, there is nothing concrete that distinguishes the notification condition from all other conditions. Any distinction between a condition precedent to exclusion and an operational condition that does not affect the status of the HSM as excluded is not possible based on language or any other "bright-line" considerations.

Although the Board is inclined to interpret all of the conditions as conditions precedent to exclusion, USEPA has created ambiguity. Any determination that a condition is an operational condition, and not a condition precedent to exclusion, would have to be based on analysis of the context and facts that bear in a particular situation. Further, such a determination would have to be consistent with USEPA's discussion, quoted above, relative to the loss of an exclusion through non-compliance with one or more of its conditions. Non-compliance with the condition could not result in a conclusion that the "fail[ure] to meet any of the . . . conditions" results in a finding that "the hazardous secondary materials would be considered discarded." 73 Fed. Reg. 64699.

Aside from an express description by USEPA of a particular condition as an operational condition, as USEPA did with the prior notification requirement, the Board would be reluctant to find that any condition other than the prior notification requirement is only an operational condition. Still, the questions persist. Did USEPA intend that there is some form of non-compliance with a condition that would not deem the HSM "discarded"? If so, what is that form of non-compliance? That non-compliance would not result in loss of the exclusion is not readily apparent on the face of the prior notification requirement. Absent USEPA's pronouncement on the issue in the preamble discussion, there was no indication that any exclusion would survive non-compliance with any conditions.

Defining Terms for the Self-Implementing Exclusions. The following discussion will shift to consideration of the two generator-reclaimed HSM exclusions and the two independently reclaimed HSM exclusions. The Board will preface those discussions with brief preliminary consideration of two issues. The first relates to who is the generator of the HSM. The second relates to the meaning of "under the control of the generator," which bears on the threshold issue of applicability of the generator-reclaimed HSM exclusions.

Who is the Generator of HSM? While determining who is the generator of HSM is simple, that determination requires one cautionary note: the person who is the generator of HSM is not necessarily the same person who would be its generator if hazardous waste. The hazardous waste regulations define the generator as the person whose activities first bring a secondary material within the scope of hazardous waste regulation. That definition, which pertains to hazardous waste appears as follows:

> *Generator* means any person, by site, whose act or process produces hazardous waste identified or listed in [40 C.F.R. 261] or whose act first causes a hazardous waste to become subject to regulation. 35 Ill. Adm. Code 260.10 (2009) (corresponding with 35 Ill. Adm. Code 720.110).

Since secondary materials do not become subject to regulation as hazardous waste until certain threshold quantities accumulate (*see* 40 C.F.R. 261.5(a) and (b) (2009) (conditionally exempt small quantity generator waste), the person accumulating those secondary materials becomes a hazardous waste generator when the amount of accumulated material exceeds the threshold amount.

The 2008 DSWR amendments did not add a new definition of "generator" for HSM, but they changed the character of the regulations that apply to recycled materials in a way that requires a change in the meaning for the term. USEPA clearly stated that a person who accumulates HSM is never the generator of the HSM—despite the fact that this person could have been the generator of hazardous waste. The reason for this is plain within the context of HSM exclusions: if the accumulator becomes the generator of HSM, any site that accumulates HSM from various other facilities can become subject to one of the generator-reclaimed HSM exclusions. This is not a result that USEPA desires, since the accumulation site may not be under the control of the generator. USEPA stated as follows:

> [I]t should be noted that, for the purposes of [the generator-reclaimed HSM exclusions], when a facility collects hazardous secondary materials from other persons (for example, when mercury-containing equipment is collected through a special collection program), [the collecting facility] is not the hazardous secondary material generator. Therefore, a universal waste handler who collects hazardous secondary materials from other persons would not be eligible for the generator-controlled exclusion, even if it would be considered a "generator" for purposes of the [u]niversal [u]aste regulations. 73 Fed. Reg. at 64715.

What is "Under the Control of the Generator"? With regard to "under the control of the generator," the rule allows some flexibility in interpretation of this term. USEPA added a definition of "hazardous secondary material generated and reclaimed under the control of the generator" with the 2008 DSWR amendments. That definition provides as follows:

> *Hazardous secondary material generated and reclaimed under the control of the generator* means:
>
> (1) That such material is <u>generated and reclaimed at the generating facility</u> (for purposes of this definition [sic], generating facility means all contiguous property owned, leased, or otherwise controlled by the hazardous secondary material generator); or
>
> (2) That such material is <u>generated and reclaimed at different facilities, if the reclaiming facility is controlled by the generator or if both the generating facility and the reclaiming facility are controlled by a person</u> . . ., and if the generator

> facility provides [a prescribed certification relative to the reclamation of the HSM and the destination facility]. For purposes of this paragraph, "control" means the power to direct the policies of the facility, whether by the ownership of stock, voting rights, or otherwise, except that contractors who operate facilities on behalf of a different person . . . shall not be deemed to "control" such facilities, or
>
> (3) That such material is generated pursuant to a written contract between a tolling contractor and a toll manufacturer and is reclaimed by the tolling contractor, if the tolling contractor certifies [prescribed information relative to the reclamation of the HSM and the destination facility]. For purposes of this paragraph, tolling contractor means a person who arranges for the production of a product or intermediate made from specified unused materials through a written contract with a toll manufacturer. Toll manufacturer means a person who produces a product or intermediate made from specified unused materials pursuant to a written contract with a tolling contractor. 40 C.F.R. 260.10 (2009) (corresponding with 35 Ill. Adm. Code 720.110).

Thus, "under the control of the generator" does not mean that the generator is necessarily directly in charge of the reclamation process. Instead, it means that the generator either directly controls the reclamation process, or that the generator's relationship with the person who controls the process is such that the generator is responsible for and can assert control over the HSM and what that person is doing. USEPA most clearly explained the rationale behind exclusion of HSM that is reclaimed by the generator at the generator's facility in the March 26, 2007 supplemental proposal as follows:

> [G]enerators who recycle materials on-site . . . are likely to be familiar with the material and more likely to maintain responsibility for the materials. 72 Fed. Reg. 14172, 85 (Mar. 26, 2007).

USEPA continued with regard to HSM that is reclaimed within the same company, even if the reclamation site is not the generating site:

> We also agree with those commenters who said that most of this rationale would apply just as reasonably to reclamation taking place within the same company. In the case of same-company recycling, both the generating facility and the reclamation facility (if they are different) would be familiar with the hazardous secondary materials and the parent company would be ultimately liable for any mismanagement of the hazardous secondary materials. Under these circumstances, the incentive to avoid such mismanagement would be so strong that mismanagement also would be very unlikely. *Id*.

USEPA explained the rationale for including tolling contractor arrangements as "under the control of the generator" as follows:

> Concerning tolling arrangements, we also believe that the type of tolling contract common in the specialty batch chemical industry does not constitute discard as

> long as the recycling is legitimate and the hazardous secondary material is not speculatively accumulated. Under a typical type of arrangement, one company (the tolling contractor) contracts with a second (often smaller) company (the batch manufacturer) to produce a specialty chemical . . . . The batch manufacturer produces the chemical and the production process generates a hazardous secondary material (such as a solvent) which is routinely reclaimed at the tolling contractor's facility through an exempt closed-loop recycling process when it has the capacity to manufacture the chemical in question at its own facility. However, if the batch manufacturer transports the hazardous secondary material back to the tolling contractor for reclamation, the tolling contractor would be deemed under existing regulations to be reclaiming a spent material, and an RCRA storage permit would generally be required. The typical contract in the specialty batch chemical industry contains detailed specifications about the product to be manufactured, including management of any hazardous secondary materials that are produced and returned to the tolling contractor for reclamation. Under this scenario, the hazardous secondary material continues to be managed as a valuable product, so discard has not occurred. Moreover, if hazardous secondary materials are generated and reclaimed pursuant to a written contract between a tolling contractor and a batch manufacturer, and if the contract specifies that the tolling contractor retains ownership of, and responsibility for, the hazardous secondary materials, there is a strong incentive to avoid any mismanagement or release. *Id*.

Thus, USEPA has given the phrase "under the control of the generator" a broad meaning. The phrase is defined in three instances in terms of control of the location where the reclamation occurs or in terms of control over the reclamation process. In all three instances, the objective is assurance that the person that generates the HSM must also control its reclamation. The two generator-reclaimed HSM exclusions each apply in terms of the definition of "under the control of the generator", so that a reclamation activity which fulfills the definition can subject secondary material to one or the other of the two generator-reclaimed HSM exclusions. *See* 40 C.F.R. 261.2(a)(2)(ii) and 261.4(a)(23) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B) and 721.104(a)(23)).

The definition of "hazardous secondary material generated and reclaimed under the control of the generator" does not actually designate the person who is undertaking the reclamation in two instances. 40 C.F.R. 260.10 (2009) (corresponding with 35 Ill. Adm. Code 720.110). Thus, the material that is excluded pursuant to these two instances is excluded based on the status of the facility at which the reclamation occurs and what person controls the reclamation process, but not based on the person that undertakes the reclamation. These two instances of "under the control of the generator" are the following:

- Reclamation at the generating facility (in which "generating facility" can include contiguous properties "owned, leased, or otherwise controlled" by the generator of the HSM).

- Reclamation at a site, other than the generating site, that is controlled by the generator or by the same person who controls the generating site (in which "controlled by" is defined as "the power to direct the policies of the facility").

Two facts are clear about these two instances of "under the control of the generator." The first is the fact that the generator is not necessarily the person performing the reclamation in either instance. USEPA used the term "facility" (*see* 40 C.F.R. 260.10 (2009) (numbered paragraphs 1 and 2 of the definition of "hazardous secondary material generated and reclaimed under the control of the generator") (corresponding with 35 Ill. Adm. Code 720.110)), which focuses on the physical plant where the pertinent activities occur, rather than on the person engaged in generating and reclaiming the HSM. The second is the fact that the reclamation is not restricted to the generating site. Thus, any person can reclaim the HSM at any site, so long as the required indicia of control are satisfied under either of the two instances of "under the control of the generator." In both instances, this essentially involves establishing commonality of operational control over both generation and reclamation processes through common control of the sites of both activities.

Simpler phrasing of these first two instances of "[HSM] generated and reclaimed under the control of the generator" is possible for conceptual purposes. Where the reclamation occurs at the site of generation, control by the generator over the reclamation appears presumed. The language relative to the site being "controlled by the [HSM] generator" arises in the first instance only with regard to contiguous properties. *See id*. Thus, a contiguous property essentially has the same "control" requirement as the second, off-site instance. Since the site where the generation and the site where reclamation occurs is important, and the identity of the person conducting the generation and the person engaged in reclamation activities is immaterial, the first two instances of "under the control of the generator" include the following reclamation activities:

- Reclamation that occurs at the HSM generating facility.

- Reclamation at a site other than the generating facility, that is controlled by the generator or by another person that also controls the generating facility.

It is possible to further simplify the first two instances of "under the control of the generator" by combining these two statements into a single, universal statement of what reclamation is "under the control of the generator" for the purposes of exclusion, except for reclamation that occurs pursuant to a tolling agreement. That universal statement would appear as follows:

- Reclamation at any site that is controlled by the person who also controls the generating facility.

The third instance of "[HSM] generated and reclaimed under the control of the generator" is that of a written tolling agreement under which the generator produces a product or intermediate under contract to another entity that remains responsible for reclamation of any products and residues of the process that generated the HSM. This third instance of "under the

control of the generator" in which generation occurs pursuant to a tolling-agreement can be described as follows:

- Generation of HSM by a toll manufacturer on behalf of a tolling contractor pursuant to a written tolling agreement under which the tolling contractor retains ownership of the product or intermediate and any HSM made under the agreement, and reclamation remains the responsibility of the tolling contractor.

The third instance of "[HSM] generated and reclaimed under control of the generator" is the toll manufacturing provision. The toll manufacturing provision defines "under control of the generator" in three segments. The first segment of the third instance of "under control of the generator" is a preamble statement that describes, in basic terms, the parties (the "tolling contractor" and the "toll manufacturer") and the relationship between them, and this statement further requires a written contract form the basis for the relationship between the parties. The preamble statement substantively states that HSM is reclaimed "under control of the generator" when the following is true of the material:

> [The] material is generated pursuant to a written contract between a tolling contractor and a toll manufacturer and is reclaimed by the tolling contractor . . . . 40 C.F.R. 260.10 (2009) (numbered paragraph 3 of the definition of "hazardous secondary material generated and reclaimed under the control of the generator") (corresponding with 35 Ill. Adm. Code 720.110).

The preamble continues to require a written certification statement executed by a person on behalf of the "tolling contractor" (the reclaimer).

The required certification statement is the second segment of the toll manufacturing provision. The certification statement describes the relative responsibilities of the "tolling contractor" and the "toll manufacturer," thereby setting forth the details of the required apportionment of responsibilities and control between the "tolling contractor" and the "toll manufacturer." This apportionment makes the person on whose behalf the HSM is generated (the "tolling contractor") responsible for reclamation of the HSM. The certification statement describes the following four essential elements of the apportionment of control that the toll manufacturing contract agreement must ensure:

1. The toll manufacturer must generate the waste solely on behalf of the tolling contractor;

2. The tolling contractor must retain ownership of the HSM and any processing residues through the recycling process;

3. The tolling contractor must remain responsible for any releases of HSM that occur during the manufacturing process; and

4. The tolling contractor must be responsible for reclamation of the HSM generated by the manufacturing process. *Id.*; *see* 73 Fed. Reg. at 64676, 80, 727-28.

The certification statement repeats the requirement that the toll manufacturing agreement must be based on a written contract. USEPA's discussion of the tolling agreement recommends (without expressly requiring) that the person who signs the certification should be familiar with the details of the written contract. 73 Fed. Reg. at 64680.

The third segment of the toll manufacturing provision is a pair of subsidiary definitions of "tolling contractor" and "toll manufacturer." The subsidiary definitions further require a written contractual relationship between the generator (the "toll manufacturer") and the reclaimer (the "tolling contractor") and further describe the relationship between the two entities. The two subsidiary definitions of "tolling contractor" and "toll manufacturer" are set forth as follows:

> [T]olling contractor means a person who arranges for the production of a product or intermediate made from specified unused materials through a written contract with a toll manufacturer. Toll manufacturer means a person who produces a product or intermediate made from specified unused materials pursuant to a written contract with a tolling contractor. *See* 40 C.F.R. 260.10 (2009) (numbered paragraph 3 of the definition of "hazardous secondary material generated and reclaimed under the control of the generator") (corresponding with 35 Ill. Adm. Code 720.110).

As a final point, these language used by USEPA in these definitions emphasize that the flow of HSM is from the toll manufacturer to the tolling contractor, and not in the opposite direction. The definitions specify in two places that the toll manufacturer uses "unused materials" in its process. The words "unused materials" in these subsidiary definitions must be read literally, in the sense of "materials that have not been used." USEPA did not intend that this would include materials remaining unused in materials that exit a production process—*i.e.*, "unused materials" cannot be read as secondary materials.

That USEPA intended that the excluded HSM flows from the toll manufacturer to the tolling contractor, and not in the opposite direction, is clear based on USEPA's discussions of the toll manufacturing agreement provision. USEPA gave a description of the tolling arrangement in the following segment of discussion of USEPA's March 26, 2007 supplemental proposal, which added the prospect of a contract manufacturing provision:

> Specifically, within the chemical manufacturing industry, the first manufacturer will contract out production of certain chemicals to another manufacturer (referred to as batch or tolling operations). The second manufacturer may generate hazardous secondary materials that could be returned to the larger chemical manufacturer for reclamation. 72 Fed. Reg. at 14184.

USEPA added the following in the discussion that accompanied final adoption of the 2008 DSWR amendments:

> [US]EPA determined in the March 2007 supplemental proposal that a certain specific type of tolling arrangement provides equivalent assurance that recycling is performed "under the control of the generator" and does not constitute discard. Under this type of arrangement, one company (the tolling contractor) contracts with a second company (the toll manufacturer) to produce a specialty chemical from specified unused materials identified in the tolling contract. The toll manufacturer produces the chemical and the production process generates a hazardous secondary material (such as a spent solvent) which is routinely reclaimed at the tolling contractor's facility. 73 Fed. Reg. at 64676.

The significance of this one-way flow of HSM from the toll manufacturer to the tolling contractor is quite clear. That the HSM cannot be material submitted by the tolling contractor to the toll manufacturer prevents use of a toll manufacturing agreement to gain reclamation of HSM at an independent site by means of a contract, gain reclamation of the HSM under a generator-reclaimed HSM exclusion, and circumvent use of an independently reclaimed HSM exclusion.

Under the tolling agreement provision, the responsibility for reclamation does not rely on inference of common control over generation and reclamation based on common control of the sites where these activities occur or common control of the generation and reclamation processes. Instead, this third instance requires express apportionment of responsibilities and control, as provided by a written contract. The written tolling agreement is the mode of the reclaimer's ("tolling contractor's") control over the generator's ("toll manufacturer's") operations. This control by the reclaimer over the generating process, rather than control by the generator over the reclamation process, makes the tolling agreement provision tantamount to "under the control of the reclaimer." As such, the tolling agreement provision could be considered the converse of "under the control of the generator," as this requirement has been previously discussed relative to the first two instances of "under control of the generator."

USEPA summarized the nature of a toll manufacturing agreement with the following observation:

> In essence, the tolling contractor has outsourced a step in its manufacturing process, but continues to take responsibility and maintain control of the process as a whole, including both the unused materials going into the process and the product and hazardous secondary materials resulting from the process. 73 Fed. Reg. at 64676.

Based on this observation, it is possible to perceive the contract as making the toll manufacturer (the generator) operate as an extension of the tolling contractor (the person responsible for reclamation). Under this perception, the critical element common among all instances of "under control of the generator" emerges: in all three instances, "under control of the generator" requires that one person bear ultimate control over both generation and reclamation of the HSM

Having observed above that singularity of control is common among all instances of "[HSM] generated and reclaimed under control of the generator," the Board further observes that no further integration of the three instances is possible. Aspects of the toll manufacturing

agreement preclude combination together with the first two instances of reclamation "under the control of the generator" previously discussed. Initially, the first two instances of "under control of the generator" require common control of the "facilities" where generation and reclamation occur. This is qualitatively different from the requirement for a formal contractual relationship under the toll manufacturing provision. Further, the toll manufacturing provision transposes the generator and reclaimer with regard to control. This transposition shifts the control required from the "generator" to the "reclaimer." Thus, under the toll manufacturing provision, generation actually occurs under the control of the reclaimer. The most concise summary statement possible relative to "under control of the generator" that still retain description of the control required is the following:

> HSM is "generated and reclaimed under control of the generator" in either of the following two situations:
>
> - Reclamation occurs at any site that is controlled by the person who also controls the generating facility.
>
> - The generation occurs at a toll manufacturing facility under a written contract with a tolling contractor, the tolling contractor retains ownership of and responsibility for any secondary materials generated under the agreement (including any releases), and the secondary materials are returned to the tolling contractor for reclamation.

The Board makes a concluding observation with regard to codification of the "under control of the generator" requirement. USEPA included the requirement that secondary material undergoing reclamation must be "[HSM] generated and reclaimed under control of the generator" within the text of each of the two generator-reclaimed HSM exclusions. *See* 40 C.F.R. 261.2(a)(2)(ii) and 261.4(a)(23)(ii) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B) and 721.104(a)(23)(B)). USEPA then codified a definition for the phrase, "[HSM] generated and reclaimed under control of the generator," that includes the several substantive requirements discussed in the foregoing paragraphs. *See* 40 C.F.R. 260.10 (2009) (definition of "hazardous secondary material generated and reclaimed under the control of the generator") (corresponding with 35 Ill. Adm. Code 720.110).

The Board is reluctant to codify substantive requirements within definitions. Placing substantive requirements in a definition increases the possibility for misinterpretation of the rules, since a reader who relies on common understanding of terms could miss finding requirements buried in a definition. Although the Board is not fully comfortable with this structure, the Board has followed USEPA's structure for corresponding provisions in the Illinois rules. The fact that the substantive aspects of the definition actually add meaning to a term for which a reader is likely to seek definition to interpret the rules minimizes the possibility for misinterpretation.

Beyond the universal conditions that are common among the HSM exclusions, these are conditions that apply only to one or two of the exclusions. Those more limited conditions are tailored to the particular concerns involved with the individual exclusions. These exclusion-

specific conditions have arisen in the foregoing discussion. The following four discussions of the individual exclusions present those more limited exclusions within the context of each of the exclusions.

Self-Implementing Exclusions of Generator-Reclaimed HSM. The first pair of exclusions in the DSWR, in 40 C.F.R. 261.2(a)(2)(ii) and (a)(23) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B) and (a)(23)) apply to the class of HSM that is generated and reclaimed under the control of the generator. Generator-reclaimed HSM is subdivided into two separate exclusions that are based on how the generator manages the HSM. The first exclusion is for generator-reclaimed HSM that is managed only in non-land-based units. 40 C.F.R. 261.2(a)(2)(ii) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B)). The second exclusion applies to generator-reclaimed HSM that is managed only in land-based units. 40 C.F.R. 261.2(a)(23) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(23)). The conditions that apply to these two-types of generator-reclaimed HSM are so similar that the Board sees little difference between the two, as the following discussions will explain.

The conditions applicable to the two generator-reclaimed HSM are outlined in Table 1, immediately below. Table 1 is a brief side-by-side outline of the generator-reclaimed HSM exclusions that apply to generator-reclaimed HSM that is managed in non-land-based units with that which is managed in land-based units.

Table 1:
Conditions Applicable to Exclusion of Generator-Reclaimed HSM
(Universal conditions that are shared in common with the independently reclaimed HSM exclusions are marked with a bullet "●."

	Federal Citation	
Conditions	**Managed in Non-Land-Based Units**	**Managed in Land-Based Units**
The generation and reclamation of the HSM must both occur under the control of the generator.	261.2(a)(2)(ii)	261.4(a)(23)(ii)
The generation and reclamation of the HSM must both occur within the United States and its territories.	261.2(a)(2)(ii)	261.4(a)(23)
The HSM must be managed only in non-land-based units.	261.2(a)(2)(ii)	—
The HSM is managed in land-based units.	—	261.4(a)(23)
● The HSM must be contained.	261.2(a)(2)(ii)	261.4(a)(23)(i)

● The HSM must not be otherwise subject to another, material-specific exclusion in 40 C.F.R. 261.4(a) (corresponding with 35 Ill. Adm. Code 721.104(a)).	261.2(a)(2)(ii)	261.4(a)(23)(iv)
● The HSM must not be a spent lead-acid battery.	261.2(a)(2)(ii)	261.4(a)(23)(iv)
● The HSM must not meet the listing description for K171 (spent hydrotreating catalyst from petroleum refining operations) or K172 (spent hydrorefining catalyst from petroleum refining operation) waste.	261.2(a)(2)(ii)	261.4(a)(23)(iv)
● The HSM must not be accumulated speculatively.	261.2(a)(2)(ii)	261.4(a)(23)(iii)
● The reclamation of the HSM must be legitimate, as determined pursuant to new 40 C.F.R. 261.43 (corresponding with 35 Ill. Adm. Code 720.143).	261.2(a)(2)(ii)	261.4(a)(23)(v)
● The generator must submit notification of its use of the exclusion USEPA Form 8700-12.	261.2(a)(2)(ii) (see notification requirements of 260.42(a))	261.4(a)(23)(vi) (as required by 260.42(a))
Mode of Exclusion		
The HSM managed only in non-land based units is not discarded.	261.2(a)(2)(ii)	—
The HSM managed in land-based units is not solid waste.	—	261.4(a)(23)

The condition that management of the HSM occurs only in non-land-based units applies only where the HSM is managed only in non-land-based units. The non-land-based unit exclusion includes a parenthetical reference to the counterpart generator-reclaimed HSM exclusion applicable to HSM managed in land-based units for the cases where that occurs. 40 C.F.R. 261.2(a)(2)(ii) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B)). The land-based unit exclusion includes a statement regarding applicability to HSM managed in such

units (40 C.F.R. 261.4(a)(23) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(23))), but the Board perceives this as more of a descriptive statement than a limitation.[111]

Thus, whether the HSM is managed only in non-land-based units or not is both the point of distinction between the two exclusions for generator-reclaimed HSM and a condition on the exclusion of HSM managed only in non-land-based units. The use of land-based units (*i.e.,* non-fulfillment of the non-land-based unit condition) will disqualify the HSM from the exclusion that applies to management only in non-land-based-units.

This raises the question as to what are the differences in regulatory consequences between the two generator-reclaimed HSM exclusions. USEPA codified the exclusion that applies to HSM managed in non-land-based units as an exclusion from what is defined as "discarded material." 40 C.F.R. 261.2(a)(2)(ii) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B)). USEPA codified the exclusion that applies to HSM that is managed in land-based units as an exclusion from the definition of solid waste. 40 C.F.R. 261.4(a)(23) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(23)). This appears to be an artifact of the rulemaking, since the sole distinction between the requirements that apply to the respective generator-reclaimed HSM exclusions disappeared upon final adoption. In the March 2007 proposal relating to the exclusion, USEPA described the operational difference between the two exclusions as follow:

> [W]hile we recognize that raw materials and hazardous secondary materials can be and are stored in land-based units (such as mineral processing residues or pulping liquors), we also recognize that such management clearly presents a greater potential for releases to the environment than management in non-land-based units. Therefore, we are proposing an additional requirement which provides that if hazardous secondary materials are managed in land-based units, such materials must be contained in the units. 72 Fed. Reg. at 14186.

Upon final adoption, however, USEPA applied the requirement that the HSM "is contained in such units" to HSM that is managed in non-land-based units. USEPA summarily explained this change made in the non-land-based unit exclusion as follows:

> However, in making this finding that hazardous secondary materials managed in a land-based unit must be contained in order to retain the exclusion, [US]EPA did not intend to imply that hazardous secondary materials managed in non-land-based units do not need to be contained. Hazardous secondary materials released to the environment are not destined for recycling and are clearly discarded whether they originated from a land-based unit or not. Because non-land-based

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[111] The first exclusion includes a limiting word that the second does not. The first exclusion applies to HSM that "is handled only in non-land-based units." 40 C.F.R. 261.2(a)(2)(ii) (2009) (emphasis added) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B)). The second exclusion applies to HSM that is "managed in land-based units." 40 C.F.R. 261.4(a)(23) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(23)).

> units do not involve direct contact with the land, in the March 2007 supplemental proposal, [US]EPA did not include an explicit "contained" restriction for these units. However, . . . it is still possible for non-land-based units to leak or otherwise release significant amounts of hazardous secondary materials to the environment, even if they are not in direct contact with the land, resulting in those materials being discarded. Thus, for today's final rule, [US]EPA is requiring that hazardous secondary materials must be contained (whether it is managed in land-based units or non-land-based units) in order to identify the hazardous secondary materials that are not being discarded and, therefore, are not solid wastes.

By adding the "contained" requirement to the non-land-based unit exclusion, USEPA removed the only acknowledged difference between the two generator-reclaimed HSM exclusions.

Aside from minor difference in wording and structure, two distinctions remain on the face of the two generator-reclaimed HSM exclusions. Neither distinction, however, makes a material difference. First, as noted above, the non-land-based unit exclusion is from "discarded material" and the land-based unit exclusion is from the definition of solid waste. As discussed earlier in this discussion (beginning on page 38 of this opinion), when a material is not "discarded material," it is not solid waste. The same is true of a material that is excluded from the definition of solid waste. *See* 40 C.F.R. 261.2(a)(1) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(1)). The fact that a material is not "discarded material" may mean that the material is excluded from regulation at a more fundamental level does not result in a difference in the application of the regulations to the material. Thus, this distinction makes no difference. Second, the exclusion for HSM managed in non-land-based units includes a parenthetical reference to the notification requirement (40 C.F.R. 261.2(a)(2)(ii) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B))), while the exclusion for HSM managed in land-based units clearly states that "persons claiming the exclusion under this paragraph (a)(23) must provide notification as required by [the notification requirement]" (40 C.F.R. 261.4(a)(23)(vi) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(23)(F))). This makes no difference, since the notification is "required by" the notification requirement itself. *See* 40 C.F.R. 260.42 (2009) (corresponding with 35 Ill. Adm. Code 720.142).

That the non-land-based unit exclusion for generator-reclaimed HSM contains a parenthetical reference to the notification requirement (40 C.F.R. 261.2(a)(2)(ii) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B))) could imply that the requirement is an operational condition, rather than a condition precedent to exclusion. The exclusion for HSM managed in land-based units (40 C.F.R. 261.4(a)(23)(vi) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(23)(F))) and the two self-implementing independently reclaimed HSM exclusions (40 C.F.R. 261.4(a)(24)(vii) and 261.4(a)(25)(xii) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)(G) and (a)(25)(L))) restate the requirement as a condition to exclusion, which could imply a different emphasis on the requirement in those three exclusions. The inference would be possible that the notification requirement is an operational condition for that one exclusion, but a condition precedent to exclusion for the other three. However, as discussed above (beginning at page 135 of this opinion), USEPA considers the notification requirement an operational condition, not as a condition precedent to exclusion. 73 Fed. Reg. at 64682, 85. Thus, there is no significant difference among the notice requirements for the four

self-implementing exclusions. The prior notice requirement is an operational condition, rather than a condition precedent to exclusion, for all four of the self-implementing exclusions.

There is only one distinction in the notices required among the four exclusions, and that is a minor distinction that makes no difference. The notification form, *Notification of RCRA Subtitle C Activity*, USEPA Form 8700-12 (Nov. 2009) uses a different notification code for operation under each exclusion. This distinction is trivial, and it makes no difference in the operational requirements and conditions that apply under either of the generator-reclaimed HSM exclusions.

Instead, USEPA's primary purpose in distinguishing HSM that is managed only in non-land-based units from that which is managed in land-based units by two separate provisions appears to be to aid efficient allocation of regulatory resources. This distinction requires the generator-reclaimer to cite to one or the other provision for exclusion when submitting notice of its activity. USEPA observed as follows with regard to HSM managed in land-based units:

> The intent of this notification requirement is to provide basic information to the regulatory agencies about who will be managing hazardous secondary materials under the exclusion. The specific information included in today's notification requirement will enable regulatory agencies to monitor compliance adequately and to ensure hazardous secondary materials are managed according to the exclusion and not discarded. For example, in the notification, [US]EPA requires facilities to include the quantity of hazardous secondary materials that will be managed according to the exclusion and whether certain types of hazardous secondary materials will be managed in land-based units. This information can be used to assist RCRA inspectors in determining which facilities may warrant greater oversight and provides a basis for setting enforcement priorities. 73 Fed. Reg. at 64682.

The major difference between the two generator-reclaimed HSM exclusions is in the condition that one applies to HSM that is managed only in non-land-based units, and the other applies to HSM that is managed in land-based units. All other distinctions between them are not material differences as to the requirements that apply. USEPA has expressed a greater concern for losses of HSM to the environment (*i.e.*, that the HSM become "discard material") where the HSM is managed in land-based units, but USEPA removed the only difference in regulatory impact based on this concern upon adoption of the final exclusions. Aside from the restriction that the HSM must be both "generated and reclaimed under the control of the generator" (*see* 40 C.F.R. 261.2(a)(2)(ii) and 261.4(a)(23)(ii) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B) and 721.104(a)(23)(B))), the only conditions that apply to the generator-reclaimed HSM exclusions (equally, but in differing terms) are what the Board has called the universal conditions."

This is not also true with regard to the independently reclaimed HSM exclusions. In addition to the universal conditions, many additional significant requirements apply to independently reclaimed HSM. Further, while the two independently reclaimed HSM exclusions share some conditions between themselves, additional conditions are unique to each.

Self-Implementing Exclusions of Independently Reclaimed HSM. USEPA provided two exclusions for HSM that is reclaimed by a person that is not "under the control of the generator." USEPA refers to this pair of exclusions collectively[112] as the transfer-based exclusion.[113] The Board prefers to call this independently reclaimed HSM, and the Board prefers to view these as two distinct exclusions. The first independently reclaimed HSM exclusion applies to HSM that is "transferred to another person for the purpose of reclamation." 40 C.F.R. 261.4(a)(24) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)). This exclusion includes independently reclaimed HSM that is reclaimed within the United States and its territories.[114] In the discussion that follows, the Board occasionally refers to this as the domestically reclaimed HSM exclusion. The second exclusion includes independently reclaimed HSM that is reclaimed in a foreign country. *See* 40 C.F.R. 261.4(a)(25) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(25)). The Board refers to this as the export-based exclusion in what follows.

The conditions that apply to each of the independently reclaimed HSM exclusions have significant overlap. This is due in part to the fact that the two exclusions share the five universal conditions in common. This also results from the fact that the export-based exclusion imposes some of the conditions of the domestically reclaimed exclusion, including some, but not all of the universal exclusions, by a cross reference to them. Each of the two independently reclaimed HSM exclusions have conditions that are unique and tailored to the unique circumstances of each particular exclusion.

Table 2, immediately below, summarizes the conditions that are common between the two independently reclaimed HSM exclusions. Note that these conditions apply either generally

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[112] USEPA also considered the generator-reclaimed HSM exclusions collectively. *See, e.g.*, 73 Fed. Reg. at 64669 (discussing an exclusion for generator-reclaimed HSM, an exclusion for independently reclaimed HSM, and an exclusion available by a "non-waste" determination).

[113] *See supra* note 6.

[114] In reality, this exclusion does not explicitly state that it applies only to HSM reclaimed within the United States. Instead, this exclusion states that it applies to HSM "that is generated and then transferred to another person for the purpose of reclamation." 40 C.F.R. 261.4(a)(24) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)). On the other hand, the companion provision expressly specifies that it applies to HSM "that is exported from the United States

and reclaimed at a reclamation facility located in a foreign country." 40 C.F.R. 261.4(a)(25) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(25)). By implication, however, the requirements that this exclusion imposes on the HSM reclaiming facility and intermediate facility could only apply within the United States. Those requirements of 40 C.F.R. 261.4(a)(24) that could apply to exported HSM are expressly imposed on HSM that is exported for reclamation outside the United States. *See* 40 C.F.R. 261.4(a)(25); 73 Fed. Reg. at 64698.

to the HSM, the HSM generator, and to the transportation of HSM. This is because the regulations apply only to facilities located within the United States, and they cannot apply to reclamation and intermediate facilities to which HSM is exported for reclamation. *See* 73 Fed. Reg. at 64698 (discussion of the inapplicability of the notification requirement to foreign facilities). Following Table 2 are tables that summarize the conditions that are unique to each of the two independently reclaimed HSM exclusions. The table that applies to domestic reclamation includes requirements that apply to reclamation and intermediate facilities.

Table 2:
Conditions Common Between the Two Independently-Reclaimed HSM Exclusions, Whether Reclaimed Within the United States or Exported for Reclamation

(Universal conditions that are shared in common with the generator-reclaimed HSM exclusions are marked with a bullet "●."
The cross-references in the export-based exclusion to conditions of the domestically reclaimed HSM exclusion are indicated by a dagger "†.")

Conditions	Federal Citation
● The HSM must not be accumulated speculatively.	261.4(a)(24)(i) †261.4(a)(25)
The HSM must not be handled by any person other than the generator, the transporter, an intermediate facility, and the reclamation facility.	261.4(a)(24)(ii) †261.4(a)(25)
The HSM must not be stored for more than 10 days at a transfer facility.	261.4(a)(24)(ii) †261.4(a)(25)
The HSM must be packaged in compliance with U.S. Department of Transportation (DOT) requirements while in transport.	261.4(a)(24)(ii) †261.4(a)(25)
● The HSM must not be otherwise subject to another, material-specific exclusion in 40 C.F.R. 261.4(a) (corresponding with 35 Ill. Adm. Code 721.104(a)).	261.4(a)(24)(iii) †261.4(a)(25)
● The HSM must not be a spent lead-acid battery.	261.4(a)(24)(iii) †261.4(a)(25)
● The HSM must not meet the listing description for K171 (spent hydrotreating catalyst from petroleum refining operations) or K172 (spent hydrorefining catalyst from petroleum refining operation) waste.	261.4(a)(24)(iii) †261.4(a)(25)
● The reclamation of the HSM must be legitimate, as determined pursuant to new 40 C.F.R. 261.43 (corresponding with 35 Ill. Adm. Code 720.143).	261.4(a)(24)(iv)

● The HSM must be contained by the generator.	261.4(a)(24)(v)(A) †261.4(a)(25)
Prior to arranging transportation of HSM to a reclamation facility that is not a permitted or interim status hazardous waste T/S/D facility, the generator must make reasonable efforts (using a specified procedure; repeated at least once every three years) to assure that the HSM reclamation facility will not discard the HSM and that the HSM reclamation facility will manage the HSM in a way that protects human health and the environment (except that the obligation to assure that the receiving facility has submitted the required notification to USEPA does not apply to HSM that is exported for reclamation).	261.4(a)(24)(v)(B) †261.4(a)(25)
Prior to arranging transportation of HSM to an intermediate facility that is not a permitted or interim status hazardous waste T/S/D facility, the generator must make contractual arrangements with the intermediate facility to ensure that the facility sends the HSM to the reclamation facility designated by the generator, and the generator must make reasonable efforts (using a specified procedure; repeated at least once every three years) to ensure that the intermediate facility will manage the HSM in a way that protects human health and the environment (except that the obligation to assure that the receiving facility has submitted the required notification to USEPA does not apply to HSM that is exported for reclamation).	261.4(a)(24)(v)(B) †261.4(a)(25)
The HSM generator must document (including specified information) and certify (using language and signed as prescribed) its reasonable efforts for each reclamation facility receiving its HSM; and it must maintain the documentation and certification of its efforts for a minimum of three years at the generating facility, making them available for inspection by USEPA or the State.	261.4(a)(24)(v)(C) †261.4(a)(25)
The HSM generator must document (including specified information) each off-site shipment of HSM; and it must maintain the documentation for a minimum of three years at the generating facility.	261.4(a)(24)(v)(D) †261.4(a)(25)
The HSM generator must maintain confirmations of receipt of HSM (including specified information) from each reclamation facility for a minimum of three years at the generating facility.	261.4(a)(24)(v)(E) †261.4(a)(25)

● The HSM generator that wishes to manage the HSM under the exclusion must submit notification of its use of the exclusion USEPA Form 8700-12.	261.4(a)(24)(vii)

The rest of the conditions apply to independently reclaimed HSM that differ where the reclamation occurs within the United States or where the HSM is exported for reclamation. Table 3 summarizes the conditions that are unique to the exclusion that applies to independently reclaimed HSM that is reclaimed within the United States. Table 4 summarizes the conditions that are unique to the exclusion that applies to independently reclaimed HSM that is exported for reclamation in a foreign country. Most of the conditions in Table 3, which outlines the requirements for HSM that is reclaimed within the United States, apply to both intermediate facilities and HSM reclamation facilities. There is one condition, however, that is unique to each of these facilities. One condition applies only to intermediate facilities, and the other applies only to HSM reclamation facilities. All of the conditions in the Table 4, which outlines the requirements applicable to HSM that is exported for reclamation, apply to the HSM generator.

Table 3:
Conditions Unique to Exclusion of HSM
Independently Reclaimed Within the United States

Contitions	**Federal Citation**
Conditions applicable to both intermediate facilities and HSM reclamation facilities:	
The HSM reclamation facility or intermediate facility must maintain records for each shipment of HSM (including specified information) that it received and each shipment that it sent off-site for further reclamation for a minimum of three years at the facility.	261.4(a)(24)(vi)(A)
The HSM reclamation facility or intermediate facility must send confirmation of receipt (including specified information) to the HSM generator for each shipment of HSM that it receives.	261.4(a)(24)(vi)(C)
The HSM reclamation facility or intermediate facility must manage HSM in a manner that is at least as protective as that employed for "analogous raw material" (which is defined in the text of the requirement).	261.4(a)(24)(vi)(D)
The HSM must be contained by reclamation and intermediate facilities.	261.4(a)(24)(vi)(D)

The HSM reclamation facility or intermediate facility must fulfill financial responsibility requirements specific to HSM management.	261.4(a)(24)(vi)(F)
A HSM reclamation facility or intermediate facility that wishes to manage the HSM under the exclusion must submit notification of its use of the exclusion USEPA Form 8700-12.	261.4(a)(24)(vii)

Condition applicable only to intermediate facilities:

The intermediate facility must send the HSM only to the reclamation facilities designated by the HSM generator.	261.4(a)(24)(vi)(B)

Condition applicable only to HSM reclamation facilities:

Any residuals generated by the HSM reclamation process must be managed in a manner that is protective of human health and the environment; if they exhibit a characteristic of hazardous waste, or if they are a listed hazardous waste, the residuals must be managed in compliance with the hazardous waste regulations.	261.4(a)(24)(vi)(E)

Table 4:
Conditions Unique to Exclusion of HSM Exported for Reclamation

Conditions	Federal Citation
The HSM generator must notify USEPA (by a signed writing that includes specified information and which is delivered as specified) of its intent to export HSM before it schedules the material to leave the United States and at least 60 days before the HSM shipment is intended. (Notification may include all exports within a period up to 12-months long. USEPA submits notices to the foreign countries and receives any consents, objections, or withdrawals of consent for the shipment from the foreign country.)	261.4(a)(25)(i) & (a)(25)(ii)
The HSM generator must re-notify USEPA (in writing that includes specified information) of any changes (of specified kinds) that arise in the plan to export HSM, and the transit and the generator must receive an Acknowledgement of Consent from USEPA before the HSM shipment may occur.	261.4(a)(25)(iii)

The HSM generator must submit any additional information to USEPA that the receiving country requests to aid its response to an export notification.	261.4(a)(25)(iv)
The export of HSM is prohibited unless, by an Acknowledgement of Consent, USEPA has notified the generator that the receiving country has consented to the shipment.	261.4(a)(25)(vi)
A copy of the Acknowledgment of Consent must accompany each export shipment of HSM, and the shipment must conform to the terms of the Acknowledgment of Consent.	261.4(a)(25)(viii)
If the HSM for any reason cannot be delivered to the destination site or any alternative site that is described in the Acknowledgement of Consent, the HSM generator must re-notify USEPA (in writing that includes specified information) of the changed conditions and receive a new Acknowledgement of Consent from USEPA before the HSM may be delivered to another destination as described in the new Acknowledgement of Consent.	261.4(a)(25)(ix)
The HSM generator must retain a copy of each notification of intent to export and each Acknowledgment of Consent for a minimum of three years at the generating facility.	261.4(a)(25)(x)
The HSM generator must annually submit a written report to USEPA (that includes specified information; to a specified address) summarizing its HSM exports for reclamation	261.4(a)(25)(xi)

Both of the independently reclaimed HSM exclusions apply to HSM that is transferred from the generator to an independent entity for reclamation. The exclusions apply when the reclamation does not occur "under the control of the generator." 40 C.F.R. 260.10 (definition of "hazardous secondary material generated and reclaimed under the control of the generator"), 261.2(a)(2)(ii), and 261.4(a)(23) (2009) (corresponding with 35 Ill. Adm. Code 720.110, 721.2(a)(2)(B), and 721.104(a)(23)). One applies to HSM that is reclaimed within the United States. 40 C.F.R. 261.4(a)(24) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)). The other applies to HSM that is exported for reclamation in a foreign country. 40 C.F.R. 261.4(a)(25) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(25)). Both exclusions are self-implementing, and each includes conditions unique to itself.

What follows is an outline of the HSM facility management standards. The discussion briefly describes the requirements that apply to each person handling HSM (the generator, the transporter, any intermediate facility, and the reclaimer) A short discussion of each of two specific conditions follows the outline description. Only two of the conditions listed in Tables 3 and 4 relative to independently reclaimed HSM warrant further discussion: (1) notice of intent to export and Acknowledgement of Consent; and (2) financial assurance. The two conditions

involve several issues, including the prospect of future USEPA amendments, so that more detailed discussion is necessary.

HSM Management Facility Standards. Since the HSM has left the control of the generator, the independently reclaimed HSM exclusions contemplate handling by multiple entities. The exclusions restrict handling of HSM to the generator, a transporter, any intermediate facility, and a reclamation facility. 40 C.F.R. 261.4(a)(24)(ii). The five universal conditions[115] apply to all entities who handle excluded HSM. 40 C.F.R. 261.4(a)(24)(i), (a)(24)(iii), (a)(24)(iv), (a)(24)(v)(A), (a)(24)(vi)(D), (a)(24)(vii), and (a)(25) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)(A), (a)(24)(C), (a)(24)(D), (a)(24)(E)(i), (a)(24)(F)(A), (a)(24)(G), and (a)(25)). After the universal conditions, different requirements apply to each entity handling the HSM.

The additional requirements that apply to the generator relate to assurance that the facilities to which the generator sends HSM will reclaim the material and not discard it. To this end, the generator bears an obligation of assuring that sound management and reclamation of the HSM that the generator ships for reclamation. 40 C.F.R. 261.4(a)(24)(v)(B) through (a)(24)(v)(E) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)(E)(ii) through (a)(24)(E)(vi)); *see* 40 C.F.R. (a)(25) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(25)). With regard to the reclamation facilities the generator's primary obligation is worded as follows:

> [T]he [HSM] generator must make reasonable efforts to ensure that each reclaimer intends to properly and legitimately reclaim the [HSM] and not discard it, and that each reclaimer will manage the [HSM] in a manner that is protective of human health and the environment. 40 C.F.R. 261.4(a)(24)(v)(B) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)(E)(ii)).

With regard to any intermediate facilities that obligation is worded slightly differently:

> [T]he [HSM] generator must make contractual arrangements with the intermediate facility to ensure that the hazardous secondary material is sent to the reclamation facility identified by the hazardous secondary material generator, and the hazardous secondary material generator must perform reasonable efforts to ensure that the intermediate facility will manage the hazardous secondary material in a manner that is protective of human health and the environment. *Id*.

The generator requirements specify inquiries the generator must undertake to fulfill these obligations. *See* 40 C.F.R. 261.4(a)(24)(v)(B)(*1*) through (a)(24)(v)(B)(*5*) and (a)(25) (2009)

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[115] The excepted materials limitations (discussed above beginning at page 89), "legitimacy rule" (discussed above beginning at page 92), the prohibition against "speculative accumulation" (discussed above beginning at page 114), the "contained" requirement (discussed above beginning at page 129), and the notification requirement (discussed above beginning at page 133).

(corresponding with 35 Ill. Adm. Code 721.104(a)(24)(H)(i) through (a)(24)(H)(v) and (a)(25)). The generator must document and certify these inquiries and retain documents that verify delivery of HSM to reclamation facilities. Further, the rules include records retention requirements for generators. 40 C.F.R. 261.4(a)(24)(v)(C) through (a)(24)(v)(E) and (a)(25) (2009) corresponding with 35 Ill. Adm. Code 721.104(a)(24)(E)(iii) through (a)(24)(E)(v) and (a)(25)).

The transporter must comply with U.S. Department of Transportation hazardous materials transportation requirements. A transfer facility that stores HSM for more than 10 days, however, becomes an intermediate facility. 40 C.F.R. 261.4(a)(24)(ii) and (a)(25) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)(B) and (a)(25)). The requirements for intermediate facilities are nearly the same as those that apply to reclamation facilities. *See* 40 C.F.R. 261.4(a)(24)(vi) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)(F)). The only provision that applies to intermediate facilities alone requires intermediate facilities to forward HSM only to the reclamation facility or facilities designated by the generator. 40 C.F.R. 261.4(a)(24)(vi)(B) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)(F)(ii)).

The requirements that apply to intermediate and reclamation facilities are more burdensome. In addition to the requirement that these facilities must "contain" the HSM, intermediate and reclamation facilities must "manage the hazardous secondary material in a manner that is at least as protective as that employed for analogous raw material." 40 C.F.R. 261.4(a)(24)(vi)(D) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)(F)(iv)). These facilities must also return verifications of receipt for off-site shipments of HSM to the generator. 40 C.F.R. 261.4(a)(24)(vi)(C) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)(F)(iii)). Recordkeeping and records retention requirements apply to intermediate and reclamation facilities. 40 C.F.R. 261.4(a)(24)(vi)(A) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)(F)(i)). Any residuals generated by the reclamation process must be managed in compliance with the hazardous waste regulations when the residual is hazardous waste.40 C.F.R. 261.4(a)(24)(vi)(E) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)(F)(v)).

Notification of Intent to Export and Acknowledgement of Consent. Prior discussion (beginning at page 134 of this opinion) briefly introduced the new requirements for notification of intent to export. The Board elaborates slightly here.

Requirements for notification of intent to export and for obtaining an Acknowledgement of Consent from USEPA prior to export of HSM are not new to the hazardous waste regulations. USEPA codified very similar requirements in the hazardous waste generator standards for exports of hazardous waste, in subpart E of 40 C.F.R. 262 (corresponding with Subpart E of 35 Ill. Adm. Code 722).[116] USEPA drew heavily from those existing requirements when crafting the new ones. USEPA stated that the definitions of terms used for the notification requirements

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[116] The export requirements apply also to shipments of universal waste. *See* 40 C.F.R. 273.20, 273.40, and 273.56 (2009) (corresponding with 35 Ill. Adm. Code 733.120, 733.140, and 733.156).

applicable to export of hazardous waste are to be used for the HSM export notification requirements, with the exception that the notification for export of HSM uses "hazardous secondary material" in place of "hazardous waste" in the other export notification requirements. 73 Fed. Reg. at 64698-99. USEPA stated that the operational requirements for HSM export notification are similar to those for hazardous waste export notification, with the exception that the hazardous waste manifest is not required for export of HSM. 73 Fed. Reg. at 64699; *compare* 40 C.F.R. 261.4(a)(25)(viii) (2009) *with* 40 C.F.R. 262.52(c) and 262.54 (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(25)(H) and 722.152(c) and 722.154).

USEPA explained that the export notification and procedure for obtaining the consent of the receiving country is designed to help assure that HSM is not discarded outside of USEPA's oversight. USEPA stated with regard to the notification requirement as follows:

> [A]ll parties responsible for the excluded hazardous secondary materials will be able to demonstrate that the materials were in fact sent for reclamation and arrived at the intended facility and were not discarded in transit. For hazardous secondary material generators who are exporting to other countries for reclamation, notice and consent must be obtained, thus facilitating oversight of the hazardous secondary material when sent beyond the borders of the United States, helping to ensure that it is recycled rather than discarded. 73 Fed. Reg. at 64679.

As with the regulatory scheme for export of hazardous waste, the key aspect of the notification and Acknowledgement of Consent for export of HSM is that it is USEPA, not the generator or the State, that notifies the authorities of the export destination and transit countries for authorization. *See* 40 C.F.R. 260.4(a)(25)(v) (2009) (corresponding with 35 Ill. Adm. Code 720.104(a)(25)(E)); *see also* 40 C.F.R. 262.53(e) (2009) (corresponding with 35 Ill. Adm. Code 722.153(e)). The export from the United States cannot occur unless USEPA issues an Acknowledgement of Consent to the generator exporting the waste or HSM. *See* 40 C.F.R. 260.4(a)(25)(vi) (2009) (corresponding with 35 Ill. Adm. Code 720.104(a)(25)(F)); *see also* 40 C.F.R. 262.52(c) (2009) (corresponding with 35 Ill. Adm. Code 722.152(c)).

USEPA outlined the export notification and procedure for obtaining the consent of the receiving country in the preamble discussion accompanying the 2008 DSWR amendments. USEPA assumes the role as intermediary between the HSM exporter and the government of the receiving country, and it is USEPA that contacts the foreign government for consent. The written consent of the receiving country is required, unless the receiving country is a member of the OECD, in which case the consent of the receiving country can be assumed by silence. In all instances, the HSM exporter cannot proceed with the export until after USEPA has issued an Acknowledgment of Consent. 40 C.F.R. 261.4(a)(25)(v)-(a)(25)(viii) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(25)(E)-(a)(25)(H)). USEPA summarized the notification procedure as follows:

> Notifications must be sent to [US]EPA's Office of Enforcement and Compliance Assurance, which will then notify the receiving country and any transit countries. * * *

> When the receiving country consents (or objects) to the receipt of the hazardous secondary materials, [US]EPA will inform the hazardous secondary material generator, through an Acknowledgement of Consent, of the receiving country's response, as well as any response from any transit countries. For exports to Organization for Economic Cooperation and Development (OECD) Member countries, the receiving country may choose to respond to the notification with tacit, rather than written, consent. With respect to exports to such OECD Member countries, if no objection has been lodged by the receiving country or transit countries to a notification within 30 days after the date of issuance of the acknowledgement of receipt of notification by the competent authority of the receiving country, . . . export may commence at that time. In such cases, [US]EPA will send an Acknowledgment of Consent to inform the hazardous secondary material generator that the receiving country and any relevant transit countries have not objected to the shipment, and are thus presumed to have consented tacitly. * * *
>
> The hazardous secondary material generator may proceed with the shipment of the hazardous secondary materials only after it has received an Acknowledgment of Consent from [US]EPA indicating the receiving country's consent (actual or tacit). If the receiving country does not consent to the receipt of the hazardous secondary materials or withdraws a prior consent, [US]EPA will notify the hazardous secondary material generator in writing. [US]EPA also will notify the hazardous secondary material generator of any responses from transit countries. * * * 73 Fed. Reg. at 64698-99 (footnote omitted).

The export notification requirements for HSM are an extension of an existing requirement that applies to the export of hazardous waste. The DSWR included another set of requirements on reclaimed HSM that are an extension of existing hazardous waste T/S/D facility standards. These are the financial assurance requirements that apply to reclamation and intermediate facilities that manage HSM under the domestically reclaimed HSM exclusion. These requirements impose a significant burden of compliance on the affected facilities.

Financial Assurance Requirements. New financial assurance requirements apply to reclamation and intermediate facilities operating within the United States under the independently reclaimed HSM exclusion. 40 C.F.R. 261.4(a)(24)(vi)(F) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)(F)(vi)). Financial assurance requirements are not novel in the hazardous waste regulations. USEPA drew heavily from the existing financial assurance provisions in the hazardous waste T/S/D facility standards of subparts H of 40 C.F.R. 264 and 265 (corresponding with Subparts H of 35 Ill. Adm. Code 724 and 725) and from the Standardized Permit Rule of subpart H of 40 C.F.R. 267 (corresponding with Subpart H of 35 Ill. Adm. Code 724, 725, and 727) when assembling them.

USEPA drafted the new HSM reclamation and intermediate facility financial assurance requirements so that they more closely resemble the financial assurance requirements in the Standardized Permit Rule of Subpart H of 40 C.F.R. 267 (corresponding with Subpart H of 35

Ill. Adm. Code 727) than the generally applicable T/S/D facility standards of Subparts H of 40 C.F.R. 264 and 265 (corresponding with Subparts H of 35 Ill. Adm. Code 724 and 725) The financial assurance provisions in the Standardized Permit Rule appear to be an updated version of their counterparts in the T/S/D facility standards.[117]

What is novel in the 2008 DSWR amendments is the application of a significant operational requirement on materials that are excluded from the definition of solid waste. HSM is defined as material that is not hazardous waste. *See* 40 C.F.R. 260.10 (2009) (corresponding with 35 Ill. Adm. Code 720.110). USEPA received comments with regard to the imposition of a "waste management requirement" on materials that are not waste. In addition to responding that USEPA has the authority to regulate recycling, USEPA added the following with regard to the function and importance of the financial assurance requirements for reclamation and intermediate facilities that reclaim HSM under the domestically reclaimed HSM exclusion:

> [US]EPA's record for today's rulemaking demonstrates that third-party recycling of hazardous secondary materials has been and continues to be part of the waste disposal problem, and, without the conditions being finalized today, these hazardous secondary materials would be solid wastes. * * * As opposed to manufacturing, where the cost of inputs, either raw materials or intermediates, is greater than zero and revenue is from the sale of the output, recycling conducted by commercial hazardous secondary materials recyclers involves generating revenue from receipt of the hazardous secondary materials, as well as from the sale of the output. Recyclers of hazardous secondary materials in this situation can have a short-term incentive to accept more hazardous secondary materials than they can economically or safely recycle, resulting in the hazardous secondary materials eventually being discarded.
>
> The financial assurance condition for the transfer-based exclusion being finalized today is directly linked to this situation. By obtaining financial assurance, the owner or operator of the reclamation facility is making a direct demonstration that it will not abandon the hazardous secondary material. * * *
>
> Under the transfer-based exclusion, financial assurance is the means by which the recycler demonstrates an investment in the future of the recycled materials; even if the market changes in such a way that the recycler can no longer process the hazardous secondary materials, by obtaining financial assurance, it has made certain that the hazardous secondary materials will not be abandoned and therefore not discarded. * * *

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[117] USEPA adopted the initial hazardous waste financial responsibility requirements for permitted and interim status hazardous waste T/S/D facilities in 40 C.F.R. 264 and 265, respectively, in 1982. *See* 47 Fed. Reg. 15032, 47, 64 (Apr. 7, 1982). USEPA adopted the financial responsibility requirements for T/S/D facilities operating under a standardized permit in 2005. *See* 70 Fed. Reg. 53420, 53 (Sep. 8, 2005).

> Moreover, financial assurance also addresses the correlation of the financial health of a reclamation facility with the absence of discard of hazardous secondary materials. [A]n examination of a company's finances is an important part of many of the environmental audits generators currently use to determine that their hazardous secondary materials will not be discarded. * * * 73 Fed. Reg. at 64720.

The new HSM reclamation facility requirements are similar to those applicable to hazardous waste T/S/D facilities, but they are tailored to the new context. *See* 73 Fed. Reg. at 64692. The existing hazardous waste T/S/D facility financial assurance provisions require a facility owner or operator to provide financial assurance. The financial assurance coverage must cover facility closure,[118] post-closure care[119] of the facility, and liability for personal injuries and property damage arising through accidental sudden and non-sudden occurrences relating to facility operations.[120] The new HSM facility financial assurance provisions require the owner or operator of an HSM reclamation facility or an intermediate facility to provide financial assurance to ensure proper removal of the HSM from the facility when operations cease[121] and for liability for personal injuries and property damage arising through accidental sudden and non-sudden occurrences relating to facility operations.[122] USEPA explained the need for the financial assurance requirements as follows:

> The financial assurance requirements are designed to help [US]EPA determine that the hazardous secondary material generator is not discarding the hazardous secondary material by sending it to a reclamation facility that is financially unsound.
>
> In addition, by obtaining financial assurance, the owner/operator of the reclamation facility (or intermediate facility) is making a direct demonstration that it will not abandon the hazardous secondary material. 73 Fed. Reg. at 64678.

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[118] 40 C.F.R. 264.143, 265.143, and 267.143 (2009) (corresponding with 35 Ill. Adm. Code 724.243, 725.243, and 727.243).

[119] 40 C.F.R. 264.145 and 265.145 (2009) (corresponding with 35 Ill. Adm. Code 724.245 and 725.245). There are currently no post-closure care requirements in the standardized permit regulations of 40 C.F.R. 267, since USEPA did not anticipate the need for post-closure care for the types of facilities to which the standardized permit rule would apply. *See* 70 Fed. Reg. at 53440.

[120] 40 C.F.R. 264.147, 265.147, and 267.147 (2009) (corresponding with 35 Ill. Adm. Code 724.247, 725.247, and 727.247).

[121] 40 C.F.R. 261.143, as added at 73 Fed. Reg. at 64764 (corresponding with 35 Ill. Adm. Code 721.243).

[122] 40 C.F.R. 261.147, as added at 73 Fed. Reg. at 64769 (corresponding with 35 Ill. Adm. Code 721.247).

Some of the differences between the existing financial assurance provisions applicable to hazardous waste T/S/D facilities and the new financial assurance provisions applicable to HSM reclamation and intermediate facilities warrant brief discussion.

Difference 1: The HSM Facility Financial Assurance Requirements Do Not Apply to Waste. The initial difference between the existing hazardous waste T/S/D facility requirements and the new HSM requirements is that the HSM requirements do not apply to hazardous waste. In fact, they apply to materials that are excluded from the definition of solid waste. Thus, the HSM financial assurance requirements do not apply to waste at all.

The HSM reclamation facility financial assurance requirements is the first set of regulations that USEPA has instituted under Subtitle C of RCRA that would apply to a material that is not even waste.[123] Whether the material is waste or not is crucial. As observed by USEPA:

> Materials that are not solid wastes are not subject to regulation as hazardous wastes under RCRA Subtitle C. Thus, the definition of "solid waste" plays a key role in defining the scope of [US]EPA's authorities under Subtitle C of RCRA. 73 Fed. Reg. at 64671.

Nevertheless, USEPA supported the requirements by stating that it intends the financial assurance requirements to assure that the HSM does not become waste by discard. USEPA links the financial assurance requirements directly with whether the HSM is abandoned (to become hazardous waste). USEPA explained as follows:

> [B]y obtaining financial assurance, the reclamation or intermediate facility is making a direct demonstration that it will not abandon the hazardous secondary materials, it will properly decontaminate equipment, and it will clean up any unacceptable releases, even if events beyond its control make its operations uneconomical. Moreover, financial assurance also addresses the issue of the correlation of the financial health of a reclamation or intermediate facility with the absence of discard. In essence, financial assurance will help demonstrate that

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[123] The universal waste regulations apply to hazardous waste that is designated for something less than the full set of the hazardous waste regulations. *See* 40 C.F.R. 273.1 (2009) (corresponding with 35 Ill. Adm. Code 733.101). Similarly, the used oil regulations provide alternative rules for used oil that is hazardous waste, except where the used oil does not qualify for treatment as used oil. *See* 40 C.F.R. 279.10 (2009) (corresponding with 35 Ill. Adm. Code 739.110). The same is true of hazardous waste used in a manner that constitutes disposal, hazardous waste burned for energy recovery, and hazardous waste that is mixed with low-level radioactive waste. *See* subparts C, H, and N of 40 C.F.R. 266.10 (2009) (corresponding with Subparts C, H, and N of 35 Ill. Adm. Code 726). Alternative management and disposal requirements also apply to conditionally exempt small quantity generator waste. *See* 40 C.F.R. 261.5 (2009) (corresponding with 35 Ill. Adm. Code 721.105).

> the reclamation or intermediate facility owner/operators who would operate under the terms of this exclusion are financially sound and will not discard the hazardous secondary materials. 73 Fed. Reg. at 64692.

USEPA elaborated that experience has demonstrated that independent reclamation facilities pose a greater risk for abandonment of the HSM, and that obtaining financial assurance demonstrates a facility's intent not to abandon the HSM, as follows:

> The financial assurance provisions are intended, in part, to demonstrate that the owner and operator is not discarding the hazardous secondary materials. As noted earlier, 69 of the 208 incidents of environmental damage identified in [US]EPA's environmental problems study involve abandonment of the hazardous secondary materials as the primary cause of damage. 73 Fed. Reg. at 64693.

USEPA called obtaining financial assurance "an investment in the future of the [HSM]." 73 Fed. Reg. at 64720.

USEPA has imposed conditions on exclusions from both the definition of "solid waste"[124] and "hazardous waste"[125] in the past. USEPA has done this again, in the present instance, by excluding HSM from the definition of solid waste. USEPA described the exclusion of independently reclaimed HSM as a "conditional exclusion." The HSM will not become subject to regulation under RCRA Subtitle C as waste so long as the generator, the HSM reclamation facility, and any intermediate facility manage the HSM within the restrictions. 73 Fed. Reg. at 64669-70. USEPA stated that the conditions are necessary to assure that the HSM will not be discarded. 73 Fed. Reg. at 64678.

Difference 2: The Primary Intent of HSM Facility Financial Assurance Is Not to Assure Facility Closure. The second difference between the respective bodies of the hazardous waste and the HSM financial responsibility requirements is in what they are intended to assure. The HSM facility financial assurance requirements include requirements similar to the hazardous

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[124] For example, these include spent wood preserving solutions (40 C.F.R. 261.4(a)(9) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(9)) and materials recovered from primary metals production from which useful materials are extracted during mineral processing or beneficiation (40 C.F.R. 261.4(a)(17) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(17)). On both, USEPA imposed conditions on management of the material to assure that constituents of the spent material are not discarded.

[125] For example, these include solid waste from the extraction, beneficiation, and processing of ores and minerals where certain conditions are fulfilled to ensure that the waste is legitimately recycled (40 C.F.R. 261.4(b)(7) (2009) (corresponding with 35 Ill. Adm. Code 721.104(b)(7)) and site-specific treated wastes from plating operations after treatment by Hydrite Corporation at Harvey, Illinois (table 1 in appendix IX to 40 C.F.R. 261 (2009) (corresponding with 35 Ill. Adm. Code 721.Appendix I, Table A) that meet specified requirements designed to assure that waste constituents remain within the residue.

waste T/S/D facility "closure" assurance requirements. But USEPA has distinguished HSM facility requirements from those T/S/D requirements. While providing funds for removal of HSM is similar to providing funds for T/S/D facility closure, the differences are significant enough that USEPA declined to apply the existing hazardous waste T/S/D facility standards to HSM reclamation facilities. USEPA explained as follows:

> The financial assurance requirements detailed in [the HSM reclamation facility standards] incorporate those aspects of the hazardous waste [T/S/D facility] closure and financial assurance regulations as they apply to the financial assurance condition for excluded [HSM] reclamation and intermediate facilities. However, since these facilities are not regulated hazardous waste facilities, [the new HSM reclamation facility standards do] not include a stand-alone closure requirement, although some aspects of the closure process . . . are included as being necessary for the implementation of the financial assurance condition.
>
> Substantively, these requirements generally mirror the interim status standards in 40 CFR part 265 for hazardous waste [T/S/D facilities], but have been tailored for [HSM] reclamation and intermediate facilities. . . . 73 Fed. Reg. at 64692.

Under the hazardous waste T/S/D financial assurance requirements, the owner or operator of the facility must maintain financial assurance for the proper closure and post-closure care of a hazardous waste T/S/D facility.[126] *See* 40 C.F.R. 264.143, 265.145, 265.143, 265.145, and 267.143 (2009) (corresponding with 35 Ill. Adm. Code 724.243, 725.245, 725.243, 725.245, and 727.243). The owner or operator must also provide assurance for liability for personal injuries and property damage arising through both sudden and non-sudden occurrences in the operation of the T/S/D facility. *See* 40 C.F.R. 264.147, 265.147, and 267.147 (2009). The T/S/D facility requirements focus on assuring the "current closure cost estimate"[127] and the "current post-closure cost estimate."[128]

Financial assurance at an HSM reclamation facility assures that HSM and contaminated equipment is not discarded at the facility. USEPA intended the financial assurance requirements

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[126] The Standardized Permit Rule of 40 C.F.R. 267 (corresponding with 35 Ill. Adm. Code 727) does not include provisions for post-closure care, since that segment of the regulations applies only to hazardous waste treatment and storage facilities. 40 C.F.R. 267.1(b), 267.10, and 270.255(a) (2009) (corresponding with 35 Ill. Adm. Code 727.100(a)(2), 727.110(b), and 703.350(b)(1)).

[127] Defined in 40 C.F.R. 264.141(b) and (c), 265.141(b) and (c), and 267.141(b) (corresponding with 35 Ill. Adm. Code 724.241(b), 725.241(b), and 727.241(b)). The Standardized Permit Rule of 35 Ill. Adm. Code 267 does not include provisions for post-closure care.

[128] Defined in 40 C.F.R. 264.141(b) and (c), 265.141(b) and (c), and 267.141(b) (corresponding with 35 Ill. Adm. Code 724.241(b), 725.241(b), and 727.241(b)). The Standardized Permit Rule of 35 Ill. Adm. Code 267 does not include provisions for post-closure care.

to provide an economic incentive in the reclamation of the HSM that would ensure that funds are available for removal of HSM and HSM residues from the site, so that they do not become discarded. If the HSM reclamation facility financial assurance requirements fail in that purpose, they ensure the availability of funds sufficient to begin hazardous waste T/S/D facility closure. The HSM facility financial assurance standards do not include full facility "closure" requirements, nor do they include any provisions for "post-closure care" of the facility. They do, however, include liability assurance for personal injuries and property damage.

Consideration in this discussion segment is limited to the financial assurance related to what is called "closure" in the context of a hazardous waste T/S/D facility. The next segment of this discussion relates more directly to the absence of post-closure care requirements for HSM reclamation facilities. The Board does not include any discussion of the liability requirements, since USEPA has stated that the liability requirements for HSM reclamation facilities are essentially the same as those for a hazardous waste T/S/D facility. *See* 73 Fed. Reg. at 64698.

USEPA stated that it adapted the existing hazardous waste T/S/D facility financial responsibility requirements for closure for the new HSM reclamation facility requirements. USEPA stated that it tailored the existing requirements to account for the fact that the HSM reclamation facility standards do not require a written closure plan.[129] 73 Fed. Reg. at 64673. USEPA changed the name "closure cost estimate"[130] to "current cost estimate" (***e.g.***, 40 C.F.R. 261.143(a)(2), (b)(1)(ii)(B), (c)(1)(ii)(B), (d)(3), (e)(1)(i)(D), and (f) (the provisions for the several permissible financial assurance mechanisms: (1) trust fund, (2) surety bond guaranteeing payment, (3) letter of credit, (4) insurance, (5) financial test and corporate guarantee, and (6) the use of a combination of multiple financial mechanisms, respectively)) to pointedly indicate this difference as to HSM reclamation facilities.

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[129] Under the hazardous waste T/S/D facility requirements, the facility owner or operator must prepare a written closure plan in order to obtain a permit or to continue to operate under interim status without a permit. The plan becomes a condition to the facility permit where a permit is involved. *See* 40 C.F.R. 264.112(a)(1), 265.112(a), and 267.112(a)(1) (2009) (corresponding with 35 Ill. Adm. Code 724.212(a)(1), 725.212(a), and 727.210(c)(1)(A)). Under the HSM reclamation facility requirements, the owner or operator must submit a "removal and decontamination plan for release" to the regulatory authority no sooner than 180 days before it intends to cease operations under the exclusion. *See* 40 C.F.R. 261.143(h)(1), as added at 73 Fed. Reg. at 64769 (corresponding with 35 Ill. Adm. Code 721.243(h)(1)). The plan content requirements for a hazardous waste facility closure plan are only slightly more elaborate than those for an HSM facility removal and decontamination plan for release. *Compare* 40 C.F.R.264.112(a)(2), 265.112(b), and 267.112(a)(2) (2009) (corresponding with 35 Ill. Adm. Code 724.212(a)(2), 725.212(b), and 727.210(c)(1)(B)) *with* 40 C.F.R. 261.143(h)(2), as added at 73 Fed. Reg. at 64769 (corresponding with 35 Ill. Adm. Code 721.243(h)(2)).

[130] Defined in 40 C.F.R. 264.141(b), 265.141(b), and 267.141(b) (corresponding with 35 Ill. Adm. Code 724.241(b), 725.241(b), and 727.241(b)).

The "current cost estimate" for an HSM reclamation facility is relatively straightforward. It is described in the rule as "the cost of disposing of any [HSM] as listed or characteristic hazardous waste, and the potential cost of closing the facility as a [hazardous waste T/S/D] facility." The current cost estimate for an HSM reclamation facility is essentially the cost of removing the facility from regulation because "all hazardous secondary materials have been removed from the facility or a unit at the facility and the facility or a unit has been decontaminated." 40 C.F.R. 261.143(i) (2009) (corresponding with 35 Ill. Adm. Code 721.243(i)).

Conceptually, this is similar to the closure cost hazardous waste of a T/S/D facility, at least to the extent that both would require removal of residual materials and material residues from the site (or minimizing the threats posed by any remaining hazardous waste and residues that are not removed from a T/S/D facility). The hazardous waste T/S/D facility closure requirements, however, are much more detailed and specific, since they require the facility owner or operator to address facility-type-specific (*e.g.*, tank, containment building, surface impoundment, etc.) closure requirements.[131] Further, the hazardous waste definition of "current closure cost estimate," is defined in terms of the written closure plan, which incorporates the more elaborate and specific facility-type-specific closure requirements into the definition.[132] In sum, closure of a hazardous waste T/S/D requires the following: (1) minimization of the need for further maintenance of the facility; (2) control, minimization, or elimination of harmful post-closure escape of hazardous waste constituents and decomposition byproducts to the environment; (3) compliance with the facility-type-specific closure requirements.[133]

The Board perceives that the HSM reclamation facility financial assurance requirements have three tiered objectives. These objectives are apparent in the wording of the financial assurance requirement itself and in USEPA's discussion of the financial assurance requirement. USEPA's observations on the need for a financial assurance requirement are discussed above, beginning on page 170 of this opinion. Each of the first two tiers are intended to minimize

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[131] *E.g.*, 40 C.F.R. 264.178, 264.197, 264.228, 264.258, 264.280, 264.310, 264.351, 264.601 through 264.603, 264.1102, 265.197, 265.228, 265.258, 265.280, 265.310, 265.351, 265.381, 265.404, 265.1102, 267.176, 267.201, and 267.1108 (corresponding with 35 Ill. Adm. Code 724.278, 724.297, 724.328, 724.358, 724.380, 724.410, 724.451, 724.701 through 724.703, 724.1102, 725.297, 725.328, 725.358, 725.380, 725.410, 725.451, 725.481, 725.504, 725.1102, 727.270(g), 727.290(l), and 727.900(i))

[132] *See* 40 C.F.R. 264.111 through 264.114, 264.141(b), 264.142(a), 265.111 through 265.114, 265.141(b), 265.142(a), 267.111 through 267.113, 267.141(b), and 267.142(a) (corresponding with 35 Ill. Adm. Code 724.211 through 724.214, 724.241(b), 724.242(a), 725.211 through 725.214, 725.241(b), 725.242(a), 727.210(b) through (d), and 727.240(b)(2)).

[133] See the outline of T/S/D facility closure requirements in the discussion of possible future USEPA amendments that could change the requirements for ceasing operation under the exclusion (beginning on page 225 of this opinion).

regulatory involvement in the HSM facility, and the third tier deals with closure of a site that becomes a hazardous waste T/S/D facility.

The primary objective of the HSM reclamation facility financial assurance requirements is to ensure that the HSM reclamation facility owner or operator reclaims the HSM and does not discard it. Avoiding discard of the HSM avoids the materials ever becoming solid or hazardous waste. USEPA intended the financial assurance requirements to provide a financial incentive to ensure full reclamation of the HSM. This is evident in the above-quoted rationale stated by USEPA for the requirements. *See* 73 Fed. Reg. at 64692.

The secondary objective of the financial assurance requirements is to ensure that HSM and HSM residues are removed from the facility before discard of the HSM can occur. This is to prevent the material becoming a solid waste and hazardous waste, which would make the facility subject to a hazardous waste T/S/D facility closure. When the owner or operator ceases reclamation operations, USEPA intends that the financial assurance requirements assure the proper disposal of HSM before it is considered discarded at the facility. If the facility owner or operator fails to reclaim all of the HSM that it receives, the financial assurance requirements will ensure removal of the HSM from the facility for sound disposal. In this instance, the financial assurance requirements operate to ensure that "discard" of HSM does not occur at the facility.

USEPA outlined the effect of HSM discard at the reclamation facility because the owner or operator has not fully removed the HSM and residues. USEPA stated that the HSM would become waste that is subject to regulation as hazardous waste. USEPA explained the result, as follows:

> As with the generator-[reclaimed HSM] exclusion, units managing hazardous secondary materials excluded under the [independently reclaimed HSM] exclusion are not subject to the closure regulations in 40 CFR parts 264 and 265 subpart G. However, when the use of these units is ultimately discontinued, all owners and operators must manage any remaining [HSMs] that are not reclaimed and remove or decontaminate all hazardous residues and contaminated containment system components, equipment structures, and soils. These [HSMs] and residues, if no longer intended for reclamation, would also no longer be eligible for the exclusion (which only applies to hazardous secondary materials that will be reclaimed). Failure to remove these materials within a reasonable time frame after operations cease could cause the facility to become subject to the full Subtitle C requirements if [USEPA] determines that reclamation is no longer feasible. 73 Fed. Reg. at 64699 (discussion independently reclaimed HSM); *see* 73 Fed. Reg. at 64683 (using nearly identical words with regard to generator-reclaimed HSM).

The first segment of the regulatory description of "current cost estimate" relates to removal of remaining HSM and HSM residues from the reclamation facility for disposal as hazardous waste before closure as a hazardous waste T/S/D facility is necessary. *See* 40 C.F.R. 261.142(a) (2009) (corresponding with 35 Ill. Adm. Code 721.242(a)). If the HSM and residues

are adequately removed from the facility, the site will not become a hazardous waste T/S/D facility.

The third objective of the HSM facility financial assurance requirements is to assure that adequate funds are available to assure appropriate closure of the HSM reclamation facility as a hazardous waste T/S/D facility. This is apparent in the final segment of the description of "current cost estimate," which requires that this include "the potential cost of closing the facility as a [T/S/D] facility." *See* 40 C.F.R. 261.142(a) (2009) (corresponding with 35 Ill. Adm. Code 721.242(a)).

Thus, the last purpose of the HSM facility financial assurance requirements is to ensure "closure" of the HSM reclamation facility. USEPA does not consider an HSM reclamation facility to be a hazardous waste T/S/D facility. The primary purpose of the HSM facility financial assurance requirements is instead to assure that the facility does not become a hazardous waste T/S/D facility. The financial responsibility requirements provide an economic incentive for sound management of the HSM, so that the HSM does not become hazardous waste through discard. If they fail in that purpose, they ensure the availability of funds for "disposing of any hazardous secondary material as listed or characteristic hazardous waste." *See* 40 C.F.R. 261.142(a) (2009) (corresponding with 35 Ill. Adm. Code 721.242(a)).

Difference 3: The HSM Facility Financial Assurance Requirements Include No Provisions Relating to Post-Closure Care. There is a third difference between the HSM reclamation facility financial assurance requirements and the financial assurance provisions of the T/S/D facility standards. The T/S/D facility requirements focus on assuring the "current closure cost estimate" and the "current post-closure cost estimate."[134] 40 C.F.R. 264.143, 265.145, 264.147, 265.143, 265.145, 265.147, 267.143, and 267.147 (2009). The HSM reclamation facility provisions do not include requirements with regard to post-closure care of the facility. As was related in the preceding segment of this discussion, USEPA stated that the HSM reclamation facility should be operated in a way that constituents of the HSM do not remain in place upon closure of the facility. USEPA, however, further stated that post-closure could be required at the facility if HSM or HSM residues remain at the facility after closure. 73 Fed. Reg. at 64692.

USEPA outlined the appropriate means for assuring complete removal of HSM that has become "discarded material" at a reclamation facility because the owner or operator has not fully removed the HSM and residues. USEPA stated that the HSM would become waste that is subject to regulation as hazardous waste. At that point, the T/S/D facility closure and post-closure care requirements would apply to the facility—through enforcement action. USEPA explained the result, as follows:

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[134] Defined in 40 C.F.R. 264.141(b) and (c), 265.141(b) and (c), and 267.141(b) (corresponding with 35 Ill. Adm. Code 724.241(b), 725.241(b), and 727.241(b)). The Standardized Permit Rule of 35 Ill. Adm. Code 267 does not include provisions for post-closure care.

> [T]he conditional exclusion being promulgated today only applies to hazardous secondary materials intended for reclamation. In no cases should the storage of these materials be designed or managed with the intent of leaving these hazardous secondary materials in place. Unlike the need for closure, which could occur at a reclamation or intermediate facility which meets all the conditions of the exclusion, but then becomes subject to forces beyond its control (such as a sudden downturn in the market for its recycled product), the need for post-closure care would only apply to a facility that does not meet the condition that the hazardous secondary materials are contained in the unit. Thus, [USEPA] has determined that the issue of post-closure care is most appropriately dealt with by enforcement of the condition that the hazardous secondary materials must be contained. If, during the life of the unit, there is a significant release that indicates that the hazardous secondary materials are discarded, and thus are wastes, then such waste is subject to the RCRA Subtitle C requirements, including the post-closure care requirements. 73 Fed. Reg. at 64692.

As discussed in the preceding segment of this discussion, above at page 170, the HSM reclamation facility financial assurance provisions are designed with a primary intent of assuring that the HSM facility legitimately reclaims all of the HSM that it receives. It is only when reclamation is frustrated does removal and disposal of the HSM become a concern. As the segment of the *Federal Register* discussion makes clear, post-closure care of a facility may be required where necessary when containment of the HSM has failed—*i.e.*, as described by USEPA in the above-quoted text, in the context of an enforcement action.

The post-closure care requirements mentioned by USEPA are those in the hazardous waste T/S/D facility standards. Even though the result of an enforcement action could be the imposition of hazardous waste T/S/D facility standards, including the closure and post-closure care requirements, a formal enforcement action may not always be necessary to impose the post-closure care requirements on a facility. A facility may voluntarily choose to comply with the hazardous waste T/S/D facility standards that are determined necessary to bring the facility into compliance with the RCRA Subtitle C regulations by agreement with the Agency.

Possible Future USEPA Revisions to the HSM Facility Financial Assurance Requirements. In response to comments on the DSWR, USEPA has requested further public comments on ways that the DSWR might be further amended. USEPA requested comments on possible revisions to the independently reclaimed HSM exclusions. The alternatives discussed by USEPA and upon which USEPA requested comments included repeal of the self-implementing HSM exclusions, tailoring the self-implementing exclusions to apply only where the reclamation occurs in a "continuous industrial process within the generating industry," limiting the independently reclaimed HSM exclusions to apply only where the generator is paid for the HSM, or making the independently reclaimed HSM exclusions inapplicable to intermediate facilities. 74 Fed. Reg. 25200, 04 (May 27, 2009). Another significant area of potential revision relates to whether USEPA should impose a "closure plan" requirement on owners and operators of intermediate or reclamation facilities.

The hazardous waste T/S/D facility standards, as discussed above, require a facility owner or operator to assemble and maintain a plan for closure of the facility, which is simply called the facility's "closure plan" by the T/S/D facility rules. The closure plan forms the basis for financial assurance after review and approval by USEPA or authorized state. *See* 40 C.F.R. 265.112(a) and (c), 265.118, and 265.142(a) (2009) (corresponding with 35 Ill. Adm. Code 725.212(a) and (c), 725.218, and 725.242(a)). USEPA is considering whether a closure plan would help assure the quality of the assumptions and estimates that underlie the "cost estimate" upon which financial assurance for an HSM reclamation or management facility is based. *See* 74 Fed. Reg. 25204.

For the sake of expedience, that Board has included discussion relative to ceasing HSM reclamation or intermediate facility operations until the end of the consideration of the 2008 DSWR amendments (beginning at page 180 of this opinion). That discussion considers possible future USEPA amendments to the HSM reclamation and intermediate facility financial assurance requirements. To summarize that discussion for the present purposes, USEPA is considering revisions to the financial assurance requirements that would more closely parallel those that apply to hazardous waste T/S/D facilities. In particular, USEPA is considering instituting a requirement that an HSM reclamation or intermediate facility assemble a written "closure plan," which would form the basis for the "cost estimate" upon which the facility owner or operator could base the amount of financial assurance required for its HSM management facility. If the "closure plan" requirement is incorporated into the exclusion for independently reclaimed HSM in a form similar to the "closure plan" requirement that applies to hazardous waste T/S/D facilities, submission of the plan to the applicable of USEPA or the pertinent state for prior review and approval would be necessary.[135]

Requiring a formal facility "closure plan" would bring "cease to operate under the exclusion" for an HSM management facility closer to what "closure" is to a hazardous waste T/S/D facility. *Compare* 40 C.F.R. 261.143(h) (2009) *with* 40 C.F.R. 265.143(h) (2009) (corresponding with 35 Ill. Adm. Code 721.243(h) and 725.143(h), respectively); *see* 73 Fe. Reg. at 64694. USEPA avoided use of the term "closure" with regard to HSM facilities because "closure" is a formalized procedure that is used with regard to T/D/S facilities only in the context of the hazardous waste regulations. *See* 73 Fed. Reg. at 64692. Further, USEPA does not want HSM reclamation and intermediate facilities to become hazardous waste T/S/D facilities. When that occurs due to HSM becoming "discarded material" at the facility, the hazardous waste T/S/D facility standards will come into play because the HSM management facility has failed to "contain" the HSM. As stated by USEPA:

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[135] The HSM management facility financial assurance requirements require submission of a written "removal and decontamination plan for release" to the appropriate of USEPA or pertinent state at least six months prior to cessation of operation under the exclusion. 40 C.F.R. 261.143(h) (2009) (corresponding with 35 Ill. Adm. Code 721.243(h)). A T/S/D facility must submit its "closure plan" for review and approval when operations commence. *See* 40 C.F.R. 265.112 (2009) (corresponding with 35 Ill. Adm. Code 725.212).

> If, during the life of the unit, there is a significant release that indicates that the hazardous secondary materials are discarded, and thus are wastes, then such waste is subject to the RCRA Subtitle C requirements, including the post-closure care requirements. *Id*.

What changes USEPA will ultimately make in the domestic independently reclaimed HSM exclusion remains to be seen. It is possible, however, that USEPA could amend the financial assurance provisions to require a written plan for a facility to "cease operating under the exclusion" that requires prior submission to USEPA (to the Agency, when Illinois is authorized to administer the HSM reclamation provisions) for prior review and approval. It is further possible that USEPA could change the rule in a way that would actually call this process "closure" of the facility, rather than "cease operating under the exclusion." What will likely not change is the fact that a failure to remove all HSM and HSM residues from a facility when operations cease will subject the facility to the hazardous waste T/S/D facility standards, including those requirements relating to facility closure and post-closure care.

Exclusion of HSM by a Non-Waste Determination. In addition to the self-implementing generator-reclaimed HSM exclusions and independently reclaimed HSM exclusions, USEPA established a pair of exclusions that are available by an administrative determination. USEPA calls this administrative procedure the "non-waste determination." The non-waste determination is a formal decision by USEPA or an authorized state[136] that excludes a specific HSM from definition as solid waste. USEPA described the non-waste determination in general terms as follows:

> This process allows a petitioner to receive a formal determination from [US]EPA (or the state, if the state is authorized for this provision) that its hazardous secondary material is not discarded and therefore is not a solid waste. The procedure allows [US]EPA or the authorized state to take into account the particular fact pattern of the reclamation operation to determine that the hazardous secondary material in question is not a solid waste. 73 Fed. Reg. at 64679.

USEPA provided two bases for a non-waste determination: (1) one for HSM that is reclaimed in a continuous industrial process, where the HSM is a part of the production process and is not discarded; and (2) another for HSM that is indistinguishable from a product or intermediate, where the HSM is comparable to a product or intermediate and is not discarded. 40 C.F.R. 260.34(b) and (c) (2009) (corresponding with 35 Ill. Adm. Code 720.134(b) and (c)).

The Board has considered the non-waste determination as a pair of exclusions for analytical purposes, since these two bases for the determination are independent of one another. In the discussion that follows, the Board refers to the first type of non-waste determination—the one that relates to HSM that is used in a continuous industrial process—as the "process-based

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[136] This is either USEPA or an "authorized state." This point is discussed below (beginning at page 201 of this opinion).

non-waste determination" in this discussion. The Board refers to the other type of non-waste determination, which is available for HSM that is comparable to a product or intermediate, as the "product-based non-waste determination."

The Process-Based Non-Waste Exclusion. The DSWR describes the process-based non-waste exclusion as available for the following type of HSM:

> [HSM] which is reclaimed in a continuous industrial process if the applicant demonstrates that the [HSM] is a part of the production process and is not discarded. 40 C.F.R. 260.34(b) (2009) (corresponding with 35 Ill. Adm. Code 720.134(b).

The rule sets forth factors to aid consideration of whether particular HSM should receive a process-based exclusion by a non-waste determination. In brief, those factors are outlined as follows:[137]

1) Whether the HSM is legitimately reclaimed;

2) The extent to which the management of the HSM is part of the continuous industrial process and is not waste treatment;

3) Whether the capacity of the continuous industrial process ensures that the HSM is used and not abandoned;

4) Whether the hazardous constituents in the HSM are released to the environment (air, land, or water) at significantly higher levels of risk (to human health or the environment) than would otherwise be released by the industrial process; and

5) Other factors that would demonstrate that the HSM is not discarded.

The Product-Based Non-Waste Exclusion. The DSWR describes the product-based non-waste exclusion as available for the following types of HSM:

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[137] The federal regulation requires that the non-waste determination is based on a finding that the HSM is "legitimately recycled," as determined by the legitimacy rule, and consideration of specified factors for consideration. *See* 40 C.F.R. 260.34(b) (2009) (corresponding with 35 Ill. Adm. Code 720.134(b)). Under this rule structure, a determination of "legitimacy" is a prerequisite to consideration of the specified factors. This means that consideration of the specified factors can operate to militate against a non-waste determination, even after a finding that "legitimate recycling" is involved, but consideration of the factors can never overcome a contrary finding that the reclamation does not involve "legitimate recycling." *See* 73 Fed. Reg. at 64701. In this discussion, the Board has presented the question of legitimacy as a factor for consideration for the sake of conciseness. The Board does not intend to imply that "legitimate recycling" is not a precondition to exclusion.

> [HSM] which is indistinguishable in all relevant aspects from a product or intermediate if the applicant demonstrates that the [HSM] is comparable to a product or intermediate and is not discarded. 40 C.F.R. 260.34(c) (2009) (corresponding with 35 Ill. Adm. Code 720.134(c)).

The factors set forth to aid consideration of whether particular HSM should receive a product-based exclusion by a non-waste determination are briefly outlined as follows:

1) Whether the HSM is legitimately reclaimed;

2) Whether the market treats the HSM as a product or intermediate, rather than as a waste (based on a positive market value, stable demand, and any contracts for supply of the HSM);

3) Whether the chemical and physical properties of the HSM are comparable to commercial products or intermediates;

4) Whether the capacity of the market to use the HSM is sufficient to ensure use of the HSM within a reasonable time, and to further ensure that the HSM will not become abandoned (based on past and present trends, market factors, the nature of the HSM, and any contracts for supply of the HSM);

5) Whether hazardous constituents in the HSM are reclaimed, rather than released to the environment (air, land, or water) to create significantly higher levels of risk (to human health or the environment) than would otherwise result if the production process used product or intermediate; and

6) Other factors that would demonstrate that the HSM is not discarded.

The Legitimacy Rule Applies to Non-Waste Determinations. The DSWR amendments specify that both of the exclusions by administrative non-waste determinations rely on a core determination that the reclamation will fulfill the requirements of the "legitimacy rule." 40 C.F.R. 260.34(b) and (c) (2009) (corresponding with 35 Ill. Adm. Code 720.134(b) and (c)); *see* 40 C.F.R. 260.43 (2009) (corresponding with 35 Ill. Adm. Code 720.143). Discussed at length in an earlier segment (beginning on page 90 of this opinion), this is one of the five "universal conditions" that apply to all four of the self-implementing HSM exclusions. None of the other universal conditions (the restriction the HSM must not be subject to a self-implementing exclusion, the prohibition against speculative accumulation, the requirement that the HSM "must be contained," and the activity notification requirement) apply to the non-waste determination. 73 Fed. Reg. 64710.

That is not to say that requirements serving a similar purpose do not apply. For example, although the "contained" requirement does not apply, containment of the HSM is essential to managing the HSM within the bounds of the hazardous waste rules. Any loss of HSM to the environment would result in the HSM becoming hazardous waste unless it is recovered and recycled. *See* 40 C.F.R. 260.10 (definition of "disposal") and 261.2(a) and (b) (2009)

(corresponding with 35 Ill. Adm. Code 720.110 and 721.102(a) and (b)). Further, a factor for consideration in granting a non-waste determination is whether hazardous constituents in the HSM are reclaimed or released to the environment. 40 C.F.R. 260.34(b)(3) and (c)(4) (2009) (corresponding with 35 Ill. Adm. Code 720.134(b)(3) and (c)(4)). Without the universal condition that the HSM "must be contained," which applies to all of the self-implementing reclamation-based HSM exclusions, any excluded HSM that remained in containment does not also become hazardous waste. That is the result of violating the universal "contained" condition and losing the exclusion under one of the self-implementing exclusions. *See* 73 Fed. Reg. at 64681.

Another possible example is that although the prohibition against speculative accumulation does not apply, the circumstances of the reclamation must assure that the process or the market will "use the [HSM] in a reasonable time frame and ensure that the hazardous secondary material will not be abandoned." 40 C.F.R. 260.34(b)(2) and (c)(3) (2009) (corresponding with 35 Ill. Adm. Code 720.134(b)(3) and (c)(4)). The "reasonable time frame" is a much more fluid and flexible approach than that of the requirement for recycling a minimum portion of the HSM within a fixed timeframe, which is the cornerstone of the prohibition against speculative accumulation. *See* 40 C.F.R. 261.1(c)(8); 261.2(a)(2)(ii); and 261.4(a)(23)(iii), (a)(24)(i), and (a)(25) (2009) (corresponding with 35 Ill. Adm. Code 721.101(c)(8); 721.102(a)(2)(B); and 721.104(a)(23)(C), (a)(24)(A), and (a)(25)).

The activity notification requirement, which is a universal condition applicable to the four self-implementing reclamation-based HSM exclusions, clearly does not apply to HSM that is managed under a non-waste determination.[138] The RCRA section 3010 activity notification requirement apply only to regulated materials, including HSM, hazardous waste, used oil, and universal waste. 40 C.F.R. 260.42(a); 261.2(a)(2)(ii); 261.4(a)(23)(vi), (a)(24)(vii), and (a)(25); 262.12; 262.203; 263.11; 264.1(h)(1); 265.1(b); 266.21 through 266.23; 266.70(b)(1); 266.80(a), (b)(1)(i), and (b)(2)(i); 267.12; 270.70(a)(1); 273.32(a); 273.60(a); 279.42; 279.51; 279.62; and 279.73 (2009) (corresponding with 35 Ill. Adm. Code 720.142(a); 721.102(a)(2)(B); 721.104(a)(23)(F), (a)(24)(G), and (a)(25); 722.112; 722.303; 723.111; 724.101(h)(1); 725.101(b); 726.121 through 726.123; 726.170(b)(1); 726.180(a), (b)(1)(i), and (b)(2)(i); 727.110(c); 703.153(a)(1); 733.132(a); 733.160(a); 739.142; 739.151; 739.162; and 739.173, respectively); *see* 42 U.S.C. § 6930(a) (2006); *see also* USEPA Form 8700-12, *Notification of RCRA Subtitle C Activity, Instructions and Form* (Nov. 2009) at pp. 2-3. The activity notification does not apply to HSM that is excluded from the definition of solid waste under any provision other than the four self-implementing HSM exclusions. *See* USEPA Form 8700-12, *Notification of RCRA Subtitle C Activity, Instructions and Form* (Nov. 2009) at pp. 2-3.

Further, the universal condition that excepts specified secondary materials form the four self-implementing reclamation-based exclusions (*see* 40 C.F.R. 261.2(a)(2)(ii); 261.4(a)(23)(iv), (a)(24)(iii), and (a)(25)) does not apply to HSM excluded by a non-waste determination. *See* 40

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[138] This is true also of the export notification requirements, which apply by their terms only to HSM excluded by a self-implementing reclamation-based exclusion, to hazardous waste, and to universal waste. 40 C.F.R. 261.4(a)(25)(i), 262.53, and 273.56.

C.F.R. 260.34(b) and (c) (2009) (corresponding with 35 Ill. Adm. Code 720.134(b) and (c)). As is considered in a later segment of this discussion (beginning on page 188 below), this fact may open the door to using the non-waste determination to avoid unnecessary or unduly burdensome conditions that would otherwise attach to reclaimed materials.

The Function of and Purposes for a Non-Waste Determination. It is possible to view the non-waste determination as ancillary to the four self-implementing reclamation-based exclusions. As the following discussions indicate, USEPA intended that the non-waste determination provide a means for allowing exclusion in ambiguous situations. 73 Fed. Reg. 64710-11. USEPA also intended the non-waste determination as a means for a regulated entity to gain regulatory certainty where the status of HSM reclamation activity is unclear. These two functions are distinct, yet they may overlap in specific instances. 73 Fed. Reg. 64711.

A third possible function arises from the *Federal Register* discussion of the function of a non-waste determination. USEPA stated that the non-waste determination "is available in addition to the solid waste exclusions." 73 Fed. Reg. 64710. USEPA then stated that when excluded by a non-waste determination, "the [HSM] is not subject to the limitations and conditions" that would otherwise apply to the material under a self-implementing exclusion. *Id.* Only one of the five "universal conditions" that apply to the self-implementing reclamation-based exclusions that applies also to a non-waste determination is the "legitimacy rule." None of the other universal conditions (the restriction the HSM must not be subject to a self-implementing exclusion, the prohibition against speculative accumulation, the requirement that the HSM "must be contained," and the activity notification requirement) directly apply to a non-waste determination. *Id.* Thus, USEPA suggested that the non-waste determination could act as a means for gaining relief from conditions that would apply to an applicable self-implementing exclusion. Nothing in the rule or discussion precludes such a use. *See* 40 C.F.R. 260.30(d) and (e) and 260.34; 73 Fed. Reg. at 64710-13.

A Means for Gaining Regulatory Certainty. USEPA established the non-waste determination exclusions based on court decisions involving solid waste determination. *See* 73 Fed. Reg. at 64670-73. The District of Columbia Circuit has determined that secondary material which is to be immediately used or reused in a "continuous industrial process" is not "discarded material," as such is significant for the purposes of the definition of solid waste[139] (*Association of Battery Recyclers*, 208 F.3d 1047, 1056 (D.C. Cir. 2000)). But that court has also held that at some point the use or reuse is not sufficiently immediate that USEPA can regulate the material as "discarded material." *American Mining Congress*, 907 F.2d 1179, 1186 (D.C. Cir. 1990). The problem is that there is often no "bright line" to indicate that the continuous nature of the industrial process is enough to ensure that use or reuse will occur immediately.

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[139] The definition of hazardous waste includes a provision that materials are not subject to regulation as hazardous waste until they exit the unit that generated them. 40 C.F.R. 261.3(c) (2009) (corresponding with 35 Ill. Adm. Code 721.103(c)). The definition of solid waste provides that secondary materials that are recycled by being (1) used or reused in an industrial process to make a commercial product;

For this reason, USEPA chose to use an administrative determination, rather than a self-implementing provision, to exclude the secondary materials involved in the process-based non-waste determinations. USEPA explained as follows with regard to the process-based non-waste determination:

> [P]revious court decisions have indicated that hazardous secondary materials that are reclaimed in a continuous industrial process are not discarded and, therefore, not a solid waste. [US]EPA believes, in most instances, hazardous secondary materials reclaimed in a continuous process would be excluded under today's self-implementing exclusions. However, production processes can vary widely from industry to industry and it is possible that the regulatory status of certain materials may be unclear under a self-implementing exclusion (including those exclusions finalized today). Thus, to determine whether individual hazardous secondary materials are reclaimed in a continuous industrial process, and, therefore, not a solid waste, [US]EPA has developed the non-waste determination process to evaluate case-specific fact patterns. 73 Fed. Reg. 64710-11.

The process-based non-waste determination would provide a means for distinguishing when an industrial process is continuous and the recycling is legitimate. This is to distinguish from the situation where the process is not continuous and the secondary materials are actually "discarded material." The certainty intended by the process-based non-waste determination appears intended in an area where distinctions are not clear.

USEPA similarly explained that case law also underlies the product-based non-waste determination. The purpose of the product-based non-waste determination is also to provide a decision-making tool where a "bright-line" approach is often not possible. USEPA's remarks, however, indicate another related purpose. The non-waste determination provides a means for assisting regulated entities in the form of a clear determination that a particular reclamation scheme for a specific HSM is "indistinguishable in all relevant aspects from a product or intermediate."[140] 40 C.F.R. 260.34(c) (2009) (corresponding with 35 Ill. Adm. Code 720.134(c)). In other words, the product-based non-waste determination can help clarify the viability of exclusion where the applicability of a self-implementing exclusion is uncertain. USEPA stated as follows with regard to the product-based exclusion:

> Although the courts have indicated that hazardous secondary materials recycled within a continuous industrial process are not discarded and, therefore, are not solid wastes, they have also said that hazardous secondary materials destined for recycling in another industry are not automatically discarded. However, there may be some situations where the regulatory status of a certain

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[140] This language from the product-based non-waste determination (40 C.F.R. 260.34(c) (2009) (corresponding with 35 Ill. Adm. Code 720.134(c))) is similar to the first segment of the legitimacy test, which requires that the HSM "useful contribution to the recycling process or to a product or intermediate of the recycling process" (40 C.F.R. 260.43(b) (2009) (corresponding with 35 Ill. Adm. Code 720.143(b))).

> material is unclear under a self-implementing exclusion and thus may benefit from a non-waste determination that evaluates case-specific fact patterns. 73 Fed. Reg. 64711.

Thus, both of the non-waste determinations are means for gaining certainty as to the regulatory status of HSM that is undergoing reclamation. USEPA's *Federal Register* discussion of the non-waste determination centers on this function for the determination, but the discussion further hints that there is another unrelated reason for seeking a non-waste determination.

A Means for Gaining Regulatory Relief. Although USEPA established use of the non-waste determination as a means for gaining regulatory certainty, the non-waste determination may have a second role as a means for gaining regulatory relief. A person generating, managing, or reclaiming HSM may be able to obtain a non-waste determination in order to avoid or modify the conditions that would otherwise apply to one of the self-implementing exclusions. In discussion of the non-waste determination, USEPA observed as follows:

> The purpose of the non-waste determination process is to provide persons with an administrative procedure for receiving a formal determination that their [HSMs] are not discarded and, therefore, are not solid wastes when recycled. This process is available in addition to the [generator-reclaimed and independently reclaimed HSM] exclusions in today's rule. Once a non-waste determination has been granted, the hazardous secondary material is not subject to the limitations and conditions discussed elsewhere in today's rule (*e.g.*, prohibition on speculative accumulation, storage standard, or, for the [independently reclaimed HSM] exclusion, recordkeeping, reasonable efforts, financial assurance, and export notice and consent); however, the regulatory authority may specify that a [HSM] meet certain conditions and limitations as part of the non-waste determination.
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> The non-waste determination process is voluntary. Facilities may choose to continue to use the self-implementing portions of any applicable waste exclusions and, for the vast majority of cases, where the regulatory status of the [HSM] is evident, self-implementation will still be the most appropriate approach. In addition, facilities may continue to contact [US]EPA or the authorized state to ask for informal assistance in making these types of non-waste determinations. However, for cases where there is ambiguity about whether a [HSM] is a solid waste, today's formal process can provide regulatory certainty for both the facility and the implementing agency.
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> [USEPA] confirms today's process for non-waste determinations is not intended to affect any existing exclusion under 40 C[.]F[.]R[.] 261.4 [(corresponding with 35 Ill. Adm. Code 721.104)]. The process is also not intended to affect any variance [(solid waste determination)] already granted under 40 C[.]F[.]R[.] 260.30 [(corresponding with 35 Ill. Adm. Code 720.130)] or

> other [US]EPA or authorized state determination. In other words, generators or reclaimers operating under an existing exclusion, variance [(solid waste determination)], or other [US]EPA, or authorized state, determination do not need to apply for a formal non-waste determination under today's rule. This process also does not affect the authority of [US]EPA or an authorized state to revisit past determinations according to appropriate procedures, if they so choose. 73 Fed. Reg. at 64710.

USEPA's explanation of the non-waste determination tends to support use of the non-waste determination as a means for gaining relief from the conditions that would apply to a self-implementing exclusion. The non-waste determination is a means for obtaining an administrative determination that a specific HSM undergoing reclamation is not "discarded material," and is, therefore, excluded from the definition of solid waste, under the particular circumstances and conditions evaluated.

USEPA's assertions that (1) the non-waste determine is wholly independent of the self-implementing exclusions, (2) the non-waste determination is available "in addition to" the self-implementing exclusions, and (3) the conditions that attach to the self-implementing exclusions do not apply to the non-waste determination would support a conclusion that the applicability of a self-implementing exclusion does not preclude availability of a non-waste determination. The fact that fixed conditions do not apply to a non-waste determination arises from the fact that the non-waste determination is readily tailored to the specific facts of the case. Further, USEPA expressly raised the possibility of revisiting "past determinations according to appropriate procedures"—perhaps by use of the non-waste determination. Thus, USEPA all but expressly states that the non-waste determination could provide a means for avoiding unduly burdensome or unnecessary conditions that would apply to exclusion of HSM by one of the self-implementing exclusions.

The door may now be open to the use of a non-waste determination where the petitioner wishes exclusion of reclaimed HSM under conditions that differ from those that would apply through a self-implementing exclusion, where the petitioner can justify the non-waste determination with alternative conditions to the administrative body evaluating the petition. Although USEPA fell short of expressly authorizing such use of the non-waste determination, USEPA strongly suggested that such use is contemplated, and there is nothing in USEPA's discussion of the non-waste determination that would preclude use of a non-waste determination to obtain alternative conditions. Such use of the non-waste determination to seek alternative conditions might arise where a generator or intermediate or reclamation facility seek to apply alternative, equally protective conditions that would assure that the HSM does not become "discarded material."

Application to Materials Regulated Under an Existing Exclusion. USEPA instituted the new reclamation-related exclusions, including the non-waste determination, to stand independent of all exclusions and all "variances" (solid waste determinations) made prior to the 2008 amendments. USEPA intended that the prior exclusions would continue unaffected by the 2008 amendments.

In a segment of the *Federal Register* discussion that immediately follows discussion of the non-waste determination, USEPA began its summaries of facets of the 2008 DSWR amendments. That first segment of that summary, entitled "Effect on Other Exclusions," considers the interplay of the exclusions that existed prior to the 2008 amendments and those that were added by the 2008 amendments. USEPA did not distinguish in that discussion between self-implementing exclusions and those available by a non-waste determination. USEPA plainly stated that USEPA did not intend the procedure to affect existing exclusions. In fact, USEPA stated that persons operating under existing exclusions must continue to meet the conditions of those exclusions, so that their secondary materials could remain excluded from the definition of solid waste. USEPA stated as follows:

> [T]he final rule requires that hazardous secondary materials specifically subject to the existing exclusions must continue to meet the existing conditions or requirements in order to be excluded from the definition of solid waste.
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> * * * * *
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> [I]f a hazardous secondary material is subject to material-specific management conditions under 40 CFR 261.4(a) when reclaimed, such a material is not eligible for the final rule exclusions. 73 Fed. Reg. at 64713.

In fact, each of the four self-implementing exclusions added by the 2008 DSWR expressly denies applicability to materials managed under an existing exclusion. 40 C.F.R. 261.2(a)(2)(ii) and 261.4(a)(23)(iv), (a)(24)(iii), and (a)(25) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(23)(D), (a)(24)(C), and (a)(25)). The existing exclusions that USEPA appears to have intended are the self-implementing exclusions of 40 C.F.R. 261.4(a) (corresponding with 35 Ill. Adm. Code 721.104(a)).

USEPA was not so definite in this regard in the text of the rule that authorizes the non-waste determination. There is no segment in this provision that denies application to material managed under an existing exclusion. *See* 40 C.F.R. 260.34 (2009) (corresponding with 35 Ill. Adm. Code 720.134). The *Federal Register* discussion of the non-waste determination and subsequent discussion of the effect of the amendments on existing exclusions suggests that the non-waste determination can be used to revisit pre-existing exclusions.

USEPA clearly stated that persons operating under an existing "variance" (solid waste determination)[141] or exclusion from the definition of solid waste[142] are not required to now seek a non-waste determination to continue managing secondary materials as excluded from the

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[141] Granted pursuant to 40 C.F.R. 260.30 and 260.31 (corresponding with 35 Ill. Adm. Code 720.130 and 720.131).

[142] In 40 C.F.R. 261.4(a)(1) through (a)(22) (corresponding with 35 Ill. Adm. Code 721.104(a)(1) through (a)(22)).

definition of solid waste. USEPA stated as follows in discussion of the non-waste determination:

> The Agency confirms today's process for non-waste determinations is not intended to affect any existing exclusion under 40 CFR 261.4. The process is also not intended to affect any variance already granted under 40 CFR 260.30 or other [US]EPA or authorized state determination. In other words, generators or reclaimers operating under an existing exclusion, variance, or other [US]EPA, or authorized state, determination do not need to apply for a formal non-waste determination under today's rule. 73 Fed. Reg. at 64710.

Despite this assertion that the non-waste determination does not inherently affect pre-existing exclusions, USEPA concluded with a statement that appears to allow use of the non-waste procedure to revisit those exclusions. USEPA concluded as follows:

> This process also does not affect the authority of [US]EPA or an authorized state to revisit past determinations according to appropriate procedures, if they so choose. *Id*.

In the discussion of the effect of the 2008 amendments on pre-existing exclusions, USEPA made similar assertions. USEPA similarly explained that the non-waste determination does not affect pre-existing exclusions. USEPA also similarly concluded that the non-waste determination can be used to revisit prior exclusions using the non-waste determination. Yet USEPA used a shift in language that may indicate that USEPA intended revisiting pre-existing exclusions using the authorities that existed when the exclusions arose. USEPA stated as follows:

> The final rule will not supersede any of the current exclusions or other prior solid waste determinations or variances . . . . If a hazardous secondary material has been determined not to be a solid waste, for whatever reason, such a determination will remain in effect, unless the regulatory agency decides to revisit the regulatory determination under their current authority. In addition, if a hazardous secondary material has been excluded from hazardous waste regulations—for example, under the Bevill exclusion in 40 C[.]F[.]R[.] 261.4(b)(7)—the regulatory status of that material will not be affected by today's rule. 73 Fed. Reg. at 64713.

By these assertions, the questions arise relative to whether USEPA or a state may use a non-waste determination to modify and existing exclusion. Can a person managing or reclaiming secondary materials under a self-implementing exclusion or a "variance" (solid waste determination) petition for a non-waste determination that would modify a pre-existing exclusion? Alternatively, can a person managing or reclaiming secondary materials under a pre-

existing exclusion petition for a non-waste determination that would allow operation under conditions that differ from those provided in a pre-existing exclusion?[143]

The possible limited interpretation is prompted by this second assertion. This interpretation would be that USEPA authorized use of the non-waste determination to revisit past denials of a solid waste "variance" (solid waste determination). Thus, a non-waste determination could be made with regard to HSM that was solid waste under the pre-existing rules. Nothing in the text of the non-waste provision, however, would indicate such a limited scope for the non-waste determination.

The broadest possible interpretation would be that the non-waste determination is available wherever available under either of the two bases provided by rule, and whenever the regulatory conditions are fulfilled for a determination. Under this interpretation, a process-based non-waste determination would be available for HSM that is legitimately reclaimed in a continuous industrial process; the HSM is part of the industrial process, and is not discarded; and weighing the mandated factors favors grant of a non-waste determination. *See* 40 C.F.R. 260.34(b) (2009) (corresponding with 35 Ill. Adm. Code 720.134(b)). Also under this interpretation, a product-based non-waste determination is available for HSM that is legitimately reclaimed; is indistinguishable in all relevant aspects from a product or intermediate, and is not discarded; and weighing the mandated factors favors grant of a non-waste determination. *See* 40 C.F.R. 260.34(c) (2009) (corresponding with 35 Ill. Adm. Code 720.134(c)).

The limitations on the ability to use the non-waste determination to affect pre-existing exclusions would have to depend on the language that USEPA used to authorize the determination. This language limits availability of a non-waste determination to (1) HSM that is reclaimed, (2) that reclamation occur in a continuous industrial process or that the HSM is indistinguishable in all relevant aspects from a product or intermediate, (3) that the HSM not become discarded, (4) that the reclamation not result in release of hazardous constituents "to the air, water[,] or land at significantly higher levels from either a statistical or from a health and environmental risk perspective than would otherwise be released by the production process" (40 C.F.R. 260.34(b)(3) and (c)(4) (2009) (corresponding with 35 Ill. Adm. Code 720.134(b)(3) and (c)(4))), and that the reclamation satisfy the legitimacy rule. 40 C.F.R. 260.34(b) and (c) (2009) (corresponding with 35 Ill. Adm. Code 720.134(b) and (c)); *see* 40 C.F.R. 260.43 (2009) (corresponding with 35 Ill. Adm. Code 720.143).

Little seems to preclude a non-waste determination being used to gain the ability to operate under conditions that are different from those that apply by a pre-existing exclusion, or which were imposed by the grant of a "variance" (solid waste determination). The most significant limitation on the availability is that a non-waste determination is available only for secondary materials that are "reclaimed." *See* 40 C.F.R. 260.34(b) and (c) (2009)

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[143] It may be possible to argue, if such argument is necessary, that conducting the recycling outside the scope of the conditions that apply to the exclusion is operating outside the exclusion. Thus, a non-waste determination granted for material that does not fulfill the conditions of an existing exclusion does not conflict with that exclusion.

(corresponding with 35 Ill. Adm. Code 720.134(b) and (c)). As was considered early in this discussion of the DSWR amendments (beginning on page 27 of this opinion), "recycling" does not include "use or reuse" of secondary materials. Although the two of the bases for the pre-existing "variance" (solid waste determination) involved reclaimed secondary materials, the basis that involves speculative accumulation may not involve "reclamation" of secondary materials.[144] *See* 40 C.F.R. 260.31(a) through (c) (2009) (corresponding with 35 Ill. Adm. Code 720.131(a) through (c)). Further, although most of the existing recycling-based exclusions involve secondary materials that are reclaimed, some involve "use or reuse" of secondary materials.[145] *See* 40 C.F.R. 261.4(a)(6) through (a)(22) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(6) through (a)(22)).

The Non-Waste Determination Does Not Apply to "Use or Reuse." The *Federal Register* discussion of the non-waste determination does not directly address whether a non-waste determination could be used to provide relief from conditions to a self-implementing

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[144] The "variance" (solid waste determination) available for secondary materials that are reclaimed and reused as feedstock within the original production process (40 C.F.R. 260.31(b) (2009) (corresponding with 35 Ill. Adm. Code 720.131(b)), involves reclaimed materials. The same is true of that available for secondary material that is commodity-like although not fully reclaimed. 40 C.F.R. 260.31(c) (2009) (corresponding with 35 Ill. Adm. Code 720.131(c)).

[145] The existing exclusions that do not expressly include reclamation, so that they could at least facially involve "use or reuse" without reclamation, are the following: (1) spent sulfuric acid that is used to produce virgin sulfuring acid (40 C.F.R. 261.4(a)(7) (corresponding with 35 Ill. Adm. Code 721.104(a)(7))); (2) toxicity characteristic wastes from coke byproduct processes that are recycled to coke ovens, to tar recovery processes, or mixed with coal tar (40 C.F.R. 261.4(a)(10) (corresponding with 35 Ill. Adm. Code 721.104(a)(10))); (3) splash condenser dross residue from K061 waste (40 C.F.R. 261.4(a)(11) (corresponding with 35 Ill. Adm. Code 721.104(a)(11))); (4) oil-bearing HSMs and recovered oil that is inserted into the petroleum refining process (40 C.F.R. 261.4(a)(12) (corresponding with 35 Ill. Adm. Code 721.104(a)(12))); (4) excluded scrap metal that is being recycled (40 C.F.R. 261.4(a)(13) (corresponding with 35 Ill. Adm. Code 721.104(a)(13))); (5) shredded circuit boards that is being recycled (40 C.F.R. 261.4(a)(14) (corresponding with 35 Ill. Adm. Code 721.104(a)(14))); (6) condensates from kraft mill steam strippers that are used to comply with air emissions control requirements (40 C.F.R. 261.4(a)(15) (corresponding with 35 Ill. Adm. Code 721.104(a)(15))); (7) comparable fuels and synthesis gas fuels (40 C.F.R. 261.4(a)(16) (corresponding with 35 Ill. Adm. Code 721.104(a)(16))); (8) petrochemical recovered oil from associated organic chemical production that is inserted into the petroleum refining process (40 C.F.R. 261.4(a)(18) (corresponding with 35 Ill. Adm. Code 721.104(a)(18))); (9) spent caustic solutions from petroleum refining (40 C.F.R. 261.4(a)(19) (corresponding with 35 Ill. Adm. Code 721.104(a)(19))); (10) HSMs used to make zinc fertilizers (40 C.F.R. 261.4(a)(20) (corresponding with 35 Ill. Adm. Code 721.104(a)(20))); (11) zinc fertilizers that are made from HSMs (40 C.F.R. 261.4(a)(21) (corresponding with 35 Ill. Adm. Code 721.104(a)(21))); and (12) used CRTs and glass from used CRTs that is destined for recycling (40 C.F.R. 261.4(a)(22) (corresponding with 35 Ill. Adm. Code 721.104(a)(22))).

exclusion that would otherwise apply. *See* 73 Fed. Reg. at 64710-11. The discussion does, however, describe other areas where USEPA does not authorize use of the non-waste determination. USEPA has designed the non-waste determination to apply only where reclamation of HSM occurs. USEPA expressly states that the non-waste determination does not apply to the activities in which secondary materials are deemed "discarded materials" by rule. USEPA stated as follows:

> In addition, today's rule limits non-waste determinations to reclamation activities and does not apply to recycling of "inherently waste-like" materials (40 C[.]F[.]R[.] 261.2(d) [(corresponding with 35 Ill. Adm. Code 721.102(d))]); recycling of materials that are "used in a manner constituting disposal," or "used to produce products that are applied to or placed on the land" (40 C[.]F[.]R[.] 261.2(c)(1) [(corresponding with 35 Ill. Adm. Code 721.102(c)(1))]); or for "burning of materials for energy recovery" or materials "used to produce a fuel or otherwise contained in fuels" (40 C[.]F[.]R[.] 261.2(c)(2) [(corresponding with 35 Ill. Adm. Code 721.102(c)(2))]). Today's rule does not affect how these recycling practices are regulated. 73 Fed. Reg. at 64710.

This passage clearly states that the rule "limits non-waste determinations to reclamation." Discussion of the 2008 DSWR amendments began with consideration of preliminary issues, including the distinctions in the meanings of the terms "recycling" and "reclamation" (beginning on page 27 above). That discussion concluded that "recycled" embraces both "reclaimed" and "use or reuse," but that "reclaimed" excludes "use or reuse." Similarly, the process-based non-waste determination clearly states that it is available for "hazardous secondary material which is reclaimed in a continuous industrial process." 40 C.F.R. 260.34(b) (2009) (corresponding with 35 Ill. Adm. Code 720.134(b)). The process-based non-waste determination further includes the consideration whether hazardous constituents from the HSM are "reclaimed" or released to the environment in the process. 40 C.F.R. 260.34(b)(3) (2009) (corresponding with 35 Ill. Adm. Code 720.134(b)(3)).

The product-based non-waste determination does not include similar limiting language in the statement of availability of the determination, but it does include the consideration whether the hazardous constituents are "reclaimed." 40 C.F.R. 260.34(c) and (c)(4) (2009) (corresponding with 35 Ill. Adm. Code 720.134(c) and (c)(4)). Although the product-based non-waste determination is not expressly limited to "reclaimed" HSM, it is clear from the provision applicable to consideration of the fate hazardous constituents that USEPA also contemplated HSM that is reclaimed in the product-based non-waste determination.

Using the meaning for the term "reclaimed" that excludes "use or reuse," the Board would conclude that USEPA does not intend that the non-waste determination be used in any case that is based on "use or reuse" of HSM, rather than reclamation. The process-based non-waste determination is clearly limited to HSM that is "reclaimed." The product-based exclusion is not so clear on this point, since there is no express limitation to "reclaimed" HSM, but the *Federal Register* discussion indicates that USEPA contemplated that both the process-based and the product-based non-waste determinations be limited to HSM that is reclaimed.

The Board does not believe that USEPA intended the use of a non-waste determination to alter the conditions of a self-implementing "use or reuse"-based exclusion. Even if USEPA contemplated the use of a non-waste determination to alter the conditions of a self-implementing reclamation-based exclusion, the Board does not believe that USEPA intended such an application beyond reclamation. To extend the non-waste determination to modify conditions of a "use or reuse"-based exclusion would require ignoring limiting language in the process-based non-waste determination and in USEPA's general discussion of the non-waste determination in the *Federal Register*.

USEPA instituted the new reclamation-related exclusions, including the non-waste determination, to stand independent of all exclusions and all "variances" (solid waste determinations) made prior to the 2008 amendments. USEPA intended that the prior exclusions would continue unaffected by the 2008 amendments. USEPA further stated, however, that states are free to revisit prior exclusions using the non-waste determination. Thus, USEPA will allow the states to reopen pre-existing exclusions for determination under the new non-waste determination. USEPA stated as follows:

> The final rule will not supersede any of the current exclusions or other prior solid waste determinations or variances, including determinations made in letters of interpretation and inspection reports. If a hazardous secondary material has been determined not to be a solid waste, for whatever reason, such a determination will remain in effect, unless the regulatory agency decides to revisit the regulatory determination under their current authority. In addition, if a hazardous secondary material has been excluded from hazardous waste regulations—for example, under the Bevill exclusion in 40 C[.]F[.]R[.] 261.4(b)(7)—the regulatory status of that material will not be affected by today's rule. 73 Fed. Reg. at 64713.

Summary Listing of the Limitations of the Non-Waste Determination. The limitations on the ability to use the non-waste determination to affect pre-existing exclusions would necessarily depend on the language that USEPA used to authorize the administrative determination. This language limits availability of a non-waste determination to when all of the following circumstances are fulfilled:

(1) The HSM must be reclaimed;

(2) The reclamation must occur in a continuous industrial process or that the HSM is indistinguishable in all relevant aspects from a product or intermediate;

(3) The HSM must not become discarded;

(4) The reclamation must not result in release of hazardous constituents "to the air, water or land at significantly higher levels from either a statistical or from a health and environmental risk perspective than would otherwise be released by the production process" (40 C.F.R. 260.34(b)(3) and (c)(4) (2009) (corresponding with 35 Ill. Adm. Code 720.134(b)(3) and (c)(4))); and

(5) The reclamation must satisfy the legitimacy rule. 40 C.F.R. 260.34(b) and (c) (2009) (corresponding with 35 Ill. Adm. Code 720.134(b) and (c)); *see* 40 C.F.R. 260.43 (2009) (corresponding with 35 Ill. Adm. Code 720.143).

The Non-Waste Determination and State Authority. USEPA added the non-waste determination in a new provision that is parallel to the existing provision for administrative "solid waste variances." These are called "solid waste determinations" in Illinois. *Compare* 35 Ill. Adm. Code 720.130 and 720.131 *with* 40 C.F.R. 260.30 (2009), and 260.31 (2009). In the following discussion, the Board refers to what USEPA calls the "solid waste variance" a "solid waste determination" for this reason.

USEPA chose to use the same procedure that is currently used for the "solid waste variance" (solid waste determinations) for the new the non-waste determinations. 73 Fed. Reg. at 64670; *see* 40 C.F.R. 260.30 and 260.33 (2009) (corresponding with 35 Ill. Adm. Code 720.130 and 720.133). USEPA intended the use of the same basic procedure as a means to ease the burden on states of making the non-waste determinations. 73 Fed. Reg. 64754.

The non-waste determination is made by USEPA or by a state authorized by USEPA to make the determinations. Alternatively, a state that is not authorized can make a non-waste determination, but it is not effective as a matter of federal law until USEPA has subsequently endorsed that state determination. 40 C.F.R. 260.34(a) and (b) (2009) (corresponding with 35 Ill. Adm. Code 720.134(a) and (b)). States may apply to USEPA for authorization to administer the DSWR amendments and make non-waste determinations. *See* 73 Fed. Reg. at 64712, 53-54. USEPA stated that a non-waste determination made by the State would be valid under the following circumstances:

> In the case of the case-by-case non-waste determinations found in 40 CFR 260.34, a non-waste determination may be granted by the state if the state is either authorized for this provision or if the following conditions are met: (1) The state determines the hazardous secondary material meets the applicable criteria for the non-waste determination; (2) the state requests that [US]EPA review its determination; and (3) [US]EPA approves the state determination. 73 Fed. Reg. at 64754; *see* 40 C.F.R. 260.34(a) (2009) (corresponding with 35 Ill. Adm. Code 720.134(a)).

A grant of a non-waste determination is relief from the generally applicable rules, which would consider HSM to be hazardous waste. Section 5(d) of the Act charges the Board with responsibility for granting relief from regulations by variance or adjusted standard. 415 ILCS 5/5(d) (2008). Thus, this rulemaking establishes that the Board will bear responsibility for making these determinations. Notwithstanding any temporary need to obtain USEPA review and approval of a Board non-waste determination prior to USEPA authorization of this element of the State program, the Board must hear any petition for a non-waste determination relative to any

aspect of HSM management that will occur in Illinois.[146] USEPA will not make a non-waste determination with regard to HSM in Illinois without the Board first making an affirmative determination, since USEPA will allow a state to decline to adopt the 2008 DSWR amendments.[147] 73 Fed. Reg. at 64754.

The Board has used "the Board" to refer to the entity making the non-waste determination in the following discussion. Where the *Federal Register* discussion refers to the "regulatory authority" or "state" as making the non-waste determination (*see* 73 Fed. Reg. at 64710), "the Board" should be read as making the non-waste determination in Illinois. No non-waste determination will be available in Illinois unless the Board has first made it.

Incorporating this new determination into the Illinois regulations in the way that most closely parallels the structure of the federal rules, while accommodating the unique structure of the Illinois regulatory scheme, requires the Board to use the adjusted standard procedure (415 ILCS 5/28.1 (2008); 35 Ill. Adm. Code 104.Subpart D) to make non-waste determinations. This is the procedure that the Board currently uses under the existing rules to make solid waste determinations. *See* 35 Ill. Adm. Code 720.133.

The core of new procedure is 40 C.F.R. 260.34 (corresponding with 35 Ill. Adm. Code 720.134), which sets forth the determination available and the criteria for decision making.[148] The segment of this provision that authorizes a person to petition the regulatory authority for a non-waste determination reads as follows:

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[146] The Board notes that new section 22.54 of the Act provides that the Agency may grant a determination that a secondary material is "used beneficially (rather than discarded) and, therefore, [is] not waste." 415 ILCS 5/22.54(a), as added by P.A. 96.489, eff. Aug. 14, 2009. This "beneficial use" determination bears many similarities to the federal product-based non-waste determination. *Compare* 415 ILCS 5/22.54, as added by P.A. 96.489, eff. Aug. 14, 2009 *with* 40 C.F.R. 260.34(c) (2009) (corresponding with 35 Ill. Adm. Code 720.134(c)); *see also* 415 ILCS 5/3.135 (2008) (providing for a beneficial use determination by the Agency for the definition of "coal combustion waste"). The beneficial use determination is in the nature of a permit decision by the Agency and is appealable to the Board as such. 415 ILCS 5/22.54(b), as added by P.A. 96.489, eff. Aug. 14, 2009. The beneficial use determination does not apply to hazardous waste. 415 ILCS 5/22.54(f), as added by P.A. 96.489, eff. Aug. 14, 2009. USEPA recently proposed another similar non-waste determination for non-hazardous secondary materials that are used as fuel or as ingredients in fuel. *See* 75 Fed. Reg. 31844 (June 4, 2010).

[147] Section 3009 of RCRA allows a state to establish regulations that more stringent that their federal counterparts. 42 U.S.C. § 6929 (2006). For this reason, states are free to not adopt federal rules that would relax an existing more stringent state requirement. 40 C.F.R. 271.14 (2009).

[148] USEPA added corresponding amendments to 40 C.F.R. 260.30 and 260.33 (corresponding with 35 Ill. Adm. Code 720.130 and 720.133) to implement the new determination procedure.

> An applicant may apply to [USEPA or the state] for a formal determination that a [HSM] is not discarded and therefore not a solid waste. The determinations will be based on the criteria contained in paragraphs (b) or (c) of this section, as applicable. If an application is denied, the [HSM] might still be eligible for a solid waste [determination] or exclusion (for example, [a solid waste determination] under § 260.31). 40 C.F.R. 260.34(a) (2009) (corresponding with 35 Ill. Adm. Code 720.134(a).[149]

The relationship between the existing solid waste determination and the new non-waste determination is so close that USEPA could have easily combined the two into a single provision. The similarities between the "variance" (solid waste determination) non-waste determination are apparent by comparative examination of the respective provisions. USEPA combined the general provisions for the non-waste determination (40 C.F.R. 260.30(d) and (e) (2009) (corresponding with 35 Ill. Adm. Code 720.130(d) and (e))) together with the general provisions for the existing solid waste determination provisions (40 C.F.R. 260.30(a), (b), and (c) (2009) (corresponding with 35 Ill. Adm. Code 720.130(a), (b), and (c))). The provisions that set forth the respective thresholds for granting a determination are structured identically, setting for the basis for determination and the considerations that the administrative decision-maker must weigh. *Compare* 40 C.F.R. 260.31(a), (b), and (c) *with* 40 C.F.R. 260.34(b) and (c) (2009) (corresponding with 35 Ill. Adm. Code 720.131(a), (b), and (c) and 720.134(b) and (c)). Yet, USEPA did not combine the two procedures—perhaps to strengthen USEPA's assertion that the new reclamation-based exclusions are entirely independent of all previous recycling-based exclusions. *E.g.*, 73 Fed. Reg. at 64710.

Although USEPA has codified the non-waste determination in a new provision, the possibility exists for the Board to combine the non-waste determination into the existing solid waste determination provision. The Board has not proposed doing so, preferring to maintain structural parity with the corresponding federal rules. Such a combination in a single provision is possible, however, and such a combination could allow the Board to call both the existing "variance"-derived process and the new non-waste determination-derived process by the same name, such as "solid waste determination" or "non-waste determination." More variation appears among the three bases for a "variance" than appears between the two bases for a non-waste determination and the three bases for a "variance." *See* 40 C.F.R. 260.31 and 260.34 (2009) (corresponding with 35 Ill. Adm. Code 720.131 and 720.134.

Who Petitions for a Non-Waste Determination? The 2008 DSWR amendments contemplate a chain of entities that will handle excluded HSM from the point of its generation through the point of its ultimate disposition. The persons can include the generator, any transporter, any intermediate facilities, and the reclamation facility. *See, e.g.*, 40 C.F.R. 40 C.F.R. 261.4(a)(24)(ii) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)(B)). An exclusion of HSM based on a non-waste determination applies to the particular HSM, based on

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[149] The federal provision provides for states to make these determinations where USEPA has authorized the state to administer the DSWR amendments or where the state submits its non-waste determination to USEPA for review and approval before it becomes effective. *See Id.*

the modes of management and reclamation conditioned in the administrative determination that grants the exclusion and on the petition and supporting documents submitted to gain the determination.[150]

The question arises as to which of these persons handling the HSM is the appropriate person to seek the non-waste determination. The federal provisions for non-waste determinations call the person who seeks a non-waste determination the "applicant." 40 C.F.R. 260.34 (2009) (corresponding with 35 Ill. Adm. Code 720.134 (using "petitioner")). USEPA is silent on this point, although the Board believes that USEPA deliberately chose the word "applicant" to signal that any person handling the HSM could apply. The Board reads the word "applicant" as embracing any person that manages the HSM.

The Board interprets "applicant" in this way despite a segment of USEPA's discussion to the effect that downstream intermingling of one generator's HSM with that of other generators would preclude an "applicant" from obtaining a non-waste determination. This segment of the discussion clearly contemplated that the generator was the "applicant." The segment relates to a non-waste determination that USEPA proposed for generator-reclaimed HSM that USEPA did not adopt in the final 2008 DSWR amendments. 73 Fed. Reg. at 64753. The segment does not indicate either that the "applicant" must be the generator, and the segment does not preclude intermingling of HSM from multiple generators

In the absence of any indication of contrary intent on the part of USEPA, the Board believes that any person who could gain relief through the issuance of a non-waste determination may petition to obtain one. This issue of standing is the only limitation that the Board currently sees as to who may be the "applicant" for a non-waste determination. Further, the Board does not currently see a limitation that would preclude including HSM from multiple sources in a single determination—so long as the petitioner can establish limits and parameters under which the processing of the HSM stably fulfills the criteria for issuance of a non-waste determination.[151]

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[150] The non-waste determination is available when the petitioner "demonstrates" that the conditions for issuance are fulfilled. 40 C.F.R. 260.34(b) and (c) (2009) (corresponding with 35 Ill. Adm. Code 720.134(b) and (c)). That demonstration is based on the record assembled in the proceeding. Thus, the record, as the demonstration, becomes the foundation for and a part of the ultimate non-waste determination.

[151] Whether a petition contemplates HSM from a single source or the intermingling of HSM from multiple sources, the Board is likely to include any limitations and parameters outlined by the petitioner as express conditions to any non-waste determination granted. Even if the Board were to omit inclusion of conditions, the petitioner is under an affirmative obligation to seek modification of the determination when any changes occur in operational limitations and parameters that were part of the record upon which a non-waste determination was based. *See* 40 C.F.R. 260.33(c) (2009) (corresponding with 35 Ill. Adm. Code 720.133(c)).

The Duty to Re-Petition When Facts or Circumstances Change. Once granted a non-waste determination, the regulated entity that manages or reclaims the excluded HSM bears an affirmative duty to seek another formal non-waste determination under certain circumstances. The DSWR provides as follows:

> For non-waste determinations, in the event of a change in circumstances that affect [sic] how a hazardous secondary material meets the relevant criteria . . . upon which a non-waste determination has been based, the applicant must re-apply to the [applicable of USEPA or the state] for a formal determination that the hazardous secondary material continues to meet the relevant criteria and therefore is not a solid waste. 40 C.F.R. 260.33(c) (2009) (corresponding with 35 Ill. Adm. Code 720.133(c)).

USEPA elaborated this point in the *Federal Register* discussion as follows:

> If [the appropriate of USEPA or the state] determines that a hazardous secondary material is not a solid waste through the non-waste determination process, the hazardous secondary material is not subject to the RCRA Subtitle C hazardous waste requirements. However, as part of this process, the applicant has an obligation to submit, to the best of his ability, complete and accurate information. If the information in the application is found to be incomplete or inaccurate and, as a result, the hazardous secondary material does not meet the criteria for a non-waste determination, then the material may be subject to the RCRA Subtitle C requirements and [US]EPA or the authorized state could choose to bring an enforcement action under RCRA section 3008(a) [42 U.S.C. 6928(a) (2006)]. Moreover, if the person submitting the non-waste determination is found to have knowingly submitted false information, then he also may be subject to criminal penalties under RCRA section 3008(d) [42 U.S.C. 6928(d) (2006)].
>
> Once a non-waste determination has been granted, the applicant is obligated to ensure the hazardous secondary material continues to meet the criteria of the non-waste determination, including any conditions specified therein by the regulatory authority. If a change occurs that affects how a hazardous secondary material meets the relevant criteria and (if applicable) any conditions as specified by [USEPA or the state] and the applicant fails to re-apply to the [appropriate of USEPA or the state] for a formal determination, the hazardous secondary material may be determined to be a solid and hazardous waste and subject to the RCRA Subtitle C hazardous waste requirements. 73 Fed. Reg. at 64712-13.

Thus, not only HSM is excluded from the definition of solid waste under a self-implementing exclusion when the conditions that attach to that exclusion are fulfilled, but the same is true for HSM excluded by a non-waste determination. Further, USEPA intends that the exclusion is effective only when managed under the circumstances upon which the non-waste determination was based. Where the petition and record do not truly represent the circumstances surrounding the character, management, and reclamation of the HSM, whether by misrepresentation, error, or changed circumstances, USEPA requires that the exclusion may no

longer be valid. Further, USEPA requires that the "applicant" re-apply for the non-waste determination in order to continue to operate under the exclusion that it confers.

The Informational Requirements for a Non-Waste Determination. As discussed above (on page 182 of this opinion), the Board has selected the adjusted standard as the procedural mechanism for receiving and evaluating requests for non-waste determinations, and for granting the determinations. The adjusted standard procedure is governed by section 28.1 of the Act (415 ILCS 5/28.1 (2008)) and Subpart D of Part 104 of the Board's procedural rules (35 Ill. Adm. Code 104.Subpart D (2008)). The Board must assemble a record and consider site-specific factors that bear on whether to issue an adjusted standard. *See* 415 ILCS 5/27(a) and 28.1(a) (2008). In the instance of a non-waste determination, the threshold for decision-making and factors for consideration are specified by the federal regulations. *See* 40 C.F.R. 260.34(b) and (c) (2009) (corresponding with 35 Ill. Adm. Code 720.134(b) and (c)); 35 Ill. Adm. Code 104.426 (2008). The Board must use that federal framework for issuance of an adjusted standard that confers a non-waste determination. 415 ILCS 5/28.1(c) (2008).

The Board's procedural rules set forth general requirements for the contents of the petition. *See* 35 Ill. Adm. Code 104.Subpart D. Among the information required in the petition, the petitioner must include (1) a description of the level of justification needed for the Board to grant a non-waste determination (35 Ill. Adm. Code 104.406(c) (2008)); (2) a demonstration that the Board can grant an adjusted standard consistent with the federal rules (35 Ill. Adm. Code 104.406(i) (2008)); and (3) a description of the adjusted standard sought, including any conditions that may be necessary to ensure that operation under the adjusted standard will fulfill the bases for Board granting relief (35 Ill. Adm. Code 104.406(f) (2008)). These requirements do two things. First, they direct attention to the federally derived non-waste determination provisions (35 Ill. Adm. Code 720.134(b) or (c), as added in this proceeding). Second, they require the petitioner to propose whatever conditions will be necessary for the Board to grant an adjusted standard that will assure compliance with the federal standards. *See* 35 Ill. Adm. Code 104.426(a) (2008).

The federal regulations provide the threshold for a grant of a non-waste determination, and they mandate consideration of relevant factors. Although there are basic similarities in the factors applicable to a process-based non-waste determination and those applicable to a product-based non-waste determination, the factors are tailored to the type of non-waste determination sought. Two foregoing segments of this discussion (beginning on pages 183 and 183 above) outline the finding that is necessary in each instance, and each segment outlines the considerations mandated by USEPA. The petition for an adjusted standard must contain all information necessary to support Board consideration of the federally mandated factors and an ultimate grant of an adjusted standard, or the Board will deny the petition. Where the Board conducts a public hearing on the petition, and where public comments, briefs, and other informational items supplement the record, the Board will consider the petition together with the entire record assembled to derive a decision on the petition.

The Constant Theme for Exclusion: Assurance of No Discard. The factors for consideration whether to grant a process-based or product-based exclusion by a non-waste determination maintain a constant major theme that runs through all of the self-implementing

exclusions. The major theme is this: the totality of circumstances surrounding the reclamation must indicate that the HSM will be reclaimed and that no discard of HSM will occur. This theme is behind the limitations to nearly all of the recycling-based exclusions from the definition of solid waste. It is also behind most of the universal conditions to the self-implementing HSM exclusions. In fact, this consideration underlies all of the boundaries between secondary materials that are designated solid waste and those which are not.[152]

Discussion early in this opinion (beginning at page 38) indicated that secondary materials are designated solid waste when they become "discarded material," unless a specific exclusion applies to the specific material. 40 C.F.R. 261.2(a)(1) and (a)(2)(i) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(1) and (a)(2)(A)). Secondary materials are "discarded material" when they are "abandoned," disposed of or burned or incinerated (or when they are accumulated or stored prior to being disposed of, burned, or incinerated). 40 C.F.R. 261.2(b) (2009) (corresponding with 35 Ill. Adm. Code 721.102(b)).

Similarly, secondary materials are "discarded material" when they are recycled by being "used in a manner constituting disposal" (application to land or use in a product that is applied to land) or "burned for energy recovery" (which includes being used to make a fuel or a product that is used to make a fuel). 40 C.F.R. 261.2(c) (2009) (corresponding with 35 Ill. Adm. Code 721.102(c)); *see* 40 C.F.R. 261.2(e)(2) (corresponding with 35 Ill. Adm. Code 721.102(e)(2)). Further, many of the existing exclusions from the definition of solid waste expressly prohibit land disposal, use constituting disposal, or placement of the material on land. *See* 40 C.F.R. 261.4(a)(8), (a)(10), (a)(11), (a)(12), (a)(18), (a)(19), and (a)(22); 261.3(c)(1)(i); and 261.40(d) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(8), (a)(10), (a)(11), (a)(12), (a)(18), (a)(19), and (a)(22); 721.103(c)(1)(A); and 721.140(d)). Two of these exclusions further prohibit combustion or burning the secondary material for energy recovery or use to make a fuel. *See* 40 C.F.R. 261.4(a)(8) and 261.3(c)(1)(i) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(8) and 721.103(c)(1)(A)).

Three of the four "universal" conditions that apply to the self-implementing reclamation-based exclusions bear on this one point.[153] Distinguishing between what is "legitimate recycling" from what is "sham recycling" (*i.e.*, disposal in the guise of recycling) has even been the point of the legitimacy determination. 73 Fed. Reg. at 64671; *see* 40 C.F.R. 260.43(a) (2009) (corresponding with 35 Ill. Adm. Code 720.143(a)). Assuring that over-accumulation of secondary materials does not result in abandonment (disposal) is the object of the prohibition against speculative accumulation. 73 Fed. Reg. at 64677. The requirement that the HSM "must be contained" also helps assure that discard does not occur. 73 Fed. Reg. at 64680-81.

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[152] USEPA stated in the request for comments relative to potential future revisions to the DSWR, "[US]EPA used the concept of discard as the central organizing idea behind the October 2008 revisions to the definition of solid waste." 74 Fed. Reg. 25200, 02 (May 27, 2009).

[153] While the activity notification requirement is arguably intended to aid policing HSM reclamation and to minimize the likelihood that discard will occur. The notification

Four factors for consideration apply to a process-based non-waste determination. Five factors apply to the product-based non-waste determination. 40 C.F.R. 260.34(b) and (c) (2009) (corresponding with 35 Ill. Adm. Code 720.134(b) and (c)). One of the factors is common between the two types of non-waste determination. This common factor expressly requires generalized consideration of whether discard will occur. This factor requires consideration as follows: "Other relevant factors that demonstrate the hazardous secondary material is not discarded." 40 C.F.R. 260.34(b)(6) and (c)(5) (2009) (corresponding with 35 Ill. Adm. Code 720.134(b)(6) and (c)(5)). Implied by this generalized factor is the fact that all of the more specific factors are also intended to gauge whether discard will occur.

In fact, all of the specific factors for consideration relate to whether discard will occur, but more indirectly. For example, consideration whether management of HSM is part of the industrial process "and is not waste processing" under the process-based exclusion would help gauge whether discard would occur during production.[154] 73 Fed. Reg. at 64711; *see* 40 C.F.R. 260.34(b)(1) (2009) (corresponding with 35 Ill. Adm. Code 720.134(b)(1)). The same is true of the required consideration of whether the process (as to the process-based non-waste determination) or market (as to the product-based non-waste determination) "would use the hazardous secondary material in a reasonable time frame and ensure that the hazardous secondary material will not be abandoned."[155] 40 C.F.R. 260.34(b)(2) and (c)(3) (2009) (corresponding with 35 Ill. Adm. Code 720.134(b)(2) and (c)(3)).

Table 5: Summary Listing of Solid Waste Exclusions Adopted by USEPA Through December 31, 2008[156] (Arranged by Date of USEPA Adoption)

Domestic sewage and any mixture of domestic sewage and other wastes that passes through a publicly-owned treatment works for treatment.

Adopted by USEPA: May 19, 1980 (at 45 Fed. Reg. 33084)

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[154] The counterpart to this factor in the product-based non-waste determination provision is actually two factors. The first consideration is whether the market considers the HSM as a product or intermediate, on the one hand, or more as waste. 40 C.F.R. 260.34(c)(1) (2009) (corresponding with 35 Ill. Adm. Code 720.134(c)(1)). The second consideration is whether the chemical and physical properties of the HSM is comparable to a product or intermediate. 40 C.F.R. 260.34(c)(2) (2009) (corresponding with 35 Ill. Adm. Code 720.134(c)(2)).

[155] The remaining factor for consideration for either type of non-waste determination relates to considering increased risks to human health and the environment by use of HSM in place of ordinary raw materials or products or intermediates. 40 C.F.R. 260.34(b)(3) and (c)(4) (2009) (corresponding with 35 Ill. Adm. Code 720.134(b)(3) and (c)(4)).

[156] The Board presents this table to illustrate the nature of the exclusions adopted by USEPA: to date. This is for the purpose of providing the context for and promoting understanding of the exclusions added in this R09-16 docket. The Board does not intend to interpret or define the scope and content of the exclusions presented beyond this purpose and in this context.

Citation: 40 C.F.R. 261.4(a)(1) (corresponding with 35 Ill. Adm. Code 721.104(a)(1)
Board-Designated Conceptual Exclusion Category: 1

Industrial wastewater discharges that are point source discharges subject to regulation under an NPDES permit.
Adopted by USEPA: May 19, 1980 (at 45 Fed. Reg. 33084).
Citation: 40 C.F.R. 261.4(a)(2) (corresponding with 35 Ill. Adm. Code 721.104(a)(2)).
Board-Designated Conceptual Exclusion Category: 1

Irrigation return flows.
Adopted by USEPA: May 19, 1980 (at 45 Fed. Reg. 33084).
Citation: 40 C.F.R. 261.4(a)(3) (corresponding with 35 Ill. Adm. Code 721.104(a)(3)).
Board-Designated Conceptual Exclusion Category: 1

Source, special nuclear, or byproduct material under the Atomic Energy Act of 1954 (42 U.S.C. §§ 2014 *et seq.* (2007)).
Adopted by USEPA: May 19, 1980 (at 45 Fed. Reg. 33084).
Citation: 40 C.F.R. 261.4(a)(4) (corresponding with 35 Ill. Adm. Code 721.104(a)(4)).
Board-Designated Conceptual Exclusion Category: 1

Materials subjected to in-situ mining techniques that are not removed from the ground as part of the extraction process.
Adopted by USEPA: May 19, 1980 (at 45 Fed. Reg. 33084).
Citation: 40 C.F.R. 261.4(a)(5) (corresponding with 35 Ill. Adm. Code 721.104(a)(5)).
Board-Designated Conceptual Exclusion Category: 1

Sludges that are reclaimed which exhibit a characteristic of hazardous waste.
Adopted by USEPA: May 19, 1980 (at 45 Fed. Reg. 33084).
Citation: 40 C.F.R. 261.2(c)(3) and table 1 (corresponding with 35 Ill. Adm. Code 721.104(a)(5) and 721.Appendix Z).
Board-Designated Conceptual Exclusion Category: 3

By-products that are reclaimed which exhibit a characteristic of hazardous waste.
Adopted by USEPA: May 19, 1980 (at 45 Fed. Reg. 33084).
Citation: 40 C.F.R. 261.2(c)(3) and table 1 (corresponding with 35 Ill. Adm. Code 721.104(a)(5) and 721.Appendix Z).
Board-Designated Conceptual Exclusion Category: 3

Commercial chemical products (which would be listed hazardous waste if discarded) **that are reclaimed**.
Adopted by USEPA: May 19, 1980 (at 45 Fed. Reg. 33084).
Citation: 40 C.F.R. 261.2(c)(3) and table 1 (corresponding with 35 Ill. Adm. Code 721.104(a)(5) and 721.Appendix Z).
Board-Designated Conceptual Exclusion Category: 3

Commercial chemical products (which would be listed hazardous waste if discarded) **that are speculatively accumulated**.

Adopted by USEPA: May 19, 1980 (at 45 Fed. Reg. 33084).
Citation: 40 C.F.R. 261.2(c)(3) and table 1 (corresponding with 35 Ill. Adm. Code 721.104(a)(5) and 721.Appendix Z).
Board-Designated Conceptual Exclusion Category: 3

Commercial chemical products (which would be listed hazardous waste if discarded) **that are used in a manner that constitutes disposal** where that is their normal manner of use.

Adopted by USEPA: May 19, 1980 (at 45 Fed. Reg. 33084).
Citation: 40 C.F.R. 261.2(c)(1)(ii) and table 1 (corresponding with 35 Ill. Adm. Code 721.104(a)(5) and 721.Appendix Z).
Board-Designated Conceptual Exclusion Category: 3

Commercial chemical products (which would be listed hazardous waste if discarded) **that are burned for energy recovery or which are used to produce a fuel** where that is their normal manner of use.

Adopted by USEPA: May 19, 1980 (at 45 Fed. Reg. 33084).
Citation: 40 C.F.R. 261.2(c)(2)(ii) and table 1 (corresponding with 35 Ill. Adm. Code 721.104(a)(5) and 721.Appendix Z).
Board-Designated Conceptual Exclusion Category: 3

Materials recycled by being used or reused as ingredients in an industrial product.

Adopted by USEPA: January 4, 1985 (at 50 Fed. Reg. 614).
Citation: 40 C.F.R. 261.2(e)(1)(i) and (e)(2) (corresponding with 35 Ill. Adm. Code 721.102(e)(1)(A) and (e)(2)).
Board-Designated Conceptual Exclusion Category: 4

Conditions:

- No reclamation.
- No use in a manner constituting disposal or in products applied to land.
- No burning for energy recovery, use to produce a fuel, or use in a fuel.
- No speculative accumulation.
- No inherently waste-like materials (materials from specified chlorinated organic chemical production processes (USEPA hazardous waste numbers F020 through F023, F026, and F028) and certain secondary materials fed to a halogen acid furnace).

Note: See the exclusion that is available only through an administrative determination for HSM that is indistinguishable from a product or intermediate when reclamation occurs.

Materials recycled by being used or reused as effective substitutes for commercial products.

Adopted by USEPA: January 4, 1985 (at 50 Fed. Reg. 614).
Citation: 40 C.F.R. 261.2(e)(1)(ii) and (e)(2) (corresponding with 35 Ill. Adm. Code 721.102(e)(1)(B) and (e)(2)).
Board-Designated Conceptual Exclusion Category: 4

Conditions:

- No use in a manner constituting disposal or in products applied to land.
- No burning for energy recovery, use to produce a fuel, or use in a fuel.
- No speculative accumulation.
- No inherently waste-like materials (materials from specified chlorinated organic chemical production processes (USEPA hazardous waste numbers F020 through F023, F026, and F028) and certain secondary materials fed to a halogen acid furnace).

Note: See the exclusion that is available only through an administrative determination for HSM that is indistinguishable from a product or intermediate when reclamation occurs.

Materials returned as substitute for feedstock to the original process that generated them.

Adopted by USEPA: January 4, 1985 (at 50 Fed. Reg. 614).
Citation: 40 C.F.R. 261.2(e)(1)(iii) and (e)(2) (corresponding with 35 Ill. Adm. Code 721.102(e)(1)(C) and (e)(2)).
Board-Designated Conceptual Exclusion Category: 4

Conditions:

- No placement of material on the land.
- No use in a manner constituting disposal or in products applied to land.
- No burning for energy recovery, use to produce a fuel, or use in a fuel.
- No speculative accumulation.
- No inherently waste-like materials (materials from specified chlorinated organic chemical production processes (USEPA hazardous waste numbers F020 through F023, F026, and F028) and certain secondary materials fed to a halogen acid furnace).
- If the material is generated and reclaimed within the primary mineral processing industry, 40 C.F.R. 261.4(a)(17) (corresponding with 35 Ill. Adm. Code 721.104(a)(17)) applies instead.

Pulping liquors that are reclaimed in a pulping liquor recovery furnace and then reused in the pulping process.

Adopted by USEPA: January 4, 1985 (at 50 Fed. Reg. 614).
Citation: 40 C.F.R. 261.4(a)(6) (corresponding with 35 Ill. Adm. Code 721.104(a)(6)).
Board-Designated Conceptual Exclusion Category: 2

Condition:

- No speculative accumulation.

Spent sulfuric acid that is used to produce virgin sulfuric acid.

Adopted by USEPA: January 4, 1985 (at 50 Fed. Reg. 614).
Citation: 40 C.F.R. 261.4(a)(7) (corresponding with 35 Ill. Adm. Code 721.104(a)(7)).
Board-Designated Conceptual Exclusion Category: 2

Condition:

- No speculative accumulation.

Materials that are reclaimed from solid wastes and which are used beneficially.

Adopted by USEPA: January 4, 1985 (at 50 Fed. Reg. 614).

Citation: 40 C.F.R. 261.3(c)(1)(i) (corresponding with 35 Ill. Adm. Code 721.102(e)(1)(A)).

Board-Designated Conceptual Exclusion Category: 6

Conditions:

- No burning for energy recovery.
- No use constituting disposal.

Note: This exclusion appears as a parenthetical addition in the "derived from" rule segment of the definition of hazardous waste. It applies only to the useful material reclaimed from solid waste; it does not affect the status of the solid waste from which the useful material was reclaimed. The parenthetical exclusion does not duplicate any other exclusion from the definition of solid waste. USEPA added this as a clarifying amendment. 50 Fed. Reg. at 634. The Board has included this exclusion as a separate listing in this table.

Secondary materials that are accumulated speculatively without sufficient amounts being recycled.

Adopted by USEPA: January 4, 1985 (at 50 Fed. Reg. 614).

Citation: 40 C.F.R. 260.30(a) and 260.31(a) (corresponding with 35 Ill. Adm. Code 720.130(a) and 720.131(a)).

Board-Designated Conceptual Exclusion Category: 5

Conditions:

- Available only through an administrative determination based on a demonstration that enough material will be recycled or transferred for recycling within the one-year term of the solid waste determination.
- Must be able to show a presently available means of recycling.
- Must be able to show that at least 75 percent of secondary material accumulated in a calendar year will be recycled or transferred for recycling.
- Must recycle or transfer for recycling at least 75 percent of secondary material accumulated in a calendar year.
- Available for a term of one year only, although renewable.

Note: This exclusion is available only through an administrative determination.

Secondary materials that are reclaimed then used in the original process that generated them.

Adopted by USEPA: January 4, 1985 (at 50 Fed. Reg. 614).

Citation: 40 C.F.R. 260.30(b) and 260.31(b) (corresponding with 35 Ill. Adm. Code 720.130(b) and 720.131(b)).

Board-Designated Conceptual Exclusion Category: 5

Conditions:

- Available only through an administrative determination.
- Must be able to support a determination that the reclamation process is an essential part of the production process.

Note: This exclusion is available only through an administrative determination. This exclusion is very similar to the self-implementing exclusion for these materials in 40 C.F.R. 261.4(a)(8) (corresponding with 35 Ill. Adm. Code 721.104(a)(8)), which USEPA adopted

on July 14, 1986 (listed below in this table). The practical difference between that self-implementing exclusion and this one available by administrative determination appears related to the conditions on how the material is managed under the self-implementing exclusion.

Secondary materials that are reclaimed but which must be further reclaimed before recovery is complete.

Adopted by USEPA: January 4, 1985 (at 50 Fed. Reg. 614).
Citation: 40 C.F.R. 260.30(c) and 260.31(c) (corresponding with 35 Ill. Adm. Code 720.130(c) and 720.131(c)).
Board-Designated Conceptual Exclusion Category: 5

Conditions:

- Available only through an administrative determination.
- Must be able to support a determination that the secondary material is essentially commodity-like, even though further reclamation is necessary to make it a commercial product.

Note: This exclusion is available only through an administrative determination.

Secondary materials that are reclaimed then returned to the original process that generated them.

Adopted by USEPA: July 14, 1986 (at 51 Fed. Reg. 25422).
Citation: 40 C.F.R. 261.4(a)(8) (corresponding with 35 Ill. Adm. Code 721.104(a)(8)).
Board-Designated Conceptual Exclusion Category: 2

Conditions:

- Storage and transfer requirements apply.
- No controlled flame combustion during reclamation.
- No accumulation for more than twelve months before reclamation.
- No use of secondary material to produce a fuel or product that are used in a manner that constitutes disposal.

Note: This exclusion is very similar to the exclusion for these materials in 40 C.F.R. 260.30(b) and 260.31 (b) (corresponding with 35 Ill. Adm. Code 720.130(b) and 720.131(b)), which USEPA adopted as part of the 1985 DSWR amendments (listed below in this table). The practical difference between this self-implementing exclusion and that one available by administrative determination appears related to the conditions on how the material is managed under this self-implementing exclusion.

Spent wood preserving solutions that have been reclaimed and which are reused for their original intended purpose; and
Wastewaters from the wood preserving process that have been reclaimed and which are reused to treat wood.

Adopted by USEPA: December 6, 1990 (at 55 Fed. Reg. 50450).
Citation: 40 C.F.R. 261.4(a)(9) (corresponding with 35 Ill. Adm. Code 721.104(a)(9)).
Board-Designated Conceptual Exclusion Category: 2

Conditions:

- Only on-site reuse in the production process for the original intended purpose.
- Material must be managed to prevent releases.

- Must be able to visually or otherwise inspect equipment used.
- Drip pads must comply with the interim status T/S/D facility standards.
- The plant owner or operator must submit a specified notification before operation and maintain a copy in its on-site records.
- The exclusion applies only so long as the owner or operator complies with the conditions of the exclusion; the owner or operator plant must apply for and gain reinstatement of the exclusion if it goes out of compliance.

Listed hazardous wastes from coking operations (USEPA hazardous wastes numbered K060, K087, K141, K142, K143, K144, K145, K147, and K148), and any wastes from the coke by-products processes that are hazardous only because they exhibit the characteristic of toxicity when these materials are recycled to coke ovens, to the tar recovery process as a feedstock to produce coal tar, or mixed with coal tar prior to the tar's sale or refining.

Adopted by USEPA: February 21, 1991 (at 56 Fed. Reg. 7134).
Citation: 40 C.F.R. 261.4(a)(10) (corresponding with 35 Ill. Adm. Code 721.104(a)(10)).
Board-Designated Conceptual Exclusion Category: 2

Condition:

- No land disposal.

Non-wastewater splash condenser dross residue from the treatment of K061 in high temperature metals recovery units.

Citation: 40 C.F.R. 261.4(a)(11) (corresponding with 35 Ill. Adm. Code 721.104(a)(11)).
Adopted by USEPA: August 19, 1991 (at 56 Fed. Reg. 41164).
Board-Designated Conceptual Exclusion Category: 2

Conditions:

- Residues must be shipped in drums.
- Residues must not be land disposed.

Oil-bearing HSMs generated at a petroleum refinery and recovered oil that is inserted into the petroleum refining process.

Citation: 40 C.F.R. 261.4(a)(12) (corresponding with 35 Ill. Adm. Code 721.104(a)(12)).
Adopted by USEPA: July 28, 1994 (at 59 Fed. Reg. 38536).
Board-Designated Conceptual Exclusion Category: 2

Conditions:

- No placement on the land before recycling.
- No speculative accumulation.
- HSMs inserted into thermal cracking unit are excluded, so long as the coke product also does not exhibit a characteristic of hazardous waste.
- Excluded oil-bearing HSMs may be either inserted into the same petroleum refinery that generated them or directly sent to another petroleum refinery.
- Oil-bearing HSMs generated elsewhere in the petroleum industry are not covered by this exclusion.
- Residuals generated under this exclusion are F037 waste when disposed of or intended for disposal.

Definition: "Recovered oil" is oil that has been reclaimed from secondary materials generated from normal petroleum industry practices, including oil recovered from listed

hazardous wastes, but "recovered oil" does not include oil-bearing listed hazardous wastes and used oil, as defined in the used oil regulations.

Excluded scrap metal that is being recycled.

Citation: 40 C.F.R. 261.1(c)(9) though (c)(12) and 261.4(a)(13) (corresponding with 35 Ill. Adm. Code 721.101(c)(9) though (c)(12) and 721.104(a)(13)).
Adopted by USEPA: May 12, 1997 (at 62 Fed. Reg. 25998).
Board-Designated Conceptual Exclusion Category: 2

Definition: "Excluded scrap metal" includes "processed scrap metal" (defined as scrap metal altered to separate it into distinct materials to enhance its value or improve its handling), unprocessed "home scrap metal" (defined as scrap metal as generated by steel mills, foundries, and refineries), and unprocessed "prompt scrap metal" (defined as scrap metal as generated by metal working and fabrication facilities). *See* 40 C.F.R. 261.1(c)(9)-(c)(12) (2009) (corresponding with 35 Ill. Adm. Code 721.101(c)(9)-(c)(12)).

Shredded circuit boards being recycled.

Citation: 40 C.F.R. 261.4(a)(14) (corresponding with 35 Ill. Adm. Code 721.104(a)(14)).
Adopted by USEPA: May 12, 1997 (at 62 Fed. Reg. 25998).
Board-Designated Conceptual Exclusion Category: 2

Conditions:

- The shredded circuit boards must be stored in containers sufficient to prevent releases of constituents prior to recovery.
- The shredded circuit boards must be free of mercury switches, mercury relays, nickel-cadmium batteries, and lithium batteries.

Condensates derived from the overhead gases from kraft mill steam strippers that are used to comply with hazardous air pollutant emissions control regulations.

Citation: 40 C.F.R. 261.4(a)(15) (corresponding with 35 Ill. Adm. Code 721.104(a)(15)).
Adopted by USEPA: April 15, 1998 (at 63 Fed. Reg. 18504).
Board-Designated Conceptual Exclusion Category: 2

Condition:

- Only combustion at the mill generating the condensates.

Comparable fuels or synthesis gas fuels (excluded fuels) that meet the requirements of the Comparable Fuels/Syngas rule (40 C.F.R. 261.38/35 Ill. Adm. Code 721.138).

Citation: 40 C.F.R. 261.4(a)(16) (corresponding with 35 Ill. Adm. Code 721.104(a)(16)).
Adopted by USEPA: May 26, 1998 (at 63 Fed. Reg. 28556).
Board-Designated Conceptual Exclusion Category: 2

Conditions:

- No speculative accumulation.
- No exclusion of hazardous wastes listed due to the presence of dioxins or furans (USEPA hazardous waste numbers F020-F023, F026-F028, F032, K156, K158, and K174).
- Must submit specified notices, which vary based on excluded fuel type, including published public notice, before beginning operations, and must maintain specific on-site records.

- The exclusion is claimed by compliance with the conditions of the exclusion and documentation of compliance.
- The excluded fuels must meet heating value, viscosity, and maximum contaminant content standards.
- Generators of excluded fuels must make hazardous waste determinations notwithstanding the exclusion.
- Generators of excluded fuels must establish and follow a sampling and analysis plan, which varies based on the excluded fuel, and document results; for syngas, prior approval of the plan is needed before beginning operations under the exclusion.
- Generators comparable fuels and syngas may not use knowledge of the generating process unless they are the original generators of the hazardous waste.
- Generators of excluded fuels must obtain specified certifications from burners before sending them off-site shipments of excluded fuels.
- Limitations are imposed on treatment, processing, and blending of excluded fuels to meet standards, which depend on fuel type.
- Residues from treatment of excluded fuels that are listed hazardous waste remain listed hazardous waste.
- Storage may occur only in tanks and containers that meet specified requirements.
- Burning of excluded fuels may occur only in specified industrial furnaces, on-site industrial boilers, utility boilers, hazardous waste incinerators, or gas turbines, depending on the type of excluded fuel.
- Residues from burning excluded fuels in boilers are not regulated as derived from hazardous waste.
- Closure requirements (other than the hazardous waste T/S/D facility standards) apply to tanks and containers that contained excluded fuels.
- Spilled or leaked excluded fuel is no longer excluded.
- A failure to comply with the conditions of the exclusion results in the loss of the exclusion.

Note: Additional discussion of the excluded fuels exclusion appears in a subsequent segment of this opinion (beginning on page 266).

Spent materials (other than listed hazardous wastes) generated within the primary mineral processing industry from which minerals, acids, cyanide, water, or other values are recovered by mineral processing or by beneficiation.

Citation: 40 C.F.R. 261.4(a)(17) (corresponding with 35 Ill. Adm. Code 721.104(a)(17)).
Adopted by USEPA: June 19, 1998 (at 63 Fed. Reg. 33782).
Board-Designated Conceptual Exclusion Category: 2

Conditions:

- Only legitimate recycling to recover minerals, acids, cyanide, water, or other values.
- No speculative accumulation.
- Storage may only occur in tanks, containers, or buildings that meet minimum integrity standards, unless drip pads meeting specified standards are allowed by a site-specific administrative determination.

Petrochemical recovered oil from an associated organic chemical manufacturing facility that is to be inserted into the petroleum refining process along with normal petroleum refinery process streams.

Citation: 40 C.F.R. 261.4(a)(18) (corresponding with 35 Ill. Adm. Code 721.104(a)(18)).
Adopted by USEPA: August 6, 1998 (at 63 Fed. Reg. 42110).
Board-Designated Conceptual Exclusion Category: 2

Conditions:

- Only oil that is hazardous because it exhibits the characteristic of ignitability and/or toxicity for benzene.
- Material must not be placed on the land.
- No speculative accumulation.

Definitions: "Petrochemical recovered oil" is oil that has been reclaimed from secondary materials from normal organic chemical manufacturing operations and oil that is recovered from organic chemical manufacturing processes. An "associated organic chemical manufacturing facility" is physically co-located with the petroleum refinery that provides hydrocarbon feedstocks to the organic chemical manufacturing facility and to which the oil is returned for recycling.

Spent caustic solutions from petroleum refining liquid treating processes that is used as a feedstock to produce cresylic or naphthenic acid.

Citation: 40 C.F.R. 261.4(a)(19) (corresponding with 35 Ill. Adm. Code 721.104(a)(19)).
Adopted by USEPA: August 6, 1998 (at 63 Fed. Reg. 42110).
Board-Designated Conceptual Exclusion Category: 2

Conditions:

- Material must not be placed on the land.
- No speculative accumulation.

HSMs used to make zinc fertilizers.

Citation: 40 C.F.R. 261.4(a)(20) (corresponding with 35 Ill. Adm. Code 721.104(a)(20)).
Adopted by USEPA: July 24, 2002 (at 67 Fed. Reg. 48393).
Board-Designated Conceptual Exclusion Category: 2

Conditions:

- No speculative accumulation.
- Generators, intermediate handlers, and manufacturers of zinc fertilizers or zinc fertilizer ingredients must submit a specified notification before operation.
- Generators must continue to determine whether the HSM is hazardous waste notwithstanding the exclusion.
- Generators and intermediate handlers must maintain records that contain specified information on all shipments of excluded HSMs.
- Only storage in tanks, containers, or buildings that meet specified standards and prevent releases.
- Manufacturers of zinc fertilizers or zinc fertilizer ingredients made from excluded HSMs must submit annual reports about all excluded HSMs used to manufacture zinc fertilizers or zinc fertilizer ingredients.
- The closure requirements of the T/S/D facility standards do not apply to storage units used only to store HSMs covered by this exclusion.

Zinc fertilizers made from hazardous wastes or HSMs that are excluded under the previous exclusion.

Citation: 40 C.F.R. 261.4(a)(21) (corresponding with 35 Ill. Adm. Code 721.104(a)(21)).
Adopted by USEPA: July 24, 2002 (at 67 Fed. Reg. 48393).
Board-Designated Conceptual Exclusion Category: 2

Conditions:

- Must meet maximum allowable contaminant limits for arsenic, heavy metals (*i.e.*, cadmium, chromium, lead, and mercury), and dioxin.
- Must sample and analyze the fertilizer product at specified times and frequencies to determine compliance and maintain records on all sampling and analyses performed.

Used, intact cathode ray tubes (CRTs).

Citation: 40 C.F.R. 261.4(a)(22)(i) (corresponding with 35 Ill. Adm. Code 721.104(a)(22)(A)).
Adopted by USEPA: July 28, 2008 (at 71 Fed. Reg. 42928).
Board-Designated Conceptual Exclusion Category: 2

Conditions:

- No disposal.
- No speculative accumulation by CRT collectors or glass processors.

Used, intact CRTs when exported for recycling.

Citation: 40 C.F.R. 261.4(a)(22)(ii) (corresponding with 35 Ill. Adm. Code 721.104(a)(22)(B)).
Adopted by USEPA: July 28, 2008 (at 71 Fed. Reg. 42928).
Board-Designated Conceptual Exclusion Category: 2

Conditions:

Must fulfill provisions of the used CRT rule (40 C.F.R. 261.40/35 Ill. Adm. Code 721.140):

- No speculative accumulation.
- Must submit Notification of Intent to Export to USEPA and receive Acknowledgement of Consent to Export before exporting.

Used, broken CRTs when destined for recycling.

Citation: 40 C.F.R. 261.4(a)(22)(iii) (corresponding with 35 Ill. Adm. Code 721.104(a)(22)(C)).
Adopted by USEPA: July 28, 2008 (at 71 Fed. Reg. 42928).
Board-Designated Conceptual Exclusion Category: 2

Conditions:

Must fulfill provisions of the used CRT rule (40 C.F.R. 261.39/35 Ill. Adm. Code 721.139):

- No speculative accumulation.
- No use constituting disposal (or the material is subject to subpart C of 40 C.F.R. 266, corresponding with Subpart C of 35 Ill. Adm. Code 726, instead of the exclusion).
- Must store the CRTs in enclosed building with floor, roof, and walls or closed containers.

- Must transport CRTs in closed, labeled containers.
- Must use prescribed label on containers.
- Must submit Notification of Intent to Export to USEPA and receive Acknowledgement of Consent to Export before exporting.
- Must process the CRTs in enclosed building with floor, roof, and walls, and no temperatures high enough to volatilize lead.

Glass removed from CRTs when sent to glass making or lead smelting..

Citation: 40 C.F.R. 261.4(a)(22)(iii) (corresponding with 35 Ill. Adm. Code 721.104(a)(22)(C)).

Adopted by USEPA: July 28, 2008 (at 71 Fed. Reg. 42928).

Board-Designated Conceptual Exclusion Category: 2

Conditions:

Must fulfill provisions of the used CRT rule (40 C.F.R. 261.39(c)/35 Ill. Adm. Code 721.139(c)):

- No speculative accumulation.
- No use constituting disposal (or the glass is subject to subpart C of 40 C.F.R. 266, corresponding with Subpart C of 35 Ill. Adm. Code 726, instead of the exclusion).

HSM when reclaimed under the control of the generator and managed only in non-land-based units.

Citation: 40 C.F.R. 261.2(a)(2)(iv) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(D)).

Adopted by USEPA: October 30, 2008 (at 73 Fed. Reg. 64668).

Board-Designated Conceptual Exclusion Category: 2

Conditions:

- The HSM must be generated and reclaimed within the U.S.
- The HSM must not be subject to another exclusion.
- The HSM must not be a spent lead-acid battery.
- The HSM must not be USEPA hazardous waste number K171 or K172.
- No speculative accumulation.
- Attention directed to notice requirements (40 C.F.R. 260.42, corresponding with 35 Ill. Adm. Code 720.142).
- The HSM must be contained.

Note: Additional discussion of the generator-reclaimed, non-land-based HSM exclusion appears beginning on page 156 of this opinion.

HSM when reclaimed under the control of the generator and managed in land-based units.

Citation: 40 C.F.R. 261.4(a)(23) (corresponding with 35 Ill. Adm. Code 721.104(a)(23)).

Adopted by USEPA: October 30, 2008 (at 73 Fed. Reg. 64668).

Board-Designated Conceptual Exclusion Category: 2

Conditions:

- The HSM must be generated and reclaimed within the U.S.
- The HSM must be generated and reclaimed under the control of the generator.
- The HSM must not be subject to another exclusion.

- The HSM must not be a spent lead-acid battery.
- The HSM must not be USEPA hazardous waste number K171 or K172.
- No speculative accumulation.
- Must be legitimate reclamation (as determined pursuant to 40 C.F.R. 260.42, corresponding with 35 Ill. Adm. Code 720.142).
- Must submit notice before starting reclamation (as required by 40 C.F.R. 260.42, corresponding with 35 Ill. Adm. Code 720.142).
- The HSM must be contained.

Note: Additional discussion of the generator-reclaimed land-based HSM exclusion appears beginning on page 156 of this opinion.

HSM when transferred to a person other than the generator for reclamation.

Citation: 40 C.F.R. 261.4(a)(24) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)).
Adopted by USEPA: October 30, 2008 (at 73 Fed. Reg. 64668).
Board-Designated Conceptual Exclusion Category: 2

Conditions:

- The HSM must be generated and reclaimed within the U.S.
- The HSM must not be subject to another exclusion.
- The HSM must not be a spent lead-acid battery.
- The HSM must not be USEPA hazardous waste number K171 or K172.
- No speculative accumulation.
- The HSM must not be handled by any person other than the generator, the transporter, an intermediate facility, or the reclaimer.
- The HSM must not be stored more than 10 days at a transfer facility.
- The HSM must be packaged in compliance with U.S. DOT requirements.
- Generator must make reasonable efforts to ensure that the reclamation is legitimate and that the reclaimer will manage the material to protect human health and the environment, where the reclaimer is not a hazardous waste T/S/D facility.
- Generator must make contractual arrangements with the intermediate facility to ensure that the HSM will be sent to the reclamation facility indicated, that the intermediate facility will manage the HSM to protect human health and the environment, where the intermediate facility is not a hazardous waste T/S/D facility.
- Generator must document its reasonable efforts and maintain records as specified.
- Generator must document offsite shipments of HSM and maintain records as specified.
- Reclaimer and intermediate facility must document all receipts and offsite shipments of HSM and maintain records as specified.
- Intermediate facility must forward all shipments of HSM to the reclamation facility specified by the generator.
- Reclaimer and intermediate facility must send specified confirmations of receipt to the generator for all off-site shipments of HSM.
- Reclaimer and intermediate facility must manage HSM as protective of human health and the environment as management of analogous raw material.
- Must be legitimate reclamation (as determined pursuant to 40 C.F.R. 260.42, corresponding with 35 Ill. Adm. Code 720.142).

- Reclaimer must manage residues of reclamation in a way that is protective of human health and the environment, and residuals are hazardous waste if themselves specifically listed as such or if they exhibit a characteristic of hazardous waste.
- Reclaimer and intermediate facility must maintain specified financial assurance.
- Anyone claiming exclusion must submit notice before starting reclamation (as required by 40 C.F.R. 260.42, corresponding with 35 Ill. Adm. Code 720.142).
- The HSM must be contained.

Definition: "Analogous raw material" is raw material for which the HSM will substitute, which serves the same function, and which has similar chemical and physical properties as the HSM.

Note: Additional discussion of the independently reclaimed HSM exclusion appears beginning on page 161 of this opinion.

HSM when exported for reclamation.

Citation: 40 C.F.R. 261.4(a)(25) (corresponding with 35 Ill. Adm. Code 721.104(a)(25)).

Adopted by USEPA: October 30, 2008 (at 73 Fed. Reg. 64668).

Board-Designated Conceptual Exclusion Category: 2

Conditions:

- The HSM must not be subject to another exclusion.
- The HSM must not be a spent lead-acid battery.
- The HSM must not be USEPA hazardous waste number K171 or K172.
- No speculative accumulation.
- The HSMl must not be handled by any person other than the generator, the transporter, an intermediate facility, or the reclaimer.
- The HSM must not be stored more than 10 days at a transfer facility.
- The HSM must be packaged in compliance with U.S. DOT requirements.
- Generator must make reasonable efforts to ensure that the reclamation is legitimate and that the reclaimer will manage the HSM to protect human health and the environment, where the reclaimer is not a hazardous waste T/S/D facility.
- Generator must make contractual arrangements with the intermediate facility to ensure that the HSM will be sent to the reclamation facility indicated, that the intermediate facility will manage the material to protect human health and the environment, where the intermediate facility is not a hazardous waste T/S/D facility.
- Generator must document its reasonable efforts and maintain records as specified.
- Generator must document offsite shipments of HSM and maintain records as specified.
- Generator must submit Notification of Intent to Export to USEPA and receive Acknowledgement of Consent to Export before export. (Implicit consent may be inferred as to any Organization for Economic Co-operation and Development (OECD) member country that has not responded to the Notification.)
- Generator must maintain records of Notifications and Acknowledgements and file reports with USEPA as specified.
- Must be legitimate reclamation (as determined pursuant to 40 C.F.R. 260.42, corresponding with 35 Ill. Adm. Code 720.142).
- Anyone claiming the exclusion must submit notice before starting reclamation (as required by 40 C.F.R. 260.42, corresponding with 35 Ill. Adm. Code 720.142).

- The HSM must be contained.

Note: Additional discussion of the independently reclaimed exported HSM exclusion appears beginning on page 161 of this opinion.

HSM that is reclaimed in a continuous industrial process.

Citation: 40 C.F.R. 260.30(d) (2009) (corresponding with 35 Ill. Adm. Code 720.130(d) and 720.134(b)).

Adopted by USEPA: October 30, 2008 (at 73 Fed. Reg. 64668).

Board-Designated Conceptual Exclusion Category: 5

Conditions:

- Available only through an administrative determination.
- Must be demonstrated a part of the production process.
- Must not be discarded.
- Must be legitimate recycling.

Note: This exclusion is available only through an administrative determination. This exclusion is dissimilar from prior exclusions (*e.g.*, materials reclaimed from solid waste that are used beneficially, materials that are reclaimed and returned to the original process, etc.) in that the focus here is on the continuous nature of the reclamation process, not on the nature of the production process using the reclaimed materials. Here the reclamation process need not be the process using the secondary material; the process can prepare the material for use in another process.

HSM that is indistinguishable from a product or intermediate in all relevant aspects.

Citation: 40 C.F.R. 260.30(e) (2009) (corresponding with 35 Ill. Adm. Code 720.130(d) and 720.134(b)).

Adopted by USEPA: October 30, 2008 (at 73 Fed. Reg. 64668).

Board-Designated Conceptual Exclusion Category: 5

Conditions:

- Available only through an administrative determination.
- Must be demonstrated a part of the production process.
- Must not be discarded.
- Must be legitimate recycling.

Note: This exclusion is available only through an administrative determination. This exclusion is similar to the exclusion for secondary materials that are used or reused as ingredients in industrial products (40 C.F.R. 261.2(e)(1)(i) and (e)(2) (corresponding with 35 Ill. Adm. Code 721.102(e)(1)(A) and (e)(2))) and that for secondary materials that are used or reused as effective substitutes for commercial products (40 C.F.R. 261.2(e)(1)(ii) and (e)(2) (corresponding with 35 Ill. Adm. Code 721.102(e)(1)(B) and (e)(2))), adopted by USEPA in 1985, except that the prior exclusions did not allow reclamation.

Possible Future Amendment of the DSWR: USEPA Invitation for Comments.

USEPA is considering revision of the 2008 DSWR amendments, but estimating when such amendments will occur is impossible at this time. No notice of proposed amendments has appeared in the *Federal Register* to date. On May 27, 2009 (74 Fed. Reg. 25200), however, USEPA published a notice of public meeting and request for comments in the *Federal Register*.

Further, USEPA conducted a public meeting on the amendments on June 30, 2009, in Washington, D.C.

The notice of public meeting and request for comments stated that USEPA was seeking public comments on ways that it might improve aspects of the rule. Those aspects were areas of the rule that generated a January 29, 2009 petition for reconsideration from the Sierra Club. USEPA denied this petition for reconsideration, yet decided to seek comments on how it could amend the rule to address the concerns raised in the petition for reconsideration. *See* 74 Fed. Reg. at 25201-02.

USEPA made it clear that the review of the 2008 DSWR amendments will have a limited scope. USEPA's comments indicate that USEPA will not alter some segments of the DSWR, yet USEPA is open to revision or clarification of others. In particular, USEPA states an openness to revising the DSWR with regard to the legitimacy rule and the independently reclaimed HSM ("transfer-based") exclusions. USEPA stated as follows:

> [US]EPA does not expect to repeal either the exclusion for hazardous secondary materials reclaimed under the control of the generator or the non-waste determination petition process.
>
> However, [US]EPA believes that there may be opportunities to revise or clarify the definition of solid waste rule, particularly with respect to the definition of legitimacy and the transfer-based exclusion, in ways that could improve implementation and enforcement of the provisions, thus increasing environmental protection, while still appropriately defining when a hazardous secondary material being reclaimed is a solid waste and subject to hazardous waste regulation. 74 Fed. Reg. at 25202.

In the May 27, 2009 request for comments, USEPA suggested significantly limiting the scope and availability of the independently reclaimed HSM exclusions, but did not suggest changes to or request comments on particular revisions to the operational requirements outlined above. Instead, USEPA identified particular areas of concern and requested comments on the issues involved in each. The Board summarizes USEPA's particular areas of concern in the following paragraphs.

Adding a Definition of "Contained"? Should USEPA add a definition of "contained" to the regulations for the purposes of the requirement that reclaimed HSM "must be contained"? Alternatively, should USEPA develop detailed guidance for determining whether the material is contained?

As the foregoing discussion of the "contained" requirement has considered (above at page 125 of this opinion), one of the universal conditions that apply to the four self-implementing exclusions is that the HSM "must be contained." *See* 40 C.F.R. 261.2(a)(2)(ii), (a)(23)(i), (a)(24)(v)(A), and (a)(25) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B), (a)(23)(A), (a)(24)(E)(i), and (a)(25)). USEPA explained in the *Federal Register* discussion the intent behind the "general performance standard" that embodies the

"contained" requirement (73 Fed. Reg. at 64681), yet there is no specific standard for "contained," and this key term is undefined. 74 Fed. Reg. at 25202.

USEPA stated that a definition that could be used to determine when HSM is "contained" would require application to a wide range of HSM materials undergoing a wide range of reclamation activities to determine when HSM is "discarded" and when not. USEPA further raised the possibility of assembling detailed guidance for these determinations. 74 Fed. Reg. at 25203.

Applying the "Legitimacy Rule" Requirement to All Recycling? Should USEPA extend the "legitimacy rule" to apply to all recycling, not just that which involves reclamation?

The discussion of "legitimacy" and the development of the "legitimacy rule" (above at page 90 of this opinion) indicates that USEPA developed the "legitimacy" rule from the "Lowrance memo," which USEPA prepared to summarize early *Federal Register* discussions on the point of determining whether an activity constitutes "legitimate recycling" or "sham recycling." *See* 73 Fed. Reg. at 64700. USEPA considers the requirements of the "legitimacy rule" equivalent to those of the "Lowrance memo." *See* 73 Fed. Reg. at 64708. Nevertheless, USEPA restricted use of the "legitimacy rule" to the new reclamation-based exclusions added by the 2008 DSWR amendments. The "Lowrance memo" applies instead to existing exclusions from the definition of solid waste. 73 Fed. Reg. at 64708. USEPA now believes, "ultimately there may be greater clarity if there is a single standard for all recycling." 74 Fed. Reg. at 25203.

Making All of the "Legitimacy" Factors Mandatory? Should USEPA make the two factors mandatory for consideration in the "legitimacy rule" mandatory factors, so that all four factors are mandatory factors? Should USEPA make all four factors mandatory and establish an administrative procedure for determining when HSM is still legitimately recycled when one of the two factors currently mandated for consideration is not fulfilled?

The discussion of the "legitimacy rule" (above at page 101 of this opinion) highlights that two of the factors included in the rule are mandatory (*see* 40 C.F.R. 260.43(b) (2009) (corresponding with 35 Ill. Adm. Code 720.143(b))), and two other factors are mandated for consideration (*see* 40 C.F.R. 260.43(c) (2009) (corresponding with 35 Ill. Adm. Code 720.143(c))). USEPA shares the concerns expressed in some comments over the possibility of HSM being mismanaged where either of the two factors mandated for consideration are not fulfilled by the reclamation. 74 Fed. Reg. at 25203. These two factors are (1) whether the generator and reclaimer manage the HSM as a valuable commodity (40 C.F.R. 260.43(c)(1) (2009) (corresponding with 35 Ill. Adm. Code 720.143(c)(1))); and (2) whether the HSM (a) contains significant concentrations of hazardous constituents that are not found in analogous products, (b) contains hazardous constituents at levels that are significantly elevated above those found in analogous products, or (c) exhibits a characteristic of hazardous waste that analogous product does not exhibit (40 C.F.R. 260.43(c)(2) (2009) (corresponding with 35 Ill. Adm. Code 720.143(c)(2))). USEPA is interested in developing an approach that would make all four

factors[157] mandatory unless the appropriate regulatory authority makes a determination that the recycling is legitimate notwithstanding a failure to establish all four as fulfilled. 74 Fed. Reg. at 25203.

Repealing or Revising the Independently Reclaimed HSM ("Transfer-Based") Exclusions? Should USEPA pursue an alternative to the present self-implementing exclusions for independently reclaimed HSM (which USEPA calls the "transfer-based" exclusions)? Should USEPA repeal the exclusions and regulate all HSM transferred from the generator for reclamation as hazardous waste? Should USEPA exclude only the HSM that is transferred for reclamation in a "continuous industrial process within the generating industry"? Should USEPA limit the exclusion of HSM that is transferred for reclamation to those instances where the reclaimer pays the generator for the HSM? Should USEPA make focused changes in the independently reclaimed HSM exclusions, such as disallowing storage of HSM at intermediate facilities or requiring intermediate and reclamation facilities to assemble and maintain a facility closure plan?

The discussions of the independently reclaimed HSM exclusions (above at page 161 of this opinion) outline these two exclusions. With one exception, the Board does not wish to repeat or elaborate the descriptions of the exclusions included in those discussions. Rather, the Board intends the descriptions that follow as a basis for understanding USEPA's speculations as to ways USEPA could revise the exclusions in the future. For this reason, the Board focuses primarily on the requirements that apply to HSM while within the United States, and the discussion does not include consideration of the export requirements. *See* 40 C.F.R. 261.4(a)(25)(i) through (a)(25)(xi) (2009) (corresponding with 35 Ill. Adm. Code 720.104(a)(25)(K)). The single exception is the discussion of cessation of HSM facility operations and gaining release from financial assurance requirements. The Board postponed this discussion until this point because possible future amendments could significantly affect how an HSM management facility ceases to operate under an exclusion and gains release from the financial assurance requirements.

Prospective Changes Affecting Cessation of HSM Reclamation Operations and Release from HSM Financial Assurance. Finally, HSM reclamation and intermediate facilities that are not "under the control of the generator" must maintain financial assurance. 40 C.F.R. 261.4(a)(24)(vi)(F) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24)(F)(vi)). The HSM management facility financial assurance requirements are similar to those that apply to hazardous waste T/S/D facilities, except that the objects ensured are different. There is no closure cost estimate for an HSM intermediate or reclamation facility, and post-closure care requirements do not apply to an HSM management facility.

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[157] The two mandatory factors are (1) that the HSM provide a useful contribution to the recycling process or to a product or intermediate made by the process; and (2) that the reclamation process make a useful product or intermediate. 40 C.F.R. 260.43(b) (2009) (corresponding with 35 Ill. Adm. Code 720.143(b)).

Under the HSM management facility financial assurance provisions (*see* 40 C.F.R. 261.4(a)(24)(vi)(F) (2009) (corresponding with 35 Ill. Adm. Code 261.104(a)(23)(F)(vi)), the objective is removal of all HSM and HSM residues from the facility when an HSM management facility ceases operations. The objectives of the financial assurance requirements are achieved when no HSM and HSM residues remain when the facility ceases reclaiming HSM, so that no HSM was "abandoned" to become "discarded material." *See* 73 Fed. Reg. at 64692. If, on the other hand, HSM or HSM residues remain at the facility when operation under the exclusion ceases, that "discarded material" becomes hazardous waste, the HSM management facility becomes a hazardous waste T/S/D facility, and the closure and post-closure care requirements of the T/S/D facility standards apply. The facility owner or operator must then seek T/S/D facility "closure" of the facility, including providing post-closure care of the facility if any waste residues remain at the facility after closure. *See id.*; 40 C.F.R. 265.111 and 265.117 (2009) (corresponding with 35 Ill. Adm. Code 725.211 and 725.217).

Thus, the primary objective of financial assurance is to ensure that an HSM management facility does not become a T/S/D facility by requiring the facility owner or operator to have a financial stake in reclamation of the HSM. *See* 73 Fed. Reg. at 64678. In case the primary objective is not achieved because some HSM or HSM residues remain after reclamation ceases, causing HSM to become "abandoned" (*see* 40 C.F.R. 261.2(b) (2009) (corresponding with 35 Ill. Adm. Code 721.102(b)), the secondary objective of financial assurance is to ensure complete removal of HSM and HSM residues from the site for disposal as hazardous waste, so that the HSM management facility does not become a hazardous waste T/S/D facility. *See* 40 C.F.R. 261.143(i) (2009) (corresponding with 35 Ill. Adm. Code 721.243(i)). Upon failure of the secondary objective because all HSM and HSM residues remain at the site, the tertiary objective of financial assurance is closure of the facility as a T/S/D facility and establishing post-closure care for the site if necessary.[158] *See* 40 C.F.R. 261.142(a) (2009) (corresponding with 35 Ill. Adm. Code 721.242(a)); 73 Fed. Reg. at 64683.

Under the HSM reclamation and intermediate facility requirements, the amount of financial assurance required is based on the "cost estimate," which USEPA described as ensuring the following costs:

> [T]he cost of disposing of any hazardous secondary material as listed or characteristic hazardous waste, and the potential cost of closing the facility as a treatment, storage, and disposal facility. 40 C.F.R. 261.142(a) (2009) (corresponding with 35 Ill. Adm. Code 721.242(a)).

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[158] The rule describes financial assurance as covering the secondary and tertiary objectives. *See* 40 C.F.R. 261.142(a) (2009) (corresponding with 35 Ill. Adm. Code 721.242(a)). USEPA describes the primary objective in the *Federal Register* discussion of the rule. *See* 73 Fed. Reg. at 64678. The *Federal Register* discussion further explains that the closure under the hazardous waste T/S/D facility requirements would occur through enforcement action. 64 Fed. Reg. at 64692.

The HSM management facility owner or operator must prepare the "cost estimate" in writing, but the regulations do not require that the owner or operator prepare a written plan to "cease operating under the HSM exclusion," upon which to base the "cost estimate," and there is no requirement to submit the "cost estimate" to the appropriate of USEPA or pertinent state for review and approval. *See* 40 C.F.R. 261.142 (2009) (corresponding with 35 Ill. Adm. Code 721.242).

Under the hazardous waste T/S/D facility standards, more detailed requirements apply. First, the amount of financial assurance required is based on the "closure cost estimate." 40 C.F.R. 265.142(a) (2009) (corresponding with 35 Ill. Adm. Code 725.242(a)). Second, the "closure cost estimate" is based on a written "closure plan." 40 C.F.R. 265.142(a)(2) (2009) (corresponding with 35 Ill. Adm. Code 725.242(a)(2)) Third, the facility closure plan must comply with specific requirement tailored to the particular equipment at the facility. 40 C.F.R. 265.111(c) (2009) (corresponding with 35 Ill. Adm. Code 725.211(c)). Finally, the facility owner or operator must submit the closure plan to the appropriate of USEPA or the pertinent state for review and approval. 40 C.F.R. 265.112 (2009) (corresponding with 35 Ill. Adm. Code 725.212).

To aid understanding of the significance of possible USEPA amendments to the HSM management facility financial assurance requirements, the following outline compares the current "cease to operate under the exclusion" requirements that apply to an HSM management facility with the "closure" requirements that apply to a hazardous waste T/S/D facility.

The T/S/D facility financial assurance provisions require the owner or operator to ensure the costs for three contingencies: (1) the facility closure cost estimate; (2) the post-closure care cost estimate; and (3) sudden-occurrence public liability for bodily injury and property damage that may arise to third parties through facility operations. 40 C.F.R. 264.143, 264.145, 264.147, 265.143, 265.145, 265.147, 267.143, and 267.147 (2009) (corresponding with 35 Ill. Adm. Code 724.243, 724.245, 724.247, 725.243, 725.245, 725.247, and 727.240(d) and (h)(1)).

The financial assurance provisions for HSM intermediate and reclamation facilities similarly require the owner or operator to maintain financial assurance against public liability arising through sudden-occurrences. 40 C.F.R. 261.147 (2009) (corresponding with 35 Ill. Adm. Code 721.247). The requirements do not, however, strictly require that the owner or operator ensure the costs of facility closure and post-closure care. Instead, the HSM facility owner or operator must ensure the "cost estimate" for the facility.[159] 40 C.F.R. 261.142 and 261.143 (2009) (corresponding with 35 Ill. Adm. Code 721.242 and 721.243). The "cost estimate" is described as follows by the rule:

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[159] At one point in discussion of these requirements, USEPA referred to this as the "retirement cost estimate." 73 Fed. Reg. at 64736. The Board favors use of this name because it is more descriptive as to the point of the requirements than "cost estimate." It further distinguishes the "cost estimate" required for HSM facilities from the closure cost estimate required for T/S/D facilities.

> The owner or operator must have a detailed written estimate, in current dollars, of the cost of disposing of any hazardous secondary material as listed or characteristic hazardous waste, and the potential cost of closing the facility as a treatment, storage, and disposal facility. 40 C.F.R. 261.142(a) (2009) (corresponding with 35 Ill. Adm. Code 721.242(a)).

Thus, the "cost estimate" includes (1) the cost of removing remaining HSM and residuals from the facility, so that the facility does not become a T/S/D facility; and (2) the cost of facility closure should the facility become a T/S/D facility. USEPA explained as follows:

> For the transfer-based exclusion, [US]EPA proposed in its March 2007 supplemental proposal that reclamation facilities comply with the [interim status T/S/D facility] financial assurance requirements as a condition of the exclusion. * * * [*See* 72 Fed. Reg. 14172, 96 (Mar. 26, 2007) (supplemental proposal); *but see* 72 Fed. Reg. at 14217 (actually proposing application of the permitted T/S/D facility financial assurance requirements).] In essence, financial assurance will help demonstrate that the reclamation or intermediate facility owner/operators who would operate under the terms of this exclusion are financially sound and will not discard the hazardous secondary materials.
>
> An implementation issue for the financial assurance condition stems from the fact that the [interim status T/S/D facility] financial assurance requirements directly reference and rely on the provisions of the [interim status T/S/D facility] closure requirements. For example, in [the interim status T/S/D facility financial assurance standards], a facility owner uses the "closure plan" in [the interim status T/S/D facility closure standards] to calculate closure cost estimates, which then set the amount of financial assurance required under [the T/S/D facility financial assurance requirements]. * * * Commenters expressed some confusion on this issue and requested that [US]EPA clarify that the provisions of [the T/S/D facility closure requirements] which are required to implement financial assurance be made explicit.
>
> Thus, in today's final rule, for the convenience of the regulated community, [US]EPA has detailed the applicable requirements in a separate regulation, subpart H of 40 [C.F.R.] 261, using terminology appropriate for excluded facilities, that specifically identifies the processes by which a facility determines the amount of financial assurance required and by which it secures release of financial assurance when it no longer wishes to operate under the transfer-based exclusion. * * * However, since these facilities are not regulated hazardous waste facilities, new subpart H does not include a stand-alone closure requirement, although some aspects of the closure process (described below) are included as being necessary for the implementation of the financial assurance condition.
>
> * * * * *

> In addition to the closure requirements, [interim status T/S/D facility financial assurance requirements include] requirements for post-closure care. Post-closure care (*e.g.*, groundwater monitoring, maintenance of waste containment systems) only applies to land disposal units, where hazardous waste remains in the unit or other contamination is present after Subtitle C closure. However, the conditional exclusion being promulgated today only applies to hazardous secondary materials intended for reclamation. In no cases should the storage of these materials be designed or managed with the intent of leaving these hazardous secondary materials in place. * * * If, during the life of the unit, there is a significant release that indicates that the hazardous secondary materials are discarded, and thus are wastes, then such waste is subject to the RCRA Subtitle C requirements, including the post-closure care requirements. 73 Fed. Reg. at 64692.

The primary costs ensured under the independently reclaimed HSM exclusion relate to removal of the HSM and HSM residues from the facility or on-site disposal by an independent contractor under highest-cost conditions. 40 C.F.R. 261.142(a)(1) through (a)(5) (2009) (corresponding with 35 Ill. Adm. Code 721.242(a)(1) through (a)(5)). The "cost estimate" includes contingent closure as a hazardous waste T/S/D facility because any HSM remaining at the facility when reclamation operations cease become hazardous waste. USEPA subsequently explained the cost estimate for contingent application of T/S/D facility closure requirements as follows:

> Because hazardous secondary materials that lose the exclusion may have to be disposed of as a hazardous waste and the facility may have to be closed as a hazardous waste facility in accordance with the requirements of [interim status T/S/D facility standards], the owner or operator must have a detailed written estimate in current dollars of performing this work.

Exactly what is required for closure of a T/S/D facility depends on the type of equipment being closed. The general standard for facility closure provides as follows:

> The owner or operator must close the facility in a manner that:
>
> (a) Minimizes the need for further maintenance, and
>
> (b) Controls, minimizes or eliminates, to the extent necessary to protect human health and the environment, post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off, or hazardous waste decomposition products to the ground or surface waters or to the atmosphere, and
>
> (c) Complies with the closure requirements of this subpart, including, but not limited to, the requirements of [the standards that apply to the particular equipment being closed]. 40 C.F.R. 265.111 (2009) (corresponding with 35 Ill. Adm. Code 725.211).

The equipment-specific standards are summarized in the following table:

Table 6: Equipment-Specific Closure Standards for T/S/D Facilities

Tank Systems: "[R]emove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated soils, and structures and equipment contaminated with waste, and manage them as hazardous waste, unless [the remaining residues are no longer hazardous waste]."
Citation: 40 C.F.R. 265.197 (corresponding with 35 Ill. Adm. Code 725.297).

Surface Impoundments: "Remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated sub-soils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless [the remaining residues are no longer hazardous waste]; or . . . [c]lose the impoundment and provide post-closure care for a landfill . . . ."
Citation: 40 C.F.R. 265.228 (corresponding with 35 Ill. Adm. Code 725.328).
Note: If HSM managed in a surface impoundment is "used in a manner constituting disposal," the exclusion is lost, and the HSM becomes solid waste. *See* 40 C.F.R. 261.2(c) (2009) (corresponding with 35 Ill. Adm. Code 721.102(c)).

Waste Piles: "[R]emove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated sub-soils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless [the remaining residues are no longer hazardous waste]; or . . . close the facility and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills . . . ."
Citation: 40 C.F.R. 265.258 (corresponding with 35 Ill. Adm. Code 725.358).
Note: If HSM managed in a waste pile is "used in a manner constituting disposal," the exclusion is lost, and the HSM becomes solid waste. *See* 40 C.F.R. 261.2(c) (2009) (corresponding with 35 Ill. Adm. Code 721.102(c)).

Land Treatment Units: "(1) Control of the migration of hazardous waste and hazardous waste constituents from the treated area into the ground water; (2) Control of the release of contaminated run-off from the facility into surface water; (3) Control of the release of airborne particulate contaminants caused by wind erosion; and (4) Compl[y] with [contaminant-based restrictions] concerning the growth of food-chain crops."
Citation: 40 C.F.R. 265.280 (corresponding with 35 Ill. Adm. Code 725.380).
Note: If HSM managed in a land treatment unit is "used in a manner constituting disposal," the exclusion is lost, and the HSM becomes solid waste. *See* 40 C.F.R. 261.2(c) (2009) (corresponding with 35 Ill. Adm. Code 721.102(c)).

Landfills: "[C]over the landfill or cell with a final cover designed and constructed to: (1) Provide long-term minimization of migration of liquids through the closed landfill; (2) Function with minimum maintenance; (3) Promote drainage and minimize erosion or abrasion of the cover; (4) Accommodate settling and subsidence so that the cover's integrity is maintained; and (5) Have a permeability less than or equal to the permeability

of any bottom liner system or natural sub-soils present [and comply with post-closure care requirements]."
Citation: 40 C.F.R. 265.310 (corresponding with 35 Ill. Adm. Code 725.410).
Note: Secondary materials placed in a landfill are disposed of, which renders them "abandoned." "Abandoned" materials are "discarded materials." This results in loss of the exclusion, and the HSM becomes solid waste. *See* 40 C.F.R. 261.2(a) and (b)(1) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a) and (b)(1)).

Incinerators: "[R]emove all hazardous waste and hazardous waste residues (including but not limited to ash, scrubber waters, and scrubber sludges) from the incinerator."
Citation: 40 C.F.R. 265.351 (corresponding with 35 Ill. Adm. Code 725.451).
Note: Secondary materials burned or incinerated, including burning for energy recovery, are disposed of, which renders them "abandoned." "Abandoned" materials are "discarded materials." This results in loss of the exclusion, and the HSM becomes solid waste. *See* 40 C.F.R. 261.2(a), (b)(1), and (c)(2) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a), (b)(1), and (c)(2)).

Thermal Treatment Units: "[R]emove all hazardous waste and hazardous waste residues (including, but not limited to, ash) from the thermal treatment process or equipment."
Citation: 40 C.F.R. 265.381 (corresponding with 35 Ill. Adm. Code 725.481).

Chemical, Physical, and Biological Treatment Units: "[A]ll hazardous waste and hazardous waste residues must be removed from treatment processes or equipment, discharge control equipment, and discharge confinement structures."
Citation: 40 C.F.R. 265.404 (corresponding with 35 Ill. Adm. Code 725.504).

Drip Pads: "[R]emove or decontaminate all waste residues, contaminated containment system components (pad, liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leakage, and manage them as hazardous waste.[the remaining residues are no longer hazardous waste]."
Citation: 40 C.F.R. 265.445 (corresponding with 35 Ill. Adm. Code 725.545).
Note: Although compliance with the closure standard for drip pads is not specifically cited in the general closure standard of 40 C.F.R. 265.111 (corresponding with 35 Ill. Adm. Code 725.211), compliance is required for this type of unit.

Containment Buildings: "[R]emove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated sub-soils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless [the remaining residues are no longer hazardous waste, or] . . . close the facility and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills . . . ."
Citation: 40 C.F.R. 265.1102 (corresponding with 35 Ill. Adm. Code 725.1102)

Based on the information presented in this table, USEPA's objective as to nearly all T/S/D facilities is evident: "clean closure" of the facility, wherein all hazardous waste and waste

residues are removed from the site.[160] This requires removal of HSM from a facility before the facility is designated a T/S/D facility due to the contamination. 40 C.F.R. 261.142(a) (2009) (corresponding with 35 Ill. Adm. Code 721.242(a)). The "cost estimate" must further be based on disposal of all remaining HSM and HSM residues on the site as hazardous waste, under the worst-case assumption that the intermediate or reclamation facility has abandoned the HSM and the site at that point, rendering the HSM hazardous waste. 73 Fed. Reg. at 64692-93.

Under this assumption that the HSM is disposed of as hazardous waste, the one major difference between closing an HSM management facility and a hazardous waste T/S/D facility is in the closure plan. Closure of a hazardous waste T/S/D facility requires a formalized, written closure plan that has been approved by USEPA or the authorized state. 40 C.F.R. 265.112(a) through (c) (2009) (corresponding with 35 Ill. Adm. Code 725.212(a) through (c)). Further, closure of the facility may proceed only according to the closure plan, including any amendments that have been approved by USEPA or the state. 40 C.F.R. 265.112(e) and 265.113 through 265.116 (2009) (corresponding with 35 Ill. Adm. Code 725.212(e) and 725.213 through 725.216).

The formalized requirements required for the cessation of operations at an HSM management facility are not so elaborate, and there is no need to pursue them with USEPA or the state until facility closure is required. There is a formalized requirement that the facility owner or operator assemble and maintain a written "cost estimate." 40 C.F.R. 261.142(a) (2009) (corresponding with 35 Ill. Adm. Code 721.242(a)). The owner or operator must maintain an up-to-date copy of this cost estimate at the facility, but there is no requirement to submit the cost estimate to USEPA or the state for prior review or approval. 40 C.F.R. 261.142(a) (2009) (corresponding with 35 Ill. Adm. Code 721.242(a)). The owner or operator, however, must submit the financial assurance instruments to the applicable of USEPA or the state. *See* 40 C.F.R. 261.143(a), (b), (c), (d), (e)(3), and (g) (2009) (corresponding with 35 Ill. Adm. Code 721.243(a), (b), (c), (d), (e)(3), and (g)). Further, the owner or operator must submit a written "plan for removing all [HSM] residues" ("HSM removal plan") from the facility to USEPA or the state at least 180 days in advance of cessation of operations, where release from the financial assurance obligations is desired. A formalized procedure is pursued by USEPA or the state to review and approve the plan and completion of activities under the plan. 40 C.F.R. 261.143(h) and (i) (2009) (corresponding with 35 Ill. Adm. Code 721.243(h) and (i)).

While comparable to a "closure plan," as such is required of a hazardous waste T/S/D facility, the HSM removal plan required of an intermediate or reclamation facility differs in significant ways. Principally, the HSM removal plan is not required until cessation of operations is imminent. This means that the "cost estimate" upon which the financial assurance is based has not been subjected to USEPA or state review before establishing the financial assurance

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[160] Where the hazardous waste is characteristic waste, removal of the characteristic may be sufficient. *See* 40 C.F.R. 261.3(d)(1) (2009) (corresponding with 35 Ill. Adm. Code 721.103(d)(1)). Where listed hazardous waste is involved, complete removal of the waste and all waste residues may be necessary, unless the residues are granted a delisting. *See* 40 C.F.R. 261.3(d)(1) (2009) (corresponding with 35 Ill. Adm. Code 721.103(d)(1)).

mechanisms. Where the owner or operator is unable, unavailable, or unwilling to revise its HSM removal plan in response to USEPA or state review (such as through insolvency, dissolution or abandonment of operations, etc.), a significant possibility exists that the amount of financial assurance provided may prove inadequate for complete removal of the HSM.

Alternative Approaches Suggested by USEPA on Other Aspects of the Independently Reclaimed HSM Exclusion. The comments on the issues involved with the self-implementing independently reclaimed HSM exclusions prompted USEPA to suggest alternative approaches. The suggested alternatives vary in the degree of change they will bring to these exclusions as instituted in the 2008 DSWR amendments. The Board presents the following as a summary of the alternatives raised by USEPA in the May 27, 2008 request for comments:

1. Repeal the independently reclaimed HSM exclusions (40 C.F.R. 261.4(a)(24) and (a)(25) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(24) and (a)(25))) and regulate as hazardous waste HSM that is transferred for reclamation which is either not under the control of the generator or pursuant to a non-waste determination. (Restore the regulations to their status prior to the 2008 amendments, with the exceptions of retaining the self-implementing generator-reclaimed HSM exclusions and the non-waste determination exclusions.) *See* 74 Fed. Reg. at 25204.

2. Revise the independently reclaimed HSM exclusions so that only HSM reclaimed in a "continuous industrial process within the generating industry" would be excluded. *See id*. USEPA stated that this was the rule as proposed in 2003. *See* 68 Fed. Reg. 61558, 95 (Oct. 28, 2003). (This would shrink the scope of the exclusion to the greatest degree allowed by the case law. The court in *Association of Battery Recyclers v. EPA*, 208 F.3d 1047 (D.C. Cir. 2000), held that USEPA lacked jurisdiction to regulate materials that are recycled in a "continuous industrial process" as hazardous waste, since they are not "discarded materials." 68 Fed. Reg. at 61595 citing *Association of Battery Recyclers*, 208 F.3d at 1056. The court in *American Mining Congress v. EPA*, 824 F.2d 1177, 1178 (D.C. Cir. 1987), held that USEPA could not regard as "discarded materials" those secondary materials that are recycled in a "recycling in a continuous process by the generating industry itself." 73 Fed. Reg. at 64671 citing *American Mining Congress*, 824 F.2d at 1190.)

3. Revise the independently reclaimed HSM exclusions so that they apply only where the generator is paid for the HSM. (USEPA expressed disfavor for this approach, since "costs are subject to market uncertainty and manipulation, making this option difficult to enforce." 74 Fed. Reg. at 25204.

4. Make "focused changes" to the independently reclaimed HSM exclusions, such as not allowing intermediate facilities to take advantage of the exclusions (regulating them as T/S/D facilities), requiring intermediate and reclamation facilities to assemble a "closure plan" that is subject to USEPA or state review and approval

(as for a T/S/D facility) before a cost estimate is made and financial assurance is established. *Id*.

Board Action and Specific Requests for Comments. The Board incorporated the October 30, 2008 federal DSWR amendments into the Illinois hazardous waste regulations without substantive changes in the text. The Board did find minor rewording of several provisions necessary. The object was to clarify the provisions and to make segments of the language comport with the Board's preferred style and grammar for regulatory language. The Board did not intend that any of the revisions have a substantive effect on the meaning of any segment of the rules.

Tables that appear after discussions of the amendments in this docket indicate the revisions that the Board has made in the text. Table B (beginning on page 276 of this opinion) indicates the deviations from the literal text of the October 30, 2008 amendments that the Board has found necessary. Table C (beginning on page 361) indicates revisions to the base text of the rules open today that are not directly driven by the federal amendments which the Board has also found necessary. The forgoing discussions include consideration of some of the more significant among these changes. The following specific requests for public comment relate to many changes also. The majority of the changes, however, do not merit discussion. All revisions made by the Board appear in Tables A and B.

The Board requests public comment on the incorporation of the October 30, 2008 federal amendments to the DSWR. The 2008 DSWR amendments are complex and fairly voluminous. Implementation of the amendments will require interpretation of a variety of concepts, such as "legitimacy" and "contained" and the meanings of terms, such as "use or reuse," "recycle," and "reclaim." The amendments will further create challenges for both the Board and the Agency with regard to enforcement and evaluating requests for administrative "non-waste" determinations. The 2008 DSWR amendments are also controversial, as is evidenced by the filing of a petition before USEPA for reconsideration, and by USEPA promptly requesting public comments on possible further revisions of the DSWR. *See* 74 Fed. Reg. 25200 (May 27, 2009).

The challenge of incorporating the 2008 DSWR amendments has prompted one of the longest and most detailed opinions that the Board has ever produced. The opinion has explored what recycling-based exclusions existed in the hazardous waste regulations prior to USEPA's October 30, 2008 amendments, in order to complete the Board's understanding of the nature of the changes made by those amendments. This also helped explore many of the implementation-related issues associated with the amendments. The Board has examined the substance of the 2008 DSWR amendments and the larger context of the DSWR and the definition of solid waste solely for the purposes of adapting the amendments into the Illinois regulations and implementing them in Illinois after their ultimate adoption.

The primary purpose of this proceeding, of this opinion, and behind the request for comments, is to make the best fit for the substance of the federal amendments into the contexts of the Illinois regulations and the Illinois regulatory scheme. A secondary purpose is to gain a firm understanding of the changes that USEPA made, in order that implementation in Illinois

corresponds with USEPA's intent, within the context of Illinois laws and regulatory systems. Comments relative to how the Board can incorporate the elements of the USEPA action and how the State can implement the resulting rules will prove far more useful to the present purpose than comments that relate to the merits and substance of the USEPA rules themselves.

The Board directs specific attention to aspects of the incorporation of 2008 DSWR amendments into the Illinois regulations. The Board does not intend that interested persons should narrow their examination to the specific issues raised. The Board would also welcome comments on additional aspects that the Board has failed to specifically mention. The specific areas on which the Board requests comments are the following:

1. Did the Board properly define the terms "reclamation" and "recycling" (and their derivatives) and outline the distinctions between the terms?

2. Is the Board correct in the conclusion that where USEPA used the term "reclaim," "use or reuse" is never intended?

3. Is the Board correct that the 2008 DSWR amendments broke the complementary nature of the "recycling" and "discarded material" segments of the definition of solid waste? If so, does the broken complementarity have a substantive effect?

4. Is the Board correct that the 2008 DSWR amendments did little more than extend the recycling-based exclusions, which USEPA instituted by the 1985 DSWR amendments and built upon since on a material- or industry-specific basis, from "use or reuse" generally, combined with specific instances of "reclamation," to embrace "reclamation" generally?

5. Is the Board correct in the perception that the most expedient beginning of the solid waste determination is the inquiry into whether the material is expressly excluded from the definition by rule, followed by the second step of determining whether the material is "discarded material"? Or should the first level of inquiry be the "discarded material" inquiry? Does it make a difference where the inquiry begins, other than expedience or semantics?

6. The key term "contained" is not defined, although USEPA is considering establishing such a definition, or guidance to aid determination whether the requirement that HSM "must be contained" is being fulfilled. Should the Board now seek to establish a definition of "contained" to enhance the clarity of the rule until USEPA should add clarity? If so, what should the Board use as the basis for a definition, and on what specific authorities?

7. The only reclamation-based exclusions that are cited in 40 C.F.R. 261.2(c)(3) (2009) (corresponding with 35 Ill. Adm. Code 721.102(c)(3)) as exceptions to the general rule that recycled materials that are reclaimed are solid waste those of 40 C.F.R. 261.2(a)(2)(ii) and 261.4(a)(17), (a)(23), (a)(24), and (a)(25) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B) and 721.104(a)(17), (a)(23), (a)(24), and (a)(25)). A

number of the other express exclusions also expressly state that the materials excluded are "recovered" or "reclaimed."[161] *E.g.*, 40 C.F.R. 261.2(a)(6), (a)(8), (a)(9), (a)(12), and (a)(18) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(6), (a)(8), (a)(9), (a)(12), and (a)(18)). Further, reclamation appears the basis for most of the rest of the express exclusions. *E.g.*, 40 C.F.R. 261.2(a)(7), (a)(10), (a)(11), (a)(14), (a)(16), and (a)(22) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(7), (a)(10), (a)(11), (a)(14), (a)(16), and (a)(22)). Do the citations in 40 C.F.R. 261.2(c)(3) (2009) (corresponding with 35 Ill. Adm. Code 721.102(c)(3)) to the exclusions of 40 C.F.R. 261.2(a)(2)(ii) and 261.4(a)(17), (a)(23), (a)(24), and (a)(25) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B) and 721.104(a)(17), (a)(23), (a)(24), and (a)(25)) confer a special status on those exclusions, or are they redundant in light of the exclusion in the introductory clause of the definition of solid waste (40 C.F.R. 261.2(a)(1) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(1)))?

8. Does legitimate recycling indeed require that the product of the reclamation process find actual use, or is stockpiling of a valuable product of the reclamation process sufficient?

9. Has the "legitimacy rule" of 40 C.F.R. 260.43 (2009) (corresponding with 35 Ill. Adm. Code 720.142) actually shift the focus from that which existed under the "legitimacy determination" formerly made under the Lowrance memo?

10. Does the prohibition against speculative accumulation require that the secondary materials complete the reclamation process to become stockpiled as valuable products, or does the prohibition require that the products of the reclamation process actually find "use or reuse" to complete the recycling?

11. Should the Board make the activity notification condition a condition precedent to exclusion of reclaimed HSM, or should the Board follow the lead of USEPA and make a lack of notification an enforcement issue?

12. Are any of the other conditions to the HSM exclusions operational requirements like the activity notification requirement, or are all of the other conditions conditions precedent to exclusion?

13. The generator-reclaimed HSM exclusions appear to exclude any HSM that is managed "under control of the generator," so long as the reclamation and management of the HSM occurs within the limitations of the conditions, and the independently reclaimed HSM exclusions similarly exclude HSM that is reclaimed by a third party, so long as the conditions are fulfilled. What types of HSM are not included within these exclusions, besides those for which the conditions cannot be fulfilled?

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[161] The exclusion of 40 C.F.R. 261.2(a)(17) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(17)) is based on "recovery," which is a way of referring to the valuable resources extracted or regenerated from secondary materials during reclamation. *See*, *e.g.*, 73 Fed. Reg. at 64701. Thus, a reference to "recovery" is a reference to "reclamation" in the exclusion.

14. USEPA has termed the basis for financial assurance as the "cost estimate." At one point USEPA called this the "removal cost estimate," but did so in passing. The regulated entity that is required to make the estimate is required to submit a plan for removal of all HSM residues from the site before cessation of operations at the site. Prior to the period prior to cessation of operations, the entity must maintain the "cost estimate" at the facility, which would subject the estimate to Agency inspection. USEPA is now considering imposition of a "closure plan" requirement, which would presumably make the basis for financial assurance a "closure cost estimate." Should the Board call the basis for financial assurance the "removal cost estimate" for added clarity? Should the Board expressly empower the Agency to require amendment of the estimate prior to the period before cessation of HSM reclamation at the facility?

15. Has the Board's change in language in Section 721.104(a)(24)(H)(ii) to "has submitted the required proofs of financial assurance as required by the applicable of Section 721.243(a)(1), (b)(1), (c)(1), (d)(1), (e)(3), and (g) and notification of financial assurance pursuant to 35 Ill. Adm. Code 720.142(a)(5)" from the language "notified the appropriate authorities that the financial assurance condition is satisfied per paragraph (a)(24)(vi)(F) of this section," which occurs in corresponding 40 C.F.R. 261.4(a)(24)(v)(B)(*2*) exceeded the Board's intent of clarifying the requirement investigate whether the reclamation facility and any intermediate facility has submitted notification of financial assurance, since the notice required by 40 C.F.R. 260.42(a)(5) (2009) (corresponding with 35 Ill. Adm. Code 720.142(a)(5)) is secondary to submission of the proofs or instruments of financial assurance required by 40 C.F.R 261.143(a)(1), (b)(1), (c)(1), (d)(1), (e)(3), and (g) (2009) (corresponding with 35 Ill. Adm. Code 721.243(a)(1), (b)(1), (c)(1), (d)(1), (e)(3), and (g))?

16. USEPA has established mandatory language for the various instruments for providing financial assurance in 40 C.F.R. 261.151 (corresponding with 35 Ill. Adm. Code 721.251). USEPA further allows use of state-authorized instruments subject to approval of USEPA pursuant to 40 C.F.R. 261.149 (corresponding with 35 Ill. Adm. Code 721.249). Is it desirable to alter the federally required language for financial assurance instruments to accommodate unique features based on Illinois law (if only citations to Illinois law, regulations, and State agencies)? If so, is the alternative chosen by the Board in 35 Ill. Adm. Code 721.251, of requiring the use of Agency-promulgated instruments based on 40 C.F.R. 261.151 altered as necessary to accommodate Illinois law, the optimum choice for ensuring that financial assurance instruments accommodate both the federal requirements and any unique features of Illinois law? If alteration is desirable, would it be preferable to require the Agency to file a general rulemaking proposal before the Board that would incorporate the mandatory language of financial assurance instruments within the Board's regulations? If alteration is desirable, is there an alternative way for requiring use of the federally mandated language as modified to accommodate Illinois law? If alteration is not desirable, is it possible to require use of the federally mandated language in 40 C.F.R. 261.151 without adverse effects arising through not accommodating unique features of Illinois law?

17. When a facility fails to "contain" the HSM, it becomes a hazardous waste T/S/D facility. The same appears to occur when the facility fails to fulfill any of the conditions to exclusion. The consequences to both the facility owner or operator and to the Agency are significant when this occurs, yet the regulations do not appear to deem a loss of HSM to the environment as "significant," and therefore a failure to "contain" the HSM, until the owner or operator has failed to recover the HSM and HSM residues. Is there some "bright-line" standard that the Board can apply to determine when a release is "significant" and the facility owner or operator has failed to "contain" the HSM?

18. With regard to the non-waste determination, the Board begins with the assumption that the appropriate procedure for making these determinations is the adjusted standard procedure. Is this correct?

19. With regard to the non-waste determination, the two factors for mandatory Board consideration relative to hazardous constituents content in the HSM, the fate of those constituents, and their potential impacts on human health and the environment, do not either prohibit release of the constituents or provide a standard as to what level of contaminants and impact is permissible. Would it be a correct assumption that when consideration of hazardous constituents content in the HSM, the fate of those constituents, and their potential impacts on human health and the environment indicate a potential impact that is even marginally greater than would be encountered by use of an "analogous raw material," the balancing disfavors granting the requested non-waste determination?

20. The Board has called one non-waste exclusion the "process-based" non-waste determination. The Board has called the other the "product-based" non-waste determination. Do these labels adequately typify the determination that is made? Are there any types of reclamation that are not either "process-based" or "product-based," for which a non-waste determination may not be available (besides reclamation that is not "legitimate recycling" and which fails on any of the conditions to exclusion or conditions for consideration)?

21. Is the Board correct in the assessment that a non-waste determination might be used to grant an exclusion and gain regulatory certainty where there is a question as to whether a self-implementing exclusion applies or whether the conditions of a self-implementing exclusion would be fulfilled?

22. Is the Board correct in the assessment that a non-waste determination might be used to grant an exclusion for HSM on terms that are different from those required under a self-implementing HSM reclamation-based exclusion? If so, would this extend to any of the pre-existing reclamation-based exclusions in 40 C.F.R. 261.4(a)(6) through (a)(22) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(6) through (a)(22)), or did USEPA intend to bar a grant of a non-waste determination to a facility covered by one of those pre-existing exclusions?

23. Is the Board correct in the assumption that a non-waste determination is available only where "reclamation" occurs, and not where "use or reuse" is involved?

24. Is there anything to be gained were the Board to combine the non-waste determination provision of 35 Ill. Adm. Code 720.134 (corresponding with 40 C.F.R. 260.134 (2009)) together with the existing solid waste determination provision of 35 Ill. Adm. Code 720.131 (corresponding with 40 C.F.R. 260.131 (2009)) and call both types of determinations "solid waste determinations"?

25. Is there any substantive purpose for or effect from USEPA's codification of the non-land-based generator-reclaimed HSM exclusion within the definition of solid waste, at 40 C.F.R. 261.2(a)(2)(ii) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B)), while USEPA codified the other three self-implementing reclamation-based HSM exclusions at 40 C.F.R. 261.4(a)(23), (a)(24), and (a)(25) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(23), (a)(24), and (a)(25))?

26. Is the Board correct in the assessment that the only practical difference between the non-land-based generator-reclaimed HSM exclusion, at 40 C.F.R. 261.2(a)(2)(ii) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(B)), as adopted by USEPA, and the land-based generator-reclaimed HSM exclusion, at 40 C.F.R. 261.4(a)(23) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)(23)) is that one applies to HSM that is managed in non-land-based units, and the other applies to HSM that is managed in land-based units?

27. Aside from the fact that USEPA intends that cessation of operations and removal of HSM residues from an intermediate or reclamation facility not become subject to the formalized closure requirements required for hazardous waste T/S/D facilities, what are the practical differences between "clean closure" of a T/S/D facility and "removing all hazardous secondary material residues" from an intermediate or reclamation facility? *See* 40 C.F.R. 261.143(h) (2009) (corresponding with 35 Ill. Adm. Code 721.243(h)(1)). Should the Board borrow some standard from elsewhere in the regulations to define when "removing all hazardous secondary material residues" is complete, or are such narrative descriptions in the rule, such as "all residues, contaminated containment systems (liners, etc), contaminated soils, subsoils, structures, and equipment will be removed or decontaminated" and "remove or decontaminate all hazardous secondary material residues and contaminated containment system components, equipment, structures, and soils . . . and criteria for determining the extent of decontamination necessary to protect human health and the environment," sufficient? *See* 40 C.F.R. 261.143(h)(2)(A) and (h)(2)(B)[162] (2009) (corresponding with 35 Ill. Adm. Code 721.243(h)(2)(A) and (h)(2)(B)).

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[162] There appears to be an error in the subsection designations of paragraph (h) of the federal provision. The third level of subsection numbering in the federal scheme is small roman numerals, and the fourth level is capital letters. USEPA numbered the third level in this instance using capital letters. What USEPA numbered as 40 C.F.R. 261.143(h)(2)(A), (h)(2)(B),

28. USEPA formally chose not to apply any of the five universal conditions on the non-waste determination, other than the "legitimacy rule." Thus, activity notification requirement, the prohibition against speculative accumulation, the "must be contained" requirement, and the exception of the specified materials (materials already excluded under 40 C.F.R. 261.4(a) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)); materials that fulfill the listing criteria for USEPA hazardous waste number K171 or K172; and spent lead-acid batteries that are regulated under specialized rules (as universal waste of under the battery recycling rule)) do not apply to HSM excluded by a non-waste determination. This raises a series of questions:

a. Does the adjusted standard procedure, which requires service of the petition on the Agency (35 Ill. Adm. Code 104.402), suffice for notice of HSM reclamation under an exclusion, or should the Board require formal filing of the USEPA Form 8700-12, "Notification of RCRA Subtitle C Activity"?

b. Is there any way in which "legitimate recycling" might occur in which the requirement that HSM "must be contained" is not fulfilled? Would adding the requirement that the HSM "must be contained" to the non-waste determination provision serve any purpose?

c. Speculative accumulation has fixed standards for the amount of secondary material that must be recycled and the time within which the recycling must occur. For a non-waste determination, the HSM must undergo "use" "within a reasonable period of time." USEPA purposefully chose not to apply the "speculative accumulation" standard to non-waste determinations because the conditions added to the determination could provide a limit based on the facts of the particular situation. USEPA stated also that the speculative accumulation limits could be applied. 73 Fed. Reg. at 64711. Should the Board add a provision that specifically imposes the limitation of "speculative accumulation" unless the petitioner can justify an alternative limitation? What did USEPA intend by the word "use" with regard to reclamation under a non-waste determination, that the HSM must proceed through the reclamation process to the point of producing a useful product, or that the ultimate product of the reclamation must undergo actual use?

d. Is either type of non-waste determination available with regard to the excepted materials (materials already excluded under 40 C.F.R. 261.4(a) (2009) (corresponding with 35 Ill. Adm. Code 721.104(a)); materials that fulfill the listing criteria for USEPA hazardous waste number K171 or K172; and spent lead-acid batteries that are regulated under specialized rules (as universal waste of under the battery recycling rule))? If so, can a non-waste determination impose standards that are inconsistent with or less stringent than the hazardous waste (or

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(h)(2)(C), and (h)(2)(D) should have appeared as 40 C.F.R. 261.143(h)(2)(i), (h)(2)(ii), (h)(2)(iii), and (h)(2)(iv).

universal waste) requirements that would otherwise apply to the materials? *I.e.*, can a non-waste determination provide a means for relief from requirements that would otherwise apply to the excepted material?

29. Is the Board correct in the conclusion that the non-waste determination could never be extended beyond the scope of reclamation-based recycling to "use or use"-based recycling?

30. Would the Board be correct in a conclusion that the process-based non-waste determination is possible only where the reclamation occur in a continuous industrial process, and that this would preclude availability where the process is intermittent or conducted on a batch basis? Need the process be an existing process intended to make a product, or would a process-based non-waste determination be available for a process newly devised for the purpose of extracting valuable elements from the HSM?

31. Would the Board be correct in a conclusion that the product-based non-waste determination is possible only where the HSM is indistinguishable in all relevant aspects from a product or intermediate, and that this would preclude availability of a product-based HSM exclusion where the HSM significantly differs in chemical or physical properties from the analogous commercial product for which it substitutes, or where there is no analogous product, or is it permissible to grant a product-based non-waste determination where the HSM differs, and some accommodation must be made in the reclamation process based on the differences?

32. Is it true that if not in most instances, at least in a significant portion of instances, the constituents of value in HSM are not the only constituents that would render the HSM hazardous waste if discarded? Assuming an instance where this is true, are the "toxics along for the ride" (*see* 73 Fed. Reg. at 64704), rendering the reclamation not "legitimate recycling," where the reclamation process extracts some constituents of value, and the hazardous constituents end up in the waste residues of the process (to be discarded as hazardous waste, if appropriate)? *I.e.*, is it permissible to consider treatment of the wastes produced by the reclamation process, or is the assumption that all constituents in the HSM end up in the product of reclamation required for consideration of the fate of hazardous constituents?

33. Where a significant amount of hazardous constituents end up in the product as a result of reclaiming HSM, rather than using an analogous raw material (process-based exclusion) or comparable product or intermediate (product-based exclusion), is it possible to support that the recycling is legitimate and that a non-waste determination should issue based on consideration of the impact of the hazardous constituents on human health and the environment?

34. USEPA has failed to authorize identical-in-substance rules updates for several years. *See* 40 C.F.R. 272.700 and 272.701 (2009); 61 Fed, Reg. 40520 (Aug. 5, 1996); 61 Fed. Reg. 10684 (Mar. 15, 1996); 59 Fed. Reg. 30525 (June 14, 1994); 57 Fed. Reg. 3731 (Jan. 31, 1992); 56 Fed. Reg. 13595 (Apr. 3, 1991); 55 Fed. Reg. 7320 (Mar. 1, 1990); 54 Fed.

Reg. 37649 (Sep. 12, 1989); 53 Fed. Reg. 126 (Jan. 5, 1988); 51 Fed. Reg. 3778 (Jan. 30, 1986); and 47 Fed. Reg. 21043 (May 17, 1982). Does this make it unlikely that USEPA will authorize Illinois to grant non-waste determinations within a reasonable time? If USEPA is not to authorize the non-waste determination procedure within a reasonable time, should the Board add or remove any features of the procedure as proposed to accommodate the fact that any grant of a non-waste determination by the Board will require further review and approval by USEPA?

35. The Board assumes that USEPA will grant non-waste determinations in the same manner that it currently issues "hazardous waste variances" ("solid waste determinations" in Illinois), that USEPA will not add a table to the regulations that indicates the non-waste determinations made, and that USEPA will not publish any notices in the *Federal Register* of the non-waste determinations that are proposed or adopted. This would require any person who has been granted a non-waste determination by USEPA will need to also obtain a determination from the Board. If USEPA adds a table of the non-waste determinations that it has granted to the *Code or Federal Regulations*, and that table adequately describes the excluded material and any conditions that USEPA has attached to the determination, the Board could adopt the non-waste determination for any Illinois facility on same terms and conditions. Is the Board correct in the conclusion that the identical-in-substance authority would not extend to adoption of a non-waste determination based on one adopted by USEPA and published in the *Federal Register* where USEPA does not codify the exclusion?

36. Is the Board correct in the interpretation that USEPA's use of the word "applicant" to describe the person who applies for a non-waste determination indicates that any person in the chain, from the HSM generator to the last reclamation facility to manage the material, can apply for a non-waste determination?

37. The federal rule requires a person granted a non-waste determination to "reapply" for "a formal determination that the [HSM] continues to meet the relevant criteria and therefore is not a solid waste" whenever the circumstances of the HSM or the reclamation change or when new facts about the HSM or reclamation come to light. 40 C.F.R. 260.33(c) (2009) (corresponding with 35 Ill. Adm. Code 720.133(c)). The Board has used the word "petition" in place of "apply," since the mode of determination is presumably the adjusted standard procedure. Is the Board correct that the person granted a non-waste determination must apply anew for an adjusted standard, or should the Board provide for a separate (adjusted standard) procedure for review of a non-waste determination in the event of new facts or a change in circumstances? Alternatively, would it be possible for the Board to reopen, review, and potentially revise or nullify the non-waste determination on the motion of the grantee or the Agency (*see* 35 Ill. Adm. Code 101.904)? Further, is the person originally granted the non-waste determination the only person who can seek review when later facts or circumstances change, or can any other person operating under the exclusion also petition for change?

38. Does revision of the title of Appendix Z to 35 Ill. Adm. Code 721 and the addition of the descriptive paragraph as a preamble to the table add clarity to the DSWR?

The Alternative Standards for Eligible Academic Entities—Sections 722.300 through 722.316

On December 1, 2008 (73 Fed. Reg. 72911), USEPA adopted alternative management standards to hazardous waste regulations for "unwanted material" generated by laboratories at an "eligible academic entity" that may be subject to alternative requirements to the general hazardous waste generator standards. An "eligible academic entity" is an accredited, degree-granting college or university or a non-profit research institute owned by or operating under a written affiliation agreement with a college or university. 40 C.F.R. 262.200 (2009) (corresponding with 35 Ill. Adm. Code 722.300). USEPA described the facilities to which the alternative standards do not apply as follows:

> [G]overnment facilities; commercial research and development (R&D) facilities; non-profit research institutes that are not owned by nor have a formal written affiliation agreement with a college or university; non-teaching hospitals; and teaching hospitals that are not owned by nor have a formal written affiliation agreement with a college or university. 73 Fed. Reg. at 72911.

The new rules add a new subpart to the hazardous waste generator standards. 40 C.F.R. 262, subpart K (2009) (corresponding with 35 Ill. Adm. Code 722.Subpart K). The new alternative requirements for eligible academic entities relate to accumulation of waste at the point of generation and the movement of that waste to a "central accumulation area" within the eligible academic entity's facility. They provide an alternative to the provisions for generation-point accumulation ("satellite accumulation") provided in the generally applicable generator accumulation standards. *See* 40 C.F.R. 262.34(c) (2009) (corresponding with 35 Ill. Adm. Code 722.134(c)). The alternative standards principally affect the mechanics and timing of the hazardous waste determination. Thus, the focus in the discussions that follow is on waste accumulation and the hazardous waste determination.

With regard to large quantity generators and small quantity generators,[163] the new alternative standards for eligible academic entities are alternative to two specific segments of the hazardous waste generator standards. The first is the point-of-generation accumulation requirements of 40 C.F.R. 262.34(c) (corresponding with 35 Ill. Adm. Code 722.134(c)), which are called the "satellite accumulation" requirements. The second is the hazardous waste determination requirements of 40 C.F.R. 262.11 (corresponding with 35 Ill. Adm. Code 722.111). 40 C.F.R. 262.201(a) (2009) (corresponding with 35 Ill. Adm. Code 722.301(a)).

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[163] A "small quantity generator" is one that generates less than 1,000 kilograms of hazardous waste in a calendar month. There is no similar definition of a "large quantity generator." 40 C.F.R. 260.10 (2009) (corresponding with 35 Ill. Adm. Code 720.110). By implication, a large quantity generator is one that generates 1,000 kilograms or more of hazardous waste or more in a calendar month.

The rules provide different alternative standards for eligible academic entities that are conditionally exempt small quantity generators (CESQGs).[164] 40 C.F.R. 262.201(b) (2009) (corresponding with 35 Ill. Adm. Code 722.301(b)). The generally applicable CESQG standards are themselves alternative standards to those that apply to large quantity generators and small quantity generators. The CESQG standards are essentially a conditioned exemption from regulation as hazardous waste. 40 C.F.R. 261.5(a) and (b) (2009) (corresponding with 35 Ill. Adm. Code 721.105(a) and (b)). Aside from a maximum quantity limit of 1,000 kilograms of hazardous waste that a CESQG may accumulate at its site at any one time,[165] the CESQG is required to undertake the hazardous waste determination, as provided by 40 C.F.R. 262.11 (corresponding with 35 Ill. Adm. Code 722.111), and restrictions apply as to the ultimate disposition of CESQG waste.[166] *See* 40 C.F.R. 261.5(f) and (g) (2009) (corresponding with 35 Ill. Adm. Code 721.105(f) and (g)).

Analysis of the alternative standards indicates some similarities with the existing satellite accumulation and CESQG requirements. Similarities include that under each of these rules the hazardous waste determination is delayed. Yet the alternative standards differ from the existing rules. Some of the differences are significant, especially those features of the alternative standards are unique and are not shared with the satellite accumulation and CESQG standards. The following discussion outlines the requirements of the alternative standards. The discussion is arranged topically, by substantive requirement. The discussion summarizes each alternative requirement, followed by comparison with any corresponding requirements of the generally applicable generator standards that would otherwise apply to these facilities.

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[164] A conditionally exempt small quantity generator is one that generates less than 100 kilograms of hazardous waste in a calendar month. 40 C.F.R. 261.5(a) (2009) (corresponding with 35 Ill. Adm. Code 721.105(a)). The limit is less than one kilogram if the waste is acute hazardous waste, although the limit is still 100 kilograms for debris, soil, or waste from cleanup of a spill of acute hazardous waste. 40 C.F.R. 261.5(e) and (f) (2009) (corresponding with 35 Ill. Adm. Code 721.105(e) and (f)).

[165] When a CESQG accumulates 1,000 kilograms at the site at one time, the accumulation time starts for the purposes of the appropriate generator accumulation time limit (before the generator is deemed a T/S/D facility), and the small quantity generator standards apply instead of the CESQG exemption. 40 C.F.R. 261.5(g)(2) (2009) (corresponding with 35 Ill. Adm. Code 721.105(g)(2)).

[166] None of these disposition-related conditions pertains to waste accumulation or the hazardous waste. For the convenience of the reader, however, those conditions are as follows: the CESQG must (1) treat or dispose of the exempted waste on-site, (2) send the waste to a recycling facility or facility that pre-treats the waste for recycling, (3) send the waste to a regulated hazardous waste T/S/D or universal waste management facility, or (4) send the waste for disposal in a regulated RCRA Subtitle D municipal solid waste or non-municipal solid waste landfill. 40 C.F.R. 261.5(f) and (g) (2009) (corresponding with 35 Ill. Adm. Code 721.105(f) and (g)).

One feature of the alternative standards is unique, which may be the single greatest incentive for a laboratory to opt into the alternative standards. The alternative standards include a "laboratory clean-out" provision. This provision allows the eligible academic entity to annually remove old, unwanted, and outdated chemicals from each laboratory. The unwanted materials collected during such a laboratory clean-out do not count towards the eligible academic entity's accumulation amount either for the purposes of the accumulation time under alternative standards or for purposes of determining generator status (*i.e.*, whether the eligible academic entity is a large quantity generator, a small quantity generator, or a conditionally exempt small quantity generator) for the month in which the clean-out occurs. 73 Fed. Reg. at 72915-17.

Notification Requirements: An eligible academic entity may opt into the alternative standards by submitting a notification using USEPA Form 8700-12, *Notification of RCRA Subtitle C Activity*. 40 C.F.R. 262.203 (2009) (corresponding with 35 Ill. Adm. Code 722.303). A facility may also opt out of the alternative standards by notification using USEPA Form 8700-12. 40 C.F.R. 262.204 (2009) (corresponding with 35 Ill. Adm. Code 722.304). As stated above, opting into the alternative standards renders the generally applicable satellite accumulation and hazardous waste determination requirements inapplicable to the eligible academic entity.[167]

The generally applicable hazardous waste generator standards require large quantity generators and small quantity generators to obtain a hazardous waste facility identification number. 40 C.F.R. 262.10(c) (2009) (corresponding with 35 Ill. Adm. Code 722.10(c)). A CESQG does not need to obtain a hazardous waste facility number unless the facility has accumulated 1,000 kilograms of hazardous waste; one kilogram of acute hazardous waste; or 100 kilograms of soils, waste, or debris from cleanup of a spill of acute hazardous waste at its facility at one time. 40 C.F.R. 261.5(b), (e), (f)(2), and (g)(2) (2009) (corresponding with 35 Ill. Adm. Code 721.105(b), (e), (f)(2), and (g)(2)). Obtaining the facility identification number requires notification of hazardous waste-related activity using USEPA Form 8700-12. 40 C.F.R. 262.12 (2009) (corresponding with 35 Ill. Adm. Code 722.112). Thus, notification using USEPA Form 8700-12 is required of an eligible academic facility without regard to whether the entity operates under the generally applicable hazardous waste generator standards or the alternative standards. The difference between the two types of notification lies in the activity designations entered on the form by the entity. *See* USEPA Form 8700-12, *Notification of RCRA Subtitle C Activity* (Nov. 2009).

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[167] The hazardous waste accumulation rule allows a generator to accumulate hazardous waste for maximum periods that vary according to circumstances without becoming subject to the T/S/D facility standards and the RCRA interim status or permit requirements. *See* 40 C.F.R. 261.5(f)(2) and 262.34 (2009) (corresponding with 35 Ill. Adm. Code 721.105(f)(2) and 722.134). The alternative standards further provide that an eligible academic entity will not need to fulfill the interim status requirements or obtain a RCRA T/S/D facility permit for accumulation of hazardous waste at its facility. 40 C.F.R. 262.205 (2009) (corresponding with 35 Ill. Adm. Code 722.305).

The notification forces the eligible academic entity to verifiably opt into the alternative standards and to verifiably opt out of them. The notification requirements create a "bright line" for determination whether an eligible academic entity is covered by the generally applicable standards or has opted into the alternative standards. 73 Fed. Reg. at 72927, 72947-48. The alternative standards apply to the eligible academic entities facility when the notification is submitted to USEPA or the applicable state. *See* 73 Fed. Reg. 72927-29.

Container Management and Labeling Requirements. The alternative standards include container management and labeling requirements. The eligible academic entity must ensure that the containers are maintained in good condition, compatible with their contents, and managed "to assure safe storage." 40 C.F.R. 262.206(b) (2009) (corresponding with 35 Ill. Adm. Code 722.306(b)). The eligible academic entity must also label the containers with the words "unwanted material" and "affix or attach" descriptive information to the containers that will identify the chemical composition of the unwanted material and sufficient information to help emergency responders determine whether the materials are solid or hazardous waste. 40 C.F.R. 262.206(a) (2009) (corresponding with 35 Ill. Adm. Code 722.306(a)). The eligible academic entity may use an alternative descriptive to "unwanted material," but that choice must be made formally by designation in a written Laboratory Management Plan. 40 C.F.R. 262.206(a) and 262.214(a)(1)(i) (2009) (corresponding with 35 Ill. Adm. Code 722.306(a) and 722.314(a)(1)(A)). The containers of unwanted material must also be kept closed, and managed in a way to minimize emissions of contents, except when they must be open, such as during procedures, when collecting materials, or when they need to be vented. 40 C.F.R. 262.206(b) and (b)(3) (2009) (corresponding with 35 Ill. Adm. Code 722.306(b) and (b)(3)).

The container management requirements in the alternative standards for eligible academic entities are variations on those imposed on large quantity generators and small quantity generators by the satellite accumulation requirements. The generally applicable accumulation requirements allow accumulation of similar quantities of "hazardous waste" at the point of generation. Such "satellite accumulation" requires compliance with segments of the T/S/D facility standards for use and management of containers. *See* 40 C.F.R. 262.34(c)(1) (2009) (corresponding with 35 Ill. Adm. Code 722.134(c)(1)). While not literally the same requirements, the satellite accumulation requirements are very similar on a practical level.

The first container management requirement of the alternative standards requires that eligible academic entities maintain the containers "in good condition," and that the eligible academic entity replace, over-pack, or repair damaged containers. 40 C.F.R. 262.207(b)(1) (2009) (corresponding with 35 Ill. Adm. Code 722.307(b)(1)). This is comparable with the first T/S/D facility container management requirement applicable to satellite accumulation. This provision requires that the facility owner or operator must transfer the contents from a container that is leaking into a container "in good condition" or "manage the waste in some other way that complies with the [T/S/D facility standards]." 40 C.F.R. 265.171 (2009) (corresponding with 35 Ill. Adm. Code 725.271). The substance of both provisions is the same: the facility owner or operator must use containers that are in good condition, and the owner or operator must take action to contain the contents whenever a container fails. One requirement expressly allows over-pack or repair of leaking containers, while the other allows any means that complies with

the standards. The differences in wording of the respective provisions do not appear to impose a different operational requirement.

The second container management requirement of the alternative standards requires that the containers must be "compatible with their contents to avoid reactions between the contents and the container," allowing the use of lined containers. 40 C.F.R. 262.207(b)(2) (2009) (corresponding with 35 Ill. Adm. Code 722.307(b)(2)). The generally applicable standard for satellite accumulation requires the use of "a container made of or lined with materials which will not react with, and are otherwise compatible with, the hazardous waste . . . ." 40 C.F.R. 265.172 (2009) (corresponding with 35 Ill. Adm. Code 725.272). As with the first requirement, minor differences in wording appear to make no difference in substantive effect.

The third container management requirement obliges the eligible academic entity to keep the containers closed at all times, except when performing any of the following actions: (1) adding, removing, or consolidating unwanted material; (2) using the container to collect waste, until the end of the procedure or work shift or until the container is full; or (3) venting the container as necessary to prevent excess pressure. 40 C.F.R. 262.207(b)(3) (2009) (corresponding with 35 Ill. Adm. Code 722.307(b)(3)). The T/S/D facility container management requirements imposed by the satellite accumulation requirements state that the containers "must always be closed during storage, except when it is necessary to add or remove waste." 40 C.F.R. 265.173(a) (2009) (corresponding with 35 Ill. Adm. Code 725.273(a)). The only apparent difference between the two requirements is that the T/S/D facility requirements applicable to satellite accumulation do not refer to venting of containers. The Board believes, however, that the generator would find venting a container necessary to maintaining a container "in good condition," as required under the first requirement discussed above (*see* 40 C.F.R. 262.207(b)(1) and 265.171 (2009) (corresponding with 35 Ill. Adm. Code 722.307(b)(1) and 725.271). As with the other two container management requirements, the Board presently sees no substantive difference between these provisions the resulting differences in language.[168]

The container labeling requirements of the alternative standards differ from the labeling requirements that apply to satellite accumulation. The Board, however, perceives the differences as minor. If anything, the informational aspects of the alternative standard labeling requirements are more detailed that those that apply to satellite accumulation.

Under the alternative standards, an eligible academic entity must mark the containers of accumulating waste with the words "unwanted material," or with other words of similar meaning that the entity has formally selected to use. 40 C.F.R. 262.206(a) and 262.214(a)(1)(i) (2009) (corresponding with 35 Ill. Adm. Code 722.306(a) and 722.314(a)(1)(A)). The satellite accumulation rule requires the generator to label the containers with the words "'hazardous

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[168] While making general observations with regard to the three container management requirements in the absence of concrete facts of a particular situation, the Board does not intend to declare that the facts of a particular situation can never give rise to differences in application between the two bodies of requirements. The Board cannot foresee those facts at this time from the general perspective of this opinion.

waste' or with other words that identify the contents." 40 C.F.R. 262.34(c)(1)(ii) (2009) (corresponding with 35 Ill. Adm. Code 722.134(c)(1)(B)). Since neither of these requirements specifies use of any particular name for the contents, and especially since neither requires or bars use of the words "hazardous waste," the Board sees no apparent difference between them. The difference arises in what is further required under the alternative standards.

The alternative standards require that specified additional information "must be affixed or attached to the container" together with the "unwanted material" (or alternative) label. 40 C.F.R. 262.206(a) (2009) (corresponding with 35 Ill. Adm. Code 722.306(a)). Additional, more detailed, information may be "affixed or attached," but must be "associated with the container." 40 C.F.R. 262.206(a)(2) (2009) (corresponding with 35 Ill. Adm. Code 722.306(a)(2)). The nature of information is mandated, yet USEPA does not specify the content, except by example. and USEPA encourages additional specified information as follows:

> (1) The following information must be affixed or attached to the container:
>
> * * *
>
> (ii) Sufficient information to alert emergency responders to the contents of the container. Examples of information that would be sufficient to alert emergency responders to the contents of the container include, but are not limited to:
>
> (A) The name of the chemical(s),
>
> (B) The type or class of chemical, such as organic solvents or halogenated organic solvents.
>
> (2) The following information may be affixed or attached to the container, but must at a minimum be associated with the container:
>
> (i) The date that the unwanted material first began accumulating in the container, and
>
> (ii) Information sufficient to allow a trained professional to properly identify whether an unwanted material is a solid and hazardous waste and to assign the proper hazardous waste code(s), pursuant to [40 C.F.R.] 262.11. Examples of information that would allow a trained professional to properly identify whether an unwanted material is a solid or hazardous waste include, but are not limited to:
>
> (A) The name and/or description of the chemical contents or composition of the unwanted material, or, if known, the product of the chemical reaction,
>
> (B) Whether the unwanted material has been used or is unused,

(C) A description of the manner in which the chemical was produced or processed, if applicable. 40 C.F.R. 262.206(a)(1), (a)(1)(ii), and (a)(2) (2009) (corresponding with 35 Ill. Adm. Code 722.306(a)(1), (a)(1)(B), and (a)(2)).

A generator operating under the satellite accumulation rule is not required to label the containers with this level of detail in the description of the contents until accumulation has concluded. When any generator ships hazardous waste off-site, detailed container labeling and marking requirements apply. These requirements apply to all generators, including those that accumulate waste under the satellite accumulation rule, eligible academic entities that operate under the alternative standards, and generators that accumulate waste by the generally applicable accumulation rule.

Before offering hazardous waste for transportation in containers, the generator must ensure that the containers are properly labeled and marked to comply with U.S. Department of Transportation (USDOT) hazardous materials transportation (HAZMAT) requirements. 40 C.F.R. 262.31 and 262.32(a) (2009) (corresponding with 35 Ill. Adm. Code 722.131 and 722.132(a)). The USDOT HAZMAT rules require labeling the container with the shipping classification of the contents. The shipping classification is a prescribed hazard-indicating term, such as "flammable liquid," "corrosive," "oxidizer," "poison," etc. *See* 49 C.F.R. 172.400 (2009). The HAZMAT marking rules require that the containers bear the "proper shipping name," "identification number," and "technical name" of the material. 49 C.F.R. 172.301(a) and (b) (2009). In addition, containers of hazardous waste must bear a prescribed warning label, which bears the words "Hazardous Waste," the USEPA hazardous waste number of the contents, and other information. 40 C.F.R. 262.32(b) (2009) (corresponding with 35 Ill. Adm. Code 72722.132(b)).

Thus, the alternative standards require an eligible academic entity to provide a level of information about the contents of containers of accumulating "unwanted material" that no other generator must provide during waste accumulation. In fact, the level of information required during accumulation results in description of the contents of containers to a degree that approaches that of the labeling and marking requirements for transportation of hazardous waste in interstate commerce.

The Personnel Training Requirements. The alternative standards require that an eligible academic entity must ensure that all personnel in the laboratory, including students, receive training that is appropriate to the individual's role in any aspect of generating and managing the unwanted materials being accumulated under the alternative standards. The alternative standards require training students and laboratory workers. The eligible academic entity must formalize methods for training individuals in the laboratory by any means, including classroom training, instruction during the experiments, on-the-job training, automated or on-line training modules, etc. 40 C.F.R. 262.207(b) (2009) (corresponding with 35 Ill. Adm. Code 722.307(b)). If the eligible academic entity is a large quantity generator, the eligible academic entity must document the training of all laboratory workers. 40 C.F.R. 262.207(c) (2009) (corresponding with 35 Ill. Adm. Code 722.307(c)).

There are two tiers to the training requirements. The first tier applies to all personnel in the laboratory. Under this tier, the eligible academic entity may tailor the training of various personnel to the role that each has in the laboratory. The rule describes this first tier of training as follows:

> Training for laboratory workers and students must be commensurate with their duties so they understand the requirements in this subpart and can implement them. 40 C.F.R. 262.207(a) (2009) (corresponding with 35 Ill. Adm. Code 722.307(a)).

Thus, the training of personnel under this tier can range from very cursory instruction for those who have limited roles in generation and placing unwanted materials into the containers to more extensive training for those who have a more active role in managing the materials.

The second tier can be viewed as an extension of the first, but the more extensive requirements for training warrant separate consideration of this training. The alternative requirements specify that certain functions may only be attended by a "trained professional." These functions are the following: (1) accompanying the unwanted material (or hazardous waste) from the laboratory to a centralized accumulation point and (2) making the hazardous waste determination. 40 C.F.R. 262.307(d). The rules define "trained professional" in terms of the training that this person receives. This training establishes the content of second tier training: (1) the extensive training requirements of the T/S/D facility standards, for large quantity generators; or (2) the narrative standard of the small quantity generator accumulation rule in the generally applicable generator standards. The definition of "trained professional" appears as follows:

> *Trained professional* means a person who has completed the applicable RCRA training requirements of [40 C.F.R.] 265.16 for large quantity generators, or is knowledgeable about normal operations and emergencies in accordance with [40 C.F.R.] 262.34(d)(5)(iii) for small quantity generators and conditionally exempt small quantity generators. A trained professional may be an employee of the eligible academic entity or may be a contractor or vendor who meets the requisite training requirements. 40 C.F.R. 262.200 (2009) (corresponding with 35 Ill. Adm. Code 722.300).

While the central comparison in this discussion is between the alternative standards for accumulation of waste with the satellite accumulation rule, other aspects of the generator accumulation rules come into the picture. The satellite accumulation rule does not itself include personnel training requirements. *See* 40 C.F.R. 262.34(c) (2009) (corresponding with 35 Ill. Adm. Code 722.134(c)). The satellite accumulation rule does provide, however, that the large quantity generator requirements apply when the volume of accumulated waste exceeds either the 55 gallons of hazardous waste or one quart of acute hazardous waste limit of the satellite accumulation rule. 40 C.F.R. 262.34(c)(2) (2009) (corresponding with 35 Ill. Adm. Code 722.134(c)(2)). The generally applicable generator accumulation rule requires that a large quantity generator train facility personnel pursuant to the requirements of the T/S/D facility standards. 40 C.F.R. 262.34(a) (2009) (corresponding with 35 Ill. Adm. Code 722.134(a)).

Thus, the generator must comply with the training requirements, but only for its waste-related activities that occur after satellite accumulation is complete. Since a large quantity generator is one that generates 1,000 kilograms of hazardous waste in a calendar month (*see* 40 C.F.R. 260.10 (definition of "small quantity generator") (2009) (corresponding with 35 Ill. Adm. Code 720.110), it is very likely that the personnel training requirements will apply to a large quantity generator.

In addition to the personnel training requirements imposed on a large quantity generator when satellite accumulation is complete, the small quantity generator provisions include personnel training requirements. 40 C.F.R. 262.34(d)(5)(iii) (2009) (corresponding with 35 Ill. Adm. Code 722.134(d)(5)(C)). While the satellite accumulation rule includes an express statement that the large quantity generator provisions do not apply during satellite accumulation, there is no similar statement with regard to the small quantity generator requirements. 40 C.F.R. 262.34(c)(1) (2009) (corresponding with 35 Ill. Adm. Code 722.134(c)(1)). Thus, the small quantity generator personnel training provision would apply during satellite accumulation.

The CESQG rule does not include personnel training requirements. *See* 40 C.F.R. 261.5 (2009) (corresponding with 35 Ill. Adm. Code 721.105). Since a CESQG is conditionally exempted from the hazardous waste provisions that would require personnel training (40 C.F.R. 261.5(b) (2009) (corresponding with 35 Ill. Adm. Code 721.105(b))), no generally applicable rule would require an eligible academic entity that is a CESQG to engage in personnel training. That would change, however, if the eligible academic entity opts into the alternative standards.

The T/S/D facility personnel training requirements that apply to a large quantity generator are summarized as follows:

- The training must teach personnel "to perform their duties in a way that ensures the facility's compliance with the requirements of this part." 40 C.F.R. 265.16(a)(1) (2009) (corresponding with 35 Ill. Adm. Code 725.116(a)(1)).

- The training "must include instruction which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed." 40 C.F.R. 265.16(a)(2) (2009) (corresponding with 35 Ill. Adm. Code 725.116(a)(2)).

- The training "must be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems . . . ." 40 C.F.R. 265.16(a)(3) (2009) (corresponding with 35 Ill. Adm. Code 725.116(a)(3)).

- The training "must be directed by a person trained in hazardous waste management procedures . . . ." 40 C.F.R. 265.16(a)(2) (2009) (corresponding with 35 Ill. Adm. Code 725.116(a)(2)).

The T/S/D facility personnel training requirements allow the regulated facility to fulfill the training requirements using occupational safety-related emergency response training that

meets these requirements. 40 C.F.R. 265.16(a)(4) (2009) (corresponding with 35 Ill. Adm. Code 725.116(a)(4)). Facility personnel must review the training annually. 40 C.F.R. 265.16(c) (2009) (corresponding with 35 Ill. Adm. Code 725.116(c)). Finally, the T/S/D facility standards require long-term retention of detailed records of personnel training.

The narrative standard of the small quantity generator provision requires training which ensures that "all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies." 40 C.F.R. 262.34(d)(5)(iii) (2009) (corresponding with 35 Ill. Adm. Code 722.134(d)(5)(C)). This provision is not as detailed as that which applies to large quantity generators. The elements of this narrative standard are the same basic elements as are required of large quantity generators under the T/S/D facility standards.

First, the small quantity generator must ensure that personnel are familiar with "proper waste handling." *Id.* This would require both handling that comports with the character of the waste, and handling that complies with applicable regulations. This is bolstered by the fact that one element required in the eligible academic entity's "Laboratory Management Plan" (discussed below at page 262), which must be available to all workers and students in the laboratory, is information ordinarily included in personnel training. *See* 40 C.F.R. 262.215(b)(7) (2009) (corresponding with 35 Ill. Adm. Code 722.315(b)(7)). These are substantially the same requirements that are imposed by the first two segments of the T/S/D facility personnel training requirements. *See* 40 C.F.R. 265.16(a)(1) and (a)(2) (2009) (corresponding with 35 Ill. Adm. Code 725.116(a)(1) and (a)(2)).

Second, the small quantity generator must ensure that personnel are familiar with "emergency procedures." 40 C.F.R. 262.34(d)(5)(iii) (2009) (corresponding with 35 Ill. Adm. Code 722.134(d)(5)(C)). This is equivalent to the third segment of the T/S/D facility personnel training requirements relating to implementation of the facility contingency plan and familiarization with "emergency procedures, emergency equipment, and emergency systems," as imposed on a large quantity generator. *See* 40 C.F.R. 265.16(a)(2) and (a)(3) (2009) (corresponding with 35 Ill. Adm. Code 725.116(a)(2) and (a)(3)).

Thus, despite the more detailed nature of the requirements for a large quantity generator, they essentially require training in the same substantive aspects of facility operations as do the requirements included in the small quantity generator accumulation provision. The two differences between the large quantity generator personnel training requirements and those that apply to small quantity generators lie in the mechanics of the training required. Both differences relate to the greater degree to which the personnel training for a large quantity generator is formalized. First, the large quantity generator provisions prescribe general qualifications for instructors. The person conducting the personnel training for a large quantity generator must have received training in "hazardous waste management procedures." 40 C.F.R. 265.16(a)(2) (2009) (corresponding with 35 Ill. Adm. Code 725.116(a)(2)). Second, the large quantity generator must document the personnel training. This documentation must include both the content of the training and the personnel who have received that training. 40 C.F.R. 265.16(c) (2009) (corresponding with 35 Ill. Adm. Code 725.116(c)).

Having examined the requirements of the generally applicable personnel training requirements for generators, the Board now compares those requirements with the personnel training requirements that would apply to an eligible academic entity under the alternative standards. In some regards the alternative standards are much less rigorous, yet in others the alternative standards impose a more significant burden of compliance.

The substantive content of the personnel training required under the alternative standards is far less rigorous than that required under either the T/S/D facility standards or the narrative standard for small quantity generators. That laboratory personnel receive training "commensurate with their duties" allows the eligible academic entity to tailor the training to the individuals' duties. This element is common with the personnel training requirements of the T/S/D facility standards ("teaches them to perform their duties") and the small quantity generator provision ("relevant to their responsibilities"). 40 C.F.R. 262.34(d)(5)(iii) and 265.16(a)(1) (2009) (corresponding with 35 Ill. Adm. Code 722.134(d)(5)(C) and 725.116(a)(1)).

The substantive content requirement that the training enable laboratory personnel to "understand the requirements in this subpart and . . . implement them" appears, at least on its surface, geared exclusively towards compliance with the regulations. 40 C.F.R. 262.207(a) (2009) (corresponding with 35 Ill. Adm. Code 722.307(a)). This is equivalent to the first segment of the T/S/D facility personnel training requirements, which requires training that ensures compliance. *See* 40 C.F.R. 265.16(a)(1) (2009) (corresponding with 35 Ill. Adm. Code 725.116(a)(1)). This does not directly require training in waste management procedures or in emergency procedures, systems, and equipment at the facility, in compliance with the second and third segments. *See* 40 C.F.R. 265.16(a)(2) and (a)(3) (2009) (corresponding with 35 Ill. Adm. Code 725.116(a)(2) and (a)(3)).

When examined in the broader context of the alternative standards, however, the requirement gains in substance. One important aspect of the alternative standards requires an eligible academic entity to assemble a "Laboratory Management Plan." 40 C.F.R. 262.215 (2009) (corresponding with 35 Ill. Adm. Code 722.315). Discussed more fully below (beginning on page 262), the Laboratory Management Plan "describes how the eligible academic entity will manage unwanted materials in compliance with this subpart." That Plan, which must include nine required "elements" in two "Parts" prescribed by the alternative standards, becomes the operating requirements for the laboratory, and the eligible academic entity must comply with the Plan. 40 C.F.R. 262.215 preamble (2009) (corresponding with 35 Ill. Adm. Code 722.315 preamble). The requirements for these nine elements are fairly detailed as to what each requires. *See* 40 C.F.R. 262.215(a) and (b) (2009) (corresponding with 35 Ill. Adm. Code 722.315(a) and (b)). Thus, training in the elements of the entity's Laboratory Management Plan would provide training in procedures the entity is implementing to achieve compliance with the alternative standards. The procedures for handling accumulating unwanted materials, for removing that material from the laboratory, for making the hazardous waste determination, and emergency procedures are among the nine required elements of the Plan. 40 C.F.R. 262.215(b) (2009) (corresponding with 35 Ill. Adm. Code 722.315(b)). The details required in the Laboratory Management Plan exceed those required by the T/S/D facility personnel training requirements.

With regard to the trained professional, the alternative standards require that this person has received the applicable of the following training:

> Large quantity generator: The trained professional "completed the applicable RCRA training requirements of [the T/S/D facility personnel training requirements]."
>
> Small quantity generator (including a CESQG): The trained professional "is knowledgeable about normal operations and emergencies in accordance with [the narrative standard of the small quantity generator accumulation rule]." 40 C.F.R. 262.201 (definition of "trained professional") (2009) (corresponding with 35 Ill. Adm. Code 722.301)

These are the same requirements that would apply to a large quantity generator or a small quantity generator under the generally applicable rules. This imposes the small quantity generator requirements on a CESQG, which would not otherwise apply.

The regulations imply that the trained professional receives more extensive training than do laboratory personnel and students generally. This is implied by the use of the word "trained professional" and by the fact that only a trained professional may make the hazardous waste determination or accompany unwanted material or hazardous waste from the laboratory. 40 C.F.R. 262.207(d) and 262.209 through 262.212 (2009) (corresponding with 35 Ill. Adm. Code 722.307(d) and 722.309 through 722.312). If true, and given the fact that the trained professional receives the training required by the generally applicable generator requirements, one could infer that laboratory workers and students receive less training than is required by those standards.

But remembering that all training under both the generally applicable generator standards and the alternative standards for eligible academic entities is gauged to the role that the individual plays in managing waste, the Board does not believe that a different standard for personnel training applies to laboratory workers and students. The differences in the level of training received by these individuals and that received by a "trained professional" is based on the respective roles that each plays in generating and managing the unwanted material in the laboratory and removing the accumulated unwanted material from the laboratory. Thus, the standard for personnel training is the same for both. Further, the existence of the Laboratory Management Plan makes the personnel training under the alternative standards more formalized and detailed than that which applies under either of the T/S/D facility standards and the small quantity generator accumulation rule.

Removing Unwanted Material from the Laboratory and Making the Hazardous Waste Determination. The alternative standards for eligible academic entities significantly affect the mechanics and timing for making the hazardous waste determination and for moving waste from the laboratory to an on-site "central accumulation area." Three operational requirements are unique to the alternative standards. One requires that a "trained professional" accompany movements of "unwanted material" or hazardous waste from the laboratory. The second requires that a trained professional must make the hazardous waste determination. A third allows laboratories to postpone the hazardous waste determination until the unwanted

material must be moved from the laboratory, at which time the laboratory may make the determination in the laboratory before the movement or after movement to an on-site "central accumulation area" or on-site permitted or interim status hazardous waste T/S/D facility.

Operation under the alternative standards can affect the time allowed for the laboratory to accumulate "unwanted material" on-site. For a laboratory that generates 55 gallons of hazardous waste (one quart of acute hazardous waste) in less than six months, the alternative standards will not significantly change the open-ended accumulation time allowed by the satellite accumulation rule. For a generator that generates these threshold volumes of waste in more than six months, the alternative standards will shorten the accumulation time. The changes wrought by the alternative standards are considered in the following discussion.

Under the generally applicable rules, hazardous waste accumulation begins when the waste is generated. *See* 73 Fed. Reg. at 72914. Waste is generated at the point of generation under the generally applicable rules. *See* 40 C.F.R. 262.34(c)(1) (2009) (corresponding with 35 Ill. Adm. Code 722.134(c)(1)). Under the alternative standards, with the delay allowed in making the hazardous waste determination, waste can be generated at two separate times, depending on the demands of the particular context. Waste generation begins when accumulation starts for the purposes of some of the requirements, yet the generated material remains "unwanted material," and does not become waste, until the trained professional makes the hazardous waste determination around the time the material is removed from the laboratory. *See* 40 C.F.R. 262.206 and 262.209 (2009) (corresponding with 35 Ill. Adm. Code 722.306 and 722.309).

The hazardous waste regulations do not define "generate" or "point of generation," but definition of the terms is possible by inference from the definition of "generator." *See* 40 C.F.R. 260.10 (2009) (corresponding with 35 Ill. Adm. Code 720.110). Other provisions relating to generation aid in deriving definitions for these terms.

The definition of "generator" provides as follows:

> *Generator* means any person, by site, whose act or process produces hazardous waste identified or listed in [40 C.F.R. 261] or whose act first causes a hazardous waste to become subject to regulation. 40 C.F.R. 260.10 (2009) (corresponding with 35 Ill. Adm. Code 720.110).

Based on the fact that waste is generated when it first becomes subject to regulation, a plain reading of "generate" would mean the event that "first causes a hazardous waste to become subject to regulation," and "point-of-generation" would mean the place where this occurred.

The hazardous waste identification rules provide for definition of materials as "solid waste" first, followed by definition as "hazardous waste." Ordinarily, a material becomes subject to regulation when it becomes solid waste, and the formalized determination whether the solid waste is hazardous waste does not affect the timing of when the waste was generated. This is why the regulations require marking the date upon which accumulation begins on the container in which the waste is placed. *See* 40 C.F.R. 262.34(a)(2) and (d)(4) (2009)

(corresponding with 35 Ill. Adm. Code 722.134(a)(2) and (d)(4)). This timing is important for the purpose of determining whether a generator is engaged in "accumulation" or "storage" of hazardous waste.[169] *See* 40 C.F.R. 262.34(b) and (f) (2009) (corresponding with 35 Ill. Adm. Code 722.134(b) and (f)).

The definition of solid waste, extensively considered in the preceding discussions of the 2008 DSWR amendments (beginning at page 16 above), provides that a material becomes solid waste when it becomes "discarded material." Among the modes of becoming "discarded material" are the material becoming "abandoned" or when the material is "recycled" in specified ways. 40 C.F.R. 261.2(a)(2)(i), (a)(2)(i)(A), and (a)(2)(i)(B) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(2)(A), (a)(2)(A)(i), and (a)(2)(A)(ii)). Each of these subsidiary terms are defined, in turn, by the definition. A material that is "abandoned" has been "disposed of," "burned or incinerated," or "accumulated, stored, or treated . . . before or in lieu of being abandoned by being disposed of, burned, or incinerated." 40 C.F.R. 261.2(b) (2009) (corresponding with 35 Ill. Adm. Code 721.102(b)). A "recycled" material becomes solid waste when the material is "used in a manner constituting disposal," "burned for energy recovery," or "accumulated, stored, or treated before recycling." 40 C.F.R. 261.2(c), (c)(1), and (c)(2) (2009) (corresponding with 35 Ill. Adm. Code 721.102(c), (c)(1), and (c)(2)).

Under this analysis, a material ordinarily becomes waste upon becoming "discarded material"—*i.e.*, when accumulation, storage, or treatment of the material begins and the material is destined to become "disposed of," "burned for energy recovery or incinerated," "used in a manner constituting disposal," etc. Such accumulation would ordinarily begin when the material has exited the process from which it was produced. Thus, a material's exiting the generation process to become part of the accumulation process[170] would be the event that "first causes a

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[169] The alternative standards also require placing the date that accumulation began on containers of "unwanted material." 40 C.F.R. 262.206(a)(2)(i) (2009) (corresponding with 35 Ill. Adm. Code 722.306(a)(2)(A)). The purpose here is not to determine whether the laboratory has exceeded allowable accumulation time, so that the laboratory has engaged in hazardous waste storage. Instead, the date is marked to assure compliance with the timing of removal of unwanted materials from the laboratory. 40 C.F.R. 262.208(a), (d)(1)(i), and (d)(2)(i) (2009) (corresponding with 35 Ill. Adm. Code 722.308(a), (d)(1)(A), and (d)(2)(A)). The date of the hazardous waste determination is used to determine the volume of hazardous waste generated and the permissible accumulation time. 40 C.F.R. 262.210(b)(3), 262.211(c), 262.212(c), and 262.213(c) (2009) (corresponding with 35 Ill. Adm. Code 722.310(b)(3), 722.311(c), 722.312(c), and 722.313(c)).

[170] While a material remains in the process (including raw material or product storage or transportation) that generates it, and the process remains in operation, the material is not waste until either (1) the material exits the process, or (2) the process (including raw material or product storage or transportation) has ceased operation. While material remains in the process and the process remains in operation, the material is not waste. The material that remains after cessation of the operation becomes waste that becomes subject to regulation. The rule actually uses the words, "hazardous waste," to describe the material that remains in raw material or

hazardous waste to become subject to regulation." *See* 40 C.F.R. 260.10 (2009) (definition of "generator") (corresponding with 35 Ill. Adm. Code 720.110).

Once the waste is generated, the generator's immediate compliance with the hazardous waste management standards is generally required. The generator accumulation rule allows a generator to accumulate hazardous waste at its facility for specified maximum periods of 90, 180, or 270 days, depending on circumstances, without complying with the T/S/D facility standards and without either a RCRA permit or interim status, so long as the generator fulfills specified conditions relative to managing the waste, training personnel, labeling containers, etc. 40 C.F.R. 262.34(a), (d), or (e) (2009) (corresponding with 35 Ill. Adm. Code 722.134(a), (d), or (e)). If the generator exceeds the maximum time allowed, or if the generator fails to fulfill the conditions for accumulation without T/S/D facility status, the generator facility becomes a T/S/D facility that is immediately subject to the T/S/D facility standards. 40 C.F.R. 262.34(b) or (f) (2009) (corresponding with 35 Ill. Adm. Code 722.134(b) or (f)).

Thus, the generator accumulation rule is an exception to the requirement that any person engaging in "storage" of hazardous waste must comply with the T/S/D facility standards. 40 C.F.R. 264.1(b) and (g)(3) and 265.1(b) and (c)(7) (2009) (corresponding with 35 Ill. Adm. Code 724.101(b) and (g)(3) and 725.101(b) and (c)(7)). Further, the area of a generator's facility where the hazardous waste is accumulated must comply with the generator accumulation standards during the period of accumulation and until the waste is removed for placement in a T/S/D facility.

The "satellite accumulation rule" is a significant exception to the generator accumulation rule. The satellite accumulation rule extends the time before a generator is deemed to be storing hazardous waste. The satellite accumulation rule allows accumulation of waste up to a specified maximum volume at the point of generation. When the amount of waste accumulated at the point of generation (the satellite accumulation point) exceeds 55 gallons of hazardous waste (or one quart of acute hazardous waste), the generator must mark the date that the exceedance occurred on the container of waste and remove the hazardous waste from the satellite accumulation point within a short time. 40 C.F.R. 262.34(c)(2) (2009) (corresponding with 35 Ill. Adm. Code 722.134(c)(2)). Although the satellite accumulation rule designates a material as "hazardous waste" while satellite accumulation is ongoing[171] (40 C.F.R. 262.34(c)(1)(ii) (2009) (corresponding with 35 Ill. Adm. Code 722.134(c)(1)(B))), the accumulation start date begins when the container is removed from the satellite accumulation point, a specified short time after

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product storage or transportation after cessation of operation, yet the rule exempts that material from regulation for 90 days after cessation of operation, unless the material is contained in a surface impoundment. 40 C.F.R. 261.4(c) (2009) (corresponding with 35 Ill. Adm. Code 721.104(c)). *Id*.

[171] Further, the Board's understanding of the federal rules is that the generator must make at least a presumptive hazardous waste determination upon generation when accumulation begins. *See* 40 C.F.R. 262.11(c) (2009) (corresponding with 35 Ill. Adm. Code 722.111(c)); 73 Fed. Reg. at 72914.

the exceedance occurred. The time up to the specified short time allowed[172] before transfer actually occurs does not count against the generator accumulation time. Thus, the generator accumulation time[173] is extended by as long as the generator took to transfer the waste, up to the specified short time. *See* Memorandum, re: Clarification of Section 262.34(a) Accumulation Time for Excess of 55-Gallon Limit in Satellite Accumulation Areas, from Emily Roth, OSW, RCRA/Superfund Hotline Monthly Summary, October 1990, RCRA Online number 13410, RPPC number 9453.1990(03) (available online at http://www.epa.gov/epawaste/inforesources/online/index.htm); Memorandum, re: Satellite Accumulation, from Chaz Miller, RCRA/Superfund Hotline Monthly Summary, December 1985, USEPA publication number 530-SW-85-036L, RCRA Online number 12503, RPPC number 9453.1985(06) (available online at http://www.epa.gov/epawaste/inforesources/online/index.htm).

The movement of the hazardous waste from the point of generation begins the accumulation time. The period of satellite accumulation does not count against that generator accumulation period. Further, the satellite accumulation rule has a few aspects that one would not immediately anticipate. First, the rule imposes no time limit on satellite accumulation. *See* 40 C.F.R. 262.34(c) (2009) (corresponding with 35 Ill. Adm. Code 722.134(c)). Accumulation can continue indefinitely until the amount at the satellite accumulation area exceeds the applicable volume limit. *See* Memorandum, re: Frequently Asked Questions about Satellite Accumulation Areas, from Robert Springer, Director, Office of Solid Waste, to RCRA Directors, USEPA Regions 1-10, March 17, 2004, RCRA Online number 14703 (available online at http://www.epa.gov/epawaste/inforesources/online/index.htm) ("Springer Memo") at pp. 3-4. Second, the generator needs only be concerned about the amount of waste at the satellite accumulation area that is accumulated "in excess of the amounts listed [as the volume limits for hazardous waste and acute hazardous waste]," not to the entire volume of waste accumulated. 40 C.F.R. 262.34(c)(2) (2009) (corresponding with 35 Ill. Adm. Code 722.134(c)(2)); *see* Springer Memo at p. 5.

Thus, conceivably, the generator could lawfully retain some portion of its hazardous waste at the satellite accumulation point indefinitely. The generator could also generate indefinite volumes of hazardous waste without being required to comply with the generator accumulation standards, so long as the waste is consistently removed directly from the satellite accumulation point to an off-site T/S/D facility before the amount exceeds the appropriate volume limit. Third, multiple satellite accumulation areas could exist at a facility (a satellite accumulation point is the point of generation, where the waste exits the process). Fourth, a

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[172] The satellite accumulation rule allows up to three days from the date the volume exceeded the limit for the generator to complete the transfer of hazardous waste from the point-of-generation accumulation area. 40 C.F.R. 262.32(c)(2) (2009) (corresponding with 35 Ill. Adm. Code 722.134(c)(2)).

[173] This is the applicable of 90, 180, or 270days allowed for generator accumulation for a large quantity generator, a small quantity generator, or a small quantity generator that must ship its hazardous waste more than 200 miles to an off-site T/S/D facility, respectively. *See* 40 C.F.R. 626.34(a), (d), and (e) (2009) (corresponding with 35 Ill. Adm. Code 722.134(a), (d), and (e)).

process could have multiple points of generation, and a facility could have multiple processes. The generator is allowed to accumulate up to 55 gallons of hazardous waste (or one quart of acute hazardous waste) at any single satellite accumulation area, so that a facility could accumulate larger volumes of hazardous waste at a single facility that has multiple satellite accumulation areas. Springer Memo at p. 7; Letter, re: Satellite Accumulation Clarification, from Sylvia K. Lowrance, Director, Office of Solid Waste, to T.R. Kirk, Environmental Scientist, Fehr Graham & Assoc. (Aug. 2, 1989), RCRA Online number 11452, RPPC number 9453.1989(08) (available from RCRA Online, at http://www.epa.gov/epawaste/inforesources/online/index.htm).

Under a close reading of the rules, removal of the hazardous waste from the satellite accumulation area is not the event that first causes a hazardous waste to become subject to regulation. USEPA's use of the words "hazardous waste" to describe the material indicates that USEPA recognizes that the accumulating material is hazardous waste during satellite accumulation—as soon as the material exits the generating process.[174]

Thus, under the satellite accumulation rule, the hazardous waste is generated upon exiting the process that generated the waste. The satellite accumulation rule allows two stages of accumulation—both of which involve accumulation of hazardous waste. The material is deemed hazardous waste when generated. During the satellite accumulation stage, minimal waste management conditions apply to the waste under accumulation. *See* 40 C.F.R. 262.34(c)(1) (2009) (corresponding with 35 Ill. Adm. Code 722.134(c)(1)). When the generator removes that waste from the satellite accumulation area, whether because the volume of waste exceeded the limit or not, the second stage of accumulation begins. This second stage is the generally applicable "generator accumulation" stage. The generator accumulation stage requires prompt compliance with the generator accumulation standards, compliance with the T/S/D facility standards, or off-site transfer of the waste to a permitted or interim status T/S/D facility.[175] 40

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[174] The hazardous waste determination provision does not specifically identify when and where the generator must determine whether the material is "hazardous waste." *See* 40 C.F.R. 262.11 (2009) (corresponding with 35 Ill. Adm. Code 722.111). The various provisions of the generator accumulation rule, such as those that pertain to containment of the waste and marking and labeling of containers during accumulation, require compliance from the point of generation. *E.g.*, 40 C.F.R. 262.34(a), (c), (d), and (e) (2009) (corresponding with 35 Ill. Adm. Code 722.134(a), (c), (d), and (e)). This would indicate that the hazardous waste determination is effective as of the point of generation, even if the determination is made at a later time and the waste has been moved elsewhere.

[175] The rule allows the generator three days to comply after exceeding the maximum volume for satellite accumulation. 40 C.F.R. 262.34(c)(2) (2009) (corresponding with 35 Ill. Adm. Code 722.134(c)(2)). If the generator moves the waste from the satellite accumulation point, the three days might not apply, and immediate compliance may be necessary. If, on the other hand, the generator immediately sends the hazardous waste to an off-site T/S/D facility without engaging in further accumulation (by storing the waste on-site until the waste is sent), the generator accumulation provisions do apply, and the generator can avoid the second stage of accumulation.

C.F.R. 262.34(a) and (c)(2) (2009) (corresponding with 35 Ill. Adm. Code 722.134(a) and (c)(2)).

The alternative standards for eligible academic entities establish a second exception to the generator accumulation requirements. In fact, the alternative standards stand as an alternative to the satellite accumulation rule when an eligible academic entity opts into the alternative standards. 40 C.F.R. 262.201(a) (2009) (corresponding with 35 Ill. Adm. Code 722.301(a)). The alternative standards for waste accumulation are similar to the satellite accumulation rule, but differ in several important regards.

Under the laboratory accumulation rule, the generator accumulates "unwanted material" in the laboratory at the point of generation. *Id*. The material is not determined or designated "hazardous waste" during accumulation in the laboratory. The generator is required to schedule regular removals of unwanted material from the laboratory. The generator has two options with regard to scheduling the removals. The generator may choose to schedule the removals six months after the date when accumulation begins for a particular container of unwanted material, or the generator may schedule regular removals at regular intervals that do not exceed six months. 40 C.F.R. 208(a) (2009) (corresponding with 35 Ill. Adm. Code 722.308(a)).

The generator is further constrained in laboratory accumulation. The generator may accumulate only up to 55 gallons of unwanted material (or up to one quart of "acute hazardous unwanted material") in the laboratory. 40 C.F.R. 262.208(d) (2009) (corresponding with 35 Ill. Adm. Code 722.308(d)). When the volume of unwanted material exceeds the volume limit, the generator must mark the date that the exceedance occurred on the container of unwanted material. 40 C.F.R. 262.209(d)(1)(i) and (d)(2)(i) (2009) (corresponding with 35 Ill. Adm. Code 722.309(d)(1)(A) and (d)(2)(A)). The generator must then remove the accumulated unwanted material from the laboratory within a short time.[176] The eligible academic entity must then remove all of the accumulated unwanted material from the laboratory within a specified short time.[177] 40 C.F.R. 262.208(d) (2009) (corresponding with 35 Ill. Adm. Code 722.308(d)).

The removal of unwanted material from the laboratory is also more formalized than the removal of hazardous waste from a point of generation under the satellite accumulation rule. A "trained professional" must accompany the removal. 40 C.F.R. 262.207(d)(1) and 262.210(c), 262.211(a), or 262.212(a) (2009) (corresponding with 35 Ill. Adm. Code 722.307(d)(1), 722.310(c), 722.311(a), and 722.312(a)). The removal must occur as provided in the entity's

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[176] The alternative standards allow up to 10 days from the date the volume exceeded the limit for the generator to complete the transfer of hazardous waste from the laboratory. 40 C.F.R. 262.209(d)(1), (d)(1)(ii), (d)(2), and (d)(2)(ii) (2009) (corresponding with 35 Ill. Adm. Code 722.309(d)(1), (d)(1)(B), (d)(2), and (d)(2)(B)).

[177] The eligible academic entity is allowed until the later of 10 days after exceeding the volume limit or the next scheduled removal to remove the unwanted material from the laboratory. 40 C.F.R. 262.209(d)(1)(ii) and (d)(2)(ii) (2009) (corresponding with 35 Ill. Adm. Code 722.309(d)(1)(B) and (d)(2)(B)).

Laboratory Management Plan. 40 C.F.R. 262.215(b)(3) and (b)(4) (2009) (corresponding with 35 Ill. Adm. Code 722.315(b)(3) and (b)(4)). When removed from the laboratory, the unwanted material must go to either an on-site "central accumulation area" or an on-site permitted or interim status T/S/D facility within a short, specified time. 40 C.F.R. 262.209(a)(2) and (a)(3), 262.210(d)(1), and 262.211(b) or 262.212(b) (2009) (corresponding with 35 Ill. Adm. Code 722.309(a)(2) and (a)(3), 722.310(d)(1), 722.311(b), and 722.312(b)). An on-site central accumulation area must comply with the appropriate of the large quantity generator or small quantity generator accumulation requirements of the generator accumulation rule. 40 C.F.R. 262.200 (2009) (corresponding with 35 Ill. Adm. Code 722.300).

Thus, like hazardous waste accumulated under the satellite accumulation rule, the alternative standards for eligible academic entities provide two stages of accumulation. The first stage is the accumulation that occurs in the laboratory. Unlike the satellite accumulation rule, the alternative standards limit the time allowed for this first stage of accumulation. The rule requires the eligible academic entity to mark the start date for this first stage accumulation on the containers of unwanted material. 40 C.F.R. 262.206(a)(2)(i) (2009) (corresponding with 35 Ill. Adm. Code 722.306(a)(2)(A)). The second stage of accumulation begins when the unwanted material is removed from the laboratory to the central accumulation point. 40 C.F.R. 262.210(e), 262.211(c), and 262.212(c) (2009) (corresponding with 35 Ill. Adm. Code 722.310(e), 722.311(c), and 722.312(c)). The alternative standards call the place where second-stage accumulation (generator accumulation) occurs the "central accumulation area." The central accumulation area is subject to the generally applicable generator accumulation rule, since the alternative standards govern only the first-stage accumulation in the laboratory. *See* 40 C.F.R. 262.200 (2009) (corresponding with 35 Ill. Adm. Code 722.300).

The alternative standards also provide an alternative to a second generally applicable generator standard: the hazardous waste determination requirement. 40 C.F.R. 262.201(a) (2009) (corresponding with 35 Ill. Adm. Code 722.301(a)). The waste undergoing first-stage accumulation in the laboratory is not "hazardous waste." Instead, the alternative standards designate the waste as "unwanted material." The standards allow the eligible academic entity to choose and use an alternative equivalent name for the material during laboratory accumulation. 40 C.F.R. 262.200 (2009) (corresponding with 35 Ill. Adm. Code 722.300). The eligible academic entity can defer the hazardous waste determination until the unwanted material leaves or has left the laboratory.

The alternative standards require the making of the hazardous waste determination at any of three locations, depending on the eligible academic entity's generator status. A large quantity generator or a small quantity generator may make the hazardous waste determination in any of three locations chosen by the eligible academic entity, within the times given: (1) in the laboratory, before the unwanted material leaves the laboratory; (2) at a centralized on-site accumulation point, within four days after removal from the laboratory; or (3) at an on-site T/S/D facility, within four days after the removal from the laboratory. 40 C.F.R. 262.209(a) (2009) (corresponding with 35 Ill. Adm. Code 722.309(a)); *see* 40 C.F.R. 262.210 through 262.212 (2009) (corresponding with 35 Ill. Adm. Code 722.310 through 722.312). An eligible academic entity that is a CESQG must make the hazardous waste determination before the unwanted material leaves the laboratory. 40 C.F.R. 262.209(b) (2009) (corresponding with 35

Ill. Adm. Code 722.309(b)). The one restriction that USEPA imposes on the hazardous waste determination is the following:

> [T]he hazardous waste determination must be made onsite before the unwanted material can be treated at an on-site [central accumulation area], or treated or disposed at an on-site [T/S/D facility], or sent offsite. 73 Fed. Reg. at 72938.

As considered early in this segment of discussion, a waste is "generated" when the material is removed from the process that generated it. For hazardous waste under the satellite accumulation rule, the waste is generated and designated as "hazardous waste" when it exits the process and is placed in containers for accumulation. Further, under the satellite accumulation rule, the generator must make the hazardous waste determination sometime between when the waste leaves the process and when the waste leaves satellite accumulation at the point-of-generation. USEPA stated:

> The Agency has consistently interpreted the existing generator regulations to require that the hazardous waste determination be made at the point of generation. 73 Fed. Reg. at 72938.

Since there is no specific requirement as to any precise point in satellite accumulation that this must occur, the latest permissible time for the hazardous waste determination would be the latest possible time before the "unwanted material" is removed from the satellite accumulation area.[178] *See* 40 C.F.R. 262.11 (2009) (corresponding with 35 Ill. Adm. Code 722.111). By allowing the generator to make the hazardous waste determination after the transfer of accumulated "unwanted material" from the laboratory, the alternative standards offer a delay in the time allowed to make the determination.

The alternative standards changed the timing of the hazardous waste determination, so that hazardous waste generation occurs separately from the hazardous waste determination in both time and location. But this is for the purposes of accumulation and hazardous waste determination only. USEPA still considers any hazardous waste present in "unwanted material" accumulated in a laboratory to have been generated at the point of generation and at the time the material exited the process that produced the waste. USEPA stated as follows in this regard:

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[178] USEPA stated that the rules have always required the hazardous waste determination at the time the waste is generated. 73 Fed. Reg. at 72938. The regulations, however, do not strictly require marking the accumulating material as "hazardous waste" until the time for off-site transfer of the material. *See* 40 C.F.R. 262.11 (2009) (corresponding with 35 Ill. Adm. Code 722.111); *compare* 40 C.F.R. 262.32(b) and 262.34(c)(1)(ii) (2009) *with* 40 C.F.R. 262.34(a)(3) (2009) (corresponding with 35 Ill. Adm. Code 722.132(b), 722.134(c)(1)(B), and 722.134(a)(3), respectively). This leaves some room for flexibility in the hazardous waste determination. The situation changes, though, when the material leaves satellite accumulation. At that time the generator must clearly mark the accumulated material "hazardous waste," whether the material is sent to an on-site accumulation area or shipped off-site to a T/S/D facility. 40 C.F.R. 262.32(b) and 262.34(a)(3) (2009) (corresponding with 35 Ill. Adm. Code 722.132(b) and 722.134(a)(3)).

> [US]EPA continues to stress that today's final rule does not alter or move the point of generation of any hazardous waste, but merely allows the hazardous waste determination to be made at an on-site [central accumulation area] or on-site [T/S/D facility]; or in the laboratory, but at a point in time after the initial generation of the waste. The point of generation of the hazardous waste continues to be the location and time at which the hazardous waste is first generated. 73 Fed. Reg. at 72916.

USEPA stated that the dual purposes for this delay are (1) to allow the eligible academic entity more flexibility in making the determination and (2) ensure that a "trained professional" make the determination, rather than requiring students or less experienced staff to make the determination at the point of generation. 73 Fed. Reg. at 72938. USEPA appears to have further fostered recycling of "unwanted material" in the laboratory. Under the alternative standards, an eligible academic entity may remove "unwanted materials" from the laboratory and segregate and separate useful materials from any waste among the materials for further use or reuse. 73 Fed. Reg. at 72914, 39; *see* 40 C.F.R. 262.215 (2009) (corresponding with 35 Ill. Adm. Code 722.315). USEPA stated as follows in this regard:

> It has always been the case under existing RCRA regulations, and continues to be the case under Subpart K, that chemicals that are fit for continued use are not solid or hazardous wastes (see [40 C.F.R.] 261.2(e)(1)) and can be transferred between [satellite accumulation areas], laboratories, and chemical stockrooms. Under [the alternative standards], we realize that some chemicals that are initially identified as unwanted materials will turn out not to be solid or hazardous wastes. If, for example, an unwanted material is brought to an on-site [central accumulation area] or on-site [T/S/D facility] for a hazardous waste determination, and it is determined that such unwanted material can be reused, then it is not a solid or hazardous waste and is not subject to Subpart K or the Subtitle C hazardous waste regulations, once the determination is made. That is, if a chemical is initially labeled as an unwanted material and then it is subsequently discovered that it can continue to be used, the chemical can be returned to a laboratory or chemical stockroom for redistribution. [US]EPA selected the term "unwanted material" over "laboratory waste," in part to indicate that the material may still be useable. 73 Fed. Reg. at 72939.

In this passage, USEPA specifically mentions the possibility of "use" and "reuse" of "unwanted materials" generated in the laboratory, but did not state anything with regard to reclamation of unwanted materials from the laboratory. The Board reads the USEPA rules as providing that, once "unwanted material" is past the hazardous waste determination, whether determined hazardous waste or not, the material becomes subject to the hazardous waste regulations in the same way as any other material. If the material is determined hazardous waste, then the appropriate regulations apply, including the exclusions from definition as solid or hazardous waste. In fact, the determinations whether a material is excluded from definition as solid or hazardous waste are the preliminary steps of the hazardous waste determination. *See* 40

C.F.R. 261.2(a)(1) 261.3(a)(1), and 261.4(a) and (b) (2009) (corresponding with 35 Ill. Adm. Code 721.102(a)(1), 721.103(a)(1), and 721.104(a) and (b)).

In a subsequent segment of discussion relative to CESQG waste, USEPA raised the universe of possible fates for "unwanted material" from a CESQG after the hazardous waste determination. The permissible outcomes for "unwanted material" that is generated by a CESQG and which is determined to be "hazardous waste" are the same possible outcomes for any CESQG waste. *Compare* 73 Fed. Reg. at 72946 *with* 40 C.F.R. 261.5(g)(3) (2009) (corresponding with 35 Ill. Adm. Code 721.105(g)(3)). The fact that the hazardous waste was once "unwanted material" generated by an eligible academic entity under the alternative standards made no difference in the subsequent regulatory status of the material. From this, USEPA made it clear that after the "unwanted material" is subjected to the hazardous waste determination, the material has the same regulatory status as any material subjected to the hazardous waste determination—without regard to the source of the material. Reclamation is among the permissible forms of recycling listed by USEPA for waste generated by an eligible academic entity that is a CESQG. 73 Fed. Reg. at 72946; *see* 40 C.F.R. 261.5(g)(3)(vi) (2009) (corresponding with 35 Ill. Adm. Code 721.105(g)(3)(F)).

Based on this, the Board believes that an eligible academic entity may reclaim or "use or reuse" elements of the unwanted material that is generated in its laboratories. Such recycling would necessarily reduce the amount of hazardous waste that the entity generates and potentially could affect the entity's generator status. *See*, *e.g.*, 40 C.F.R. 261.5(c) (2009) (corresponding with 35 Ill. Adm. Code 721.105(c)).

USEPA has imposed limitations on the possible destinations for unwanted material or hazardous waste generated by an eligible academic entity. These possible destinations simply illustrate that the generally applicable hazardous waste requirements apply to the wastes when the alternative standards no longer apply. In response to requests that USEPA allow off-site accumulation of "unwanted material" generated by an eligible academic entity that is a CESQG, USEPA responded that off-site accumulation would be allowed on the same terms as hazardous waste generated by a CESQG. 73 Fed. Reg. at 72946; *see* 40 C.F.R. 261.105(g)(3) (2009) (corresponding with 35 Ill. Adm. Code 721.105(g)(3)). USEPA explained that off-site accumulation of "unwanted material" from an eligible academic entity that is a large quantity generator or small quantity generator of hazardous waste could occur only at a transfer facility, which is the only type of facility (other than a permitted or interim status T/S/D facility) that can receive hazardous waste. 73 Fed. Reg. at 72946-47; *see* 40 C.F.R. 263.12 (2009) (corresponding with 35 Ill. Adm. Code 723.112).

As a final point with regard to removal of unwanted material from the laboratory and the hazardous waste determination, the Board observes that the alternative standards cover only materials generated by the eligible academic entity within a laboratory. Wastes generated by the entity elsewhere within its operations must be managed under the generator accumulation rule, not under the alternative standards. 40 C.F.R. 262.216 (2009) (corresponding with 35 Ill. Adm. Code 722.316).

Laboratory Cleanouts. A major feature of the alternative standards provides for periodic removal of unwanted items such as unused or out-of-date chemical reagents, solvents, etc. The laboratory cleanout provision allows an eligible academic entity to remove unwanted materials from the laboratory one time in a 12-month period, further allowing the eligible academic entity up to 30 days after the start of the cleanout to remove the unwanted materials from the laboratory (instead of the 10 days ordinarily allowed)—no matter how great the volume of unwanted material generated. 40 C.F.R. 262.213(a)(1) (2009) (corresponding with 35 Ill. Adm. Code 722.313(a)(1)). Further, the materials removed from the laboratory that are either commercial chemical products or characteristic hazardous waste do not count towards the eligible academic entity's generator status. 40 C.F.R. 262.213(a)(2) (2009) (corresponding with 35 Ill. Adm. Code 722.313(a)(2)).

USEPA instituted this provision to encourage laboratories to remove old and outdated chemicals, which could become unstable and dangerous to keep on-hand as they age. 73 Fed. Reg. at 72940; *see* 73 Fed. Reg. at 72934. USEPA allowed 30 days for removal of laboratory cleanout wastes and provided that the cleanout waste does not affect generator status, both without regard to the volumes generated, as incentives for eligible academic entities to use the procedure to remove these chemicals from laboratories. 73 Fed. Reg. at 72940.

Limitations apply to the laboratory cleanout rule. These limitations are important, as they outline the materials that may be included under the rule.

First, USEPA stated that the rule is limited to unused materials. USEPA stated that these materials are P- and U-listed wastes in 40 C.F.R. 261.33(e) and (f) (corresponding with 35 Ill. Adm. Code 721.133(e) and (f)) and unused characteristic wastes. All used unwanted materials on hand or generated during the laboratory cleanout are not covered by the laboratory cleanout rule. 73 Fed. Reg. 72940-41; *see* 40 C.F.R. 262.213(a)(2). The laboratory cleanout rule, therefore, does not embrace unwanted materials accumulating under the alternative standards or hazardous waste accumulating under the satellite accumulation rule or the generator accumulation rule, unless those materials are unused.

Second, USEPA provided that only while the waste is in the hands of the generator is the eligible academic entity's generator status is unaffected by the amount of waste generated by a laboratory cleanout. Once the generator transfers off-site the hazardous waste resulting from a laboratory cleanout, that generator's status is affected. When the waste leaves the laboratory for an off-site facility, the CESQG exclusion does not apply—even if the eligible academic entity is a CESQG in that month.[179] 73 Fed. Reg. 72941; *see* 40 C.F.R. 262.213(a)(2) and (a)(3) (2009) (corresponding with 35 Ill. Adm. Code 722.313(a)(2) and (a)(3)). This means that the hazardous waste manifest requirements apply, the destination facility must be a permitted or interim status

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[179] If the total amount of hazardous waste generated by the entity during the month of the laboratory cleanout is less than 100 kilograms and the amount of acute hazardous waste is less than one kilogram, the CESQG exception applies to the waste. *See* 40 C.F.R. 261.5(a) and (e) and 262.213(a)(3) (2009) (corresponding with 35 Ill. Adm. Code 721.105(a) and (e) and 722.313(a)(3)).

T/S/D facility, and the land disposal restrictions apply to the waste if the total volume of waste generated by the laboratory in the calendar month, including the wastes from laboratory cleanup and from laboratory operations, exceeds the CESQG thresholds.[180] The Board reads the paired provisions of subsections (a)(2) and (a)(3) relative to the effect of laboratory cleanout waste on hazardous waste generator status as combining the volumes of both the laboratory cleanout waste and the operationally generated laboratory waste when determining the generator status. If the combined volume exceeds the CESQG limits, these requirements apply to the waste from both sources in the laboratory.

Third, the eligible academic entity must document each laboratory cleanout and maintain the records of the cleanout for three years after the ending date of the cleanout. The minimum information required for each cleanout is the identity of the laboratory, the start and end dates of the cleanout, and the total volume of hazardous waste removed from the laboratory.[181] 40 C.F.R. 262.213(a)(4) (2009) (corresponding with 35 Ill. Adm. Code 722.313(a)(4)).

Fourth, any individual laboratory owned or operated by an eligible academic entity may take advantage of the laboratory cleanout rule only once in a 12-month period. 40 C.F.R. 262.213(a)(1) (2009) (corresponding with 35 Ill. Adm. Code 722.313(a)(1)). If the entity undertakes a subsequent laboratory cleanout before 12 months have passed since the last one, all unwanted materials generated during the subsequent cleanout are ineligible for management under the laboratory cleanout rule. 40 C.F.R. 262.213(b) (2009) (corresponding with 35 Ill. Adm. Code 722.313(b)).

Finally, the laboratory cleanout rule itself does not refer to the Laboratory Management Plan (described in more detail immediately below). There is no requirement in the rule that requires adherence to any procedure in the eligible academic entity's Plan. *See* 40 C.F.R. 262.213 (2009) (corresponding with 35 Ill. Adm. Code 722.313). The Laboratory Management Plan provisions, however, require the eligible academic entity do the following in Part II of its Plan:

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[180] USEPA stated that this is "regardless of whether the waste was counted toward the generator status." 40 C.F.R. 262.213(a)(3) (2009) (corresponding with 35 Ill. Adm. Code 722.313(a)(3)).

[181] The Board notes that USEPA did not require more detailed information that would identify the individual materials removed during a laboratory cleanout. The package markings for shipment would require appropriate USDOT markings and the USEPA hazardous waste number. 40 C.F.R. 262.32(b) (2009) (corresponding with 35 Ill. Adm. Code 722.132(b)). Further, the hazardous waste manifest includes this slightly more detailed information (40 C.F.R. 262.20(a)(1) (2009) (corresponding with 35 Ill. Adm. Code 722.120(a)(1)); USEPA Form 8700-22, *Uniform Hazardous Waste Manifest*), and the generator is required to retain its copy of this document or a signed copy from the destination facility for three years from the date of shipment (40 C.F.R. 262.40(a) (2009) (corresponding with 35 Ill. Adm. Code 722.140(a))).

> (6) Describe its intended best practices for laboratory clean-outs, if the eligible academic entity plans to use the incentives for laboratory cleanouts provided in [40 C.F.R.] 262.213, including:
>
> (i) Procedures for conducting laboratory clean-outs (see the required standards at [40 C.F.R.] 262.213(a)(1) through (3)); and
>
> (ii) Procedures for documenting laboratory clean-outs (see the required standards at [40 C.F.R.] 262.215(a)(4)). 40 C.F.R. 262.215(b)(6) (2009) (corresponding with 35 Ill. Adm. Code 722.315(b)(6)).

The Laboratory Management Plan is required before an eligible academic entity may take advantage of any provisions of the alternative standards, since USEPA considers a site to be in compliance with the alternative standards at the time the entity submits notification opting into the alternative standards. 40 C.F.R. 262.205 (2009) (corresponding with 35 Ill. Adm. Code 722.305); *see* 73 Fed. Reg. at 72928. Strict adherence with the Plan is not required, however, so that the eligible academic entity can freely execute a laboratory cleanout (within the restrictions imposed by the regulations). 40 C.F.R. 262.214 (2009) (corresponding with 35 Ill. Adm. Code 722.314).

The Requirement for a Written Laboratory Management Plan. A significant aspect of the alternative standards for eligible academic entities is the requirement for a written Laboratory Management Plan. By this two-part Plan, the eligible academic entity prescribes such items as where the entity will make the hazardous waste determination for accumulated unwanted materials, when unwanted materials will be removed from the laboratory, when and how the eligible academic entity will conduct laboratory cleanouts, and the procedures and timetables that will be used for management of unwanted materials in the laboratory. *See* 40 C.F.R. 262.214 (2009) (corresponding with 35 Ill. Adm. Code 722.314)).

Assembling and following the Laboratory Management Plan imposes a significant regulatory burden. No similar requirement applies to a generator engaged in satellite accumulation. *See* 40 C.F.R. 262.34(c) (2009) (corresponding with 35 Ill. Adm. Code 722.134(c)). Although more limited requirements for written procedures exist under the generator accumulation rule, those do not apply to accumulation of waste in containers. *See* 40 C.F.R. 262.34(a)(1)(iii)(A), (a)(1)(iv)(A)) (2009) (corresponding with 35 Ill. Adm. Code 722.134(c)).

The Laboratory Management Plan serves important functions under the alternative standards for eligible academic entities. First, the requirement to develop a Plan forces the eligible academic entity deliberate on how to achieve environmental objectives. 73 Fed. Reg. at 72943. Second, the framework for compliance established in the Plan informs laboratory workers and students in detail of their respective obligations under the alternative standards. *See* 73 Fed. Reg. at 72916-17, 43. Third, the Plan tangibly sets forth the options for compliance that the eligible academic has elected to pursue. *See* 73 Fed. Reg. at 72928. In this way, the Plan constitutes the standard with which the eligible academic entity must comply under the alternative standards. *See, e.g.,* 73 Fed. Reg. at 72935. Fourth, the Plan aids enforcement of the

alternative standards by giving USEPA or an authorized state a clear indication of the standards that the eligible academic entity must uphold. 73 Fed. Reg. at 72949.

Part I of the Laboratory Management Plan includes two of the required "elements" that USEPA requires in the Plan. These two elements set forth the three options for compliance that the eligible academic entity has opted to pursue. USEPA combined two related options into a single element in the Plan. The eligible academic entity must adhere to the procedures set forth in Part I of the Laboratory Management Plan. 40 C.F.R. 262.214 Preamble and (a) (2009) (corresponding with 35 Ill. Adm. Code 722.314 preamble and (a)). The two elements embodying the three options for compliance are the following:

1. With regard to marking containers of "unwanted material" during laboratory accumulation:

    a. Indication of how the eligible academic entity will label containers during laboratory accumulation, with "unwanted material" or with some equivalent alternative words, as provided by 40 C.F.R. 262.206(a)(1)(i) (2009) (corresponding with 35 Ill. Adm. Code 722.306(a)(1)(A)), and

    b. How the entity will impart the information relative to the accumulation start date and identification of the contents that must be "associated with" the container of waste, as provided by 40 C.F.R. 262.206(a)(2) (2009) (corresponding with 35 Ill. Adm. Code 722.306(a)(2)); and

2. Indication of whether the eligible academic entity will remove "unwanted material" from the laboratory every six months on a regular schedule or within six months of the accumulation start date, as provided by 40 C.F.R. 262.208(a) (2009) (corresponding with 35 Ill. Adm. Code 722.308(a)). 40 C.F.R. 262.214(a) (2009) (corresponding with 35 Ill. Adm. Code 722.314(a)).

Part II of the Plan includes seven elements that USEPA requires. These seven elements outline the "best management practices" that the eligible academic entity will employ to comply with substantive requirements of the alternative standards. 40 C.F.R. 262.214 preamble (2009) (corresponding with 35 Ill. Adm. Code 722.314 preamble).

> The specific actions taken by an eligible academic entity to implement each element in Part II of its Laboratory Management Plan may vary from the procedures described in the eligible academic entity's Laboratory Management Plan, without constituting a violation of this subpart. *Id*.

The seven elements that compose Part II of the Plan are descriptions of the following seven "best practices":

1. Procedures for labeling and managing containers of unwanted material during accumulation in the laboratory, to comply with the requirements of 40 C.F.R. 262.206 (2009) (corresponding with 35 Ill. Adm. Code 722.306);

2. Procedures for training students and workers in the laboratory in compliant procedures, to comply with the requirements of 40 C.F.R. 262.207(a) (2009) (corresponding with 35 Ill. Adm. Code 722.307(a));

3. Procedures for training to ensure that transfers of unwanted material and hazardous waste from the laboratory are by a trained professional, to comply with the requirements of 40 C.F.R. 262.207(d)(1) (2009) (corresponding with 35 Ill. Adm. Code 722.307(d)(1));

4. Procedures for removing unwanted material (and hazardous waste) from the laboratory within 10 days of when they exceed the maximum permissible volume in the laboratory, to comply with the requirements of 40 C.F.R. 262.208(a) and (d) (2009) (corresponding with 35 Ill. Adm. Code 722.308(a) and (d));

5. Procedures for making the hazardous waste determination, to comply with the requirements of 40 C.F.R. 262.11, 262.209, and 262.210, 262.211, or 262.212 (2009) (corresponding with 35 Ill. Adm. Code 722.111, 722.309, 722.310, 722.311, and 722.312, respectively);

6. Procedures for laboratory cleanouts, to comply with the requirements of 40 C.F.R. 262.213 (2009) (corresponding with 35 Ill. Adm. Code 722.313) if the entity wishes to take advantage of this provision;

7. Procedures for emergency prevention, to comply with the requirements of 40 C.F.R. 262.215(b)(7) (2009) (corresponding with 35 Ill. Adm. Code 722.315(b)(7)). 40 C.F.R. 262.215(b) (2009) (corresponding with 35 Ill. Adm. Code 722.315(b)).

One of these seven elements in Part II of the Laboratory Management Plan is unique in that the provision for the element contains the substantive informational requirements. All of the other elements refer to another provision in the alternative standards for identification of the required information. The final element relates to procedures for emergency prevention, notification, and response for incidents involving unwanted materials in the laboratory. Required in the Plan is such information as procedures for emergency prevention, notification, and response; an inventory of all chemicals in the laboratory that can become dangerous after exceeding their expiration date or beginning to degrade; procedures for safe disposal of expired or degraded chemicals; and procedures for prompt identification of unknown unwanted chemicals. 40 C.F.R. 262.215(b)(7) (2009) (corresponding with 35 Ill. Adm. Code 722.315(b)(7)).

The eligible academic entity must make the Laboratory Management Plan available to "laboratory workers, students, or any others at the eligible academic entity" upon request. 40 C.F.R. 262.215(c) (2009) (corresponding with 35 Ill. Adm. Code 722.315(c)). The Board reads this provision as requiring disclosure of the entire Plan to any person who is in the laboratory for any purpose. USEPA gave two examples of "available": (1) posting the Plan on a web site, or

(2) maintaining a copy at each site that is operating under the alternative standards. 73 Fed. Reg. at 72943.

The eligible academic entity must review and revise the Plan "as needed." 40 C.F.R. 262.215(d) (2009) (corresponding with 35 Ill. Adm. Code 722.315(d)). USEPA described this as requiring review and revision of the Plan "so that it is current with the waste management practices at the eligible academic entity's laboratories." 73 Fed. Reg. at 72943.

Board Action and Specific Requests for Comments. The Board incorporated into the Illinois hazardous waste regulations, without substantive changes in the text the alternative standards for accumulation of hazardous waste and for making the hazardous waste determination for secondary materials generated in laboratories at eligible academic entities. The Board did find minor rewording of several provisions necessary. The object was to clarify the provisions and to make segments of the language comport with the Board's preferred style and grammar for regulatory language. The Board did not intend that any of the revisions have a substantive effect on the meaning of any segment of the rules.

Tables that appear after discussions of the amendments in this docket indicate the revisions that the Board has made in the text. Table B (beginning on page 276 of this opinion) indicates the deviations from the literal text of the December 1, 2008 amendments that the Board has found necessary. Table C (beginning on page 361) indicates revisions to the base text of the rules open today that are not directly driven by the federal amendments which the Board has also found necessary. The forgoing discussions include consideration of some of the more significant among these changes. The following specific requests for public comment relate to many also. The majority of the changes, however, do not merit discussion. All revisions made by the Board appear in Tables A and B.

The primary purpose of this proceeding, of this opinion, and behind the request for comments, is to make the best fit for the substance of the federal amendments into the contexts of the Illinois regulations and the Illinois regulatory scheme. A secondary purpose is to gain a firm understanding of the changes that USEPA made, in order that implementation in Illinois corresponds with USEPA's intent, within the context of Illinois laws and regulatory systems. Comments relative to how the Board can incorporate the elements of the USEPA action and how the State can implement the resulting rules will prove far more useful to the present purpose than comments that relate to the merits and substance of the USEPA rules themselves.

The Board directs specific attention to aspects of the incorporation of 2008 DSWR amendments into the Illinois regulations. The Board does not intend that interested persons should narrow their examination to the specific issues raised. The Board would welcome comments on additional aspects that the Board has failed to specifically mention. The specific area on which the Board requests comments are the following:

In sections 722.303 and 722.304, relative to the notification requirements, the Board changed references to "RCRA Subtitle C Site Identification Form (EPA Form 8700-12)" to refer to "USEPA Form 8700-12." USEPA Form 8700-12 is available as a booklet that includes the five-page notification form attached to the back of the 43-page instructions booklet. While the

form itself bears the title, "RCRA Subtitle C Site Identification Form," the front page of the instructions booklet bears the title "Notification of RCRA Subtitle C Activity." *See* USEPA Form 8700-12, *Notification of RCRA Subtitle C Activity* (Nov. 2009).

Further, USEPA changed the title of USEPA Form 8700-12 from "Notification of Regulated Waste Activity," in the 2006 version of this document (*see* USEPA Form 8700-12, *Notification of Regulated Waste Activity* (July 2006), to the current title in 2009. For these reasons, the Board has added a Board note to each of sections 722.304(a) and 722.304(a) explaining the document title, and the Board has referred to this document as "USEPA Form 8700-12" in the text of the rules. This designation has persisted without change through 30 years of hazardous waste regulation. *See, e.g.,* 40 C.F.R. 262.12 (1980). The Board has also revised the required information identifiers in the listings of sections 722.304(b) and 722.304(b) to use the titles given those items in USEPA Form 8700-12.

Does standardizing the references to refer to "USEPA Form 8700-12" add clarity to the rules? Does changing the references to the information required to the titles given the information items in USEPA Form 8700-12 add clarity to the rules?

The Emission-Comparable Fuels Rule—Section 721.138

On December 19, 2008 (73 Fed. Reg. 77594), USEPA amended the Comparable Fuels Rule of 40 C.F.R. 261.138 to further exclude "emission-comparable fuels" (ECF) from the definition of solid waste. The Comparable Fuels Rule formerly excluded "comparable fuels" and "synthesis gas." The introductory paragraph of USEPA's discussion of exclusion of ECF from the definition of solid waste explained the exclusion as follows:

> ECF is a hazardous secondary material that, when generated, is handled in such a way that it is not discarded in any phase of management, but rather is handled as a valuable commodity. ECF meets all of the hazardous constituent specifications (over 160) for comparable fuel, with the exception of those for oxygenates and hydrocarbons (constituents which contribute energy value to the fuel). The rule specifies conditions on burning ECF which assure that emissions from industrial boilers burning ECF are comparable to emissions from industrial boilers burning fuel oil. The ECF exclusion also includes conditions for tanks and containers storing ECF to assure that discard does not occur. 73 Fed. Reg. at 77594

On June 15, 2010 (at 75 Fed. Reg. 33712), USEPA withdrew the December 19, 2008 Emissions-Comparable Fuels Rule. USEPA explained as follows:

> [US]EPA is withdrawing this conditional exclusion because [USEPA] has concluded that ECF is more appropriately classified as a discarded material and regulated as a hazardous waste. 75 Fed. Reg. at 33712.

In PC 2, USEPA indicated to the Board USEPA's intent to promptly adopt the proposed amendments. The Board began work to remove the December 19, 2008 ECF rule amendments from the text based on USEPA's December 8, 2009 (74 Fed. Reg. 64643) proposal and USEPA's

comments in PC 2. Publication of the final rule in the *Federal Register* has allowed the Board to proceed based on the final USEPA adoption of the withdrawal.

Board Action and Specific Requests for Comments. In the course of developing this proposal for public comment, the Board had incorporated the December 19, 2008 ECF exclusion into the Illinois regulations. Upon receipt of PC 2, however, the Board removed the amendments from the draft based on USEPA's December 9, 2009 proposal to remove the ECF exclusion. The publication of the June 15, 2010 *Federal Register* notice adopting the withdrawal obviated a Board proposal based on a proposed USEPA action. By taking prompt action on the withdarawal by adding the June 15, 2010 USEPA action to this docket, the Board avoids proceeding with adoption of an exclusion from the definition of solid waste that USEPA has now withdrawn. This would have resulted in exclusion of a material in Illinois that is regulated as hazardous waste under the corresponding federal regulations until the Board could remove the exclusion in a future update.

The Board has incorporated the amendments to 40 C.F.R. 261.38 as adopted by USEPA on June 15, 2010, with a small number of minor corrections to the federal text. The withdrawal of the ECF rule removes the ECF rule while leaving the clarifying amendments to the excluded fuels rule as adopted by USEPA on December 19, 2008.

Appendix Y to 35 Ill. Adm. Code 721 is derived from Table 1 to 40 C.F.R. 261.38. USEPA changed various entries in Table 1 in the process of amending the excluded fuels rule between December 19, 2008 and June 15, 2010. The Board has declined to make some of the USEPA revisions, since these appear to be errors. Those apparent errors include changes in a small number of chemical names and CAS numbers. Many of the apparent errors arose in the December 19, 2008 ECF rule amendments (73 Fed. Reg. at 78010), and some arose with the withdrawal of the ECF rule (75 Fed. Reg. 33712). USEPA did not discuss these changes in either *Federal Register* notices. *See* 75 Fed. Reg. at 33714; 74 Fed. Reg. at 64645; 73 Fed. Reg. at 77963-64. These changes that the Board has declined to make are listed in Table B (beginning on page 276 of this opinion).

Six changes made by USEPA's amendments that the Board has not made warrant specific mention, since all relate to required maximum contaminant levels and minimum required detection limits and have a substantive effect. The Board notes that the maximum contaminant levels and method detection limits listed for six compounds changed in the December 19, 2008 *Federal Register* notice. *See* 73 Fed. Reg. at 78012, 13; *see also* 75 Fed. Reg. at at 33720-24 (indicating the same revised limits). The two revisions that clearly are substantive revisions are the following:

- The minimum detection limit for 2-nitropropane changed from 30 mg/kg to 2,400 mg/kg.

- The minimum detection limit for diallate changed from 2,400 mg/kg to 3,400 mg/kg.

These changed the detection limits. Four other revisions are substantive also, but in a more subtle way. USEPA changed the significant digits for the following detection limits:

- The minimum detection limit for total cyanide changed from 1.0 mg/kg to 1 mg/kg.

- The maximum contaminant level for 2-propargyl alcohol changed from 30. mg/kg to 30 mg/kg.

- The minimum detection limit for 2,4-D changed from 7.0 mg/kg to 7 mg/kg.

- The minimum detection limit for Silvex changed from 7.0 mg/kg to 7 mg/kg.

Since USEPA did not discuss any of the changes in the *Federal Register* (*see* 75 Fed. Reg. at 33714; *see also* 74 Fed. Reg. at 64645 (proposed withdrawal); 73 Fed. Reg. at 77963-64 (amendments as adopted with the ECF rule); Memorandum, re: Technical Corrections to the Comparable Fuel Exclusion, Section 261.38, from Bob Holloway, Office of Solid Waste, to Docket ID No. EPA-HQ-2005-0017 (Jan. 10, 2007), USEPA document number EPA-HQ-RCRA-2005-0017-0035 (available online at http://www.regulations.gov) (cited at 73 Fed. Reg. at 77964, n.34 as outlining the corrections), the Board believes that USEPA made the changes through inadvertent error.

The Board included one revision despite the fact that USEPA did not discuss the change. This is the move of the 1.2 mg/kg number for total cadmium from the minimum detection limit column to the maximum contaminant level column. It is clear that when USEPA initially adopted the comparable fuels exclusion, the number intended was a maximum contaminant level. *See* 63 Fed. Reg. 33782, 823 (June 19, 1998).

The Board also added amendments to Appendix Y in Table 1 to add clarity. These amendments include adding USEPA's descriptive title for Table 1, with minor changes for added clarity, and adding a descriptive paragraph that explains the contents of the table. Thus, the Board has changed the title of Appendix Y from "Table to Section 721.138" to "Table to Section 721.138: Maximum Contaminant Concentration and Minimum Detection Limit Values for Comparable Fuel Specification." A new preamble to this table appears as follows:

> The following table lists the maximum concentration limit and minimum analytical detection limit required for each contaminant for which USEPA has established a comparable fuel specification. This table supports the requirements of the excluded fuels rule of Section 721.138.

These revisions added for enhanced clarity are listed in Table B (beginning on page 276 of this opinion).

USEPA's change in the CAS number for "benzo[a,h]anthracene" has prompted another change in the text. In appendix VIII to 40 C.F.R. 261, the listing of hazardous constituents, USEPA used the alternative spelling "benz[a,h]anthracene." This is how the chemical name appears in corresponding Appendix H 35 Ill. Adm. Code 721. Although both spellings are equally valid (*see* N. Irving Sax, *Dangerous Properties of Industrial Materials*, 6th ed., Van Nordstrand Reinhold Company, New York, NY (1984)) but the Board opted to use the spelling used in the listing of hazardous constituents for the sake of consistency.

The Board requests comment on the adoption of the December 19, 2008 clarifying amendments to the excluded fuels rule. The Board specifically requests comment on whether the Board should expand the wording of references facility management standards to include management standards of sister states that USEPA has determined are equivalent to the specified federal standards. The Board further specifically requests comments on the USEPA revisions to Table 1 to 40 C.F.R. 261.38 not included in the amendments to corresponding Appendix Y to 40 C.F.R. 721.138, the Board's correction of the chemical name "benzo[a,h]anthracene" to "benz[a,h]anthracene," the changes in the title of Appendix Y, and the added preamble paragraph in Appendix Y.

In various provisions, USEPA refers to off-site management of secondary materials, imposing the requirement that the off-site facility must comply with specified standards. Thus, blending or treatment to meet the comparable fuel standards or the processing of syngas fuel must occur at a facility that meets "the applicable requirements of parts 264, 265, or 267, or § 262.34 of this chapter or is an exempt recycling unit pursuant to § 261.6(c)." *See* 40 C.F.R. 261.38(a)(3)(ii)(B) and (a)(4)(ii)(B) (2009), as amended at 75 Fed. Reg. 33712 (June 15, 2010); *see also* 40 C.F.R. 261.38(a)(5)(ii)(B) (2009), as amended at 75 Fed. Reg. 33712 (June 15, 2010) (adding "or is an exempt recycling unit pursuant to § 261.106(c)"). The Board has rendered this as "35 Ill. Adm. Code 722.134, 724, 725, or 727" in the corresponding Illinois provisions. *See* 35 Ill. Adm. Code 721.138(a)(3)(B)(ii) and (a)(4)(B)(ii); *see also* 35 Ill. Adm. Code 721.138(a)(5)(B)(ii) (adding "or is an exempt recycling unit pursuant to 35 Ill. Adm. Code 721.106(c)"). This the most direct translation into citation of Illinois rules, but it is not the only option available to the Board. This option, on its face, could limit exclusion to comparable fuels blended and syngas generated under the Illinois regulations, within Illinois.

In similar segments of the self-implementing independently reclaimed HSM exclusion, discussed above in a separate segment of opinion (beginning on page 161), USEPA made similar references to the general RCRA Subtitle C Requirements. In one, USEPA described management of HSM in a facility that "not addressed under a RCRA Part B permit or interim status standards." *See* 40 C.F.R. 261.4(a)(24)(v)(B); *see* also 40 C.F.R. 261.4 (a)(24)(v)(C) (2009) (also using this language). The Board rendered this as "not addressed under a RCRA Part B permit or under the interim status facility standards (of 35 Ill. Adm. Code 725 or similar regulations authorized by USEPA as equivalent to 40 CFR 265)" in the corresponding Illinois provision. *See* 35 Ill. Adm. Code 721.104(a)(24)(E)(ii) (defining this as "non-Subtitle C management"); *see also* 35 Ill. Adm. Code 721.104(a)(24)(E)(iv) (using the defined term "non-Subtitle C management for the federal clause). In a second, USEPA required management of any residues of HSM reclamation that either exhibit a characteristic of hazardous waste or which are listed hazardous waste "in accordance with the applicable requirements of 40 CFR parts 260 through 272." *See* 40 C.F.R. 261.4(a)(24)(vi)(E) (2009). The Board rendered this in the corresponding Illinois provision as "in accordance with the applicable requirements of 35 Ill. Adm. Code: Subtitle G or similar regulations authorized by USEPA as equivalent to 40 CFR 260 through 272." *See* 35 Ill. Adm. Code 721.104(a)(24)(F)(v); *see also* 35 Ill. Adm. Code 721.243(e)(2) (including similar references relating to financial assurance requirements).

The Board requests comments on how the language of the broad citations to hazardous waste standards in 35 Ill. Adm. Code 721.138(a)(3)(B)(ii), (a)(4)(B)(ii), and (a)(5)(B)(ii) in the excluded fuels rule should appear. Should the Board retain the proposed narrow translation that cites only to Illinois regulations ("subject to the applicable requirements of "), or should the Board revise the references to embrace all federal and state rules that USEPA has determined are equivalent to the federal rules upon which the current Illinois citations are based? An option for a broader general citation that embraces USEPA, Illinois, and equivalent sister-states' rules could appear as follows: "35 Ill. Adm. Code 722.134, 724, 725, or 727 or similar regulations authorized by USEPA as equivalent to 40 CFR 262.34, 264, 265, or 267." (The added phrase in 35 Ill. Adm. Code 721.138(a)(5)(B)(ii) could appear as "or is an exempt recycling unit pursuant to Section 721.106(c) or similar regulations authorized by USEPA as equivalent to 40 CFR 261.6(c). Would broadening the general citations in the Illinois rules be necessary to clearly allow exclusion in Illinois of comparable fuels blended and syngas generated in sister states?

Corrected USEPA Addresses—Sections 720.111, 720.120, 722.121, 724.152, and 725.152

On June 25, 2009 (74 Fed. Reg. 30228), USEPA revised various segments of the environmental regulations to reflect the change of the former Office of Solid Waste to the new Office of Resource Conservation and Recovery. USEPA stated that reorganization and an increased emphasis on resource recovery prompted the change in name, necessitating the amendments. 74 Fed. Reg. at 30229.

Board Action and Specific Requests for Comments. The Board has corrected the name "Office of Solid Waste" to "Office of Resource Conservation and Recovery" throughout the Illinois hazardous waste rules. Many of the USEPA corrections were in segments of the federal rules that the Board has incorporated by reference. Since the June 25, 2009 amendments appeared in the 2009 edition of the *Code of Federal Regulations*, simply updating the version of 40 C.F.R. 63, 260, and 266 incorporated by reference completed the amendments. The Board had to add specific amendments to 35 Ill. Adm. Code 722.121 to correspond with the amendments to 40 C.F.R. 272.21. Finally, the Board found references to "Office of Solid Waste" in 35 Ill. Adm. Code 720.122, 724.152, and 725.152 that did not directly correspond with segments of federal text amended by USEPA. The Board nevertheless, changed the language in these segments based on the federal amendments to reflect the change in name.

The Board requests comments on the amendments based on the June 25, 2009 change in name of the "Office of Solid Waste" to "Office of Resource Conservation and Recovery."

Agency or Board Action

Section 7.2(a)(5) of the Act requires the Board to specify those portions of the program over which USEPA will retain decision making authority. Based on the general division of functions within the Act and other Illinois statutes, the Board is also to specify which State agency is to make decisions.

In situations in which the Board has determined that USEPA will retain decision-making authority, the Board has replaced "Regional Administrator" with USEPA, so as to avoid specifying which office within USEPA is to make a decision.

In some identical-in-substance rules, certain decisions pertaining to a permit application are not appropriate for the Agency to consider. In determining the general division of authority between the Agency and the Board, the following factors should be considered:

1. Whether the entity making the decision is applying a Board regulation, or taking action contrary to, *i.e.*, "waiving," a Board regulation. It generally takes some form of Board action to "waive" a Board regulation.

2. Whether there is a clear standard for action such that the Board can give meaningful review to an Agency decision.

3. Whether the action would result in exemption from the permit requirement itself. If so, Board action is generally required.

4. Whether the decision amounts to "determining, defining or implementing environmental control standards" within the meaning of Section 5(b) of the Act. If so, it must be made by the Board.

There are four common classes of Board decisions: variance, adjusted standard, site-specific rulemaking, and enforcement. The first three are methods by which a regulation can be temporarily postponed (variance) or adjusted to meet specific situations (adjusted standard or site-specific rulemaking). There often are differences in the nomenclature for these decisions between the USEPA and Board regulations.

Table A:
Listing of Updated *Code of Federal Regulations* Provisions

As discussed above on page 10 of this opinion, various provisions of the *Code of Federal Regulations* are incorporated by reference in 35 Ill. Adm. Code 720.111(b). The Board has updated the edition of each title incorporated to the latest version available. The following table indicates the latest edition available and lists the *Federal Register* citations to subsequent updates to that latest edition.[182]

[182] Segments of the *Code of Federal Regulations* that are not listed were not amended since the latest edition of the *Code*, even if incorporated by reference.

U.S. Nuclear Regulatory Commission Regulations (C.F.R. updated January 1, 2010)

Federal Provision	Amendments Since Most Recent C.F.R. Edition
10 C.F.R. 20.2006	No federal amendments since the 2010 edition of this part.
Table II, column 2 in Appendix B to 10 CFR 20	No federal amendments since the 2010 edition of this part.
Appendix G to 10 CFR 20	No federal amendments since the 2010 edition of this part.
10 CFR 71	No federal amendments since the 2010 edition of this part.
10 CFR 71.5	No federal amendments since the 2010 edition of this part.

U.S. Environmental Protection Agency Regulations (C.F.R. updated July 1, 2009)

Federal Provision	Amendments Since Most Recent C.F.R. Edition
40 C.F.R. 3.2	No federal amendments since the 2009 edition of this part.
40 C.F.R. 3.3	No federal amendments since the 2009 edition of this part.
40 C.F.R. 3.10	No federal amendments since the 2009 edition of this part.
40 C.F.R. 3.2000	No federal amendments since the 2009 edition of this part.
40 C.F.R. 51.100(ii)	No federal amendments since the 2009 edition of this part.
Appendix W to 40 C.F.R. 51	No federal amendments since the 2009 edition of this part.
Appendix B to 40 C.F.R. 52.741	No federal amendments since the 2009 edition of this part.
40 C.F.R. 60	October 6, 2009 (74 Fed. Reg. 51368) October 8, 2009 (74 Fed. Reg. 51950) October 27, 2009 (74 Fed. Reg. 55142) December 17, 2009 (74 Fed. Reg. 66921)
Subpart VV of 40 C.F.R. 60 (§§ 60.480-60.489)	No federal amendments since the 2009 edition of this part.
Appendix A to 40 C.F.R. 60	No federal amendments since the 2009 edition of this part.
40 C.F.R. 61	October 27, 2009 (74 Fed. Reg. 55142) December 17, 2009 (74 Fed. Reg. 66921)
Subpart V of 40 C.F.R. 61 (§§ 61.240-61.247)	No federal amendments since the 2009 edition of this part.

Federal Provision	Amendments Since Most Recent C.F.R. Edition
Subpart FF of 40 C.F.R. 61 (§§ 61.340-61.359)	No federal amendments since the 2009 edition of this part.
40 C.F.R. 63	September 10, 2009 (74 Fed. Reg. 46493) October 28, 2009 (74 Fed. Reg. 55670) October 29, 2009 (74 Fed. Reg. 56008) December 2, 2009 (74 Fed. Reg. 63236) December 3, 2009 (74 Fed. Reg. 63504) December 4, 2009 (74 Fed. Reg. 63613) December 30, 2009 (74 Fed. Reg. 69194) January 5, 2010 (75 Fed. Reg. 522) March 3, 2010 (75 Fed. Reg. 9468) March 5, 2010 (75 Fed. Reg. 10184) March 18, 2010 (75 Fed. Reg. 12988)
Subpart RR of 40 C.F.R. 63 (§§ 63.960-63.967)	No federal amendments since the 2009 edition of this part.
Subpart EEE of 40 C.F.R. 63 (§§ 63.1200-63.1214)	No federal amendments since the 2009 edition of this part.
Method 301 in Appendix A to 40 C.F.R. 63	No federal amendments since the 2009 edition of this part.
Appendix C to 40 C.F.R. 63	No federal amendments since the 2009 edition of this part.
Appendix D to 40 C.F.R. 63	No federal amendments since the 2009 edition of this part.
40 C.F.R. 232.2	No federal amendments since the 2009 edition of this part.
40 C.F.R. 136.3	No federal amendments since the 2009 edition of this part.
40 C.F.R. 144.70	No federal amendments since the 2009 edition of this part.
40 C.F.R. 232.2	No federal amendments since the 2009 edition of this part.
40 C.F.R. 257	No federal amendments since the 2009 edition of this part.
40 C.F.R. 258	No federal amendments since the 2009 edition of this part.
40 C.F.R. 260.21	No federal amendments since the 2009 edition of this part.
Appendix I to 40 C.F.R. 260	March 18, 2010 (75 Fed. Reg. 12989)
Appendix III to 40 C.F.R. 261	No federal amendments since the 2009 edition of this part.
40 C.F.R. 262.53	No federal amendments since the 2009 edition of this part.

Federal Provision	Amendments Since Most Recent C.F.R. Edition
40 C.F.R. 262.54	No federal amendments since the 2009 edition of this part.
40 C.F.R. 262.55	January 8, 2010 (75 Fed. Reg. 1236)
40 C.F.R. 262.56	March 18, 2010 (75 Fed. Reg. 12989)
40 C.F.R. 262.57	No federal amendments since the 2009 edition of this part.
Appendix to 40 C.F.R. 262	No federal amendments since the 2009 edition of this part.
40 C.F.R. 264.151	No federal amendments since the 2009 edition of this part.
Appendix I to 40 C.F.R. 264	No federal amendments since the 2009 edition of this part.
Appendix IV to 40 C.F.R. 264	No federal amendments since the 2009 edition of this part.
Appendix V to 40 C.F.R. 264	No federal amendments since the 2009 edition of this part.
Appendix VI to 40 C.F.R. 264	No federal amendments since the 2009 edition of this part.
Appendix I to 40 C.F.R. 265	No federal amendments since the 2009 edition of this part.
Appendix III to 40 C.F.R. 265	No federal amendments since the 2009 edition of this part.
Appendix IV to 40 C.F.R. 265	No federal amendments since the 2009 edition of this part.
Appendix V to 40 C.F.R. 265	No federal amendments since the 2009 edition of this part.
Appendix IX to 40 C.F.R. 265	No federal amendments since the 2009 edition of this part.
40 C.F.R. 270.5	No federal amendments since the 2009 edition of this part.
40 C.F.R. 761	No federal amendments since the 2009 edition of this part.
40 C.F.R. 761.3	No federal amendments since the 2009 edition of this part.
40 C.F.R. 761.60	No federal amendments since the 2009 edition of this part.
40 C.F.R. 761.65	No federal amendments since the 2009 edition of this part.
40 C.F.R. 761.70	No federal amendments since the 2009 edition of this part.

U.S. Department of Transportation Regulations (C.F.R. updated October 1, 2009)

Federal Provision	Amendments Since Most Recent C.F.R. Edition
Subpart B of 49 C.F.R. 107 (§§ 107.101-107.127)	October 16, 2009 (74 Fed. Reg. 53182) March 30, 2010 (75 Fed. Reg. 15613) May 14, 2010 (75 Fed. Reg. 27205)
49 C.F.R. 171	October 16, 2009 (74 Fed. Reg. 53182) January 4, 2010 (75 Fed. Reg. 63) February 2, 2010 (75 Fed. Reg. 5376) May 14, 2010 (75 Fed. Reg. 27205)
49 C.F.R. 171.3	No federal amendments since the 2009 edition of this part.
49 C.F.R. 171.8	October 16, 2009 (74 Fed. Reg. 53182) February 2, 2010 (75 Fed. Reg. 5376) May 14, 2010 (75 Fed. Reg. 27205)
49 C.F.R. 171.15	October 16, 2009 (74 Fed. Reg. 53182)
49 C.F.R. 171.16	No federal amendments since the 2009 edition of this part.
49 C.F.R. 172	October 15, 2009 (74 Fed. Reg. 52896) October 16, 2009 (74 Fed. Reg. 53182) October 19, 2009 (74 Fed. Reg. 53413) October 22, 2009 (74 Fed. Reg. 54489) December 11, 2009 (74 Fed. Reg. 65696) January 4, 2010 (75 Fed. Reg. 63) February 2, 2010 (75 Fed. Reg. 5376) March 8, 2010 (75 Fed. Reg. 10974)
49 C.F.R. 172.304	No federal amendments since the 2009 edition of this part.
Subpart F of 49 C.F.R. 172 (§§ 172.500-172.560)	February 2, 2010 (75 Fed. Reg. 5376)
49 C.F.R. 173	October 16, 2009 (74 Fed. Reg. 53182) January 4, 2010 (75 Fed. Reg. 63) February 2, 2010 (75 Fed. Reg. 5376) May 14, 2010 (75 Fed. Reg. 27205)
49 C.F.R. 173.2	No federal amendments since the 2009 edition of this part.
49 C.F.R. 173.12	May 14, 2010 (75 Fed. Reg. 27205)
49 C.F.R. 173.28	February 2, 2010 (75 Fed. Reg. 5376)
49 C.F.R. 173.50	No federal amendments since the 2009 edition of this part.
49 C.F.R. 173.54	No federal amendments since the 2009 edition of this part.
49 C.F.R. 173.115	January 4, 2010 (75 Fed. Reg. 63)

Federal Provision	Amendments Since Most Recent C.F.R. Edition
49 C.F.R. 173.127	No federal amendments since the 2009 edition of this part.
49 C.F.R. 174	October 16, 2009 (74 Fed. Reg. 53182) October 19, 2009 (74 Fed. Reg. 53413) October 22, 2009 (74 Fed. Reg. 54489) February 2, 2010 (75 Fed. Reg. 5376) May 14, 2010 (75 Fed. Reg. 27205)
49 C.F.R. 175	January 4, 2010 (75 Fed. Reg. 63)
49 C.F.R. 176	October 16, 2009 (74 Fed. Reg. 53182) May 14, 2010 (75 Fed. Reg. 27205)
49 C.F.R. 177	May 14, 2010 (75 Fed. Reg. 27205)
49 C.F.R. 178	January 4, 2010 (75 Fed. Reg. 63) February 2, 2010 (75 Fed. Reg. 5376)
49 C.F.R. 179	May 14, 2010 (75 Fed. Reg. 27205)
49 C.F.R. 180	October 16, 2009 (74 Fed. Reg. 53182)

Tables of Deviations from the Federal text and Corrections to and Clarifications of the Base Text

The tables below list numerous corrections and amendments that are not based on current federal amendments. Table B (beginning immediately below) includes deviations made in this proposal for public comment from the verbatim text of the federal amendments. Table C (beginning immediately after Table C on page 361) contains corrections and clarifications that the Board made in the base text involved in this proposal. The amendments listed in Table C are not directly derived from the current federal amendments. Some of the entries in these tables are discussed further in appropriate segments of the general discussion beginning at page 10 of this opinion.

Table B
Deviations from the Text of the Federal Amendments

Illinois Section	40 C.F.R. Section	Revision(s)
703.Appendix A, ¶ A.9.	270.42, ¶ A.9.	Changed “under” to “pursuant to”
703.Appendix A, ¶ A.10.	270.42, ¶ A.10.	Changed “under” to “pursuant to”
720 table of contents, 720.130 heading	260.30 heading	Retained “Procedures of Solid Waste Determinations” in place of “variances from classification as a solid waste”; changed lower-case “non-waste determinations” to capitalized “Non-Waste Determinations” and added it at the end, rather than the beginning

Illinois Section	40 C.F.R. Section	Revision(s)
720 table of contents, 720.133 heading	260.133 heading	Retained the existing section heading
720 table of contents, 720.134 heading	260.34 heading	Omitted "Criteria and standards"; changed "non-waste determinations" to capitalized "Non-Waste Determinations"
720 table of contents, 720.142 heading	260.42 heading	Changed lower-case "requirements for hazardous secondary materials" to capitalized "Requirements for Hazardous Secondary Materials"
720 table of contents, 720.143 heading	260.43 heading	Changed lower-case "recycling of hazardous secondary materials" to capitalized "Recycling of Hazardous Secondary Materials"
720.110 "facility"	260.10 "facility"	Omitted the unnecessary comma before "or for managing" that separated a two-element series, since it was not necessary for enhanced clarity
720.110 "hazardous secondary material"	260.10 "hazardous secondary material"	Added quotation marks to the defined term "hazardous secondary material"; changed "under" to "pursuant to"
720.110 "hazardous secondary material generated and reclaimed under control of the generator" preamble	260.10 "hazardous secondary material generated and reclaimed under control of the generator" preamble	Added quotation marks to the defined term "hazardous secondary material generated and reclaimed under control of the generator"; added "one of the following materials"
720.110 "hazardous secondary material generated and reclaimed under control of the generator" preamble	260.10 "hazardous secondary material generated and reclaimed under control of the generator" preamble	Added quotation marks to the defined term "hazardous secondary material generated and reclaimed under control of the generator"; added "one of the following materials"
720.110 "hazardous secondary material generated and reclaimed under control of the generator," first sub-paragraph	260.10 "hazardous secondary material generated and reclaimed under control of the generator," ¶ 1	Changed "that such material is generated and reclaimed" to "a material that is both generated and reclaimed"
720.110 "hazardous secondary material generated and reclaimed under control of the	260.10 "hazardous secondary material generated and reclaimed under control of the	Changed "that such material" to "a material that is"; added "both of the following conditions are fulfilled" and the ending colon; divided the following text into three subsidiary paragraphs (including separate

Illinois Section	40 C.F.R. Section	Revision(s)
generator," second sub-paragraph (including subsidiary paragraphs)	generator," ¶ 2	paragraphs for the two certification statements); added "either" for enhanced clarity, removing the "if" from before "both"; added a comma before "or both the generating facility . . . person" for enhanced clarity; added "person" in quotation marks for enhanced clarity (twice); added a comma before "as 'person' is defined . . ." to offset the parenthetical; added the semicolon at the end of the first subsidiary paragraph; changed lower-case "the" to capitalized "The" to begin the second subsidiary paragraph; changed "one of the following" to "either of the following"; changed lower-case "on" to capitalized "On" to begin the certification statement (twice); added the ending period to the first certification statement; changed "this paragraph" to "this definition"; added commas before and after "as 'person' is defined . . . Section" to offset the parenthetical
720.110 "hazardous secondary material generated and reclaimed under control of the generator," third sub-paragraph (including subsidiary paragraphs)	260.10 "hazardous secondary material generated and reclaimed under control of the generator," ¶ 3	Changed "that such material" to "a material that is"; added "which" before "is reclaimed" for a subsequent restrictive relative clause; divided the following text into two subsidiary paragraphs (including the certification statement); added the missing end quotation mark at the end of the certification statement; changed "this paragraph" to "this definition"; added quotation marks to the locally defined term "tolling contractor"; added quotation marks to the locally defined term "toll manufacutrer"
720.110 "hazardous secondary material generator"	260.10 "hazardous secondary material generator"	Added quotation marks to the defined term "hazardous secondary material generator"; changed "this paragraph" to "this definition"

Illinois Section	40 C.F.R. Section	Revision(s)
720.110 "intermediate facility"	260.10 "intermediate facility"	Added quotation marks to the defined term "intermediate facility"; removed the comma and added "which" is" after "10 days" to changed the parenthetical to a restrictive relative clause; changed "a hazardous . . . generator or reclaimer" to disjunctive "neither a hazardous . . . nor a generator"; changed "such material" to "hazardous secondary material"
720.110 "land-based unit"	260.10 "land-based unit"	Added quotation marks to the defined term "land-based unit"
720.130 heading	260.30 heading	Retained "Procedures of Solid Waste Determinations" in place of "variances from classification as a solid waste"; changed lower-case "non-waste determinations" to capitalized "Non-Waste Determinations" and added it at the end, rather than the beginning
720.130(c)	720.130(c)	Changed the ending period to a semicolon
720.133 heading	260.133 heading	Retained the existing section heading
720.133 preamble	260.133 preamble	Changed plural "applications for non-waste determinations" to singular "an application for a non-waste determination"
720.133(c)	260.33(c)	Changed the plural "non-waste determinations" to singular "a non-waste determination"; changed "Administrator" to "Board"
720.134 heading	260.34 heading	Omitted "Criteria and standards"; changed "non-waste determinations" to capitalized "Non-Waste Determinations"
720.134(a)	260.34(a)	Changed "an applicant may apply to the Administrator" to "a person generating, managing, or reclaiming hazardous secondary material may petition the Board"; added "pursuant to . . . [415 ILCS 5/28.2]"; added "for an adjusted standard that is" before "a formal determination"; added "is" before "not a solid waste"; added "Board's adjusted standard" before "determination"; added "either" before "subsection (b) or (c)"; changed "application is denied" to active-voice "the Board denies the petition"; changed "variance" to "determination"; added the indefinite article "an" before "exclusion"; omitted the parenthetical "(for

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		example, . . . § 260.31.)"; changed plural, passive-voice "determinations may also be granted . . . for this provision" to singular "a determination made by the Board pursuant to this Section"; changed "if the following conditions are met" to "becomes effective upon occurrence of the first of the following two events"
720.134(a)(1)	260.34(a)	Added the provision relative to determinations being immediately effective upon issuance of a Board order after USEPA authorizes Illinois to administer exclusions by non-waste determinations
720.134(a)(2)	260.34(a)	Added the provision relative to Board-issued determinations becoming effective after completion of USEPA review and approval after USEPA has authorized Illinois to administer exclusions by non-waste determinations
720.134(a)(2)(A)	260.34(a)(1)	Changed "State" to "Board"; changed "determines" to "has granted an adjusted standard which determines that"; added "either" before "subsection (b) or (c)"
720.134(a)(2)(B)	260.34(a)(2)	Changed "State requests" to "Agency has requested"; changed "EPA" to "USEPA"; changed "its" to "Board's non-waste"
720.134(a)(2)(C)	260.34(a)(3)	Changed "EPA approves" to "USEPAhas approved"; changed "State determination" to "Board's non-waste determination"
720.134(b)	260.34(b)	Changed "Administrator may" to "Board will"; changed "which" to "that" for a restrictive relative clause; changed "applicant demonstrates" to "the Board determines that the applicant has demonstrated"; added "the material" before "is discarded"; changed "as specified in § 260.43" to "as determined pursuant to Section 720.143," adding commas to offset it as a parenthetical
720.134(b)(1)	260.34(b)(1)	Changed "the extent that" to "the extent to which"
720.134(b)(3)	260.34(b)(3)	Added commas before and after "rather than . . . higher levels" to offset the parenthetical; added a comma after "from either . . . perspective" to offset the parenthetical

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720.134(b)(4)	260.34(b)(4)	Changed "factors that demonstrate" to "factors which demonstrate that"
720.134(c)	260.34(c)	Changed "Administrator may" to "Board will"; added the indefinite article before "hazardous secondary material"; changed "that" to "which" for a subsequent restrictive relative clause; changed "applicant" to "petitioner"; added "Board's" before "determination"; changed "as specified in" to "as determined pursuant to," adding a preceding comma to offset the parenthetical
720.134(c)(1)	260.34(c)(1)	Changed "rather than a waste" to "rather than as a waste," adding a preceding comma to offset the parenthetical
720.134(c)(4)	260.34(c)(4)	Added commas before and after "rather than . . . higher levels" to offset the parenthetical; added a comma after "from either . . . perspective" to offset the parenthetical
720.134(c)(5)	260.34(c)(5)	Changed "factors that demonstrate" to "factors which demonstrate that"
720.134 ending Board note	720.134	Added explanation of the nature of the non-waste determination and of the existence of the four self-implementing exclusions for reclaimed HSM
720.142 heading	260.42 heading	Changed lower-case "requirements for hazardous secondary materials" to capitalized "Requirements for Hazardous Secondary Materials"
720.142(a)	260.42(a)	Changed plural "hazardous secondary material generators, tolling contractors, toll manufacturers, reclaimers, and intermediate facilities managing" to singular "a hazardous secondary material generator, a tolling contractor, a toll manufacturer, a reclaimer, or an intermediate facility that manages"; added "to USEPA Region 5" after "send a notification"; added a period and the introductory clause "the notification must occur" between "notification to USEPA Region 5" and "prior to operating"; changed "exclusion(s)" to singular "exclusion"; changed "by March 1" to "prior to March 1"; corrected the adjectival phrase from "even numbered" to hyphenated "even-numbered";

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		added "calendar" before "year"; removed the unnecessary "to the Regional Administrator" after "thereafter"; added "as copy of" before "USEPA Form 8700-12"; changed "EPA" to "USEPA" added "obtained from . . . (217-782-6762)"; added a period and changed "that includes" to the introductory clause "the notification must include" between "Form 8700-12" and "the following"
720.142(a)(1)	260.42(a)(1)	Changed "EPA ID number" to "USEPA identification number"
720.142(a)(2)	260.42(a)(2)	Added "for the facility" after "contact person"
720.142(a)(3)	260.42(a)(3)	Added explanation of "NAICS," including a cross-reference to the incorporation by reference
720.142(a)(4)	260.42(a)(4)	Changed passive-voice "the hazardous secondary materials will be managed" to active-voice "the facility will manage the hazardous secondary materials"; changed "and/or" to "or"
720.142(a)(5)	260.42(a)(5)	Changed the plural "reclaimers and intermediate facilities" to singular "a reclaimer or intermediate facility"; changed "managing" to "that manage"
720.142(a)(7)	260.42(a)(7)	Changed passive-voice "will be managed" to active-voice "the facility will manage"; changed "EPA" to "USEPA"
720.142(a)(10)	260.42(a)(10)	Changed "EPA" to "USEPA"
720.142(b)	260.42(b)	Added a comma after "reclaimer" to offset the final element of a series; changed "stops" to "ceases"; changed "exclusion(s)" to "exclusions"; added "owner or operator" after "facility"; changed "Regional Administrator" to "Agency"; changed "thirty (30)" to "thirty"; added "of the cessation" after "within 30 days"; added "as copy of" before "USEPA Form 8700-12"; changed "EPA" to "USEPA" added "obtained from . . . (217-782-6762)"; changed "exclusion(s)" to "exclusions"; added "the facility owner or operator" before "does not expect" and a comma before the conjunction "and" to create an independent clause

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720.142 ending Board note	260.42	added explanation of USEPA Form 8700-12
720.143 heading	260.43 heading	Changed lower-case "recycling of hazardous secondary materials" to capitalized "Recycling of Hazardous Secondary Materials"
720.143(a)	260.43(a)	Changed "persons regulated under" to "this Section applies to any person that is regulated pursuant to"; changed "claiming to be excluded" to "which claims to be excluded"; changed plural "they are" to singular "that person is"; added a period and the clause "Any such person" between "reclamation" and "must be" to split the first sentence into a statement of applicability and a statement relative to legitimacy; added "in which it is engaged" after "recycling"; changed "legitimate" to the conclusory phrase of art "legitimate recycling"; changed "legitimately recycled" to "the subject of legitimate recycling"; changed "in determining if their recycling is legitimate" to "A determination that an activity is legitimate recycling," omitting the comma that set the phrase off as an introductory clause; changed "requirements of" to "factors set forth in"
720.143(b)	260.43(b)	Added the introductory sentence "Factors fundamental to a determination of legitimate recycling"
720.143(b)(1)	260.43(b)(1)	Added "to the recycling process or to a product or intermediate" after "contribution"; added "if any of the following is true of its reclamation" and the ending colon
720.143(b)(1)(A)	260.43(b)(1)(i)	Added "it"; removed the ending conjunction "or"
720.143(b)(1)(B)	260.43(b)(1)(ii)	Added "it"; removed the ending conjunction "or"
720.143(b)(1)(C)	260.43(b)(1)(iii)	Added "it"; removed the ending conjunction "or"
720.143(b)(1)(D)	260.43(b)(1)(iv)	Added "it"
720.143(b)(1)(E)	260.43(b)(1)(v)	Added "it"

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720.143(b)(2)	260.43(b)(2)	Added "produced" after "product or intermediate"; changed "it is" to "either of the following describes it"; added the ending colon
720.143(b)(2)(A)	260.43(b)(2)(i)	Added "it is"
720.143(b)(2)(B)	260.43(b)(2)(ii)	Added "it is"
720.143(c)	260.43(c)	Added the introductory sentence "Other factors for consideration in a determination of legitimate recycling"; changed "the following factors must be considered in making a determination . . . activity" to active voice "a determination whether . . . activity . . . must consider the factors"; changed "as to the overall legitimacy of" to "whether . . . constitutes legitimate recycling"; added the indefinite article "a" before "specific activity"; added "of subsections (c)(1) and (c)(2) of this Section, in the way described in subsection (c)(3) of this Section"; added the ending colon
720.143(c)(1)	260.43(c)(1)	Changed "the generator and the recycler should manage" to "the demonstration must show whether both the generator and the recycler manage"; changed "the hazardous secondary material should be managed" to active-voice "the demonstration must show whether the generator and the recycler manage the hazardous secondary material"; changed "the hazardous secondary material should be contained" to "the demonstration must show whether the hazardous secondary material is contained"; changed plural "hazardous secondary materials that are . . . and are . . . are" to singular "a hazardous secondary material that is . . . and which is . . . is"; changed "discarded" to the phrase of art, "discarded material"; added "which is solid waste" as a parenthetical offset by a comma; changed the ending period to a semicolon; added the ending conjunction "and"
720.143(c)(2)	260.43(c)(2)	Added "the demonstration must show whether each of the following is true of"; added the ending colon

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720.143(c)(2)(A)	260.43(c)(2)(i)	Added "the product does not"; changed "found in" to "listed in"; deleted the ending conjunction "or"
720.143(c)(2)(B)	260.43(c)(2)(ii)	Added "the product does not"; changed "found in" to "listed in"; changed "elevated from" to "elevated above"; changed the ending period to a semicolon and added the ending conjunction "and"
720.143(c)(2)(C)	260.43(c)(2)(iii)	Added "the product does not"
720.143(c)(3)	260.43(c)(3)	Added the introductory sentence "Determination whether a specific instance of reclamation is legitimate recycling"; changed "in making a determination that" to active voice "a determination that a specific instance of reclamation of"; changed "legitimately recycled" to the phrase of art, "legitimate recycling"; changed "persons must evaluate all factors" to "requires evaluation of all of the factors set forth in . . . this Section"; added a comma and changed "and consider" to "and the determination must consider" to create an independent clause; all that followed the first sentence into separate subsidiary subsections
720.143(c)(3)(A)	260.43(c)(3)(i)	Placed the material relative to failure to meet the factors into this separate subsidiary subsection; added a comma after "careful evaluation" to complete offsetting the parenthetical; added "the determination is that the conditions of" before "one or both factors"; added set forth in . . . this Section" after "factors"; changed "met" to "fulfilled"; deleted "then" from before "this fact"; changed "may be an indication that the material is not legitimately recycled" to "militates in favor of a determination that the reclamation of the hazardous secondary material is not legitimate recycling"; changed "factors in this paragraph do not have to be met for the recycling to be considered" to "non-fulfillment of the factors set forth in . . . this Section does not require a determination that the use is not"; changed "legitimate" to "legitimate recycling"

Illinois Section	40 C.F.R. Section	Revision(s)
720.143(c)(3)(B)	260.43(c)(3)(ii)	Placed the material relative to evaluating the factors into this separate subsidiary subsection; changed passive-voice "these factors are met" to active-voice "the reclamation fulfills the factors set forth in subsections (c)(1) and (c)(2) of this Section"; added "specific reclamation" before "process"; changed "legitimate" to "legitimate recycling"; changed "persons" to "the determination"; changed "exposure from toxics" to "exposure of persons and the environment to toxics"; added "that bear on whether the recycling is legitimate" after "considerations"
720.143(c)(3)(B) Board note	260.43(c)(3)(ii)	Added explanation of "other factors" based on the *Federal Register* discussion of legitimacy and the Lowrance memo"
720.143 Board note	260.43(c)(3)(ii)	Added explanation of the various terms used by USEPA to mean "legitimate recycling"; added explanation that "legitimate reclamation" means the same as "legitimate recycling"
721 table of contents, 721.138 heading	261.38 heading	Changed lower-case "comparable fuel and syngas fuel" to capitalized "Comparable Fuel and Syngas Fuel"
721 table of contents, Subpart H heading	261, subpart H heading	Changed the em-dash to a colon; put the title in upper-case
721 table of contents, 721.241 heading	261.141 heading	Changed lower-case "terms as used in this subpart" to capitalized "Terms as Used in the Subpart"
721 table of contents, 721.242 heading	261.142 heading	Changed lower-case "estimate" to capitalized "Estimate"
721 table of contents, 721.243 heading	261.143 heading	Changed lower-case "assurance condition" to capitalized "Assurance Condition"
721 table of contents, 721.247 heading	261.147 heading	Changed lower-case "requirements" to capitalized "Requirements"
721 table of contents, 721.248 heading	261.148 heading	Changed lower-case "owners or operators, guarantors, or financial institutions" to capitalized "Owners or Operators, Guarantors, or Financial Institutions"
721 table of contents, 721.249 heading	261.149 heading	Changed lower-case "State-required mechanisms" to capitalized "State-Required Mechanisms"

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721 table of contents, 721.250 heading	261.150 heading	Changed lower-case "assumption of responsibility" to capitalized "Assumption of Responsibility"
721 table of contents, 721.251 heading	261.151 heading	Changed lower-case "instruments" to capitalized "Instruments"
721.Appendix Y heading	Table 1 to 261.38	Changed "Detection and Detection Limit Values for Comparable Fuel Specification" to "Maximum Contaminant Concentration and Minimum Detection Limit Values for Comparable Fuel Specification"
721.102(a)(2)(A)(i)	621.2(a)(2)(i)(A)	Added "it is"; changed "as explained" to "as described"
721.102(a)(2)(A)(ii)	621.2(a)(2)(i)(B)	Added "it is"; changed "as explained" to "as described"
721.102(a)(2)(A)(iii)	621.2(a)(2)(i)(C)	Added "it is"; changed "as explained" to "as described"
721.102(a)(2)(A)(iv)	621.2(a)(2)(i)(D)	Added "it is"
721.102(a)(2)(B)	621.2(a)(2)(ii)	Subdivided the paragraph by moving the eight conditional statements into separate subsidiary subsections; added "each of the following is true with respect to the waste"; added the ending colon
721.102(a)(2)(B)(i)	621.2(a)(2)(ii)	Moved the conditional statement into a separate subsidiary subsection; added a comma before "as defined" to offset the parenthetical; added the ending semicolon
721.102(a)(2)(B)(ii)	621.2(a)(2)(ii)	Moved the conditional statement into a separate subsidiary subsection; added a comma before "as defined" to offset the parenthetical; added the ending semicolon
721.102(a)(2)(B)(iii)	621.2(a)(2)(ii)	Moved the conditional statement into a separate subsidiary subsection; added the ending semicolon
721.102(a)(2)(B)(iv)	621.2(a)(2)(ii)	Moved the conditional statement into a separate subsidiary subsection; added the ending semicolon
721.102(a)(2)(B)(v)	621.2(a)(2)(ii)	Moved the conditional statement into a separate subsidiary subsection; changed "under" to "pursuant to"; added the ending semicolon
721.102(a)(2)(B)(vi)	621.2(a)(2)(ii)	Moved the conditional statement into a separate subsidiary subsection; added the ending semicolon

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721.102(a)(2)(B)(vii)	621.2(a)(2)(ii)	Moved the conditional statement into a separate subsidiary subsection; changed "meet the listing description for K171 or K172" to "meet either of the listing descriptions for K171 or K172 waste"; added the ending semicolon
721.102(a)(2)(B)(viii)	621.2(a)(2)(ii)	Moved the conditional statement into a separate subsidiary subsection; changed "as specified under" to "as determined pursuant to"
721.102(a)(2)(B) Board note	621.2(a)(2)(ii)	Moved the conditional statement into a separate subsidiary subsection; added a comma before "as defined" to offset the parenthetical; added the ending semicolon
721.102(a)(2)(B)(i)	621.2(a)(2)(ii)	Moving the conditional statement into a separate subsidiary subsection; added a comma before "as defined" to offset the parenthetical; added the ending semicolon
721.102(a)(2)(B)(i)	621.2(a)(2)(ii)	Moving the conditional statement into a separate subsidiary subsection; added a comma before "as defined" to offset the parenthetical; added the ending semicolon
721.102(a)(2)(B) Board note	621.2(a)(2)(ii)	Moving the parenthetical statements into a Board note
721.102(a)(3)	621.2(a)(3)	Added a comma before "unless" to offset the parenthetical statement
721.104(a)(23)	261.4(a)(23)	Added the introductory sentence "Hazardous secondary materials managed in land-based units."; added commas before and after "as defined . . . 720.110" to offset it as a parenthetical; changed "provided that" to "if the following conditions are fulfilled"
721.104(a)(23)(D)	261.4(a)(23)(iv)	Changed "meet the listing description for K171 or K172" to "meet either of the listing descriptions for K171 or K172 waste"
721.104(a)(23)(E)	261.4(a)(23)(v)	Changed "as specified under" to "as determined pursuant to"
721.104(a)(23)(F)	261.4(a)(23)(vi)	Changed plural "persons" to singular "a person"; added "of regulated waste activity" after "notification"; added a comma before "as required" to offset the parenthetical

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721.104(a)(24)	261.4(a)(24)	Added the introductory sentence "Hazardous secondary materials transferred for off-site recycling."; changed "provided that" to "if the following conditions are fulfilled"
721.104(a)(24)(A)	261.4(a)(24)(i)	Added "hazardous" before "secondary material"; changed "is not" to "must not be"; changed the ending semicolon to a period
721.104(a)(24)(B)	261.4(a)(24)(ii)	Changed passive voice "the material is not handled by any person or facility other than the hazardous secondary material . . . reclaimer" to "no person or facility other than the hazardous secondary material . . . reclaimer handles the material"; replaced the comma after "handles the material" to a semicolon and changed "and, while in transport, is not stored" to "the material must not be stored" to create an independent clause; changed the comma after "721.110" to a semicolon and changed "and is packaged" to "the material must be packaged" to create an independent clause; changed "Department of Transportation regulations at" to "USDOT regulations codified as"; added "incorporated . . . 720.111" offset as a parenthetical by commas
721.104(a)(24)(C)	261.4(a)(24)(iii)	Added "hazardous" before "secondary material"; changed "is not otherwise subject to" to "must not otherwise be subject to"; changed "under" to "pursuant to"; changed "material-specific management conditions under" to "other provisions of this"; added a comma after "when reclaimed" for an independent clause; changed "it is" to "the material must not be"; changed the comma after the parenthetical "(see . . . 733.102)" to a semicolon for an independent clause; changed "it does not meet the listing description for K171 or K172" to "the material must not fulfill either of the listing descriptions for K171 or K172 waste"; changed the ending semicolon to a period

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721.104(a)(24)(D)	261.4(a)(24)(iv)	Added "hazardous" before "secondary material"; changed "is legitimate" to "must be legitimate"; changed "as specified under" to "as determined pursuant to"; changed the ending semicolon to a period
721.104(a)(24)(E)	261.4(a)(24)(v)	Changed "satisfies all" to "must satisfy each"
721.104(a)(24)(E)(i)	261.4(a)(24)(v)(A)	Added "hazardous" before "secondary material"
721.104(a)(24)(E)(ii)	261.4(a)(24)(v)(B)	Added an explanatory opening sentence and a local definition of "non-Subtitle C management"; omitted the parenthetical "(or facilities)"; changed "management of the hazardous secondary materials is not addressed under a RCRA Part B permit or interim status standards" to the defined term "non-Subtitle C management will occur" (twice); changed "each reclaimer" to "the reclaimer" (twice); changed "will be passing" to "will pass"; added "once" before "every three years"; added "of this subsection (a)(24)" after "exclusion"; changed "each reclaimer" to "a reclaimer"; changed "and/or" to "or"; changed "affirmatively answer all of the following questions" to "make the series of affirmative determinations set forth in subsection (a)(24)(H) of this Section"; added "that will manage its waste"; changed the ending colon to a period; moved federal subsections (a)(24)(v)(B)(*1*) through (a)(24)(v)(B)(*5*) to appear as subsections (a)(24)(H)(i) through (a)(24)(H)(v) in the Illinois rules to comport with *Illinois Administrative Code* codification requirements
721.104(a)(24)(E)(ii) Board note	261.4(a)(24)(v)(B)	Added explanation of USEPA's intent that the generator undertake the determinations for each reclaimer; added explanation of the added definition of "non-Subtitle C management" and the intent that the change make no difference in meaning from USEPA's original language; added explanation of the movement of what appears as subsections (a)(24)(v)(B)(1) through (a)(24)(v)(B)(5) to appear as subsections

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		(a)(24)(H)(i) through (a)(24)(H)(v) in the Illinois rules, to comport with codification requirements
721.104(a)(24)(E)(iii)	261.4(a)(24)(v)(C), (a)(24)(v)(C)(*1*), and (a)(24)(v)(C)(*2*)	Combined the two separate fifth-indent-level paragraphs (a)(24)(v)(C)(*1*) and (a)(24)(v)(C)(*2*) together with the opening statement of paragraph (a)(24)(v)(C), combining "the certification statement must" and "incorporate" and changing them to "execute a certification statement that includes" after "generator must," changed "include" to "together with" and appended "the printed name . . . and the date disnged" after "following language," moving the text "maintain for a minimum . . . time specified by the Agency" into subsection (a)(24)(E)(iv), and adding the certification statement as a separate subsidiary paragraph; added "execute a certification statement that includes" after "generator must"; changed "include" to "together with"
721.104(a)(24)(E)(iii) certification statement	261.4(a)(24)(v)(C)(*2*)	Removed the quotation marks from the text due to quotation in the block indent; changed "name(s) of reclamation facility and any intermediate facility" to "the name of each reclamation facility and any intermediate facility that will manage the material"; retained the federal citation as a parenthetical "(and corresponding 40 CFR 261.4(a)(24)(v)(B))"; removed the unnecessary comma after "recycled legitimately"; added "would be" before "otherwise managed"
721.104(a)(24)(E)(iii) Board note	261.4(a)(24)(v)(C), (a)(24)(v)(C)(*1*), and (a)(24)(v)(C)(*2*)	Added explanation of reorganization of the material
721.104(a)(24)(E)(iv)	261.4(a)(24)(v)(C), and (a)(24)(v)(D)	Combined a significant portion of text from 261.4(a)(24)(v)(C) into this provision, outlined as follows: added "the following" before "records" and moved it from after "three years" to after "maintain"; changed "three (3)" to "three" (this text allowed deletion of "maintain . . . three years" from 261.4(a)(24)(v)(C)); added a comma after

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		"three years"; added "documentation and certification . . . transferring hazardous secondary material" from 261.4(a)(24)(v)(C), changing passive-voice "reasonable efforts were made" to "the generator made reasonable efforts," adding "prior to . . . secondary material" offset by commas as a parenthetical, changing "where the management . . . interim status standards" to "where non-Subtitle C . . . will occur"; added "Documentation and certification . . . upon request by the Agency" from 261.4(a)(24)(v)(C), moving "within 72 hours . . . time specified by the Agency," changing "a longer time as specified" to "any longer time specified," changing "regulatory authority" to "Agency" (twice)
721.104(a)(24)(E)(iv) Board note	261.4(a)(24)(v)(C), and (a)(24)(v)(D)	Added explanation of the movement of text
721.104(a)(24)(E)(v)	261.4(a)(24)(v)(D), (a)(24)(v)(D)(*1*), and (a)(24)(v)(D)(*2*)	Combined the two separate fifth-indent-level paragraphs (a)(24)(v)(C)(*1*) and (a)(24)(v)(C)(*2*) together with the opening statement of paragraph (a)(24)(v)(C); changed "records" to "certain records" and moved it from before "of all off-site shipments" to before "at the generating facility"; changed "no less than three (3) years" to "a minimum of three years"; changed "of all off-site shipments" to "that document every off-site shipment"; added "the documentation" before "for each shipment," and removing the now unnecessary comma after "shipment," which offset the introductory prepositional phrase; changed "contain" to "include"; added "about the shipment" after "information"; added the definite article "the" before "name" (twice); changed "each reclaimer and each intermediate facility" to "each reclaimer and intermediate facility"; added the conjunction "and" before "the type"
721.104(a)(24)(E)(v) Board note	261.4(a)(24)(v)(D), (a)(24)(v)(D)(*1*), and (a)(24)(v)(D)(*2*)	Added explanation of the movement of text

Illinois Section	40 C.F.R. Section	Revision(s)
721.104(a)(24)(E)(vi)	261.4(a)(24)(v)(E)	Changed "for no less than three (3) years" to "for a minimum of three years" offset by commas as a parenthetical; changed "for all off-site shipments of hazardous secondary materials" to "for every off-site shipment of hazardous secondary materials" and moved it from after "intermediate facility" to after "three years," adding commas to offset it as a parenthetical; added "to which . . . were sent" after "intermediate facility; changed plural "confirmations of receipt" to singular "each confirmation of receipt"; added a comma after "received" to offset the final element of the series; corrected "date which" to "date on which"; changed passive-voice "hazardous secondary materials were received" to active-voice "the facility received the hazardous secondary materials"; changed passive-voice "this requirement may be satisfied" to "the generator may satisfy this requirement"; changed "by" to "using"
721.104(a)(24)(E)(vi) Board note	261.4(a)(24)(v)(E)	Added explanation of the movement of text
721.104(a)(24)(F)	261.4(a)(24)(vi)	Changed plural "reclaimers . . . and intermediate facilities" to singular "the reclaimer . . . or any intermediate facility . . . that handles material which is"; moved "or intermediate facility . . . 720.110" from after "exclusion" to follow "hazardous secondary material"; added a comma before and after "as defined . . . 720.110" to offset it as a parenthetical; changed "under this exclusion" to "pursuant to this subsection (a)(24)" added "must" before "satisfy"
721.104(a)(24)(F)(i)	261.4(a)(24)(vi)(A), (a)(24)(vi)(A)(*1*), (a)(24)(vi)(A)(*2*), (a)(24)(vi)(A)(*3*), and (a)(24)(vi)(A)(*4*)	Combined the four separate fifth-indent-level paragraphs (a)(24)(vi)(A)(*1*), (a)(24)(vi)(A)(*2*), (a)(24)(vi)(A)(*3*), and (a)(24)(vi)(A)(*4*) together with the text of paragraph (a)(24)(vi)(A); changed "the reclaimer and intermediate facility" to "the owner or operator or a reclamation or intermediate facility"; changed "no less than three (3) years" to "a minimum of three years"; changed "all shipments" to "every shipment" (twice); changed passive-voice

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		"that were received" to active-voice "that the facility received" (twice); added commas before and after "at a minimum" to offset is as a parenthetical; added the definite article "the" before "name" (three times); changed passive-voice "which the hazardous secondary materials were received from" to active-voice "from which the facility received the hazardous secondary materials"; changed passive-voice "and, if applicable, for all shipments . . . that were received and subsequently sent off-site from the facility for further reclamation" to active-voice "and, for . . . that the facility subsequently transferred off-site for further reclamation after receiving it"; changed passive-voice "each intermediate facility to which the hazardous secondary material was sent" to active-voice "any intermediate facility to which the facility sent the hazardous secondary material"
721.104(a)(24)(F)(i) Board note	261.4(a)(24)(vi)(A), (a)(24)(vi)(A)(*1*), (a)(24)(vi)(A)(*2*), (a)(24)(vi)(A)(*3*), and (a)(24)(vi)(A)(*4*)	Added explanation of the movement of text
721.104(a)(24)(F)(ii)	261.4(a)(24)(vi)(B)	Changed "reclaimer(s)" to "reclaimers"; changed "hazardous secondary material generator" to "generator of the hazardous secondary material"
721.104(a)(24)(F)(iii)	261.4(a)(24)(vi)(C)	Changed "reclaimer and intermediate facility" to "reclaimer or intermediate facility"; added "that receives a shipment of hazardous secondary material" after "facility"; changed "hazardous secondary material generator confirmations of receipt" to "a confirmation of receipt to the hazardous secondary material generator"; changed plural "for all off-site shipments" to singular "for each off-site shipment"; changed plural "confirmations" to singular "a confirmation"; added a comma before "and the date" to offset the final element in a series; changed passive-voice "the date which . . . were received" to "the date on which the facility

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		received . . .”; changed passive-voice “this requirement may be satisfied” to “the reclaimer or intermediate facility may satisfy this requirement”; changed “by” to “using”
721.104(a)(24)(F)(iv)	261.4(a)(24)(vi)(D)	Changed “reclaimer and intermediate facility” to “reclaimer or intermediate facility”; added “of human health and the environment” after “protective”; added a comma before the conjunction “and” and added “the material” before “must be contained” for an independent clause; changed “a hazardous secondary material is a substitute and serves” to “the hazardous secondary material substitutes and that serves”
721.104(a)(24)(F)(v)	261.4(a)(24)(vi)(E)	Changed passive-voice “any residuals . . . will be managed” to active-voice “a reclaimer of hazardous secondary materials must manage any residuals . . .”; added “its” before “reclamation processes”; added “of the reclamation process” after “any residuals”; changed “a hazardous characteristic according to subpart C” to “exhibit a characteristic of hazardous waste, as defined in Subpart C”; added “as hazardous waste” after “listed”; changed “such residuals” to “those residuals”; changed plural “hazardous wastes” to singular “hazardous waste”; added a period after “hazardous waste” and the subject clause “the reclaimer and any subsequent persons” before “must manage” to split the sentence into two and change passive-voice “must be managed” to active voice “the reclaimer . . . must manage that hazardous waste”; changed the citation to refer to the Illinois hazardous waste regulations “or similar regulations authorized by USEPA as equivalent to 40 CFR 260 through 272”
721.104(a)(24)(F)(vi)	261.4(a)(24)(vi)(F)	Changed “has” to “must have”; changed “as required under” to “that satisfies the requirements of”

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721.104(a)(24)(G)	261.4(a)(24)(vii)	Removed the introductory clause "in addition" and the offsetting comma; changed plural "all persons" to singular "any person"; added "for recycled hazardous secondary material" after "exclusion"; changed "under" to "pursuant to"; "under" to "by"
721.104(a)(24)(H)	261.4(a)(24)(v)(B)	Moved federal subsections (a)(24)(v)(B)(*1*) through (a)(24)(v)(B)(*5*) to appear as subsections (a)(24)(H)(i) through (a)(24)(H)(v) in the Illinois rules to comport with *Illinois Administrative Code* codification requirements, using the final sentence of (a)(24)(v)(B) as a preamble statement; added "For the purposes of . . . this Section" offset by a comma; changed "affirmatively answer all of the following questions" to "affirmatively determine that each of the following conditions is true"; added "that will manage the generator's hazardous secondary material"
721.104(a)(24)(H)(i)	261.4(a)(24)(v)(B)(*1*)	Moved federal subsection (a)(24)(v)(B)(*1*) to appear as subsections (a)(24)(H)(i) in the Illinois rules to comport with *Illinois Administrative Code* codification requirements; changed the question "Does the available information indicate that the reclamation process is legitimate pursuant to . . . ?" to the affirmative statement "available information indicates that the reclamation process is legitimate recycling, as determined pursuant to . . . ."; changed "in answering this question" to "in making this determination"; changed "can" to "may"; added "on" before "information"; changed "by responding to this question" to "by making this determination"; changed "its" to "the" before "requirement"; changed "to be able to" to "that the generator" before "generator"
721.104(a)(24)(H)(ii)	261.4(a)(24)(v)(B)(*2*)	Moved federal subsection (a)(24)(v)(B)(*2*) to appear as subsections (a)(24)(H)(ii) in the Illinois rules to comport with *Illinois Administrative Code* codification requirements; changed the question "Does the publicly available information indicate

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		. . . and have they notified . . . ?" to the affirmative statement "Publicly available information indicates . . . and these facilities have . . . ."; changed "notified the appropriate authorities of hazardous secondary materials reclamation activities pursuant to" to "has submitted the notification required by"; changed "notified the appropriate authorities that the financial assurance condition is satisfied per paragraph (a)(24)(vi)(F) of this section" to "has submitted the required proofs of financial assurance as required by the applicable of Section 721.243(a)(1), (b)(1), (c)(1), (d)(1), (e)(3), and (g) and notification of financial assurance pursuant to 35 Ill. Adm. Code 720.142(a)(5)"; changed "answering these questions" to "making this dual determination"; changed "can" to "may"; changed "per" to "pursuant to"; changed "EPA" to "the Agency"
721.104(a)(24)(H)(iii)	261.4(a)(24)(v)(B)(*3*)	Moved federal subsection (a)(24)(v)(B)(*3*) to appear as subsections (a)(24)(H)(iii) in the Illinois rules to comport with *Illinois Administrative Code* codification requirements; changed the question "Does publicly available information indicate . . . and has not been classified . . . ?" to the affirmative statement "Publicly available information indicates . . . and these facilities have . . . ."; changed "the reclamation or any intermediate facility" to "each reclamation facility and any intermediate facility"; changed "in the previous" to "within the previous" (twice); added a comma before "and" and added "the facility" before "has not been" for an independent clause; parenthetically added the standardized abbreviation "(SNC)"; added "requirements" after "RCRA Subtitle C" (twice); changed "in answering this question" to "in making this determination" (twice); changed "can" to "may"; changed "EPA or the state" to "USEPA, the Agency, or the Office of the Attorney General"; changed "in the previous" to "within the previous"; added a

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		comma after "regulations," changed the conjunction "and" to "or," and added "if the facility" before "has been classified"; changed "significant non-complier" to the standardized abbreviation "SNC"; changed the question "does the hazardous secondary material generator have" to the affirmative statement "the hazardous secondary material generator must have"; changed plural "facilities" to singular "facility"; changed "EPA, the state, or the facility itself" to "USEPA, the Agency, the Office of the Attorney General, or from the facility itself"; added "which indicates" before "that the facility"; added "generator's" before "hazardous secondary materials"
721.104(a)(24)(H)(iii) Board note	261.4(a)(24)(v)(B)(*3*)	Added explanation of the formal determination that a facility is a SNC and the source for learning whether a particular facility has been determined a SNC
721.104(a)(24)(H)(iv)	261.4(a)(24)(v)(B)(*4*)	Moved federal subsection (a)(24)(v)(B)(*4*) to appear as subsections (a)(24)(H)(iv) in the Illinois rules to comport with *Illinois Administrative Code* codification requirements; changed the question "Does available information indicate . . . ?" to the affirmative statement "Available information indicates . . . ."; changed "in answering this question" to "in making this determination"; added "made" after "description"; changed passive-voice "to be used to recycle" to active-voice "the facility will use to manage and recycle"
721.104(a)(24)(H)(v)	261.4(a)(24)(v)(B)(*5*)	Moved federal subsection (a)(24)(v)(B)(*5*) to appear as subsections (a)(24)(H)(v) in the Illinois rules to comport with *Illinois Administrative Code* codification requirements; changed the question "does the reclamation facility have . . . ?" to the affirmative statement "the reclamation has . . . ."; changed "if not" to "if the reclamation facility does not have required permits"; changed the question "does the reclamation facility have . . . ?" to the affirmative statement "the facility has . . . ."; changed "if

Illinois Section	40 C.F.R. Section	Revision(s)
		not" to "if the reclamation facility does not have required permits or a contract with a permitted facility"; changed "if not" to "if the reclamation facility does not have required permits"; changed the question "does the hazardous secondary material generator have . . . ?" to the affirmative statement "the hazardous secondary material generator has . . . ."; changed "in answering these questions" to "in making these determinations"; added "made" after "description"; changed "can" to "may"; changed "EPA or the state" to "USEPA or the Agency"; added "on" before "information"
721.104(a)(24)(H) Board note	261.4(a)(24)(v)(B)	Added explanation of the movement of text to comport with *Illinois Administrative Code* codification requirements
721.104(a)(25)	261.4(a)(25)	Added the introductory sentence "Hazardous secondary materials exported for recycling."; changed "provided that" to "so long as"; changed the parenthetical "(except . . . foreign reclaimers and foreign intermediate facilities)" to "except that the requirements . . . (requiring . . . notifications) to not apply as to foreign reclaimers and intermediate facilities," offset as a parenthetical by commas; changed "and that the hazardous secondary material generator also complies" to "and the hazardous secondary material generator also complies"
721.104(a)(25)(A)	261.4(a)(25)(i)	Added "the generator must" before "notify"; changed "EPA" to "the Agency and USEPA"; changed passive-voice "notification must be submitted at least 60 days before" to "the generator must submit notification at least 60 days before"; changed "over a twelve (12) month or lesser period" to "over a period up to 12 months duration, but not longer"
721.104(a)(25)(A)(i)	261.4(a)(25)(i)(A)	Added the definite article "the" before "name"; changed "EPA ID" to "USEPA identification"

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721.104(a)(25)(A)(ii)	261.4(a)(25)(i)(B)	Added a colon after "description of the hazardous secondary material"; changed "EPA" to "USEPA"; changed "U.S. DOT" to "USDOT"; added a comma before "and identification" to offset the final element of a series"; changed "ID" to "identification"; changed "UN/NA" to "UN or NA number"; added "each incorporated . . . 720.111" offset as a parenthetical by a comma
721.104(a)(25)(A)(iii)	261.4(a)(25)(i)(C)	Added a comma before "and the period of time" to offset an independent clause
721.104(a)(25)(A)(vi)	261.4(a)(25)(i)(F)	Added "and the" before the final element of the series "types"; changed "type(s)" to "types"
721.104(a)(25)(A)-(viii)	261.4(a)(25)(i)(H)	Changed "the" to "each" before "reclaimer"; added a comma before "and any" to offset the final element of the series; changed "alternate" to "alternative"
721.104(a)(25)(A)(ix)	261.4(a)(25)(i)(I)	Added a comma after "sent" to complete the offset of the parenthetical that follows; added "together with" before "a description"; changed "it" to "the material"; changed "such countries" to "each transit country"; changed "its" to "the" before "handling"; added "of the material" after "handling"; changed "there" to "in the country"; changed "the meanings of the terms . . . are as defined" to "the terms . . . as used as defined"; moved the comma after "Consent" inside the closing quotation mark; added a comma before "and 'transit country'" to offset the final element of the series; added a comma before "with the exception" to offset the parenthetical; corrected the ending colon to a period
721.104(a)(25)(B)	261.4(a)(25)(ii)	Added a preamble that recites placed the substantive requirements in a preamble, and placed the required addresses in two subsidiary subsections; added the introductory sentence "Submission of notification of intent to export hazardous secondary material."; moved the envelope labeling requirement into the preamble; changed "in both cases" to "whether

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		delivered by mail or hand delivery"; changed "shall be prominently displayed" to "words must prominently appear"
721.104(a)(25)(B)(i)	261.4(a)(25)(ii)	Placed the information relative to delivery by mail in this subsidiary subsection; changed "notifications submitted by mail should" to "a notification that is submitted by mail must"; changed singular "address" to plural "addresses" and added an address for the Agency
721.104(a)(25)(B)(ii)	261.4(a)(25)(ii)	Placed the information relative to hand delivery in this subsidiary subsection; changed "hand-delivered notifications should" to "a notification that is hand-delivered must"; added "the following addresses"; added an address for the Agency
721.104(a)(25)(C)	261.4(a)(25)(iii)	Changed plural "changes to . . . and decreases" to singular "a change in . . . or a decrease"; changed "in" to "submitted pursuant to"; changed "EPA" to "the Agency and USEPA"; changed "renotification" to "re-notification"; changed "EPA" to "USEPA"
721.104(a)(25)(D)	261.4(a)(25)(iv)	Changed "EPA" to "the Agency or USEPA"; changed "shall" to "must"; changed "EPA" to "the Agency and USEPA"; changed "which" to "that" for a restrictive relative clause
721.104(a)(25)(E)	261.4(a)(25)(v)	Changed "EPA" to "USEPA"; added "has stated . . . that it" before "will provide"; changed "EPA receives a notification which EPA determines satisfies" to "USEPA determines that the notification satisfies"; changed "EPA" to "USEPA"; added "has stated . . . that it"
721.104(a)(25)(F)	261.4(a)(25)(vi)	Changed "under" to "pursuant to"; added a comma before "unless" to offset the parenthetical; changed "EPA" to "USEPA" (twice); added "has stated . . . that it"; added "has stated that it"

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721.104(a)(25)(G)	261.4(a)(25)(vii)	Changed "thirty (30)" to "30"; changed "transboundary" to "trans-boundary"; changed "EPA" to "USEPA"; added "has stated . . . that it"; changed "one (1)" to "one"; changed "thirty (30) day" to "30-day"; changed "renotification" to "re-notification"
721.104(a)(25)(I)	261.4(a)(25)(ix)	Changed "EPA" to "the Agency and USEPA"
721.104(a)(25)(J)	261.4(a)(25)(x)	Changed plural "hazardous secondary material generators" to singular "the hazardous secondary material generator"
721.104(a)(25)(K)	261.4(a)(25)(xi)	Added the introductory sentence "Annual reporting of hazardous secondary material exports."; changed plural "hazardous secondary material generators" to singular "a hazardous secondary material generator"; changed "Administrator" to "Agency and USEPA"; changed "summarizing" to "that summarizes"; added a comma before "and ultimate" to offset the final element of a series; changed "should" to "must"; changed "the following address: . . . Washington, DC 20004" to "the addresses listed in subsection (a)(25)(B) . . . hazardous secondary material"; changed "such" to "the annual"
721.104(a)(25)(K)(i)	261.4(a)(25)(xi)(A)	Added "the" before "name"; changed "mailing and site address" to plural "mailing and site addresses"; changed "EPA ID" to "USEPA identification"
721.104(a)(25)(K)(iii)	261.4(a)(25)(xi)(C)	Added "that received exported hazardous secondary material from the generator"
721.104(a)(25)(K)(iv)	261.4(a)(25)(xi)(D)	Changed "EPA" to "USEPA"; changed "if . . . was managed" to "were . . . to be managed" for a statement contrary to fact; changed the comma after "hazardous waste" to a semicolon for a series in which one element includes a comma (four times); changed "U.S. DOT" to "the USDOT"; added "for the material, as determined . . . , each incorporated . . . 720.111; changed "U.S. EPA ID" to "USEPA identification"

Illinois Section	40 C.F.R. Section	Revision(s)
721.104(a)(25)(K)(v)	261.4(a)(25)(xi)(E)	changed "which" to "that" for a restrictive relative clause; added "as follows"; separated the required certification statement into a separate subsidiary paragraph
721.104(a)(25)(L)	261.4(a)(25)(xii)	Changed plural "all persons" to singular "any person; changed "claiming" to "that claim"
721.105(c)(5)	261.5(c)(5)	Removed the unnecessary ending conjunction "and"
721.105(c)(6)	261.5(c)(6)	Added the ending conjunction "and"
721.105(c)(7)	261.5(c)(7)	Omitted "is a" from before "hazardous waste"; added "that is" before "listed in"; changed "exhibiting" to "which exhibits"; added quotation marks to the defined term "eligible academic entity"; changed "shall have" to "has"; changed "as defined" to "given the term"
721.138 heading	261.38 heading	Changed lower-case "comparable fuel and syngas fuel" to capitalized "Comparable Fuel and Syngas Fuel"
721.138(a)(3)(B)	261.38(a)(3)(ii)	Changed "shall" to "must"; added "fulfill the following requirements"
721.138(a)(3)(B)(i)	261.38(a)(3)(ii)(A)	Added a comma to offset the introductory clause "as generated"; added "the hazardous waste must"
721.138(a)(3)(B)(ii)	261.38(a)(3)(ii)(B)	Added "the hazardous waste must"
721.138(a)(3)(B)(iii)	261.38(a)(3)(ii)(C)	Added "the hazardous waste must"
721.138(a)(4)(A)	261.38(a)(4)(iv)	Added "fulfills the following requirements"
721.138(a)(4)(A)(i)	261.38(a)(4)(iv)(A)	Added "the treatment"
721.138(a)(4)(A)(ii)	261.38(a)(4)(iv)(B)	Added "the treatment"
721.138(a)(4)(A)(iii)	261.38(a)(4)(iv)(C)	Added "the treatment"
721.138(a)(5)(A)	261.38(a)(5)(i)	Added "fulfills the following requirements"
721.138(a)(5)(A)(i)	261.38(a)(5)(i)(A)	Added "the processing"
721.138(a)(5)(A)(ii)	261.38(a)(5)(i)(B)	Added "the processing"
721.138(b)(1)(A)	261.38(b)(1)(i)	Added quotation marks to the defined terms "excluded fuel," "excluded fuel generator," and "excluded fuel burner"
721.138(b)(2)(A)(i)	261.38(b)(2)(i)(A), (b)(2)(i)(A)(*1*), (b)(2)(i)(A)(*2*), (b)(2)(i)(A)(*3*), (b)(2)(i)(A)(*4*), and (b)(2)(i)(A)(*5*)	Retained the structure that moved the text of 40 C.F.R. 261.38(b)(2)(i)(A)(*1*) through (b)(2)(i)(A)(*5*) to appear as 35 Ill. Adm. Code 721.138(b)(2)(C)(i) through (b)(2)(C)(v) to comport with *Illinois Administrative Code* requirements

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721.138(b)(2)(A)(i) Board note	261.38(b)(2)(i)(A), (b)(2)(i)(A)(*1*), (b)(2)(i)(A)(*2*), (b)(2)(i)(A)(*3*), (b)(2)(i)(A)(*4*), and (b)(2)(i)(A)(*5*)	Added explanation of the movement of 40 C.F.R. 261.38(b)(2)(i)(A)(*1*) through (b)(2)(i)(A)(*5*) to appear as 35 Ill. Adm. Code 721.138(b)(2)(C)(i) through (b)(2)(C)(v) to comport with *Illinois Administrative Code* requirements
721.138(b)(2)(A)(ii)	261.38(b)(2)(i)(B)	Added "one-time" before "notice"
721.138(b)(2)(A)(iii)	261.38(b)(2)(i)(C)	Added the indefinite article "an" before "excluded fuel"; omitted "only" from before "in notices"; omitted "submitted after December 19, 2008" after "notices"
721.138(b)(2)(B)(i)	261.38(b)(2)(ii)(A)	Retained "USEPA identification number" in place of "RCRA ID number"
721.138(b)(2)(C)	261.38(b)(2)(i)(A), (b)(2)(i)(A)(*1*), (b)(2)(i)(A)(*2*), (b)(2)(i)(A)(*3*), (b)(2)(i)(A)(*4*), and (b)(2)(i)(A)(*5*)	Added a preamble statement to support the movement of the text of 40 C.F.R. 261.38(b)(2)(i)(A)(*1*) through (b)(2)(i)(A)(*5*) to appear as 35 Ill. Adm. Code 721.138(b)(2)(C)(i) through (b)(2)(C)(v) to comport with *Illinois Administrative Code* requirements
721.138(b)(2)(C)(i)	261.38(b)(2)(i)(A)(*1*)	Retained the movement of the text of 40 C.F.R. 261.38(b)(2)(i)(A)(*1*) to 35 Ill. Adm. Code 721.138(b)(2)(C)(i) to comport with *Illinois Administrative Code* requirements; retained "USEPA identification number" in place of "RCRA ID number"; retained change of "person/facility" to "person or facility"
721.138(b)(2)(C)(ii)	261.38(b)(2)(i)(A)(*1*)	Retained the movement of the text of 40 C.F.R. 261.38(b)(2)(i)(A)(*2*) to 35 Ill. Adm. Code 721.138(b)(2)(C)(ii) to comport with *Illinois Administrative Code* requirements; retained "USEPA hazardous waste codes" in place of "EPA Hazardous Waste Code(s)"; retained change of "person/facility" to "person or facility"
721.138(b)(2)(C)(iii)	261.38(b)(2)(i)(A)(*3*)	Retained the movement of the text of 40 C.F.R. 261.38(b)(2)(i)(A)(*3*) to 35 Ill. Adm. Code 721.138(b)(2)(C)(iii) to comport with *Illinois Administrative Code* requirements; retained "that meet" in place of "meeting"

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721.138(b)(2)(C)(v)	261.38(b)(2)(i)(A)(*5*)	Retained the movement of the text of 40 C.F.R. 261.38(b)(2)(i)(A)(*5*) to 35 Ill. Adm. Code 721.138(b)(2)(C)(v) to comport with *Illinois Administrative Code* requirements; changed "shall" to "must"
721.138(b)(3)	261.38(b)(3)	Added "federal hazardous air pollutant emissions" before "requirements"; added the parenthetical "(42 USC 7412)" after "section 112 of the Clean Air Act"
721.138(b)(4)(B)	261.38(b)(4)(ii)	Retained change from "shall" to "must"
721.138(b)(5)(A)	261.38(b)(5)(i)	Retained change from plural "wastes" to singular "each waste"
721.138(b)(5)(C)(i)	261.38(b)(5)(iii)(A)	Retained the addition of "that"
721.138(b)(5)(C)(ii)	261.38(b)(5)(iii)(B)	Retained the addition of "that"
721.138(b)(5)(G)(ii)	261.38(b)(5)(vii)(B), (b)(5)(vii)(B)(*1*), and (b)(5)(vii)(B)(*2*)	Combined the texts of 261.38(b)(5)(vii)(B), (b)(5)(vii)(B)(*1*), and (b)(5)(vii)(B)(*2*) into 35 Ill. Adm. Code 721.138(b)(5)(G)(ii) to comport with *Illinois Administrative Code* codification requirements; retained the changed from "shall" to "must"
721.138(b)(5)(G)(ii) Board note	261.38(b)(5)(vii)(B), (b)(5)(vii)(B)(*1*), and (b)(5)(vii)(B)(*2*)	Added explanation of the combination of the texts of 261.38(b)(5)(vii)(B), (b)(5)(vii)(B)(*1*), and (b)(5)(vii)(B)(*2*) into 35 Ill. Adm. Code 721.138(b)(5)(G)(ii)
721.138(b)(6)	261.38(b)(6)	Added a statement explaining the omission of the corresponding federal provision, for the purpose of maintaining structural parity with the corresponding federal rule
721.138(b)(7)	261.38(b)(7)	Changed "as defined" to "as such is defined"
721.138(b)(8)(A)(i)	261.38(b)(8)(i)(A)	Retained the change from "RCRA ID" to "USEPA identification"
721.138(b)(8)(C)	261.38(b)(8)(iii)	Added "either of the following conditions exist with regard to the residues"
721.138(b)(16)	261.38(b)(16)	Added the introductory statement "in corresponding 40 CFR 261(b)(16), . . . quotes in full:"; added quotations marks before and after the quoted federal text
721.138(c)	261.38(c)	Changed "EPA or an authorized State agency" to "USEPA, the Agency, or any person"; changed "under RCRA section 3008(a)" to "pursuant to section 31 of the Act [415 ILCS 5/30]"
721.138(c) Board note	261.38(c)	Added explanation of enforcement authority under RCRA and the Act

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721.Subpart H heading	261, subpart H heading	Changed the em-dash to a colon; put the title in upper-case
721.240(b)	261.140(b)	Changed capitalized "Federal" to lower-case "federal"
721.241 heading	261.141 heading	Changed lower-case "terms as used in this subpart" to capitalized "Terms as Used in the Subpart"
721.242 heading	261.142 heading	Changed lower-case "estimate" to capitalized "Estimate"
721.242(a)	261.142(a)	Added "of a reclamation or intermediate facility" after "owner or operator"
721.242(a)(2)	261.142(a)(2)	Added quotation marks to the defined term "parent corporation"; changed "he" to "the owner or operator"
721.242(a)(3)	261.142(a)(3)	Added parentheses to "(if . . . 725.213(d))"; changed "applicable" to "permitted by the Agency"; changed "under" to "pursuant to"
721.242(a)(4)	261.142(a)(4)	Added parentheses to "(if . . . 725.213(d))"; changed "applicable" to "permitted by the Agency"; changed "under" to "pursuant to"
721.242(b)	261.142(b)	Added "written" before "cost estimate"; changed "instrument(s)" to "instruments"; added "the requirements of" after "comply with"; changed plural, passive-voice "for owners or operators using . . . , the cost estimate must be updated" to singular, active-voice "and owner or operator that uses . . . must update its cost estimate"; changed "Regional Administrator" to "Agency and USEPA"; changed "as specified in" to "pursuant to"; added the abbreviated name in parentheses "(Deflator)" after the publication name "Implicit Price Deflator for Gross National Product"; omitted "in its Survey of Current Business" after the publication name
721.242(b) Board note	261.142(b)	Added explanation of the on-line availability of the table of Deflators from the U.S. Department of Commerce
721.242(c)	261.142(c)	Added a comma before "as specified" to offset the parenthetical
721.242(d)	261.142(d)	Added "documents" after "the following"
721.243 heading	261.143 heading	Changed lower-case "assurance condition" to capitalized "Assurance Condition"

Illinois Section	40 C.F.R. Section	Revision(s)
721.243 preamble	261.143 preamble	Changed "per" to "as required by"; changed "a reclamation or intermediate facility" to "a reclamation facility or an intermediate facility"; removed "as required under § 261.4(a)(24) of this chapter" as redundant; changed "he" to "the owner or operator"; added "among" before "the options"; removed "as" from before "specified"
721.243(a)(1)	261.143(a)(1)	Changed "which" to "that" for a restrictive relative clause; changed "Regional Administrator" to "Agency"; changed capitalized "Federal or State" to lower-case "federal or state"
721.243(a)(2)	261.143(a)(2)	Changed "specified in" to "specified by the Agency pursuant to"; changed the parenthetical "(for example, see § 261.151(a)(2))" to "as specified by the Agency pursuant to Section 721.251"; changed "a change" to "any change"
721.243(a)(4)	261.143(a)(4)	Added "cost" before "estimate" (twice); moved the prepositional clause "within 60 days . . . cost estimate" from between "new estimate" and "must either" to before "if the value," offset by a comma; added "the owner or operator must" before "obtain" for an independent clause; changed "as specified in" to "that satisfies the requirements of"
721.243(a)(5)	261.143(a)(5)	Changed "Regional Administrator" to "Agency"
721.243(a)(6)	261.143(a)(6)	Changed "as specified in" to "that satisfies the requirements of"; changed "Regional Administrator" to "Agency"
721.243(a)(7)	261.143(a)(7)	Added the indefinite article "a" before "release"; added a comma before "as specified" to offset the parenthetical; changed "Regional Administrator will" to "the Agency must" (three times); changed "Regional Administrator" to "Agency" (six times); changed "under" to "pursuant to"; changed "if the Regional Administrator determines . . . , or otherwise justified" to "if the Agency determines . . . , or otherwise justified" and moved it from after "specifies in writing" to after "final closure activities";

Illinois Section	40 C.F.R. Section	Revision(s)
		changed "he" to "the Agency" (three times)
721.243(a)(8)	261.143(a)(8)	Changed "Regional Administrator will" to "the Agency must"; added "fund" after "trust"; added "either of the following has occurred"
721.243(a)(8)(A)	261.143(a)(8)(i)	Added "the Agency determines that" before "the owner or operator"; changed the indefinite article "a" to the definite article "the" before "owner or operator"; changed "substitutes" to "has substituted"; changed "alternate" to "alternative"; changed "as specified" to "that satisfies the requirements of"
721.243(a)(8)(B)	261.143(a)(8)(ii)	Changed "Regional Administrator" to "Agency"
721.243(b)(1)	261.143(b)(1)	Changed "which" to "that" for a restrictive relative clause; changed "Regional Administrator" to "Agency"; changed capitalized "Federal" to lower-case "federal"
721.243(b)(1) Board note	261.143(b)(1)	Added explanation of the on-line availability of Circular 570
721.243(b)(2)	261.143(b)(2)	Changed "specified in" to "specified by the Agency pursuant to"
721.243(b)(3)	261.143(b)(3)	Changed "Regional Administrator" to "Agency"; added "the following also apply"
721.243(b)(3)(A)	261.143(b)(3)(i)	Changed passive-voice "an originally signed . . . agreement must be submitted" to active-voice "the owner or operator must submit an originally signed . . . agreement"; changed "Regional Administrator" to "Agency"
721.243(b)(3)(A)(i)	261.143(b)(3)(i)(A)	Added a comma before "as specified" to offset the parenthetical
721.243(b)(3)(A)(iii)	261.143(b)(3)(i)(C)	Added a comma before "as required" to offset the parenthetical
721.243(b)(3)(A)(iv)	261.143(b)(3)(i)(D)	Added a comma before "as required" to offset the parenthetical
721.243(b)(4)	261.143(b)(4)	Added "undertake one of th efollowign actions"
721.243(b)(4)(A)	261.143(b)(4)(i)	Added "that the owner or operator will"; changed "under" to "pursuant to"; added the ending semicolon; deleted the unnecessary ending conjunction "or"

Illinois Section	40 C.F.R. Section	Revision(s)
721.243(b)(4)(B)	261.143(b)(4)(ii)	Added "that the owner or operator will"; changed "under" to "pursuant to"; changed "Regional Administrator" to "Agency"; changed "a U.S. district court or other court of competent jurisdiction" to "the Board or a court of competent jurisdiction"
721.243(b)(4)(C)	261.143(b)(4)(iii)	Moved "within 90 days . . . bond from the surety" from after "provided" to before "that the owner or owner or operator"; changed "Regional Administrator" to "Agency"; added "that the owner or operator will" before "provide"; changed "as specified in" to "that satisfies the requirements of"; changed "Regional Administrator's" to "Agency's"
721.243(b)(5)	261.143(b)(5)	Changed "will" to "must"
721.243(b)(7)	261.143(b)(7)	Changed "Regional Administrator" to "Agency" (twice); changed "as specified in" to "that satisfies the requirements of"
721.243(b)(8)	261.143(b)(8)	Changed "Regional Administrator" to "Agency" (twice)
721.243(b)(9)	261.143(b)(9)	Changed "Regional Administrator" to "Agency"; changed "as specified in" to "that satisfies the requirements of"
721.243(c)(1)	261.143(c)(1)	Changed "which" to "that" for a restrictive relative clause (twice); changed "Regional Administrator" to "Agency"; changed capitalized "Federal or State" to lower-case "federal or state"
721.243(c)(2)	261.143(c)(2)	Changed "specified in" to "specified by the Agency pursuant to"
721.243(c)(3)	261.143(c)(3)	Changed "Regional Administrator" to "Agency" (twice); added "the following also apply
721.243(c)(3)(A)	261.143(c)(3)(i)	Added "the owner or operator must"; changed "Regional Administrator" to "Agency"
721.243(c)(3)(B)	261.143(c)(3)(ii)	Omitted "by these regulations" after "not required"
721.243(c)(3)(B)(i)	261.143(c)(3)(ii)(A)	Added a comma before "as specified" to offset the parenthetical
721.243(c)(3)(B)(iii)	261.143(c)(3)(ii)(C)	Added a comma before "as required" to offset the parenthetical

Illinois Section	40 C.F.R. Section	Revision(s)
721.243(c)(3)(B)(iv)	261.143(c)(3)(ii)(D)	Added a comma before "as required" to offset the parenthetical
721.243(c)(4)	261.143(c)(4)	Changed "referring" to "that refers"; changed "providing" to "which provides"; changed "EPA Identification Number" to "USEPA identification number"
721.243(c)(5)	261.143(c)(5)	Added a comma before and changed "and issued" to "and the letter must be issued" for a restrictive relative clause; changed numeric "1" to written "one"; changed "Regional Administrator" to "Agency" (twice)
721.243(c)(7)	261.143(c)(7)	Moved "within 60 days after the increase" from after "owner or operator" to after "the credit"; changed "Regional Administrator" to "Agency" (twice); added commas before and and after "so that it . . . cost estimate"; changed "as specified in" to "that satisfies the requirements of"
721.243(c)(8)	261.143(c)(8)	Changed "Regional Administrator" to "Agency" (twice); changed "under" to "set forth in"
721.243(c)(9)	261.143(c)(9)	Changed "alternate" to "alternative" (twice); changed "as specified in" to "that satisfies the requirements of"; changed "Regional Administrator" to "Agency" (four times); changed "Regional Administrator will" to "Agency may" (twice); changed "as specified in" to "that satisfies the requirements of"
721.243(c)(10)	261.143(c)(10)	Changed "Regional Administrator will" to "Agency may"; added "either of the following occurs"
721.243(c)(10)(A)	261.143(c)(10)(i)	Changed the indefinite article "an" to the definite article "the" before "owner or operator"; changed "alternate" to "alternative"; changed "as specified in" to "that satisfies the requirements of"
721.243(c)(10)(B)	261.143(c)(10)(ii)	Changed "Regional Administrator" to "Agency"
721.243(d)(1)	261.143(d)(1)	Changed "which" to "that" for a restrictive relative clause; changed "Regional Administrator" to "Agency"
721.243(d)(2)	261.143(d)(2)	Changed "specified in" to "specified by the Agency pursuant to"

Illinois Section	40 C.F.R. Section	Revision(s)
721.243(d)(4)	261.143(d)(4)	Changed "Regional Administrator" to "Agency" (twice)
721.243(d)(5)	261.143(d)(5)	Changed "under" to "pursuant to"; changed "Regional Administrator" to "Agency" (five times); moved "if the . . . closure activities" from after "in writing" to before "the Agency"; changed "Regional Administrator will" to "Agency must"; moved "within 60 days . . . closure activities" from before "the Agency must" to after "the Agency must"; changed "he" to "the Agency" (three times); changed "he will" to "the Agency must"
721.243(d)(5) Board note	261.143(d)(5)	Added explanation of the owner's or operator's right to appeal an Agency determination
721.243(d)(6)	261.143(d)(6)	Changed "Regional Administrator" to "Agency" (twice); added a comma before "as specified" to offset the parenthetical; changed "Regional Administrator deems necessary" to "are deemed necessary pursuant to . . . [415 ILCS 5/31, 39, and 40]"; added "the policy" after "renew"; added "policy" before "expiration"
721.243(d)(7)	261.143(d)(7)	Changed "conditional upon consent" to "conditioned on consent"; changed "provided such consent . . . unreasonably refused" to "so long as the policy provides . . . unreasonably refuse such consent"
721.243(d)(8)	261.143(d)(8)	Added a comma before "except for" to offset the parenthetical; changed passive-voice "if there is a failure to pay" to "if the owner or operator fails to pay"; changed "Regional Administrator" to "Agency"; changed "beginning with the date" to "that begin on the date"; changed "of receipt of the notice by both the Regional Administrator and the owner or operator" to "that both the Agency and the owner or operator have received"; added "the policy" after "renew"; added commas before and after "and the policy . . . full force and effect" to offset the parenthetical; changed "date of expiration" to "expiration date, one of the following events

Illinois Section	40 C.F.R. Section	Revision(s)
		occur”
721.243(d)(8)(A)	261.143(d)(8)(i)	Changed “Regional Administrator” to “Agency”; removed the unnecessary ending conjunction “or”
721.243(d)(8)(B)	261.143(d)(8)(ii)	Removed the unnecessary ending conjunction “or”
721.243(d)(8)(C)	261.143(d)(8)(iii)	Changed “Regional Administrator or a U.S. district court or other court of competent jurisdiction” to “Board or a court of competent jurisdiction”; removed the unnecessary ending conjunction “or”
721.243(d)(8)(D)	261.143(d)(8)(iv)	Changed “Title 11 (Bankruptcy), U.S. Code” to “Title 11 of the U.S. Code (Bankruptcy)”
721.243(d)(8)(E)	261.143(d)(8)(v)	Changed “is paid” to “has been paid”
721.243(d)(9)	261.143(d)(9)	Changed “the current cost estimate increases” to “the owner or operator learns that the current cost estimate has increased”; moved “within 60 days . . . the increase” from before “must” to after “must”; added “learning of” before “the increase”; changed “Regional Administrator” to “Agency” (twice); added “the owner or operator must” before “obtain other” for an independent clause; changed “as specified” to “that satisfies the requirements of”; changed “following written approval by” to “after the owner or operator has obtained the written approval of”
721.243(d)(10)	261.143(d)(10)	Changed “Regional Administrator will” to “Agency must”; changed “written consent to the owner or operator that he may” to “written consent that allows the owner or operator to”; added “either of the following events occur”
721.243(d)(10)(A)	261.143(d)(10)(i)	Added “the Agency has determined that”; changed the indefinite article “an” to the definite article “the” before “owner or operator”; changed “substitutes” to “has substituted”; changed “alternate” to “alternative”; changed “as specified” to “that satisfies the requirements of”
721.243(d)(10)(B)	261.143(d)(10)(ii)	Changed “Regional Administrator releases” to “the Agency has released”; changed “in accordance with” to “pursuant to”

Illinois Section	40 C.F.R. Section	Revision(s)
721.243(e)(1)	261.143(e)(1)	Changed "he" to "the owner or operator"; changed "a financial test" to "one of the financial tests"; changed "this test" to "a test"; added a comma after "To pass this test" to offset the introductory clause
721.243(e)(1)(A)	261.143(e)(1)(i)	Added the topical heading "Test 1."; added "each of the following" after "must have"
721.243(e)(1)(A)(i)	261.143(e)(1)(i)(A)	Removed the unnecessary ending conjunction "and"
721.243(e)(1)(A)(ii)	261.143(e)(1)(i)(B)	Removed the unnecessary ending conjunction "and"
721.243(e)(1)(B)	261.143(e)(1)(ii)	Added the topical heading "Test 2."; added "each of the following" after "must have"
721.243(e)(1)(B)(i)	261.143(e)(1)(ii)(A)	Added commas before and after "as issued by Standard and Poor's" to offset the parenthetical; added a comma before "as issued by Moody's" to offset the parenthetical; removed the unnecessary ending conjunction "and"
721.243(e)(1)(B)(ii)	261.143(e)(1)(ii)(B)	Removed the unnecessary ending conjunction "and"
721.243(e)(1)(B)(iv)	261.143(e)(1)(ii)(D)	Added "either" before "at least . . . or at least . . ."
721.243(e)(2)	261.143(e)(2)	Added the topical heading "Definitions."; placed each definition in a subsidiary paragraph
721.243(e)(2) "current cost estimates"	261.143(e)(2) "current cost estimates"	Placed the definition in a subsidiary paragraph; omitted "the phrase"; added commas before and after "as used in . . . this Section" to offset the parenthetical; changed "cost estimates required to be shown in paragraphs 1–4 of the letter" to "following four cost estimates required in the standard letter"; omitted the parenthetical "(§ 261.151(e))"
721.243(e)(2) "current cost estimates," first sub-paragraph	261.143(e)(2) "current cost estimates" and the first numbered paragraph of the letter from the chief financial officer in 261.151(e)	Borrowed from the substantive language of the first numbered paragraph of the required letter from the chief financial officer for the first cost estimate: the HSM facility cost estimates covered by corporate self-assurance using the financial tests

Illinois Section	40 C.F.R. Section	Revision(s)
721.243(e)(2) "current cost estimates," second sub-paragraph	261.143(e)(2) "current cost estimates" and the second numbered paragraph of the letter from the chief financial officer in 261.151(e)	Borrowed from the substantive language of the second numbered paragraph of the required letter from the chief financial officer for the second cost estimate: the HSM facility cost estimates covered by corporate self-assurance using the corporate guarantee
721.243(e)(2) "current cost estimates," third sub-paragraph	261.143(e)(2) "current cost estimates" and the third numbered paragraph of the letter from the chief financial officer in 261.151(e)	Borrowed from the substantive language of the third numbered paragraph of the required letter from the chief financial officer for the third cost estimate: the HSM facility cost estimates covered by corporate self-assurance using the financial tests or corporate guarantee for facilities located in states where USEPA is not administering the financial assurance requirements (*i.e.*, where the state is administering its own financial assurance requirements)
721.243(e)(2) "current cost estimates," fourth sub-paragraph	261.143(e)(2) "current cost estimates" and the fourth numbered paragraph of the letter from the chief financial officer in 261.151(e)	Borrowed from the substantive language of the fourth numbered paragraph of the required letter from the chief financial officer for the fourth cost estimate: the HSM facility cost estimates not covered by corporate self-assurance using either the financial tests or corporate guarantee under either of federal or state laws
721.243(e)(2) "current plugging and abandonment cost estimates"	261.143(e)(2) "current plugging and abandonment cost estimates"	Placed the definition in a subsidiary paragraph; omitted "the phrase"; added commas before and after "as used in . . . this Section" to offset the parenthetical; changed "" to "following four cost estimates required in the standard form letter"; omitted the parenthetical "(§ 144.70(f))"
721.243(e)(2) "current plugging and abandonment cost estimates," first sub-paragraph	261.143(e)(2) "current plugging and abandonment cost estimates" and the first numbered paragraph of the letter from the chief financial officer in 144.70(f)	Borrowed from the substantive language of the first numbered paragraph of the required letter from the chief financial officer for the first cost estimate: the underground injection well plugging and abandonment cost estimates covered by corporate self-assurance using the financial tests in 35 Ill. Adm. Code 704.219(a)-(i) (corresponding with 40 C.F.R. 144.63(f)(1)-(f)(9))

Illinois Section	40 C.F.R. Section	Revision(s)
721.243(e)(2) "current plugging and abandonment cost estimates," second sub-paragraph	261.143(e)(2) "current plugging and abandonment cost estimates" and the second numbered paragraph of the letter from the chief financial officer in 144.70(f)	Borrowed from the substantive language of the second numbered paragraph of the required letter from the chief financial officer for the second cost estimate: the underground injection well plugging and abandonment cost estimates covered by corporate self-assurance using the corporate guarantee in 35 Ill. Adm. Code 704.219(j) (corresponding with 40 C.F.R. 144.63(f)(10))
721.243(e)(2) "current plugging and abandonment cost estimates," third sub-paragraph	261.143(e)(2) "current plugging and abandonment cost estimates" and the third numbered paragraph of the letter from the chief financial officer in 144.70(f)	Borrowed from the substantive language of the third numbered paragraph of the required letter from the chief financial officer for the third cost estimate: the underground injection well plugging and abandonment cost estimates covered by corporate self-assurance using the financial tests or corporate guarantee for facilities located in states where USEPA is not administering the financial assurance requirements (*i.e.*, where the state is administering its own financial assurance requirements that are equivalent to subpart F of 40 C.F.R. 144)
721.243(e)(2) "current cost estimates," fourth sub-paragraph	261.143(e)(2) "current plugging and abandonment cost estimates" and the fourth numbered paragraph of the letter from the chief financial officer in 144.70(f)	Borrowed from the substantive language of the fourth numbered paragraph of the required letter from the chief financial officer for the fourth cost estimate: the underground injection well plugging and abandonment cost estimates not covered by corporate self-assurance using either the financial tests or corporate guarantee under either of federal or state laws (*i.e.*, the plugging and abandonment cost estimates are not guaranteed by financial assurance that complies with either subpart F of 40 C.F.R. 144 or regulations deemed by USEPA as equivalent to subpar F or 40 C.F.R. 144)
721.243(e)(2) Board note	261.143(e)(2)	Added explanation of the substitution of descriptive language for "the cost estimates required . . . from the owner's or operators chief financial officer"
721.243(e)(3)	261.143(e)(3)	Changed "he" to "it"; changed "this test" to "the test set forth in . . . this Section"; changed "Regional Administrator" to "Agency"

Illinois Section	40 C.F.R. Section	Revision(s)
721.243(e)(3)(A)	261.143(e)(3)(i) and (e)(3)(iii)	Changed "specified in § 261.151" to "specified by the Agency pursuant to Section 721.251"; added "this test" to "the test set forth in . . . this Section"; changed "Regional Administrator" to "Agency"; added "that is" before "derived from . . . such financial statements," moved from 40 C.F.R. 261.143(e)(3)(iii), adding a comma before "with the amounts" to offset the parenthetical and "of the pertinent . . . included" before "in such financial statements; removed the unnecessary ending conjunction "and"
721.243(e)(3)(B)	261.143(e)(3)(ii)	Changed the definite article "the" to the indefinite article "an" before "independent certified public accountant's report"
721.243(e)(3)(C)	261.143(e)(3)(iii)	Changed "providing evidence of financial assurance" to "prepared pursuant to . . . this Section"; changed "showing" to "which shows"; added "the test set forth in" before "subsection (e)(1)(A) of this Section"; added the parenthetical "(Test 1)"; added a comma after ""(Test 1)" to offset the "either . . . or" conditional statement that follows; changed "that are different . . . statements referred to . . . this section or any other . . . filed with the SEC" to "and either the data in the chief financial officer's letter . . . statements required by . . . this Section, or the data are different from any other . . . filed with the federal Securities and Exchange Commission"; changed passive-voice "a special report from the owner's or operator's independent certified public accountant to the owner or operator is required" to active-voice "the owner or operator must submit a special report from its independent certified public accountant"; changed "shall" to "must"; changed "based upon" to "based on"; changed "agreed upon" to hyphenated "agreed-upon"; added a comma before "in accordance with" to offset the parenthetical; added a period after "auditing standards" and changed "and shall" to "The report must" before "describe" to split a run-on sentence; changed "performed in comparing" to "used

Illinois Section	40 C.F.R. Section	Revision(s)
		to compare"; changed "derived from . . . financial statements" to the parenthetical "(prepared pursuant to . . . of this Section)"
721.243(e)(4)	261.143(e)(4)	Added a statement explaining the omission of the corresponding federal provision imposing a deadline now past, for the purpose of maintaining structural parity with the corresponding federal rule
721.243(e)(5)	261.143(e)(5)	Changed "Regional Administrator" to "Agency"
721.243(e)(6)	261.143(e)(6)	Changed "meets" to "fulfills"; changed "he" to "it"; "Regional Administrator" to "Agency"; changed "alternate" to "alternative"; changed "specified in" to "that satisfies the requirements of"; changed passive-voice "the notice must be sent" to "the owner or operator must send the notice"
721.243(e)(7)	261.143(e)(7)	Changed "Regional Administrator" to "Agency" (twice); changed "alternate" to "alternative"; changed "specified in" to "that satisfies the requirements of"
721.243(e)(8)	261.143(e)(8)	Changed "Regional Administrator may" to "Agency must"; changed "this test" to "the financial tests set forth in this subsection (e)"; changed "his" to "the accountant's"; added "where the Agency determines that . . . this mechanism"; changed "alternate" to "alternative" (twice); changed "specified in" to "that satisfies the requirements of" (twice); changed "Regional Administrator will" to "Agency must"; changed "other qualifications" to "all other kinds of qualifications"; changed "notification of the disallowance" to "a notification of Agency disallowance pursuant to this subsection (e)(6)"
721.243(e)(9)	261.143(e)(9)	Added "either of the following events occur"
721.243(e)(9)(A)	261.143(e)(9)(i)	Changed "substitutes" to "has substituted"; changed "alternate" to "alternative"; changed "specified in" to "that satisfies the requirements of"
721.243(e)(9)(B)	261.143(e)(9)(ii)	Changed "Regional Administrator" to "Agency"; changed "in accordance with" to "pursuant to"

Illinois Section	40 C.F.R. Section	Revision(s)
721.243(e)(10)	261.143(e)(10)	Added the topical heading "Corporate guarantee for financial responsibility."; changed "meet" to "comply with"; added "sister" before "firm"; added "as that term . . . this Section" as a parenthetical offset by a comma; changed plural "for owners or operators in" to singular "applicable to an owner or operator as set forth in"; changed "specified in" to specified by the Agency pursuant to"; changed "Regional Administrator" to "Agency"; changed "as specified in" to "that are required by"; added "as follows"
721.243(e)(10)(A)	261.143(e)(10)(i)	Changed "Regional Administrator" to "Agency"; changed "will" to "must"; added "the applicable" before "closure requirements"; changed "found in" to "set forth in"; removed the parenthetical "as applicable"; added a comma before "or" and added "the guarantor must" before "establish" for an independent clause; moved "in the name . . . current cost estimate" from after "Section" to after "trust fund," adding the conjunction "and" before "in the amount"; changed "as specified" to "that satisfies the requirements of"
721.243(e)(10)(B)	261.143(e)(10)(ii)	Changed "will" to "must"; changed "sends" to "has sent"; changed "Regional Administrator"; changed "date of receipt of . . . by both the owner or operator and the Regional Administrator" to "date on which both the owner or operator and the Agency have received . . ."
721.243(e)(10)(C)	261.143(e)(10)(iii)	Changed "alternate" to "alternative" (twice); changed "as specified" to "that satisfies the requirements of"; changed "Regional Administrator"; changed "date of receipt of . . . by both the owner or operator and the Regional Administrator" to "date on which both the owner or operator and the Agency have received . . ."; changed the indefinite article "a" to the definite article "the" before "notice"; changed "will" to "must"

Illinois Section	40 C.F.R. Section	Revision(s)
721.243(e)(10) Board note	261.143(e)(10)	Added explanation of the addition of a definition of "substantial business relationship" in 35 Ill. Adm. Code 264.241(h) and 265.241(h), which the Board formerly omitted
721.243(f)	261.143(f)	Changed "these mechanisms" to "the mechanisms . . . for this purpose"; changed plural "trust funds" to singular "a trust fund that satisfies . . . this Section"; changed plural "surety bonds" to singular "a surety bond that satisfies . . . this Section"; changed plural "letters of credit" to singular "a letter of credit that satisfies . . . this Section"; added "that satisfies . . . this Section" after "insurance"; changed "be as specified in paragraphs (a) through (d) of this section, respectively, of this section" to "individually satisfy the indicated requirements of this Section"; added "all" before "mechanisms"; added "used by the owner or operator" after "mechanisms"; changed "the single mechanism" to "any individual mechanism"; changed "which" to "that" for a restrictive relative clause; added "aggregated" before "amount"; changed "he" to "the owner or operator"; changed passive-voice "a single standby trust fund may be established" to "the owner or operator may establish a single standby trust fund"; changed "Regional Administrator" to "Agency"; added "care" before "for the facility"

Illinois Section	40 C.F.R. Section	Revision(s)
721.243(g)	261.143(g)	Added "single" before "financial mechanism" (twice); changed "specified in" to "that satisfies the requirements of"; changed "meet" to "fulfill"; changed "Regional Administrator" to "Agency" (twice); changed "EPA Identification Number" to "USEPA identification number"; changed "if any issued" to "if any"; changed "identical evidence of financial assurance must be submitted to and maintained with the Regional Administrators of all such Regions" to "USEPA requires the owner or operator to submit and maintain identical evidence of financial assurance with each USEPA Region in which a covered facility is located"; changed the definite article "the" to the indefinite article "a" before "mechanism"; changed "the mechanism" to "that mechanism"; changed "only the amount" to "only that amount"
721.243(h)	261.143(h)	Changed capitalized "Decontamination Plan for Release" to lower-case "decontamination plan for release"; added "from financial assurance obligations"
721.243(h)(1)	261.143(h)(1)	Changed "who" to "that"; added "from the facility," added a period, and added "the owner or operator must submit the plan" to divide and clarify a run-on sentence; changed "Regional Administrator" to "Agency"; changed "he" to "the owner or operator"
721.243(h)(2)	261.143(h)(2)	Added "at a minimum" as a parenthetical offset by commas after "must"; replaced the parenthetical "at least" and its offsetting comma with "the following information"
721.243(h)(2)(A)	261.143(h)(2)(i)	Changed "under" to "pursuant to"; added "the plan must include" before "a description"; removed the unnecessary ending conjunction "and"
721.243(h)(2)(B)	261.143(h)(2)(ii)	Added "the plan must include" before "a description"; removed the unnecessary ending conjunction "and"
721.243(h)(2)(C)	261.143(h)(2)(iii)	Added "the plan must include" before "a description"

Illinois Section	40 C.F.R. Section	Revision(s)
721.243(h)(2)(D)	261.143(h)(2)(iv)	Added “the plan must include” before “a description”; changed “under” to “pursuant to”; changed “which” to “that” for a restrictive relative clause
721.243(h)(3)	261.143(h)(3)	Changed “the Regional Administrator will” to “the Agency must” (five times); added a period after “the plan” and added “the Agency must . . . that it receives” before “no later than” to divide and clarify a run-on sentence; added “ of publication” before “of the notice”; changed “at his” to “in its”; added “it determines that” before “such a hearing”; changed passive-voice “the two notices may be combined” to active-voice “the Agency may combine the two notices”; changed “Regional Administrator” to “Agency” (twice); changed “he shall” to “the Agency must”; changed “the refusal” to “its refusal”; added a comma before “and the owner or operator” for an independent clause; changed “after receiving” to “after the owner or operator receives”; changed “such written statement” to “such a written statement from the Agency”; added “owner- or operator-modified” before “plan”
721.243(h)(4)	261.143(h)(4)	Changed “Regional Administrator” to “Agency”; added “that” before “the unit”; changed passive-voice “documentation supporting . . . must be furnished” to active-voice “the owner or operator must furnish the Agency with documentation that supports . . .”; changed “he” to “the Agency”
721.243(i)	261.143(i)	Changed “from the facility or a unit at the facility” to “from the facility or from a unit at the facility”; changed “the facility or a unit” to “the facility or unit” (twice); changed “per” to “in compliance with the requirements of”; changed “the Regional Administrator will” to “the Agency must”; changed “unless the Regional Administrator has reason to believe that all hazardous secondary materials have not been removed from the unit or that the unit has not been decontaminated in accordance with the approved plan” to “the Agency must

Illinois Section	40 C.F.R. Section	Revision(s)
		determine whether or not the owner or operator has accomplished the objectives of removing all hazardous secondary materials from the facility or from a unit at the facility and decontaminating the facility in accordance with the approved plan" and moved it from the last sentence to follow "requirements of subsection (h) of this Section"; Added "if the Agency determines . . . objectives, the Agency must" before "notify the owner or operator"; added "within 60 days" as a parenthetical offset by commas after "in writing"; changed "he is" to "the owner and operator are"; changed "under" to "pursuant to"; changed "the Regional Administrator shall" to "if the Agency determines that the owner or operator has not accomplished both objectives, it must"; added "with" before "a detailed"; replaced "any such reason to believe . . . approved plan" with "the basis for its determination"
721.247 heading	261.147 heading	Changed lower-case "requirements" to capitalized "Requirements"
721.247(a)	261.147(a)	Changed the indefinite article "a" to the definite article "the" before "owner or operator"; changed singular "a hazardous secondary material reclamation facility or an intermediate facility subject to " to plural "one or more hazardous secondary material reclamation facilities or an intermediate facilities that are subject to"; changed "under" to "pursuant to"; changed "the facility or group of facilities" to "its facilities"; added "in force" after "maintain coverage"; added "any of" before "subsections"
721.247(a)(1)	261.147(a)(1)	Changed "as specified in" to "that satisfies the requirements of"
721.247(a)(1)(A)	261.147(a)(1)(i)	Changed "Endorsement" to "Hazardous Secondary Material Liability Endorsement" (twice); changed "specified in" to "as specified by the Agency pursuant to" (twice); changed lower-case "certificate of insurance"

Illinois Section	40 C.F.R. Section	Revision(s)
		to capitalized "Certificate of Liability Insurance"; changed "Regional Administrator" to "Agency"; omitted "or Regional Administrators . . . more than one Region"; changed "a Regional Administrator" to "the Agency"
721.247(a)(1)(B)	261.147(a)(1)(ii)	Moved "at a minimum" from before "is licensed" to before "each insurance policy," retaining the comma to offset the parenthetical; changed "which" to "that" for a restrictive relative clause; changed capitalized "States" to lower-case "states"
721.247(a)(2)	261.147(a)(2)	Changed "meet" to "satisfy"; changed "as specified" to "that satisfies the requirements of"
721.247(a)(3)	261.147(a)(3)	Changed "meet" to "satisfy"; changed "as specified" to "that satisfies the requirements of"
721.247(a)(4)	261.147(a)(4)	Changed "meet" to "satisfy"; changed "as specified" to "that satisfies the requirements of"
721.247(a)(5)	261.147(a)(5)	Changed "meet" to "satisfy"; changed "as specified" to "that satisfies the requirements of"
721.247(a)(6)	261.147(a)(6)	Changed plural "combinations" to singular "a combination"; added the parenthetical "(subsection (a)(1) of this Section)" after "insurance"; added the parenthetical "(subsection (f) of this Section)" after "financial test"; added the parenthetical "(subsection (g) of this Section)" after "guarantee"; added the parenthetical "(subsection (h) of this Section)" after "letter of credit"; added the parenthetical "(subsection (i) of this Section)" after "surety bond"; added the parenthetical "(subsection (j) of this Section)" after "trust fund"; changed "unless" to "where" before "the financial statement"; changed "as specified" to "that satisfies the requirements of"; added "by the combination" after "demonstrated"; changed "total at least" to "total to at least"; added "for the facility" after "required"; changed "under" to "pursuant to"; changed

Illinois Section	40 C.F.R. Section	Revision(s)
		"shall" to "must"; changed "shall specify" to "all"
721.247(a)(7)	261.147(a)(7)	Changed "shall" to "must"; changed "Regional Administrator" to "Agency"; added "any of the following has occurred"
721.247(a)(7)(A)	261.147(a)(7)(i)	Changed "results" to "has resulted"; changed "authorized in" to "authorized by any of"; removed the unnecessary ending conjunction "or"
721.247(a)(7)(B)	261.147(a)(7)(ii)	Added the indefinite article "a" before "third-party"; changed "under" to "established pursuant to"; added "any of" before "subsections (a)(1) through (a)(6)"
721.247(a)(7)(C)	261.147(a)(7)(iii)	Changed "establishing" to "that establishes"; changed "nonsudden" to hyphenated "non-sudden"; changed "arising" to "which arose"; changed "under" to "pursuant to"
721.247(a) Board note	261.147(a)	Added explanation that the use of singular throughout the subsection does not preclude application to multiple facilities
721.247(b)	261.147(b)	Changed "nonsudden" to hyphenated "non-sudden" (four times); changed plural "which are using" to singular "that is used"; changed "under" to "pursuant to"; changed "arising" to "that arise"; added "any of" before "subsections (a)(1) through (a)(6)"; changed "who must meet" to "that must satisfy"; changed "and combine" to "and the owner or operator may"; changed plural "owners of operators who combine" to singular "an owner of operator that combines"; changed passive-voice "this liability coverage may be" to active-voice the owner or operator may establish this liability coverage"; changed "as specified in" to "by any of the means set forth in"
721.247(b)(1)	261.147(b)(1)	Changed "as specified in" to "that satisfies the requirements of"
721.247(b)(1)(A)	261.147(b)(1)(i)	Changed "Endorsement" to "Hazardous Secondary Material Liability Endorsement" (twice); changed "specified in" to "as specified by the Agency pursuant to" (twice); changed lower-case "certificate of insurance" to capitalized "Certificate of Liability

Illinois Section	40 C.F.R. Section	Revision(s)
		Insurance"; changed "Regional Administrator" to "Agency"; omitted "or Regional Administrators . . . more than one Region"; changed "a Regional Administrator" to "the Agency"
721.247(b)(1)(B)	261.147(b)(1)(ii)	Moved "at a minimum" from before "is licensed" to before "each insurance policy," retaining the comma to offset the parenthetical; changed "which" to "that" for a restrictive relative clause; changed capitalized "States" to lower-case "states"
721.247(b)(2)	261.147(b)(2)	Changed "meet" to "satisfy"; changed "as specified" to "that satisfies the requirements of"
721.247(b)(3)	261.147(b)(3)	Changed "meet" to "satisfy"; changed "as specified" to "that satisfies the requirements of"
721.247(b)(4)	261.147(b)(4)	Changed "meet" to "satisfy"; changed "as specified" to "that satisfies the requirements of"
721.247(b)(5)	261.147(b)(5)	Changed "meet" to "satisfy"; changed "as specified" to "that satisfies the requirements of"
721.247(b)(6)	261.147(b)(6)	Changed plural "combinations" to singular "a combination"; added the parenthetical "(subsection (b)(1) of this Section)" after "insurance"; added the parenthetical "(subsection (f) of this Section)" after "financial test"; added the parenthetical "(subsection (g) of this Section)" after "guarantee"; added the parenthetical "(subsection (h) of this Section)" after "letter of credit"; added the parenthetical "(subsection (i) of this Section)" after "surety bond"; added the parenthetical "(subsection (j) of this Section)" after "trust fund"; changed "unless" to "where" before "the financial statement"; changed "as specified" to "that satisfies the requirements of"; added "by the combination" after "demonstrated"; changed "total at least" to "total to at least"; added "for the facility" after "required"; changed "under" to "pursuant to"; changed "shall" to "must"; changed "shall specify" to

Illinois Section	40 C.F.R. Section	Revision(s)
		"all"
721.247(b)(7)	261.147(b)(7)	Changed "shall" to "must"; changed "Regional Administrator" to "Agency"; added "any of the following has occurred"
721.247(b)(7)(A)	261.147(b)(7)(i)	Changed "results" to "has resulted"; changed "authorized in" to "authorized by any of"; removed the unnecessary ending conjunction "or"
721.247(b)(7)(B)	261.147(b)(7)(ii)	Changed "and/or" to "or" ; added the indefinite article "a" before "third-party"; changed "under" to "established pursuant to"; added "any of" before "subsections (b)(1) through (b)(6)"
721.247(b)(7)(C)	261.147(b)(7)(iii)	Changed "establishing" to "that establishes"; changed "nonsudden" to hyphenated "non-sudden"; changed "arising" to "which arose"; changed "under" to "pursuant to"
721.247(b) Board note	261.147(b)	Added explanation that the use of singular throughout the subsection does not preclude application to multiple facilities
721.247(c)	261.147(c)	changed "request for variance" to "petition for adjusted standard"; omitted the redundant words "to the satisfaction of the Regional Administrator" after "demonstrate"; changed plural "levels . . . are" to singular "level . . . is"; changed "and/or" to "or"; changed "the facility or group of facilities" to "a facility"; changed "obtain a variance from the Regional Administrator" to "petition the Board for an adjusted standard . . . [415 ILCS 5/28.1]"; changed "the request for a variance" to "the petition for an adjusted standard"; changed "submitted in writing to the Regional Administrator" to "filed with the Board and submitted in writing to the Agency, as required by . . . 35 Ill Adm. Code 104"; changed "variance" to "adjusted standard"; changed "Regional Administrator's" to "Board's"; changed "the Regional Administrator may require an owner or operator who requests a variance to provide" to "the owner or operator that requests an adjusted standard must provide"; changed "is deemed necessary by the

Illinois Section	40 C.F.R. Section	Revision(s)
		Regional Administrator" to "is necessary for the Board"; changed "a level . . . other than that required . . ." to "that an alternative level . . . to that required . . . should apply"
721.247(c) Board note	261.147(c)	Added explanation that the use of singular throughout the subsection does not preclude application to multiple facilities
721.247(d)	261.147(d)	Changed "Regional Administrator" to "Agency" in the topical heading; subdivided the subsection, retaining the topical heading as subsection (d) and moving the substantive text into three subsidiary subsections
721.247(d)(1)	261.147(d)	Subdivided subsection (d) into three subsidiary subsections, moving the first two sentences of substantive text into this subsection; changed "Regional Administrator" to "Agency"; changed plural "levels . . . are" to "level . . . is"; changed "and/or" to "or"; added "of hazardous secondary material" after "treatment or storage"; changed the definite article "the" to the indefinite article "a" before "facility"; added a comma and "the Agency may" before "adjust the level" for an independent clause; changed "under" to "to satisfy the requirements of"; changed "as may be" to "to the level that the Agency deems"; changed "this adjusted level will be based on the Regional Administrator's assessment" to active-voice "the Agency must base this adjusted level on an assessment"; changed "facility or group of facilities" to "facility"
721.247(d)(2)	261.147(d)	Subdivided subsection (d) into three subsidiary subsections, moving the third sentence of substantive text into this subsection; changed "Regional Administrator" to "Agency"; changed "nonsudden" to hyphenated "non-sudden"; changed "he" to "the Agency"; changed "require that an owner or operator . . . comply" to "require the owner or operator to comply"

Illinois Section	40 C.F.R. Section	Revision(s)
721.247(d)(3)	261.147(d)	Subdivided subsection (d) into three subsidiary subsections, moving the fourth sentence of substantive text into this subsection; changed "Regional Administrator" to "Agency" (twice); changed "which" to "that" for a restrictive relative clause; changed "to determine" to "to aid its determination"
721.247(d) Board note	261.147(d)	Added explanation of an owner's or operator's right to appeal an Agency determination before the Board
721.247(e)	261.147(e)	Changed the topical heading "period of coverage" to "release from the financial assurance obligation . . . at a facility"; subdivided the subsection, retaining a topical heading as subsection (e) and moving the substantive text into three subsidiary subsections
721.247(e)(1)	261.147(e)	Subdivided subsection (e) into three subsidiary subsections, adding the substantive text relative to submission of a request into this subsection; added "After an owner or operator has removed . . . to the facility or to the unit."; moved "within 60 days . . . certifications" to subsection (e)(2); changed "the owner or operator and a qualified Professional Engineer . . . at the facility" to "the owner or operator and a qualified Professional Engineer must submit the request certifications stating . . . at the facility"; changed "and the facility . . . in accordance with the approved plan per § 261.143(h)" to "and that the facility . . . in accordance with the owner's or operator's Agency-approved Section 721.243(h) plan"
721.247(e)(2)	261.147(e)	Subdivided subsection (e) into three subsidiary subsections, adding the substantive text relative to review of a request into this subsection; changed "within 60 days after receiving certifications" to "within 60 days after receiving the complete request and certifications described in . . . this Section"; changed "the Regional Administrator will" to "the Agency must";

Illinois Section	40 C.F.R. Section	Revision(s)
		added "of its determination on the request" after "in writing"; changed "the Regional Administrator will notify . . . unless the Regional Administrator has reason to believe that all hazardous secondary materials have not been . . . or that the facility of unit has not been" to "the Agency must grant the request only if determines that the owner or operator has removed . . . and that the owner or operator has decontaminated"; changed "the approved plan" to "its Agency-approved Section 721.243(h) plan"
721.247(e)(3)	261.147(e)	Subdivided subsection (e) into three subsidiary subsections, adding the substantive text relative to a grant of a request into this subsection; added "after an affirmative . . . the owner or operator" before "is no longer required"; changed "required under § 261.4(A)(24)(VI)(f) to maintain liability coverage" to "required to maintain liability coverage pursuant to Section 721.104(a)(24)(f)(vi)"; changed "facility or a unit at the facility" to "facility or a unit at the facility"; added "that is indicated . . . by the Agency" after "at the facility"
721.247(e) Board note	261.147(e)	Added explanation of the reorganization of the material; added explanation of the owner's or operator's right to appeal an Agency determination before the Board
721.247(f)(1)	261.147(f)(1)	changed "he" to "it"; changed "a financial test" to "one of the financial tests"; changed "this" to "a financial"; added a comma after "to pass a financial test" to offset the introductory clause
721.247(f)(1)(A)	261.147(f)(1)(i)	Added the topical heading "Test 1."; added "each of the following" after "must have"
721.247(f)(1)(A)(i)	261.147(f)(1)(i)(A)	Changed "to be demonstrated" to "that the owner or operator needs to demonstrate"; removed the unnecessary ending conjunction "and"

Illinois Section	40 C.F.R. Section	Revision(s)
721.247(f)(1)(A)(iii)	261.147(f)(1)(i)(C), (f)(1)(i)(C)(*1*), and (f)(1)(i)(C)(*2*)	Added the text of paragraphs "(f)(1)(i)(C)(*1*) and (f)(1)(i)(C)(*2*) into paragraph (f)(1)(A)(iii) to comport with *Illinois Administrative Code* codification requirements
721.247(f)(1)(B)	261.147(f)(1)(ii)	Added the topical heading "Test 2."; added "each of the following" after "must have"
721.247(f)(1)(B)(i)	261.147(f)(1)(ii)(A)	Added commas before "as issued by Standard and Poor's" to offset the parenthetical; added a comma before "as issued by Moody's" to offset the parenthetical; removed the unnecessary ending conjunction "and"
721.247(f)(1)(B)(ii)	261.147(f)(1)(ii)(B)	Removed the unnecessary ending conjunction "and"
721.247(f)(1)(B)(ii)	261.147(f)(1)(ii)(B)	Removed the unnecessary ending conjunction "and"
721.247(f)(2)	261.147(f)(2)	Added the topical heading "Definition."; placed the definition in a subsidiary paragraph
721.247(f)(2) "amount of liability coverage"	261.147(f)(2) "amount of liability coverage"	Placed the definition in a subsidiary paragraph; omitted "the phrase"; added commas before and after "as used in . . . this Section" to offset the parenthetical; changed "under" to "pursuant to" (twice)
721.247(f)(3)	261.147(f)(3)	Changed "he" to "it"; changed "this test" to "the test set forth in . . . this Section"; changed "Regional Administrator" to "Agency"
721.247(f)(3)(A)	261.147(f)(3)(i)	Changed "specified in § 261.151" to "specified by the Agency pursuant to Section 721.251" (twice); added "this test" to "the test set forth in . . . this Section"; added "financial" before "assurance"; added a comma before "as specified" to offset the parenthetical; added "as specified . . . this Section," offset as a parenthetical by commas after "liability coverage"; changed "he" to "the owner or operator"; added "for financial assurance" before "to cover both"; changed "a separate letter . . . is not required" to "no separate letter . . . is required for liability coverage"; changed the ending period to a semicolon

Illinois Section	40 C.F.R. Section	Revision(s)
721.247(f)(3)(B)	261.147(f)(3)(ii)	Changed "the definite article "the" to the indefinite article "an" before "independent certified public accountant's report"; changed the ending period to a semicolon and added the ending conjunction "and"
721.247(f)(3)(C)	261.147(f)(3)(iii)	Changed "providing evidence of financial assurance" to "prepared pursuant to . . . this Section"; changed "showing" to "which shows"; added "the test set forth in" before "subsection (f)(1)(A) of this Section"; added the parenthetical "(Test 1)"; added a comma after ""(Test 1)" to offset the "either . . . or" conditional statement that follows; changed "that are different . . . statements referred to . . . this section or any other . . . filed with the SEC" to "and either the data in the chief financial officer's letter . . . statements required by . . . this Section, or the data are different from any other . . . filed with the federal Securities and Exchange Commission"; changed passive-voice "a special report from the owner's or operator's independent certified public accountant to the owner or operator is required" to active-voice "the owner or operator must submit a special report from its independent certified public accountant"; changed "shall" to "must"; changed "based upon" to "based on"; changed "agreed upon" to hyphenated "agreed-upon"; added a comma before "in accordance with" to offset the parenthetical; added a period after "auditing standards" and changed "and shall" to "The report must" before "describe" to split a run-on sentence; changed "performed in comparing" to "used to compare"; changed "derived from . . . financial statements" to the parenthetical "(prepared pursuant to . . . of this Section)"
721.247(f)(4)	261.147(f)(4)	Added a statement explaining the omission of the corresponding federal provision imposing a deadline now past, for the purpose of maintaining structural parity with the corresponding federal rule
721.247(f)(5)	261.147(f)(5)	Changed "Regional Administrator" to "Agency"

Illinois Section	40 C.F.R. Section	Revision(s)
721.247(f)(6)	261.147(f)(6)	Changed "meets" to "fulfills"; added the parenthetical "(subsection (a)(1) of this Section)" after "insurance"; added the parenthetical "(subsection (h) of this Section)" after "letter of credit"; added the parenthetical "(subsection (i) of this Section)" after "surety bond"; added the parenthetical "(subsection (j) of this Section)" after "financial test"; added the parenthetical "(subsection (g) of this Section)" after "guarantee"; changed "as specified in" to "required by"; changed "Regional Administrator" to "Agency"
721.247(f)(7)	261.147(f)(7)	Changed "Regional Administrator may" to "Agency must"; changed "this test" to "the financial tests set forth in this subsection (e)"; changed "his" to "the accountant's"; added "where the Agency determines that . . . this mechanism"; changed "alternate" to "alternative" (twice); changed "specified in" to "that satisfies the requirements of" (twice); changed "Regional Administrator will" to "Agency must"; changed "other qualifications" to "all other kinds of qualifications"; changed "notification of the disallowance" to "a notification of Agency disallowance pursuant to this subsection (f)(7)"
721.247(g)	261.147(g)	Added "corporate" before "guarantee" in the topical heading
721.247(g)(1)	261.147(g)(1)	Added "the limitations of" before "subsection (g)(2)"; added parentheses to the short-form definition "('guarantee')"; added "sister" before "firm"; added "as that term is defined in subsection (g)(1)(B) of this Section" as a parenthetical offset by a comma after "owner or operator"; changed plural "for owners or operators in" to singular "applicable to an owner or operator as set forth in"; changed "specified in" to specified by the Agency pursuant to"; changed "Regional Administrator" to "Agency"; changed "as specified in" to "that are required by"

Illinois Section	40 C.F.R. Section	Revision(s)
721.247(g)(1)(A)	261.147(g)(1)(i)	Divided the material into a preamble followed by two subsidiary subsections that contain the two conditional statements: moved "the guarantor . . . limits of coverage" from the end, after "injury or damage" to the beginning; changed "will to so" to "must pay full satisfaction"; added "whenever . . . with regard to liability"; moved "for bodily injury . . . the corporate guarantee"; changed "nonsudden" to hyphenated "non-sudden"; deleted "as the case may be" after "or both" in the parenthetical; changed "to arise" to "that arose"
721.247(g)(1)(A)(i)	261.147(g)(1)(i)(A)	Moved the conditional statement "the owner or operator . . . determination of liability" into a subsidiary subsection; changed "fails" to "has failed"
721.247(g)(1)(A)(ii)	261.147(g)(1)(i)(B)	Moved the conditional statement "has failed to pay . . . such injury or damage" into a subsidiary subsection; added "the owner or operator has failed"
721.247(g)(1)(B)	261.147(g)(1)(ii)	Added the definition of "substantial business relationship," borrowing the language from 40 C.F.R. 264.141(h) and 265.141(h); added quotation marks to the defined term "substantial business relationship"; changed capitalized "State" to lower-case "state"; changed "such that a currently existing business relationship . . . is demonstrated to the satisfaction of the applicable EPA Regional Administrator" to "such that the Agency can reasonably determine that a substantial business currently exists between the guarantor and the owner or operator"; added "that is adequate consideration . . . this Section
721.247(g)(1)(B) Board note	261.147(g)(1)(ii)	Added explanation that any Agency determination is subject to Board review; added explanation of inclusion of the definition of "substantial business relationship at this location
721.247(g)(2)	261.147(g)(2)	Added the topical heading "Limitations on guarantee and documentation required."

Illinois Section	40 C.F.R. Section	Revision(s)
721.247(g)(2)(A)	261.147(g)(2)(i) and (g)(2)(i)(A)	Changed "in the case of corporations incorporated" to "where both the guarantor and the owner or operator are incorporated"; added "each of the following states"; moved "have submitted . . . in that state" from paragraph (g)(2)(i)(A) to appear at the end of this subsection, changing "EPA" to "the Agency"; omitted "and § 264.151(g)(2)"; changed capitalized "State" to lower-case "state"
721.247(g)(2)(A)(i)	261.147(g)(2)(i)(A)	Changed capitalized "State" to lower-case "state"; added the parenthetical "(if other than the State of Illinois)"
721.247(g)(2)(A)(ii)	261.147(g)(2)(i)(B)	Changed "each State in which a facility . . . is located" to "the State of Illinois (the State in which the facility. . . is located)"; moved "have submitted . . . in that State" into subsection (g)(2)(A)
721.247(g)(2)(B)	261.147(g)(2)(ii)	Changed "in the case of corporations incorporated" to "where either the guarantor or the owner or operator is"; added "both of the following has occurred"
721.247(g)(2)(B)(i)	261.147(g)(2)(ii)(A)	Changed "each State in which a facility . . . is located" to "the State of Illinois (the State in which the facility. . . is located)"; changed capitalized "State" to lower-case "state"; added the parenthetical "(if other than the State of Illinois)"
721.247(g)(2)(B)(ii)	261.147(g)(2)(ii)(B)	Changed "each State in which a facility . . . is located" to "the State of Illinois (the State in which the facility. . . is located)"; changed capitalized "State" to lower-case "state" (twice); added the parenthetical "(if other than the State of Illinois)"; changed "EPA" to "the Agency"
721.247(g)(2)(C)	261.147(g)(1)(B)	Added a requirement for submission of information to support an Agency determination that a "substantial business relationship" exists
721.247(g)(2)(C) Board note	261.147(g)(1)(B)	Added explanation of the added requirement for submission of information to the Agency relative to a "substantial business relationship"

Illinois Section	40 C.F.R. Section	Revision(s)
721.247(h)(1)	261.147(h)(1)	Changed "satisfy" to "fulfill"; changed "Regional Administrator" to "Agency"
721.247(h)(2)	261.147(h)(2)	Changed capitalized "Federal or State" to lower-case "federal or state"
721.247(h)(3)	261.147(h)(3)	Changed "specified in" to "specified by the Agency pursuant to"
721.247(h)(4)	261.147(h)(4)	Changed "who" to "that"; changed "satisfy" to "fulfill"; changed "standby trust" to "standby trust fund" (twice); changed "will be deposited" to "must be deposited"; changed "which" to "that" for a restrictive relative clause; changed capitalized "Federal or State" to lower-case "federal or state"
721.247(h)(5)	261.147(h)(5)	Changed "specified in" to "specified by the Agency pursuant to"
721.247(i)(1)	261.147(i)(1)	Changed "satisfy" to "fulfill"; changed "Regional Administrator" to "Agency"
721.247(i)(2)	261.147(i)(2)	Changed capitalized "Federal" to lower-case "federal"
721.247(i)(2) Board note	261.147(i)(2)	Added explanation of the availability of "Circular 570"
721.247(i)(3)	261.147(i)(3)	Changed "specified in" to "specified by the Agency pursuant to"
721.247(i)(4)	261.147(i)(4) and (i)(4)(i)	Changed "satisfy" to "fulfill"; added "each of the following states"; moved "have submitted . . . in that state" from paragraph (i)(4)(i) to appear at the end of this subsection, changing "EPA" to "the Agency"; omitted "and § 261.151(k)"; changed capitalized "State" to lower-case "state"
721.247(i)(4)(A)	261.147(i)(4)(i)	Changed capitalized "State" to lower-case "state"; added the parenthetical "(if other than the State of Illinois)"
721.247(i)(4)(B)	261.147(i)(4)(ii)	Changed "each State in which a facility . . . is located" to "the State of Illinois (the State in which the facility. . . is located)"; moved "have submitted . . . in that State" into subsection (g)(2)(A)
721.247(j)(1)	261.147(j)(1)	Changed "satisfy" to "fulfill"; changed "Regional Administrator" to "Agency"
721.247(j)(2)	261.147(j)(2)	Changed "which" to "that" for a restrictive relative clause; changed capitalized "Federal or State" to lower-case "federal or state"

Illinois Section	40 C.F.R. Section	Revision(s)
721.247(i)(2) Board note	261.147(i)(2)	Added explanation of the availability of "Circular 570"
721.247(j)(3)	261.147(j)(3)	Changed "satisfy" to "fulfill"; changed passive-voice "that must be provided" to active-voice "that the owner or operator must provide"; removed the commas from and changed the parenthetical "by the anniversary . . . of the Fund" to "before the anniversary . . . of the trust fund" and moved it from before "must" to the end of the added second sentence, adding "trust" before "fund"; added "the owner or operator must" before "obtain"; changed "as specified" to "that satisfies the requirements of"; added "where the owner or operator" before "must either add . . . before "before the anniversary date"; changed "and/or" to "or"; changed "nonsudden" to hyphenated "non-sudden"; changed "required to be provided by the owner or operator" to "that the owner or operator is required to provide" changed "by" to "pursuant to"; changed passive-voice "is being provided . . . by the owner or opeartor" to active-voice "the owner or operator has provided"
721.247(j)(4)	261.147(j)(4)	Changed "specified in" to "specified by the Agency pursuant to"
721.248 heading	261.148 heading	Changed lower-case "owners or operators, guarantors, or financial institutions" to capitalized "Owners or Operators, Guarantors, or Financial Institutions"
721.248(a)	261.148(a)	Changed "Regional Administrator" to "Agency"; changed "under" to "pursuant to"; changed "Title 11 (Bankruptcy), U.S. Code" to "Title 11 of the United States Code (Bankruptcy)"; changed "naming" to "that names"; changed "as specified in" to "undertaken to satisfy the requirements of"
721.248(b)	261.148(b)	Changed "who fulfills" to "that satisfies"; changed "under" to "pursuant to"; added "in the event of" before "a suspension"
721.249 heading	261.149 heading	Changed lower-case "State-required mechanisms" to capitalized "State-Required Mechanisms"

Illinois Section	40 C.F.R. Section	Revision(s)
721.249	261.149	Omitted federal provision relating to USEPA review and approval of state-endorsed instruments for providing financial assurance; added explanation of the omission and directed attention to the federal provision
721.250 heading	261.150 heading	Changed lower-case "assumption of responsibility" to capitalized "Assumption of Responsibility"
721.250	261.150	Omitted federal provision relating to USEPA review and approval of state financial assurance requirements and delegation of enforcement authority to the states; added explanation of the omission and directed attention to the federal provision
721.251 heading	261.151 heading	Changed lower-case "instruments" to capitalized "Instruments"
721.251	261.151	Replaced the federal provision that sets forth the required language for instruments for providing financial assurance with the following: (1) a requirement that the Agency promulgate standardized forms that accommodate Illinois law based on the required federal forms, (2) a requirement that an owner or operator must use the financial assurance forms promulgated by the Agency, and (3) a requirement that the Agency reject any financial assurance instrument that does not comport with the Agency-promulgated forms
721.Appendix Y, total organic halogens	Table 1 to 261.38, total organic halogens	Retained "note 1" in the "concentration limit" column, not making the change to "a"
721.Appendix Y, total cyanide	Table 1 to 261.38, total cyanide	Retained "1.0" in the "detection limit" column, not making the change to "1"
721.Appendix Y, dibenz[a,h]anthracene	Table 1 to 261.38, dibenz[a,h]anthra-cene	Corrected the spelling "dibenzo[a,h]-anthracene" to "dibenz[a,h]anthracene" in the "chemical name" column to agree with the name as it appears in appendix VIII to 40 C.F.R. 261
721.Appendix Y, dibenz[a,h]anthracene	Table 1 to 261.38, dibenz[a,h]anthra-cene	Retained "53-70-3" in the "CAS No." column, not making the erroneous change to "56-55-3"

Illinois Section	40 C.F.R. Section	Revision(s)
721.Appendix Y, acetophenone	Table 1 to 261.38, acetophenone	Retained "98-86-2" in the "CAS No." column, not making the erroneous change to "98-86-1"
721.Appendix Y, *p*-(dimethylamino)azo-benzene	Table 1 to 261.38, *p*-(dimethylamino)azo-benzene	Retained the spelling "4-dimethylaminoazo-benzene" in the "chemical name" column, not making the erroneous change to "4-dime thylaminoazobenzene" for the alternative chemical name
721.Appendix Y, 3,3'-dimethylbenzidine	Table 1 to 261.38, 3,3'-dimethylbenz-idine	Retained the spelling "3,3'-dimethylbenz-idine" in the "chemical name" column, not making the erroneous change to "3,3[prime]-dimethylbenzidine" for the chemical name
721.Appendix Y, α,α-dimethylphenethyl-amine	Table 1 to 261.38, α,α-dimethyl-phenethylamine	Retained the spelling "α,α-dimethyl-phenethylamine" in the "chemical name" column, not making the erroneous change to "alpha,alpha-dimethylphenethylamine" for the chemical name
721.Appendix Y, nitrobenzene	Table 1 to 261.38, nitrobenzene	Retained "98-95-3" in the "CAS No." column, not making the erroneous change to "98-96-3"
721.Appendix Y, *p*-nitrophenol	Table 1 to 261.38, *p*-nitrophenol	Corrected the second appearance of "(p-nitrophenol)" to "(4-nitrophenol)" in the "chemical name" column to agree with the alternative chemical name as it appears in appendix VIII to 40 C.F.R. 261
721.Appendix Y, 2-nitropropane	Table 1 to 261.38, 2-nitropropane	Retained "30" in the "minimum required detection limit" column, not making the erroneous change to "2,400"
721.Appendix Y, 2-picolene	Table 1 to 261.38, 2-picolene	Changed the spelling "alpha-picolene" to "α-picolene"
721.Appendix Y, 2-chloronaphthalene	Table 1 to 261.38, 2-chloronaphthalene	Retained the spelling "β-chloronaphthalene" in the "chemical name" column, not making the erroneous change to "beta-chloronaph-thalene" for the chemical name
721.Appendix Y, 2,4-D	Table 1 to 261.38, 2,4-D	Retained "7.0" in the "minimum required detection limit" column, not making the erroneous change to "7"
721.Appendix Y, 3,3'-dichlorobenzidine	Table 1 to 261.38, 3,3'-dimethylbenz-idine	Retained the spelling "3,3'-dichlorobenz-idine" in the "chemical name" column, not making the erroneous change to "3,3[prime]-dichlorobenzidine" for the chemical name
721.Appendix Y, lindane	Table 1 to 261.38, 2-picolene	Changed the spelling "gamma-hexachlorocyclohexane" to "γ-hexachlorocyclohexane"

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721.Appendix Y, pentachlorophenol	Table 1 to 261.38, pentachlorophenol	Retained "87-86-5" in the "CAS No." column, not making the erroneous change to "87-88-5"
721.Appendix Y, silvex	Table 1 to 261.38, silvex	Retained "7.0" in the "minimum required detection limit" column, not making the erroneous change to "7"
721.Appendix Y, 1,1,1-trichloroethane	Table 1 to 261.38, 1,1,1-trichloroethane	Retained "71-55-6" in the "CAS No." column, not making the erroneous change to "71-56-6"
721.Appendix Z, column "3" heading	Table 1 to 261.2(c), column "3" heading	Changed "§§ 261.2(a)(2)(ii), 261.4(a)(17), 261.4(a)(23), 261.4(a)(24), or 261.4(a)(25)" to "Sections 721.102(a)(2)(B) or 721.104(a)(17), (a)(23), (a)(24), or (a)(25)
722 table of contents, 722.300 heading	262 table of contents, 262.200 heading	Omitted "for this subpart"
722 table of contents, 722.301 heading	262 table of contents, 262.201 heading	Omitted "for this subpart"
722 table of contents, 722.302 heading	262 table of contents, 262.202 heading	Changed "this subpart is optional" to "Opting into the Subpart K Requirements"
722 table of contents, 722.303 heading	262 table of contents, 262.203 heading	Changed "how an eligible academic entity indicates it will be subject to the requirements of this subpart" to "Notice of Election into the Subpart K Requirements"
722 table of contents, 722.304 heading	262 table of contents, 262.204 heading	Changed "how an eligible academic entity indicates it will withdraw from the requirements of this subpart" to "Notice of Withdrawal from the Subpart K Requirements"
722 table of contents, 722.305 heading	262 table of contents, 262.205 heading	Changed lower-case "requirements" and "subpart" to "capitalized "Requirements" and "Subpart"
722 table of contents, 722.306 heading	262 table of contents, 262.206 heading	Changed "labeling and management standards for containers of unwanted material in the laboratory" to "Container Standards in the Laboratory"
722 table of contents, 722.307 heading	262 table of contents, 262.207 heading	Added "Personnel"
722 table of contents, 722.308 heading	262 table of contents, 262.208 heading	Changed lower-case "containers of unwanted material from the laboratory" to capitalized "Containers of Unwanted Material from the Laboratory"

Illinois Section	40 C.F.R. Section	Revision(s)
722 table of contents, 722.309 heading	262 table of contents, 262.209 heading	Removed "where and when to make the," "where to send containers of unwanted material," and "upon"; changed lower-case "hazardous waste determination and . . . unwanted material . . . removal from the laboratory" to capitalized "Hazardous Waste Determination and Removal of Unwanted Material from the Laboratory"
722 table of contents, 722.310 heading	262 table of contents, 262.210 heading	Removed "making the" and "before the unwanted material is removed from the laboratory"; changed lower-case "hazardous waste determination in the laboratory" to capitalized "Hazardous Waste Determination in the Laboratory"
722 table of contents, 722.311 heading	262 table of contents, 262.211 heading	Removed "making the"; changed lower-case "hazardous waste determination at an on-site central accumulation area" to capitalized "Hazardous Waste Determination at an On-Site Central Accumulation Area"
722 table of contents, 722.312 heading	262 table of contents, 262.212 heading	Removed "making the" and "interim status or permitted"; changed lower-case "hazardous waste determination at an on-site . . . treatment, storage or disposal facility" to capitalized "Hazardous Waste Determination at an On-Site Treatment, Storage, or Disposal Facility"; added a comma before "or disposal" to offset the final element of the series
722 table of contents, 722.313 heading	262 table of contents, 262.213 heading	Changed lower-case "clean-outs" to capitalized "Clean-Outs"
722 table of contents, 722.314 heading	262 table of contents, 262.214 heading	Changed lower-case "management plan" to capitalized "Management Plan"
722 table of contents, 722.315 heading	262 table of contents, 262.215 heading	Changed lower-case "material that is not solid or hazardous waste" to capitalized "Material That Is Not Solid Waste or Hazardous Waste"; added "waste" after "solid"
722 table of contents, 722.316 heading	262 table of contents, 262.216 heading	Changed lower-case "non-laboratory hazardous waste generated at an eligible academic entity" to capitalized "Non-Laboratory Hazardous Waste Generated at an Eligible Academic Entity"

Illinois Section	40 C.F.R. Section	Revision(s)
722.110(l)	262.10(l)	Added "the requirements set forth in . . . this Part"; added a period after "of this Part" and removed the parentheses from "for purposes of . . . Section 722.300" and made the statement a second sentence of the text, changing "meaning as defined" to "meanings given them"
722.110(l)(1)	262.10(l)(1)	Changed plural "for large quantity generators" to singular "for a large quantity generator" and moved it from after "§ 262.34(c)" to follow "Section 722.111" offset as a parenthetical by commas; changed the remaining words "small quantity" to "for a small quantity generator," adding a comma to offset the parenthetical after "Section 722.134(c)"
722.110(l)(2)	262.10(l)(2)	Changed plural "for conditionally exempt small quantity generators" to singular "for a conditionally exempt small quantity generator"
722.300 heading	262.200 heading	Omitted "for this subpart"
722.300 preamble	262.200 preamble	Changed "to this subpart" to "for the purposes of this Subpart"
722.300 "central accumulation area"	262.200 "central accumulation area"	Added quotation marks to the defined term "central accumulation area"; replaced the parentheses in "(or 262.34(j) and (k) for Performance Track members)" with commas, moved the parenthetical from after "§ 262.34(a)" to follow "small quantity generator," and added the conjunction "and" to make it a third element of the series; replaced the parentheses with commas, added "for," and changed plural "large quantity generators" to singular "a large quantity generator," followed by a semicolon to offset it as the first element of a series embracing elements that contain commas; added "for," and changed plural "small quantity generators" to singular "a small quantity generator," followed by a semicolon to offset it as the second element of a series embracing elements that contain commas; changed "and/or" to "or"

Illinois Section	40 C.F.R. Section	Revision(s)
722.300 “college or university”	262.200 “college or university”	Added quotation marks to the defined term “college or university”
722.300 “college or university” Board note	262.200 “college or university”	Added explanation of the on-line availability of lists of accredited institutions from the U.S. Department of Education
722.300 “eligible academic entity”	262.200 “eligible academic entity”	Added quotation marks to the defined term “eligible academic entity”; added “which” before “has” for a subsequent restrictive relative clause (twice)
722.300 “formal written affiliation agreement”	262.200 “formal written affiliation agreement”	Added quotation marks to the defined term “formal written affiliation agreement” (twice); changed “and/or” to “or”; added “which” before “is signed” for a subsequent restrictive relative clause; changed plural “authorized representatives” to singular “an authorized representative”; changed “as defined in” to “as that term is defined in”; added “that exists” before “on a project-by-project basis”; added quotation marks to the terms “master affiliation agreement” and “program letter of agreement,” which are defined in the document incorporated by reference; changed “as defined in” to “as these terms are defined in”; added “in the document entitled” and a comma before and quotation marks to the document title “Accreditation . . . of Terms”; added “incorporated . . . 720.111” offset by a comma
722.300 “laboratory”	262.200 “laboratory”	Added quotation marks to the defined term “laboratory”; changed “nonproduction” to hyphenated “non-production”; removed “considered” from after “are” (twice); added “within the meaning of this definition” after “laboratories” (twice)
722.300 “laboratory clean-out”	262.200 “eligible academic entity”	Added quotation marks to the defined term “laboratory clean-out”; added “which” before “have” for a subsequent restrictive relative clause; changed “supervisor/occupant” to “supervisor or occupant”; added a comma before “as required” to offset the parenthetical’ added “within the meaning of this definition”

Illinois Section	40 C.F.R. Section	Revision(s)
722.300 “laboratory worker”	262.200 “laboratory worker”	Added quotation marks to the defined term “laboratory worker”; changed “and/or” to “or”; added a period after “laboratory” and replaced “and” with “This” to divide a run-on sentence; changed “faculty, staff” to “any member of faculty or staff”; changed plural “post-doctoral fellows, interns, researchers, technicians, supervisors/managers, and principal investigators” to singular “a post-doctoral fellow, an intern, a researcher, a technician, a supervisor or manager, or a principal investigator”; changed “his/her” to “his or her”; changed plural “undergraduate and graduate students . . . are not laboratory workers” to singular “an undergraduate or graduate student . . . is not a laboratory worker”
722.300 “non-profit research institute”	262.200 “non-profit research institute”	Added quotation marks to the defined term “non-profit research institute”; added “which” before “files” for a subsequent restrictive relative clause
722.300 “reactive acutely hazardous unwanted material”	262.200 “reactive acutely hazardous unwanted material”	Added quotation marks to the defined term “reactive acutely hazardous unwanted material”
722.300 “teaching hospital”	262.200 “teaching hospital”	Added quotation marks to the defined term “teaching hospital”; added a comma before “or other” to offset the final element of a series
722.300 “trained professional”	262.200 “trained professional”	Added quotation marks to the defined term “trained professional”; changed “changed plural “large quantity generators” to singular “a large quantity generator”; added “who” before “is knowledgeable” for an independent clause; changed plural “small quantity generators” to singular “a small quantity generator”; changed the conjunction “and” to “or”; changed plural “conditionally exempt quantity generators” to singular “a conditionally exempt quantity generator”; omitted “may be” from before “a contractor”

Illinois Section	40 C.F.R. Section	Revision(s)
722.300 “unwanted material”	262.200 “unwanted material”	Added quotation marks to the defined term “unwanted material”; added a comma before “or other” to offset the final element of a series; added a comma before “or usable” to offset the final element of a series; changed “that” to “which” for a subsequent restrictive relative clause; changed plural “materials include” to singular “material includes”; changed “has the same meaning” to “will have the same meaning”; added a comma and “the material . . . will be” before “ subject to” for an independent clause
722.300 “working container”	262.200 “working container”	Added quotation marks to the defined term “working container”; added the metric volume limit as a parenthetical “(7.6 ℓ)” after “two gallons”
722.301 heading	262.201 heading	Omitted “for this subpart”
722.301(a)	262.201(a)	Added “set forth” before “in”; changed “the hazardous waste determination” to “the determination of hazardous waste”; changed plural “laboratories . . . eligible academic entities that choose” to singular “a laboratory . . . an eligible academic entity that chooses”; changed “they complete”; to singular “the academic entity fulfills”
722.301(b)	262.201(b)	Added “set forth” before “in”; changed plural “laboratories . . . eligible academic entities that choose” to singular “a laboratory . . . an eligible academic entity that chooses”; changed “they complete” to singular “the academic entity fulfills”
722.302 heading	262.202 heading	Changed “this subpart is optional” to “Opting into the Subpart K Requirements”
722.302(a)	262.202(a)	Changed the colon after “generators” to a period; changed plural “eligible academic entities have” to singular “an eligible academic entity has”
722.302(b)	262.202(b)	Changed the colon after “generators” to a period; changed plural “eligible academic entities have” to singular “an eligible academic entity has”

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722.303 heading	262.203 heading	Changed "how an eligible academic entity indicates it will be subject to the requirements of this subpart" to "Notice of Election into the Subpart K Requirements"
722.303(a)	262.203(a)	Changed "an eligible academic entity must notify the appropriate EPA Regional Administrator . . . that it is electing to be subject to" to "if an eligible academic entity elects to become subject to . . . , it must notify the Agency of this decision"; removed the unnecessary comma before "using"; changed "EPA" to "USEPA"; changed "owned by the eligible academic entity" to "that the eligible academic entity owns or operates" (twice); changed "EPA Identification Number" to "USEPA identification number" (three times); changed "an eligible academic entity that is . . . and does not have" to "if the eligible academic entity is a . . . that does not have"; added the parenthetical abbreviation "(CESQG)" after "conditionally exempt small quantity generator"; changed "an eligible academic entity must . . . that is electing to be" to "if the eligible academic entity has multiple USEPA identification numbers, or if it is a CESQG with multiple sites, it must . . . that it elects to become"; changed "(Site Identification Form)" to "(using USEPA Form 8700-12)"; replaced the comma after "this subpart" with a period, omitted the conjunction "and," and added "The eligible academic entity" before "must" to divide a run-on sentence; changed "Site Identification Form" to "USEPA Form 8700-12"; added "to the Agency" after "must submit . . . 8700-12"
722.303(a) Board note	262.203(a)	Added explanation of the title, availability, and use of USEPA Form 8700-12

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722.303(b)	262.203(b) and (b)(1) through (b)(11)	Changed "Site Identification Form" to "USEPA Form 8700-12"; added "each of" before "the following"; changed listing of the required fields from subsection format to a listing of the field names as they appear in USEPA Form 8700-12 in quotation marks, including explanatory material; changed "1) Reason for Submittal." to "'1. Reason for submittal'"; changed "2) Site EPA Identification Number." to "'2. Site EPA ID Number'"; changed plural "conditionally exempt small quantity generators" to singular "a conditionally exempt small quantity generator"; changed "3) Site Name." to "'3. Site Name'"; changed "4) Site Location Information." to "'4. Site Location Information'"; changed "5) Site Land Type." to "'Site Land Type'"; changed "6) North American Industry Classification System (NAICS) Code(s) for the Site." to "'6. North American Industry Classification System (NAICS) Code(s) for the Site'"; added a Board note directing attention to the definition of "NAICS Code"; changed "7) Site Mailing Address." to "'7. Site Mailing Address'"; changed "8) Site Contact Person." to "'8. Site Contact Person'"; changed "9) Operator and Legal Owner or the Site." to "'9. Operator and Legal Owner of the Site'"; changed "10) Type of Regulated Waste Activity." to "'10. Type of Regulated Waste Activity'"; changed "11) Certification." to "'13. Certification'"
722.303(c)	262.203(c)	Changed "the notification" to "USEPA Form 8700-12, as filed . . . this Section"
722.304 heading	262.204 heading	Changed "how an eligible academic entity indicates it will withdraw from the requirements of this subpart" to "Notice of Withdrawal from the Subpart K Requirements"
722.304(a)	262.204(a)	Changed "an eligible academic entity . . . that it is electing to no longer be subject to . . . and that it will comply with" to "if an eligible academic entity elects to become subject to no longer remain subject to . . . , it

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		elects to instead comply with"; changed "all the laboratories owned by the eligible academic entity" to all the laboratories that the eligible academic entity owns or operates" (twice); changed "EPA Identification Number" to "USEPA identification number" (three times); changed "requirements of" to "requirements set forth in"; added "which are the generally applicable standards" before "for small quantity generators," adding a comma before "which are" to offset the parenthetical; changed "must notify the appropriate EPA Regional Administrator in writing, using . . . (EPA Form 8700-12)" to "must notify the Agency of this election in writing using USEPA Form 8700-12"; added a period after "USEPA Form 8700-12" and "An eligible academic entity" before "must notify" to divide a run-on sentence; removed the unnecessary comma before "using"; changed "an eligible academic entity that is . . . and does not have . . . must notify" to "if the eligible academic entity is a . . . that does not have . . . , it must notify the Agency"; changed "that it is withdrawing" to "that is has elected to withdraw"; changed "conditionally exempt small quantity generator" to the defined abbreviation "CESQG"; added a period after "on-site" and "The eligible academic entity . . . this election must" before "comply with" to divide a run-on sentence; changed "an eligible academic entity must . . . that is withdrawing" to "if the eligible academic entity has multiple USEPA identification numbers, or if it is a CESQG with multiple sites, it must . . . that it elects to withdraw"; changed "(Site Identification Form)" to "(using USEPA Form 8700-12)"; added a period after "this subpart," omitted the conjunction "and," and added "The eligible academic entity . . . this Subpart K" before "must"; changed "Site Identification Form" to "USEPA Form 8700-12"; added "to the

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		Agency" after "must submit . . . 8700-12"; added "which are the generally applicable standards" before "for small quantity generators," adding a comma before "which are" to offset the parenthetical; added "which are the generally applicable standards" before "for conditionally exempt small quantity generators," adding a comma before "which are" to offset the parenthetical
722.304(a) Board note	262.204(a)	Added explanation of the title, availability, and use of USEPA Form 8700-12
722.304(b)	262.204(b) and (b)(1) through (b)(11)	Changed "Site Identification Form" to "USEPA Form 8700-12"; added "each of" before "the following"; changed listing of the required fields from subsection format to a listing of the field names as they appear in USEPA Form 8700-12 in quotation marks, including explanatory material; changed "1) Reason for Submittal." to "'1. Reason for submittal'"; changed "2) Site EPA Identification Number." to "'2. Site EPA ID Number'"; changed plural "conditionally exempt small quantity generators" to singular "a conditionally exempt small quantity generator"; changed "3) Site Name." to "'3. Site Name'"; changed "4) Site Location Information." to "'4. Site Location Information'"; changed "5) Site Land Type." to "'Site Land Type'"; changed "6) North American Industry Classification System (NAICS) Code(s) for the Site." to "'6. North American Industry Classification System (NAICS) Code(s) for the Site'"; added a Board note directing attention to the definition of "NAICS Code"; changed "7) Site Mailing Address." to "'7. Site Mailing Address'"; changed "8) Site Contact Person." to "'8. Site Contact Person'"; changed "9) Operator and Legal Owner or the Site." to "'9. Operator and Legal Owner of the Site'"; changed "10) Type of Regulated Waste Activity." to "'10. Type of Regulated Waste Activity'"; changed "11) Certification." to "'13. Certification'"

Illinois Section	40 C.F.R. Section	Revision(s)
722.303(b)	262.203(b)	Changed "Site Identification Form" to "USEPA Form 8700-12"; added "each of" before "the following"; changed listing of the required fields from subsection format to a listing of the field names as they appear in USEPA Form 8700-12 in quotation marks, including explanatory material; changed "1) Reason for Submittal." to "'1. Reason for submittal'"; changed "2) Site EPA Identification Number." to "'2. Site EPA ID Number'"; changed plural "conditionally exempt small quantity generators" to singular "a conditionally exempt small quantity generator"; changed "3) Site Name." to "'3. Site Name'"; changed "4) Site Location Information." to "'4. Site Location Information'"; changed "5) Site Land Type." to "'Site Land Type'"; changed "6) North American Industry Classification System (NAICS) Code(s) for the Site." to "'6. North American Industry Classification System (NAICS) Code(s) for the Site'"; added a Board note directing attention to the definition of "NAICS Code"; changed "7) Site Mailing Address." to "'7. Site Mailing Address'"; changed "8) Site Contact Person." to "'8. Site Contact Person'"; changed "9) Operator and Legal Owner or the Site." to "'9. Operator and Legal Owner of the Site'"; changed "10) Type of Regulated Waste Activity." to "'10. Type of Regulated Waste Activity'"; changed "11) Certification." to "'13. Certification'"
722.304(c)	262.204(c)	Changed "the notification" to "USEPA Form 8700-12, as filed . . . this Section"
722.305 heading	262.205 heading	Changed lower-case "requirements" and "subpart" to "capitalized "Requirements" and "Subpart"
722.305	262.205	Changed "be subject" to "become subject"; added "the requirements of" before "this Subpart K"' changed "in accordance with" to "that complies with"; changed "that" to "which" for a subsequent restrictive relative clause

Illinois Section	40 C.F.R. Section	Revision(s)
722.306 heading	262.206 heading	Changed "labeling and management standards for containers of unwanted material in the laboratory" to "Container Standards in the Laboratory"
722.306(a)	262.206(a)	Added "the eligible academic entity must" before "label" added "containers of" before "unwanted material"
722.306(a)(1)(A)	262.206(a)(1)(i)	Added a comma before "or another" to offset the parenthetical; changed the ending comma to a semicolon
722.306(a)(1)(B)	262.206(a)(1)(ii)	Added "the following" after "limited to"
722.306(a)(1)(B)(i)	262.206(a)(1)(ii)(A)	Changed "chemical(s)" to "chemicals"; changed the ending comma to a semicolon; added the ending conjunction "or"
722.306(a)(1)(B)(ii)	262.206(a)(1)(ii)(B)	Changed "chemical(s)" to "chemicals"
722.306(a)(2)	262.206(a)(2)	Omitted "at a minimum" after "must"; added "if not attached to it"
722.306(a)(2)(A)	262.206(a)(2)(i)	Changed "date that" to "date on which"; changed the ending comma to a semicolon
722.306(a)(2)(B)	262.206(a)(2)(ii)	Changed "solid and hazardous waste" to "solid waste and hazardous waste"; changed "code(s)" to "codes"; added "to the material" after "codes"; changed "solid or hazardous waste" to "solid waste and hazardous waste"; changed the ending comma to a semicolon; added a comma after "limited to" to offset the parenthetical; added "the following"
722.306(a)(2)(B)(i)	262.206(a)(2)(ii)(A)	Changed "and/or" to "or"; added the definite article "the" before "composition"; changed the ending comma to a semicolon
722.306(a)(2)(B)(ii)	262.206(a)(2)(ii)(B)	Changed the ending comma to a semicolon; added the ending conjunction "and"
722.306(b)	262.206(b)	Changed "to assure . . . to prevent" to "in a way that assures . . . and which prevents" before "safe storage"; added "actions" after "following"
722.306(b)(1)	262.206(b)(1)	Changed "are" to "must be" (twice); added a comma before and "must be" after "and damaged" for an independent clause; changed the ending comma to a semicolon; omitted the unnecessary ending conjunction "and"

Illinois Section	40 C.F.R. Section	Revision(s)
722.306(b)(2)	262.206(b)(2)	Changed “are” to “must be”; added a comma and “in order” before “avoid” for a parenthetical; changed the ending comma to a semicolon
722.306(b)(3)	262.206(b)(3)	Added “under the following circumstances” after “except”
722.306(b)(3)(A)	262.206(b)(3)(i)	Added “a container may be open” before “when”; added a comma before “or consolidating” to offset the final element of a series; changed the ending comma to a semicolon; omitted the ending conjunction “or”
722.306(b)(3)(B)	262.206(b)(3)(ii)	Added a comma after “procedure” and “the end of the” before “work shift” for an independent clause; moved “either” from before “be closed” to before “the working container”; changed “the contents” to “its contents”; changed the ending comma to a semicolon
722.306(b)(3)(C)	262.206(b)(3)(iii)	Added “a container may be open” before “when”; added “for either of the following reasons” after “necessary”; changed the ending period to a colon
722.306(b)(3)(C)(i)	262.206(b)(3)(iii)(A)	Added “it is necessary for” before “for the proper”; changed the ending period to a semicolon
722.306(b)(3)(C)(ii)	262.206(b)(3)(iii)(B)	Added the indefinite article “a” before “build-up”
722.307 heading	262.207 heading	Added “Personnel”
722.307 preamble	262.207 preamble	Changed “a laboratory” to “its laboratory”; omitted “at the eligible academic entity” after “laboratory”
722.307(a)	262.207(a)	Added “it must provide” before “training”; changed “must be” to “that is” before “commensurate”; added a comma before “so that” to offset the parenthetical; changed “so they” to “so that the workers and students”; changed “requirements in” to “requirements of”
722.307(b)	262.207(b)	Changed “can” to “may”; added any of the following” after “limited to”
722.307(b)(1)	262.207(b)(1)	Omitted the unnecessary ending conjunction “or”

Illinois Section	40 C.F.R. Section	Revision(s)
722.307(b)(2)	262.207(b)(2)	Omitted the unnecessary ending conjunction "or"
722.307(b)(3)	262.207(b)(3)	Changed "electronic/written" to "electronic or written"; omitted the unnecessary ending conjunction "or"
722.307(c)	262.207(c)	Added the parenthetical "(see Section 722.127)" after "large quantity generator"; moved "for the durations . . . 725.116(e)" from after "documentation" to after "must maintain"; changed "demonstrating training . . . that is sufficient to determine whether laboratory workers have been trained" to "which is sufficient to demonstrate that training for all laboratory workers has occurred"; changed "demonstrating training" to "which demonstrates that training has occurred"
722.307(c)(1)	262.207(c)(1)	Changed "sign-in/attendance sheet(s)" to "sign-in or attendance sheets"; changed "session(s)" to "sessions"; removed the unnecessary ending conjunction "or"
722.307(c)(2)	262.207(c)(2)	Changed singular "syllabus" to plural "syllabi" to harmonize all four subsections; removed the unnecessary ending conjunction "or"
722.307(c)(3)	262.207(c)(3)	Changed singular "certificate" to plural "certificates" to harmonize all four subsections; removed the unnecessary ending conjunction "or"
722.307(d)	262.207(d)	Changed "must" to "is required for either of the following tasks"
722.307(d)(1)	262.207(d)(1)	Added "a trained professional must" before "accompany"; changed the ending comma to a semicolon
722.307(d)(2)	262.207(d)(2)	Added "a trained professional must" before "accompany"; moved the parenthetical "pursuant to "Section 721.111" from before to after "for unwanted material"
722.308 heading	262.208 heading	Changed lower-case "containers of unwanted material from the laboratory" to capitalized "Containers of Unwanted Material from the Laboratory"
722.308(a)	262.208(a)	Changed "must either" to "must do either of the following"

Illinois Section	40 C.F.R. Section	Revision(s)
722.308(a)(1)	262.208(a)(1)	Added “it must” before “remove”; changed numeric “6” to written “six”
722.308(a)(2)	262.208(a)(2)	Added “it must” before “remove”; changed numeric “6” to written “six”
722.308(c)	262.208(c)	Added “and how the eligible academic entity will” before “develop”
722.308(d)(1)	262.208(d)(1)	Added the metric volume limit as a parenthetical “(208 ℓ)” after “55 gallons”; added “the following requirements are fulfilled for” before “all containers”
722.308(d)(1)(A)	262.208(d)(1)(i)	Added “the containers” before “are marked”; changed “date that” to “date on which”; added the metric volume limit as a parenthetical “(208 ℓ)” after “55 gallons”; changed present-tense “is” to past-tense “was”
722.308(d)(1)(B)	262.208(d)(1)(ii)	Added “the containers” before “are marked”; changed “date that” to “date on which”; added the metric volume limit as a parenthetical “(208 ℓ)” after “55 gallons”; changed “at the next” to “on the date of the next”
722.308(d)(2)	262.208(d)(1)	Changed numeric “1” to written “one”; added the metric volume limit as a parenthetical “(0.946 ℓ)” after “one quart”; added “the following requirements are fulfilled for” before “all containers”
722.308(d)(2)(A)	262.208(d)(1)(i)	Added “the containers” before “are marked”; changed “date that” to “date on which”; changed numeric “1” to written “one”; added the metric volume limit as a parenthetical “(0.946 ℓ)” after “one quart”; changed present-tense “is” to past-tense “was”
722.308(d)(2)(B)	262.208(d)(1)(ii)	Added “the containers” before “are marked”; changed “date that” to “date on which”; changed numeric “1” to written “one”; added the metric volume limit as a parenthetical “(0.946 ℓ)” after “one quart”

Illinois Section	40 C.F.R. Section	Revision(s)
722.309 heading	262.209 heading	Removed "where and when to make the," "where to send containers of unwanted material," and "upon"; changed lower-case "hazardous waste determination and . . . unwanted material . . . removal from the laboratory" to capitalized "Hazardous Waste Determination and Removal of Unwanted Material from the Laboratory"
722.309(a)	262.209(a)	Changed "generators—an eligible academic entity" to "generators. An eligible academic entity"; added "that is a large quantity generator or a small quantity generator" after "eligible academic entity"; added "within the time given for that area" after "the following areas"
722.309(a)(1)	262.209(a)(1)	Added a comma before "before" to offset the parenthetical
722.309(a)(2)	262.209(a)(2)	Changed numeric "4" to written "four"; changed "of arriving" to "after the waste arrives in the area"; moved "within four calendar days after the waste arrives" from before to after "at an on-site . . . area"
722.309(a)(3)	262.209(a)(3)	Changed numeric "4" to written "four"; changed "of arriving" to "after the waste arrives in the facility"; moved "within four calendar days after the waste arrives" from before to after "at an on-site . . . facility"
722.309(b)	262.209(b)	Changed "generators—an eligible academic entity" to "generators. An eligible academic entity"; added "that is a conditionally exempt small quantity generator" after "eligible academic entity"
722 table of contents, 722.310 heading	262 table of contents, 262.210 heading	Removed "making the" and "before the unwanted material is removed from the laboratory"; changed lower-case "hazardous waste determination in the laboratory" to capitalized "Hazardous Waste Determination in the Laboratory"
722.310 preamble	722.210 preamble	Changed "if" to "where"; changed "comply with the following" to "fulfill the following requirements"
722.310(b)	722.210(b)	Added "do the following" after "must"
722.310(b)(1)	722.210(b)(1)	Added "it must" before "write"; omitted the unnecessary ending conjunction "and"

Illinois Section	40 C.F.R. Section	Revision(s)
722.310(b)(2)	722.210(b)(2)	Added “it must” before “write”; changed “code(s)” to “codes”; changed the ending period to a semicolon and added the ending conjunction “and”
722.310(b)(3)	722.210(b)(3)	Added “the amount used to determine” before “the eligible academic entity’s generator status”
722.310(c)	722.210(c)	Changed “laboratory(ies)” to “laboratory”; added a comma before “or disposal facility” to offset the final element of a series
722.310(d)	722.210(d)	Added “the following requirements apply” after “laboratory”
722.310(d)(1)	722.210(d)(1)	Changed plural “large quantity generators and small quantity generators” to singular “a large quantity generator or a small quantity generator”; added “an eligible academic entity that is” before “large quantity generator”; changed “ensure it is taken” to “ensure that its hazardous waste is taken”; changed “laboratory(ies)” to “laboratory”; removed the unnecessary comma after “accumulation area” that separated a simple two-element series; changed “or an on-site . . . facility” to “or to an on-site . . . facility”; ; added a comma before “or disposal facility” to offset the final element of a series; added “the waste is” before “transported” for an independent clause and to clarify the structure of the three alternatives into two two-element series
722.310(d)(2)	722.210(d)(2)	Changed plural “large quantity generators and small quantity generators” to singular “a large quantity generator or a small quantity generator”; added “an eligible academic entity that is” before “large quantity generator”; changed “ensure it is taken” to “ensure that its hazardous waste is taken”; changed “laboratory(ies)” to “laboratory”; removed the unnecessary comma after “accumulation area” that separated a simple two-element series; changed “or an on-site . . . facility” to “or to an on-site . . . facility”; ; added a comma before “or disposal facility” to offset the final element of a series; added

Illinois Section	40 C.F.R. Section	Revision(s)
		"the waste is" before "transported" for an independent clause and to clarify the structure of the three alternatives into two two-element series
722.310(e)	722.210(e)	Changed "when it is removed" to "after it has been removed"
722.311 heading	262.211 heading	Removed "making the"; changed lower-case "hazardous waste determination at an on-site central accumulation area" to capitalized "Hazardous Waste Determination at an On-Site Central Accumulation Area"
722.311 preamble	262.211 preamble	Changed "if" to "where"; changed "comply with the following" to "fulfill the following requirements"
722.311(a)	262.211(a)	Changed "laboratory(ies)" to "laboratory"
722.311(b)	262.211(b)	Changed "laboratory(ies)" to "laboratory" (twice)
722.311(c)	262.211(c)	Changed plural "Performance Track members" to singular "a Performance Track member"
722.311(d)	262.211(d)	Changed numeric "4" to written "four"; changed "of the unwanted materials' arrival" to "after the unwanted material has arrived"
722.311(e)	262.211(e)	Added "fulfill the following requirements" after "must"
722.311(e)(1)	262.211(e)(1)	Added "it must" before "write"; changed numeric "4" to written "four"; changed "of arriving at" to "after the unwanted material has arrived"; changed "the on-site central accumulation area" to "that area"; changed the ending comma to a semicolon; omitted the unnecessary ending conjunction "and"
722.311(e)(2)	262.211(e)(2)	Added "it must" before "write"; changed "code(s)" to "codes"; changed the ending comma to a semicolon; omitted the unnecessary ending conjunction "and"
722.311(e)(3)	262.211(e)(3)	Added "it must" before "count"; added "the amount used to determine" before "the eligible academic entity's generator status"; added a comma before "in the calendar month" to offset the parenthetical; changed the ending comma to a semicolon
722.311(e)(4)	262.211(e)(4)	Added "it must" before "manage"

Illinois Section	40 C.F.R. Section	Revision(s)
722.312 heading	262.212 heading	Removed "making the" and "interim status or permitted"; changed lower-case "hazardous waste determination at an on-site . . . treatment, storage or disposal facility" to capitalized "Hazardous Waste Determination at an On-Site Treatment, Storage, or Disposal Facility"; added a comma before "or disposal" to offset the final element of the series
722.312 preamble	262.212 preamble	Changed "if" to "where"; changed "comply with the following" to "fulfill the following requirements"
722.312(a)	262.212(a)	Changed "laboratory(ies)" to "laboratory"; added a comma before "or disposal facility" to offset the final element of a series; changed the ending period to a semicolon
722.312(b)	262.212(b)	Changed "laboratory(ies)" to "laboratory" (twice); added a comma before "or disposal facility" to offset the final element of a series; changed the ending period to a semicolon
722.312(c)	262.212(c)	Changed "arrives in" to "arrives at"; added a comma before "or disposal facility" to offset the final element of a series; changed the ending period to a semicolon
722.312(d)	262.212(d)	Added "it must" before "write"; changed numeric "4" to written "four"; changed "of arriving at" to "after the unwanted material has arrived"; changed "the on-site central accumulation area" to "that area"; changed the ending period to a semicolon
722.312(e)	262.212(e)	Added "fulfill the following requirements" after "must"
722.312(e)(1)	262.212(e)(1)	Added "it must" before "write" changed numeric "4" to written "four"; changed "of arriving at" to "after the unwanted material has arrived"; added a comma before "or disposal facility" to offset the final element of a series; changed "the on-site central accumulation area" to "that area"; changed the ending comma to a semicolon; removed the unnecessary ending conjunction "and"

Illinois Section	40 C.F.R. Section	Revision(s)
722.312(e)(2)	262.212(e)(2)	Added “it must” before “write”; changed “code(s)” to “codes”; changed the ending comma to a semicolon; removed the unnecessary ending conjunction “and”
722.312(e)(3)	262.212(e)(3)	Added “it must” before “count”; added “the amount used to determine” before “the eligible academic entity’s generator status”; added a comma before “in the calendar month” to offset the parenthetical; changed the ending comma to a semicolon
722.312(e)(4)	262.212(e)(4)	Added “it must” before “manage”
722.313 heading	262.213 heading	Changed lower-case “clean-outs” to capitalized “Clean-Outs”
722.313(a)	262.213(a)	Changed “one time per 12 month period” to “Once in any 12-month period”; added “the following limitations apply” after “except that”
722.313(a)(1)	262.213(a)(1)	Added the metric volume limit as a parenthetical “(208 ℓ)” after “55 gallons” (twice); changed numeric “1” to written “one”; added the metric volume limit as a parenthetical “(0.946 ℓ)” after “one quart” (twice); changed “at the next” to “on the date of the next”; changed “within 30 days from the start” to “within 30 days after the start”; omitted the unnecessary ending conjunction “and”
722.313(a)(2)	262.213(a)(2)	Moved “toward . . . 721.105(c) and (d)” from after “during the laboratory clean-out” to after “required to count”; added “one that is” before “listed in”; changed “exhibiting” to “which exhibits”; added “of the” before “characteristics”; added “set forth” before “in”; changed “generated solely” to “that is solely generated”; added “which” before “is still” for a subsequent restrictive relative clause; omitted the unnecessary ending conjunction “and”
722.313(a)(3)	262.213(a)(3)	Changed “count all its” to “count all of its”; changed “if it generates” to “if the eligible academic entity generates”; changed “1 kg/month” to “one kilogram per month”

Illinois Section	40 C.F.R. Section	Revision(s)
722.313(a)(4)	262.213(a)(4)	Changed "begins and ends" to past-tense "began and ended"; changed "maintain the records" to "maintain these records"; changed "date the clean-out ends" to "date on which the clean-out ended"
722.313(b)	262.213(b)	Added "the following" after "on which"
722.313(b)(1)	262.213(b)(1)	Added the metric volume limit as a parenthetical "(208 ℓ)" after "55 gallons"; changed numeric "1" to written "one"; added the metric volume limit as a parenthetical "(0.946 ℓ)" after "one quart"
722.313(b)(2)	262.213(b)(2)	Added "that is" before "generated"
722.314 heading	262.214 heading	Changed lower-case "management plan" to capitalized "Management Plan"
722.314 preamble	722.314 preamble	Changed "all the laboratories owned by the eligible academic entity that have opted" to "all of the laboratories that it owns which have opted"; changed "EPA Identification Numbers" to "USEPA identification numbers"; added a comma before "with a total" to offset the parenthetical; added the definite article "the" before "nine elements"; changed "the" to "its" before "Laboratory Management Plan"; changed "it chooses" to "it so chooses"
722.314(a)	722.314(a)	Added "include the following information" after "must"
722.314(a)(1)	722.314(a)(1)	Added "Part I must" before "describe"; removed the comma before and changed "including" to "that includes the following"
722.314(a)(1)(A)	722.314(a)(1)(i)	Changed "identifying" to "identification"; changed "identify an equally effective term" to "identification of an equally effective term"; changed passive-voice "that will be used . . . and consistently by the eligible academic entity" to "that the eligible academic entity will consistently use"; changed "has the same meaning and is subject to the same requirements as 'unwanted material'" to "has the same meaning as the term 'unwanted material,' and the material is subject to the same requirements as it would if called 'unwanted material'"; changed the ending period to a

Illinois Section	40 C.F.R. Section	Revision(s)
		semicolon and added the ending conjunction "and"
722.314(a)(1)(B)	722.314(a)(1)(ii)	Changed "identifying" to "identification of"
722.314(a)(2)	722.314(a)(2)	Changed "identifying" to "identification of"
722.314(b)	722.314(b)	Added "include the following information" after "must"
722.314(b)(1)	722.314(b)(1)	Changed "describe" to "description of"; changed the ending period to a semicolon and added the ending conjunction "and"
722.314(b)(2)	722.314(b)(2)	Changed "describe" to "description of"; changed the ending period to a semicolon
722.314(b)(3)	722.314(b)(3)	Changed "describe" to "description of"; changed the ending period to a semicolon
722.314(b)(4)	722.314(b)(4)	Changed "describe" to "description of"; added "the following" after "including"
722.314(b)(4)(A)	722.314(b)(4)(i)	Changed "removals—develop a regular schedule" to "removals, a regular schedule"
722.314(b)(4)(B)	722.314(b)(4)(ii)	Added "the following" and an offsetting comma after "are exceeded"
722.314(b)(4)(B)(i)	722.314(b)(4)(ii)(A)	Changed "describe" to "description of"; changed "its" to "the eligible academic entity's"; changed "within 10 calendar days when unwanted materials" to "within 10 days of the date on which unwanted materials"; changed the ending period to a semicolon and added the ending conjunction "and"
722.314(b)(4)(B)(ii)	722.314(b)(4)(ii)(B)	Changed "describe" to "description of"
722.314(b)(5)	722.314(b)(5)	Changed "describe" to "description of"
722.314(b)(6)	722.314(b)(6)	Added "the following" after "including"
722.314(b)(7)	722.314(b)(7)	Changed "describe" to "description of"; changed "its" to "the eligible academic entity's"; added "the following information" after "including"
722.314(b)(7)(A)	722.314(b)(7)(i)	Removed the unnecessary comma before "appropriate"; added "that are" before "appropriate"; removed the unnecessary ending conjunction "and"
722.314(b)(7)(B)	722.314(b)(7)(ii)	Changed "and/or" to "or"; removed the unnecessary ending conjunction "and"
722.314(b)(7)(C)	722.314(b)(7)(iii)	Changed "and/or" to "or"; removed the unnecessary ending conjunction "and"
722.314(c)	722.314(c)	Changed "who request it" to "who may request it"

Illinois Section	40 C.F.R. Section	Revision(s)
722.314(d)	722.314(d)	Omitted the unnecessary comma before "as needed"
722.315 heading	262.215 heading	Changed lower-case "material that is not solid or hazardous waste" to capitalized "Material That Is Not Solid Waste or Hazardous Waste"; added "waste" after "solid"
722.315(a)	262.215(a)	Added "the requirements of" before "this Subpart K"; added "of 35 Ill. Adm. Code 702, 703, 705, and 720 through 728" after "hazardous waste regulations"
722.315(b)	262.215(b)	Changed "and/or" to "or"
722.316 heading	262.216 heading	Changed lower-case "non-laboratory hazardous waste generated at an eligible academic entity" to capitalized "Non-Laboratory Hazardous Waste Generated at an Eligible Academic Entity"
722.316 preamble	262.216 preamble	Changed the ending semicolon to a colon; added "either of the following is true of the waste" after "and"
722.316(a)	262.216(a)	Added "that hazardous waste" before "remains"; changed plural "large quantity generators and small quantity generators" to singular "a large quantity generator or a small quantity generator"; omitted the parenthetical "with respect to that hazardous waste" and the offsetting comma
722.316(b)	262.216(b)	Added "that hazardous waste" before "remains"; changed plural "conditionally exempt small quantity generators" to singular "a conditionally exempt small quantity generator"; omitted the parenthetical "with respect to that hazardous waste" and the offsetting comma

Table C
Board Housekeeping Amendments

Section	Source	Revision(s)
703.Appendix A, ¶ A.10.	Board	Added the metric volume in parentheses "(5680 ℓ)" after "1,500 gallons"
703.Appendix A, ending Board note	Board	Updated the *Code of Federal Regulations* citation to the latest edition available

Section	Source	Revision(s)
720.133(a)	Board	Added the subsection formerly omitted, leaving out the first sentence re submission of an application to the Administrator
720.133(b)	Board	Added a statement explaining the omission of the corresponding federal provision, for the purpose of maintaining structural parity with the corresponding federal rule
720.110 "NAICS Code"	Board	Added the definition of the abbreviated document title to support use in the text, including a cross-reference to the incorporation by reference
720.110 "USPS"	Board	Added the definition of the standardized abbreviation used in the text
720.111(a) "ACGME"	Board	Added an incorporation of "Accreditation Council for Graduate Medical Education: Glossary of Terms" to support use of the document in the text
720.111(a) "ACGME" Board note	Board	Added explanation of on-line availability of the document
720.111(a) "NTIS," "Method 1664" Board note	Board	Removed "EPA-821/R-98-002 is" to standardize the format with similar notes in this Section
720.111(a) "NTIS," "Methods for Chemical Analysis of Water and Wastes" Board note	Board	Removed "EPA-600/4-79-020 is" to standardize the format with similar notes in this Section
720.111(a) "NTIS," "North American Industry Classification System"	Board	Added an incorporation of "North American Industry Classification System" to support use of the document in the text
720.111(a) "NTIS," "North American Industry Classification System" Board note	Board	Added explanation of on-line availability of the document from the Bureau of Census
720.111(a) "NTIS," "Screening Procedures . . . for Stationary Sources" Board note	Board	Removed "EPA-454/R-92-019 is" to standardize the format with similar notes in this Section
720.111(a) "NTIS," "Test Methods . . . Physical/Chemical Methods" Board note	Board	Removed "EPA-530/SW-846 is" to standardize the format with similar notes in this Section

Section	Source	Revision(s)
720.111(a) "USEPA, Receptor Analysis Branch," "Screening Procedures . . . Stationary Sources" Board note	Board	Removed "EPA-450/R-92-019 is" to standardize the format with similar notes in this Section
720.111(b), 10 CFR 20.2006	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), Table II, column 2 in Appendix B to 10 CFR 20	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), Appendix G to 10 CFR 20	Board	Updated the *Code of Federal Regulations* citation to the latest edition available, including deletion of unnecessary *Federal Register* citations to earlier amendments
720.111(b), 10 CFR 71	Board	Updated the *Code of Federal Regulations* citation to the latest edition available, including deletion of unnecessary *Federal Register* citations to earlier amendments
720.111(b), 10 CFR 71.5	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), 33 CFR 153.203	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), 40 CFR 3.2	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), 40 CFR 3.3	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), 40 CFR 3.10	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), 40 CFR 3.2000	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), 40 CFR 51.100(ii)	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), Appendix W to 40 CFR 51	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), Appendix B to 40 CFR 52.741	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), 40 CFR 60	Board	Updated the *Code of Federal Regulations* citation to the latest edition available, including deletion of unnecessary *Federal Register* citations to earlier amendments and addition of *Federal Register* citations to later amendments

Section	Source	Revision(s)
720.111(b), Subpart VV of 40 CFR 60	Board	Updated the *Code of Federal Regulations* citation to the latest edition available, including deletion of unnecessary *Federal Register* citations to earlier amendments
720.111(b), Appendix A to 40 CFR 60	Board	Updated the *Code of Federal Regulations* citation to the latest edition available, including deletion of unnecessary *Federal Register* citations to earlier amendments and addition of *Federal Register* citations to later amendments
720.111(b), 40 CFR 61	Board	Updated the *Code of Federal Regulations* citation to the latest edition available, including deletion of unnecessary *Federal Register* citations to earlier amendments and addition of *Federal Register* citations to later amendments
720.111(b), Subpart V of 40 CFR 61	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), Subpart FF of 40 CFR 61	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), 40 CFR 63	Board	Updated the *Code of Federal Regulations* citation to the latest edition available, including deletion of unnecessary *Federal Register* citations to earlier amendments and addition of *Federal Register* citations to later amendments; changed "amended in" to "as amended at"
720.111(b), Subpart RR of 40 CFR 63	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), Subpart EEE of 40 CFR 63	Board	Updated the *Code of Federal Regulations* citation to the latest edition available, including deletion of *Federal Register* an unnecessary citation to earlier amendments and addition of a *Federal Register* citation to later amendments
720.111(b), Method 301 in appendix A to 40 CFR 63	Board	Updated the *Code of Federal Regulations* citation to the latest edition available, including addition of *Federal Register* citations to later amendments
720.111(b), Appendix C to 40 CFR 63	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), Appendix D to 40 CFR 63	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), 40 CFR 136.3	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), 40 CFR 144.70	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), 40 CFR 232.2	Board	Updated the *Code of Federal Regulations* citation to the latest edition available

Section	Source	Revision(s)
720.111(b), 40 CFR 257	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), 40 CFR 258	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), 40 CFR 260.21	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), Appendix I to 40 CFR 260	Board	Updated the *Code of Federal Regulations* citation to the latest edition available, including addition of a *Federal Register* citation to later amendments
720.111(b), 40 CFR 261.151	Board	Added an incorporation of the federal financial assurance forms applicable to HSM management facilities by reference
720.111(b), Appendix III to 40 CFR 261	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), 40 CFR 262.53	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), 40 CFR 262.54	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), 40 CFR 262.55	Board	Updated the *Code of Federal Regulations* citation to the latest edition available, including addition of a *Federal Register* citation to later amendments
720.111(b), 40 CFR 262.56	Board	Updated the *Code of Federal Regulations* citation to the latest edition available, including addition of a *Federal Register* citation to later amendments
720.111(b), 40 CFR 262.57	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), Appendix to 40 CFR 262	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), 40 CFR 264.151	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), Appendix I to 40 CFR 264	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), Appendix IV to 40 CFR 264	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), Appendix V to 40 CFR 264	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), Appendix VI to 40 CFR 264	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), Appendix I to 40 CFR 265	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), Appendix III to 40 CFR 265	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), Appendix IV to 40 CFR 265	Board	Updated the *Code of Federal Regulations* citation to the latest edition available

Section	Source	Revision(s)
720.111(b), Appendix V to 40 CFR 265	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), Appendix IX to 40 CFR 266	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), 40 CFR 267.151	Board	Added an incorporation by reference for the previously omitted federal financial assurance forms applicable to T/S/D facilities operating under a standardized permit
720.111(b), 40 CFR 270.5	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), 40 CFR 761	Board	Updated the *Code of Federal Regulations* citation to the latest edition available, including deletion of unnecessary *Federal Register* citations to earlier amendments
720.111(b), 40 CFR 761.3	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), 40 CFR 761.60	Board	Updated the *Code of Federal Regulations* citation to the latest edition available, including deletion of an unnecessary *Federal Register* citation to earlier amendments
720.111(b), 40 CFR 761.65	Board	Updated the *Code of Federal Regulations* citation to the latest edition available, including deletion of an unnecessary *Federal Register* citation to earlier amendments
720.111(b), 40 CFR 761.70	Board	Updated the *Code of Federal Regulations* citation to the latest edition available, including deletion of an unnecessary *Federal Register* citation to earlier amendments
720.111(b), Subpart B of 49 CFR 107	Board	Updated the *Code of Federal Regulations* citation to the latest edition available, including deletion of an unnecessary *Federal Register* citation to earlier amendments and addition of *Federal Register* citations to later amendments; changed "amended in" to "as amended at"
720.111(b), 49 CFR 171	Board	Updated the *Code of Federal Regulations* citation to the latest edition available, including deletion of unnecessary *Federal Register* citations to earlier amendments and addition of *Federal Register* citations to later amendments; changed "amended in" to "as amended at"
720.111(b), 49 CFR 171.3	Board	Updated the *Code of Federal Regulations* citation to the latest edition available

Section	Source	Revision(s)
720.111(b), 49 CFR 171.8	Board	Updated the *Code of Federal Regulations* citation to the latest edition available, including deletion of unnecessary *Federal Register* citations to earlier amendments and addition of *Federal Register* citations to later amendments; changed "amended in" to "as amended at"
720.111(b), 49 CFR 171.15	Board	Updated the *Code of Federal Regulations* citation to the latest edition available, including deletion of an unnecessary *Federal Register* citation to earlier amendments and addition of a *Federal Register* citation to later amendments; changed "amended in" to "as amended at"
720.111(b), 49 CFR 171.16	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), 49 CFR 172	Board	Updated the *Code of Federal Regulations* citation to the latest edition available, including deletion of unnecessary *Federal Register* citations to earlier amendments and addition of a *Federal Register* citation to later amendments; changed "amended in" to "as amended at"
720.111(b), 49 CFR 172.304	Board	Updated the *Code of Federal Regulations* citation to the latest edition available, including deletion of an unnecessary *Federal Register* citation to earlier amendments
720.111(b), Subpart F of 49 CFR 172	Board	Updated the *Code of Federal Regulations* citation to the latest edition available, including deletion of an unnecessary *Federal Register* citation to earlier amendments and addition of a *Federal Register* citation to later amendments; changed "amended in" to "as amended at"
720.111(b), 49 CFR 173	Board	Updated the *Code of Federal Regulations* citation to the latest edition available, including deletion of unnecessary *Federal Register* citations to earlier amendments and addition of *Federal Register* citations to later amendments; changed "amended in" to "as amended at"; added "721.104" to the list of locations that reference this document
720.111(b), 49 CFR 173.2	Board	Updated the *Code of Federal Regulations* citation to the latest edition available

Section	Source	Revision(s)
720.111(b), 49 CFR 173.12	Board	Updated the *Code of Federal Regulations* citation to the latest edition available, including deletion of an unnecessary *Federal Register* citation to earlier amendments and addition of a *Federal Register* citation to later amendments; changed "amended in" to "as amended at"
720.111(b), 49 CFR 173.28	Board	Updated the *Code of Federal Regulations* citation to the latest edition available, including addition of a *Federal Register* citation to later amendments
720.111(b), 49 CFR 173.50	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), 49 CFR 173.54	Board	Updated the *Code of Federal Regulations* citation to the latest edition available
720.111(b), 49 CFR 173.115	Board	Updated the *Code of Federal Regulations* citation to the latest edition available, including addition of a *Federal Register* citation to later amendments
720.111(b), 49 CFR 174	Board	Updated the *Code of Federal Regulations* citation to the latest edition available, including deletion of unnecessary *Federal Register* citations to earlier amendments and addition of a *Federal Register* citation to later amendments; changed "amended in" to "as amended at"
720.111(b), 49 CFR 175	Board	Updated the *Code of Federal Regulations* citation to the latest edition available, including deletion of unnecessary *Federal Register* citations to earlier amendments and addition of a *Federal Register* citation to later amendments; changed "amended in" to "as amended at"
720.111(b), 49 CFR 176	Board	Updated the *Code of Federal Regulations* citation to the latest edition available, including deletion of unnecessary *Federal Register* citations to earlier amendments and addition of a *Federal Register* citation to later amendments; changed "amended in" to "as amended at"
720.111(b), 49 CFR 177	Board	Updated the *Code of Federal Regulations* citation to the latest edition available, including deletion of an unnecessary *Federal Register* citation to earlier amendments and addition of a *Federal Register* citation to later amendments; changed "amended in" to "as amended at"

Section	Source	Revision(s)
720.111(b), 49 CFR 178	Board	Updated the *Code of Federal Regulations* citation to the latest edition available, including deletion of unnecessary *Federal Register* citations to earlier amendments and addition of *Federal Register* citations to later amendments; changed "amended in" to "as amended at"
720.111(b), 49 CFR 179	Board	Updated the *Code of Federal Regulations* citation to the latest edition available, including deletion of an unnecessary *Federal Register* citation to earlier amendments and addition of *Federal Register* citations to later amendments; added "721.104" to the list of locations that reference this document
720.111(b), 49 CFR 180	Board	Updated the *Code of Federal Regulations* citation to the latest edition available, including deletion of unnecessary *Federal Register* citations to earlier amendments and addition of a *Federal Register* citation to later amendments; added "721.104" to the list of locations that reference this document
720.122(b)	Board	Corrected "721.103(a)(2)(B) or (a)(2)(C)" to "721.103(a)(2)(B) or (c)"
720.122(n)(1)	Board	Changed "Office of Solid Waste and Emergency Response" to "Office of Resource Conservation and Recovery" to correspond with USEPA name change
721 table of contents, 721.Appendix Y heading	Board	Added a colon after "Table to Section 721.138," followed by the descriptive heading "Maximum Contaminant Concentration and Minimum Detection Limit Values for Comparable Fuel Specification"
721 table of contents, 721.Appendix Z heading	Board	Added a colon after "Table to Section 721.102," followed by the descriptive heading "Recycled Materials That Are Solid Waste"
721.101(c)(6)	Board	Added the conjunction "or" before "wire" to link the final element in a series; added the conjunction "or" before "railroad" to link the final element in a series
721.101(c)(7)	Board	Added comma after "reused" to offset the final element in a series (twice)
721.102(a)(1)	Board	Changed "excluded by" to "excluded pursuant to"
721.103(a)(2)(D)(iii)	Board	Changed "hazardous waste no." to "hazardous waste number"
721.103(a)(2)(D)(vi)	Board	Changed "Hazardous Waste No." to "hazardous waste number"
721.103(a)(2)(D)(vii)	Board	Changed "Hazardous Waste No." to "hazardous waste number"
721.103(c)	Board	Corrected "subsection (c)" to "subsection (e)" to reflect previous movement of text

Section	Source	Revision(s)
721.103(e)(2)(D)	Board	Changed “Hazardous Waste No.” to “hazardous waste number” (twice)
721.105(a)	Board	Added the parenthetical abbreviation “(CESQG)” after “conditionally exempt small quantity generator”
721.105(b)	Board	Changed “conditionally exempt small quantity generator’s” to “CESQG’s”
721.105(f)(3)	Board	Changed “conditionally exempt small quantity generator” to “CESQG”
721.105(g)	Board	Changed “conditionally exempt small quantity generator” to “CESQG”
721.105(g)(2)	Board	Changed “conditionally exempt small quantity generator” to “CESQG”
721.105(g)(3)	Board	Changed “conditionally exempt small quantity generator” to “CESQG”
721.105(j)	Board	Changed “conditionally exempt small quantity generator” to “CESQG”
721.133(e) alphabetical listing table	Board	Added a separate column headed “Hazard Code” to accommodate the hazard codes for several wastes
721.133(e) alphabetical listing, aluminum phosphate	Board	Moved the hazard codes “(R, T)” from the “Substance” column into the “Hazard Code” column
721.133(e) alphabetical listing, ammonium picrate	Board	Moved the hazard code “(R)” from the “Substance” column into the “Hazard Code” column
721.133(e) alphabetical listing, fulminic acid, mercury (2+) salt	Board	Moved the hazard codes “(R, T)” from the “Substance” column into the “Hazard Code” column
721.133(e) alphabetical listing, mercury fulminate	Board	Moved the hazard codes “(R, T)” from the “Substance” column into the “Hazard Code” column
721.133(e) alphabetical listing, methane, tetra-nitro-	Board	Moved the hazard code “(R)” from the “Substance” column into the “Hazard Code” column
721.133(e) alphabetical listing, nitroglycerine	Board	Moved the hazard codes “(R)” from the “Substance” column into the “Hazard Code” column
721.133(e) alphabetical listing, phenol, 2,4,6-trinitro-, ammonium salt	Board	Moved the hazard code “(R)” from the “Substance” column into the “Hazard Code” column
721.133(e) alphabetical listing, 1,2,3-propane-triol, trinitrate	Board	Moved the hazard code “(R)” from the “Substance” column into the “Hazard Code” column

Section	Source	Revision(s)
721.133(e) alphabetical listing, tetranitro-propane	Board	Moved the hazard code "(R)" from the "Substance" column into the "Hazard Code" column
721.133(e) alphabetical listing, zinc phosphide Zn_3P_2, when present at concentrations greater than 10 percent	Board	Moved the hazard codes "(R, T)" from the "Substance" column into the "Hazard Code" column
721.133(e) numerical listing table	Board	Added a separate column headed "Hazard Code" to accommodate the hazard codes for several wastes
721.133(e) numerical listing, P006	Board	Moved the hazard codes "(R, T)" from the "Substance" column into the "Hazard Code" column
721.133(e) numerical listing, P009 (both entries)	Board	Moved the hazard code "(R)" from the "Substance" column into the "Hazard Code" column
721.133(e) numerical listing, P065 (both entries)	Board	Moved the hazard codes "(R, T)" from the "Substance" column into the "Hazard Code" column
721.133(e) numerical listing, P081 (both entries)	Board	Moved the hazard code "(R)" from the "Substance" column into the "Hazard Code" column
721.133(e) numerical listing, P112 (both entries)	Board	Moved the hazard code "(R)" from the "Substance" column into the "Hazard Code" column
721.133(e) numerical listing, P122 (both entries)	Board	Moved the hazard codes "(R, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing table	Board	Added a separate column headed "Hazard Code" to accommodate the hazard codes for several wastes
721.133(f) alphabetical listing, acetaldehyde	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, acetic acid, ethyl ester	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, acetone	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, acetonitrile	Board	Moved the hazard codes "(I,T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, acetyl chloride	Board	Moved the hazard codes "(C,R,T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, acrylic acid	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, aniline	Board	Moved the hazard codes "(I,T)" from the "Substance" column into the "Hazard Code" column

Section	Source	Revision(s)
721.133(f) alphabetical listing, benzenamine	Board	Moved the hazard codes "(I,T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, benzene	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, benzene, 1,3-di-isocyanatomethyl-	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, benzene, di-methyl-	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, benzene, hexa-hydro-	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, benzene, (1-methylethyl)-	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, benzene, nitro-	Board	Added the missing hazard codes "(I, T)" in the "Hazard Code" column
721.133(f) alphabetical listing, benzenesulfonic acid chloride	Board	Moved the hazard codes "(C,R)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, benzenesulfonyl chloride	Board	Moved the hazard codes "(C,R)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, benzene, (tri-chloromethyl)-	Board	Added the missing hazard codes "(C, R, T)" in the "Hazard Code" column
721.133(f) alphabetical listing, benzene, 1,3,5-trinitro-	Board	Added the missing hazard codes "(R, T)" in the "Hazard Code" column
721.133(f) alphabetical listing, benzotrichloride	Board	Moved the hazard codes "(C, R, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, 2,2'-Bioxirane	Board	Added the missing hazard codes "(I, T)" in the "Hazard Code" column
721.133(f) alphabetical listing, 1-butanol	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing,	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, 2-butanone	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, 2-butanone, peroxide	Board	Moved the hazard codes "(R, T)" from the "Substance" column into the "Hazard Code" column

Section	Source	Revision(s)
721.133(f) alphabetical listing, 2-butene, 1,4-di-chloro-	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, n-butyl alcohol	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, carbonic difluoride	Board	Added the missing hazard codes "(R, T)" in the "Hazard Code" column
721.133(f) alphabetical listing, carbono-chloridic acid, methyl ester	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, carbon oxy-fluoride	Board	Moved the hazard codes "(R, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, cumene	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing,	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, cyclohexane	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, cyclohexanone	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, 1,4-dichloro-2-butene	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, 1,2:3,4-di-epoxybutane	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, dimethylamine	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, α, α-dimethyl-benzylhydroperoxide	Board	Moved the hazard code "(R)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, dipropylamine	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, ethanal	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, ethane, 1,1'-oxy-bis-	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, ethyl acetate	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column

Section	Source	Revision(s)
721.133(f) alphabetical listing, ethyl acrylate	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, ethyl ether	Board	Added the missing hazard code "(I)" in the "Hazard Code" column
721.133(f) alphabetical listing, ethylene oxide	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, formic acid	Board	Moved the hazard codes "(C, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, furan	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, 2-furancarbox-aldehyde	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, furan, tetra-hydro-	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, furfural	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, furfuran	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, hydrazine	Board	Moved the hazard codes "(R, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, hydrofluoric acid	Board	Moved the hazard codes "(C, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, hydrogen fluoride	Board	Moved the hazard codes "(C, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, hydroperoxide, 1-methyl-1-phenyl-ethyl-	Board	Moved the hazard code "(R)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, isobutyl alcohol	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, methacrylo-nitrile	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, methanamine, N-methyl-	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, methane, chloro-	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column

Section	Source	Revision(s)
721.133(f) alphabetical listing, methanethiol	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, methanol	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, methyl alcohol	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, 1-methylbuta-diene	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, methyl chloride	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, methyl chloro-carbonate	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, methyl ethyl ketone	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, methyl ethyl ketone peroxide	Board	Moved the hazard codes "(R, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, methyl isobutyl ketone	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, methyl methacrylate	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, 4-methyl-2-pentanone	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, nitrobenzene	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, 2-nitropropane	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, oxirane	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, 1,3-pentadiene	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, pentanol, 4-methyl-	Board	Added the missing hazard code "(I)" in the "Hazard Code" column
721.133(f) alphabetical listing, phosphorus sulfide	Board	Moved the hazard code "(R)" from the "Substance" column into the "Hazard Code" column

Section	Source	Revision(s)
721.133(f) alphabetical listing, 1-propanamine	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, 1-propanamine, N-propyl-	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, propane, 2-nitro-	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, 1-propanol, 2-methyl-	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, 2-propanone	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, 2-propenenitrile, 2-methyl-	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, 2-propenoic acid	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, 2-propenoic acid, ethyl ester	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, 2-propenoic acid, 2-methyl-, ethyl ester	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, 2-propenoic acid, 2-methyl-, methyl ester	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, n-propylamine	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, selenium sulfide	Board	Added the missing hazard codes "(R, T)" in the "Hazard Code" column
721.133(f) alphabetical listing, selenium sulfide SeS_2	Board	Moved the hazard codes "(R, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, sulfur phosphide	Board	Moved the hazard code "(R)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, tetrahydrofuran	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, thiomethanol	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column

Section	Source	Revision(s)
721.133(f) alphabetical listing, toluene diiso-cyanate	Board	Moved the hazard codes "(R, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing,	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, 1,3,5-trinitro-benzene	Board	Moved the hazard codes "(R, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) alphabetical listing, xylene	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column and corrected it to "(I, T)"
721.133(f) numerical listing, U001 (both entries)	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, U002 (both entries)	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, U003	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, U006	Board	Moved the hazard codes "(C, R, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, U008 (both entries)	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, U012 (both entries)	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, U019	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, U020 (both entries)	Board	Moved the hazard codes "(C,R)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, U023 (first entry)	Board	Added the missing hazard codes "(C, R, T)" in the "Hazard Code" column
721.133(f) numerical listing, U023 (second entry)	Board	Moved the hazard codes "(C, R, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, U031 (both entries)	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, U033 (first entry)	Board	Added the missing hazard codes "(R, T)" in the "Hazard Code" column

Section	Source	Revision(s)
721.133(f) numerical listing, U033 (second entry)	Board	Moved the hazard codes "(R, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, U045 (both entries)	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, U055 (both entries)	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, U056 (both entries)	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, U057	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, U074 (both entries)	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, U085 (first entry)	Board	Added the missing hazard codes "(I, T)" in the "Hazard Code" column
721.133(f) numerical listing, U085 (second entry)	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, U092 (both entries)	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, U096 (both entries)	Board	Moved the hazard code "(R)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, U110 (both entries)	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, U112 (both entries)	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, U113 (both entries)	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, U115 (both entries)	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, U117 (first entry)	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column

Section	Source	Revision(s)
721.133(f) numerical listing, U117 (second entry)	Board	Added the missing hazard code "(I)" in the "Hazard Code" column
721.133(f) numerical listing, U123	Board	Moved the hazard codes "(C, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, U124 (both entries)	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, U125 (both entries)	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, U133	Board	Moved the hazard codes "(R, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, U134 (both entries)	Board	Moved the hazard codes "(C, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, U140 (both entries)	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, U152 (both entries)	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, U153 (both entries)	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, U154 (both entries)	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, U156 (both entries)	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, U159 (both entries)	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, U160 (both entries)	Board	Moved the hazard codes "(I, T)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, U161 (first two entries)	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column
721.133(f) numerical listing, U161 (third entry)	Board	Added the missing hazard code "(I)" in the "Hazard Code" column

Section	Source	Revision(s)
721.133(f) numerical listing, U162 (both entries)	Board	Moved the hazard codes “(I, T)” from the “Substance” column into the “Hazard Code” column
721.133(f) numerical listing, U169 (first entry)	Board	Added the missing hazard codes “(I, T)” in the “Hazard Code” column
721.133(f) numerical listing, U169 (second entry)	Board	Moved the hazard codes “(I, T)” from the “Substance” column into the “Hazard Code” column
721.133(f) numerical listing, U171 (both entries)	Board	Moved the hazard codes “(I, T)” from the “Substance” column into the “Hazard Code” column
721.133(f) numerical listing, U186 (both entries)	Board	Moved the hazard code “(I)” from the “Substance” column into the “Hazard Code” column
721.133(f) numerical listing, U189 (both entries)	Board	Moved the hazard code “(R)” from the “Substance” column into the “Hazard Code” column
721.133(f) numerical listing, U194 (both entries)	Board	Moved the hazard codes “(I, T)” from the “Substance” column into the “Hazard Code” column
721.133(f) numerical listing, U205 (first entry)	Board	Added the missing hazard codes “(R, T)” in the “Hazard Code” column
721.133(f) numerical listing, U205 (second entry)	Board	Moved the hazard codes “(R, T)” from the “Substance” column into the “Hazard Code” column
721.133(f) numerical listing, U213 (both entries)	Board	Moved the hazard code “(I)” from the “Substance” column into the “Hazard Code” column
721.133(f) numerical listing, U223 (both entries)	Board	Moved the hazard codes “(R, T)” from the “Substance” column into the “Hazard Code” column
721.133(f) numerical listing, U234 (first entry)	Board	Added the missing hazard codes “(R, T)” in the “Hazard Code” column
721.133(f) numerical listing, U234 (second entry)	Board	Moved the hazard codes “(R, T)” from the “Substance” column into the “Hazard Code” column
721.133(f) numerical listing, U239 (first entry)	Board	Added the missing hazard codes “(I, T)” in the “Hazard Code” column

Section	Source	Revision(s)
721.133(f) numerical listing, U239 (second entry)	Board	Moved the hazard code "(I)" from the "Substance" column into the "Hazard Code" column and corrected it to "(I, T)"
721.138(a)(1)(B)	Board	Changed "at subsection (d) of this Section" to "in Appendix Y to this Part" to accommodate movement of the table to an appendix
721.138(b)(4)(C)	Board	Changed plural "syngas fuel generators" to singular "a syngas fuel generator"
721.138(b)(5)(A)	Board	Changed "except those" to "except for those constituents"
721.138(b)(8)(A)(i)	Board	Corrected "RCRA facility USEPA identification" to "USEPA identification"
721.138(b)(8)(D)	Board	Added a comma before "as required" to offset the parenthetical
721.Appendix Y heading	Board	Added a colon after "Table to Section 721.138," followed by the descriptive heading "Maximum Contaminant Concentration and Minimum Detection Limit Values for Comparable Fuel Specification"
721.Appendix Y preamble	Board	Added explanation of the contents of the table
721.Appendix Y, dibenz[a,h]anthracene	Board	Corrected the spelling "dibenzo[a,h]anthracene" to "dibenz[a,h]anthracene" in the "chemical name" column to agree with the name as it appears in appendix VIII to 40 C.F.R. 261
721.Appendix Y, bis(2-ethylhexyl)phthalate	Board	Placed the name "bis(2-ethylhexyl)phthalate" and alternative name "(di-2-ethylhexyl phthalate)" on separate lines in the "chemical name" column
721.Appendix Y, *m*-cresol	Board	Placed the name "m-cresol" and alternative name "(2-methylphenol)" on separate lines in the "chemical name" column; corrected the spelling "3-m ethyl phenol" to "3-methyl phenol" in the "chemical name" column
721.Appendix Y, *o*-cresol	Board	Placed the name "o-cresol" and alternative name "(2-methylphenol)" on separate lines in the "chemical name" column
721.Appendix Y, 2-ethoxyethanol	Board	Placed the name "2-ethoxyethanol" and alternative name "(ethylene glycol monoethyl ether)" on separate lines in the "chemical name" column
721.Appendix Y, methyl ethyl ketone	Board	Placed the name "methyl ethyl ketone" and alternative name "(2-butanone)" on separate lines in the "chemical name" column

Section	Source	Revision(s)
721.Appendix Y, propargyl alcohol	Board	Placed the name "methyl ethyl ketone" and alternative name "(2-propyn-1-ol)" on separate lines in the "chemical name" column; corrected "30." to "30" in the "concentration limit" column
721.Appendix Y, tetra-ethyldithiopyro-phosphate	Board	Placed the name "tetraethyldithiopyrophosphate" and alternative name "(sulfotepp)" on separate lines in the "chemical name" column
721.Appendix Y, thio-phenol	Board	Placed the name "thiophenol" and alternative name "(benzenethiol)" on separate lines in the "chemical name" column
721.Appendix Y, O,O-diethyl O-pyrazinyl-phosphorothioate	Board	Placed the name "O,O-diethyl O-pyrazinylphosphoro-thioate" and alternative name "(thiozin)" on separate lines in the "chemical name" column; corrected the spelling "O,O-diethyl O-pyrazinylphophorothioate" to "O,O-diethyl O-pyrazinylphosphorothioate"
721.Appendix Y, *p*-(dimethylamino)azo-benzene	Board	Placed the name "*p*-(dimethylamino)azobenzene" and alternative name "(4-dimethylaminoazobenzene)" on separate lines in the "chemical name" column
721.Appendix Y, α,α-dimethylphenethyl-amine	Board	Corrected the spelling "a,a-dimethylphenethylamine" to "α,α-dimethylphenethylamine" in the "chemical name" column
721.Appendix Y, 1,3-dinitrobenzene	Board	Placed the name "1,3-dinitrobenzene" and alternative name "(*m*-nitrobenzene)" on separate lines in the "chemical name" column
721.Appendix Y, dinoseb	Board	Placed the name "dinoseb" and alternative name "(2-*sec*-butyl-4,6-dinitrophenol)" on separate lines in the "chemical name" column
721.Appendix Y, ethyl carbamate	Board	Placed the name "ethyl carbamate" and alternative name "(urethane)" on separate lines in the "chemical name" column
721.Appendix Y, ethylenethiourea	Board	Placed the name "ethylenethiourea" and alternative name "(2-inidazolidinethione)" on separate lines in the "chemical name" column
721.Appendix Y, 2-methyllactonitrile	Board	Placed the name "2-methyllactonitrile" and alternative name "(acetone cyanohydrin)" on separate lines in the "chemical name" column
721.Appendix Y, MNNG	Board	Placed the name "MNNG" and alternative name "(N-methyl-N-nitroso-N'-nitroguanidine)" on separate lines in the "chemical name" column
721.Appendix Y, 1-naphthylamine	Board	Placed the name "1-naphthylamine" and alternative name "(α-naphthylamine)" on separate lines in the "chemical name" column

Section	Source	Revision(s)
721.Appendix Y, 2-naphthylamine	Board	Placed the name "2-naphthylamine" and alternative name "(β-naphthylamine)" on separate lines in the "chemical name" column
721.Appendix Y, 4-nitroaniline	Board	Placed the name "4-nitroaniline" and alternative name "(*p*-nitroaniline)" on separate lines in the "chemical name" column
721.Appendix Y, N-nitrosodiphenylamine	Board	Placed the name "N-nitrosodiphenylamine" and alternative name "(diphenylnitrosoamine)" on separate lines in the "chemical name" column
721.Appendix Y, 1,4-phenylenediamine	Board	Placed the name "1,4-phenylenediamine" and alternative name "(*p*-phenylenediamine)" on separate lines in the "chemical name" column
721.Appendix Y, 2-picolene	Board	Placed the name "2-picolene" and alternative name "(α-picolene)" on separate lines in the "chemical name" column; changed the spelling "alpha-picolene" to "α-picolene"
721.Appendix Y, propylthioracil	Board	Placed the name "propylthioracil" and alternative name "(6-propyl-2-thiouracil)" on separate lines in the "chemical name" column
721.Appendix Y, toluene-2,4-diamine	Board	Placed the name "toluene-2,4-diamine" and alternative name "(2,4-diaminotoluene)" on separate lines in the "chemical name" column
721.Appendix Y, toluene-2,6-diamine	Board	Placed the name "toluene-2,6-diamine" and alternative name "(2,6-diaminotoluene)" on separate lines in the "chemical name" column
721.Appendix Y, 1,3,5-trinitrobenzene	Board	Placed the name "1,3,5-trinitrobenzene" and alternative name "(*sym*-trinitrobenzene)" on separate lines in the "chemical name" column
721.Appendix Y, benzal chloride	Board	Placed the name "benzal chloride" and alternative name "(dichloromethylbenzene)" on separate lines in the "chemical name" column
721.Appendix Y, bis(2-chloroethyl)ether	Board	Placed the name "bis(2-chloroethyl)ether" and alternative name "(dichloroethyl) ether)" on separate lines in the "chemical name" column; corrected the capitalization of "Bis(2-chloroethyl)ether" to "bis(2-Chloroethyl)ether" in the "chemical name" column
721.Appendix Y, bromoform	Board	Placed the name "bromoform" and alternative name "(tribromomethane)" on separate lines in the "chemical name" column
721.Appendix Y, 4-bromophenylphenyl ether	Board	Placed the name "4-bromophenylphenyl ether" and alternative name "(p-bromodiphenyl ether)" on separate lines in the "chemical name" column

Section	Source	Revision(s)
721.Appendix Y, chloromethane	Board	Placed the name “chloromethane” and alternative name “(methyl chloride)” on separate lines in the “chemical name” column
721.Appendix Y, 2-chloronaphthalene	Board	Placed the name “2-chloronaphthalene” and alternative name “(β-chloronaphthalene)” on separate lines in the “chemical name” column
721.Appendix Y, 2-chlorophenol	Board	Placed the name “2-chlorophenol” and alternative name “(o-chlorophenol)” on separate lines in the “chemical name” column
721.Appendix Y, chloroprene	Board	Placed the name “chloroprene” and alternative name “(2-chloro-1,3-butadiene)” on separate lines in the “chemical name” column
721.Appendix Y, 2,4-D	Board	Placed the name “2,4-D” and alternative name “(2,4-dichlorophenoxyacetic acid)” on separate lines in the “chemical name” column
721.Appendix Y, 1,2-dichlorobenzene	Board	Placed the name “1,2-dichlorobenzene” and alternative name “(o-dichlorobenzene)” on separate lines in the “chemical name” column
721.Appendix Y, 1,3-dichlorobenzene	Board	Placed the name “1,3-dichlorobenzene” and alternative name “(m-dichlorobenzene)” on separate lines in the “chemical name” column
721.Appendix Y, 1,4-dichlorobenzene	Board	Placed the name “1,4-dichlorobenzene” and alternative name “(p-dichlorobenzene)” on separate lines in the “chemical name” column
721.Appendix Y, dichlorodifluoro-methane	Board	Placed the name “dichlorodifluoromethane” and alternative name “(CFC-12)” on separate lines in the “chemical name” column
721.Appendix Y, 1,2-dichloroethane	Board	Placed the name “1,2-dichloroethane” and alternative name “(ethylene dichloride)” on separate lines in the “chemical name” column
721.Appendix Y, 1,2-dichloroethylene	Board	Placed the name “1,2-dichloroethylene” and alternative name “(vinylidene chloride)” on separate lines in the “chemical name” column
721.Appendix Y, dichloromethoxy ethane	Board	Placed the name “dichloromethoxy ethane” and alternative name “(bis(2-chloroethoxy)methane)” on separate lines in the “chemical name” column; corrected the capitalization of “Bis(2-chloroethoxy)methane” to “bis(2-Chloroethoxy)methane” in the “chemical name” column
721.Appendix Y, 1,2-dichloropropane	Board	Placed the name “1,2-dichloropropane” and alternative name “(propylene chloride)” on separate lines in the “chemical name” column

Section	Source	Revision(s)
721.Appendix Y, epichlorohydrin	Board	Placed the name "epichlorohydrin" and alternative name "(1-chloro-2,3-epoxy propane)" on separate lines in the "chemical name" column
721.Appendix Y, ethylidene dichloride	Board	Placed the name "ethylidine dichloride" and alternative name "(1,1-dichloroethane)" on separate lines in the "chemical name" column
721.Appendix Y, hexachloro-1,3-buta-diene	Board	Placed the name "hexachloro-1,3-butadiene" and alternative name "(hexachlorobutadiene)" on separate lines in the "chemical name" column
721.Appendix Y, hexachloropropene	Board	Placed the name "hexachloropropene" and alternative name "(hexachloropropylene)" on separate lines in the "chemical name" column
721.Appendix Y, kapone	Board	Placed the name "kapone" and alternative name "(chlorodecone)" on separate lines in the "chemical name" column
721.Appendix Y, lindane	Board	Placed the name "lindane" and alternative name "(γ-hexachlorocyclohexane)" on separate lines in the "chemical name" column; corrected the spelling of "gamma-hexachlorocyclohexane" to "γ-hexachlorocyclohexane" in the "chemical name" column
721.Appendix Y, methylene chloride	Board	Placed the name "methylene chloride" and alternative name "(dichloromethane)" on separate lines in the "chemical name" column
721.Appendix Y, methyliodide	Board	Placed the name "methyliodide" and alternative name "(iodomethane)" on separate lines in the "chemical name" column
721.Appendix Y, penta-chloronitrobenzene	Board	Placed the name "pentachloronitrobenzene" and alternative names "(PSNB)," "(quintobenzene)," and "(quintozene)" on separate lines in the "chemical name" column
721.Appendix Y, silvex	Board	Placed the name "silvex" and alternative name "(2,4,5-trichlorophenoxypropionic acid)" on separate lines in the "chemical name" column
721.Appendix Y, 2,3,7,8-tetrachloro-dibenzo-*p*-dioxin	Board	Placed the name "2,3,7,8-tetrachlorodibenzo-*p*-dioxin" and alternative name "(2,3,7,8-TCDD)" on separate lines in the "chemical name" column
721.Appendix Y, tetra-chloroethylene	Board	Placed the name "tetrachloroethylene" and alternative name "(perchloroethylene)" on separate lines in the "chemical name" column
721.Appendix Y, 1,1,1-trichloroethane	Board	Placed the name "1,1,1-trichloroethane" and alternative name "(methyl chloroform)" on separate lines in the "chemical name" column

Section	Source	Revision(s)
721.Appendix Y, tri-chlorofluoromethane	Board	Placed the name "trichlorofluoromethane" and alternative name "(trichloromonofluoromethane)" on separate lines in the "chemical name" column
721.Appendix Y, notes	Board	Added the heading "notes to table:"; placed the defined abbreviations "NA" and "ND" in quotation marks; added "(to Total Organic Halogens as Cl)" after "note 1"
721.Appendix Z heading	Board	Added a colon after "Table to Section 721.102," followed by the descriptive heading "Recycled Materials That Are Solid Waste"
721.Appendix Z preamble	Board	Added explanation of the contents of the table
721.Appendix Z, "sludges exhibiting a characteristic of hazardous waste"	Board	Changed the em-dash to "No" in column "3"
721.Appendix Z, "by-products exhibiting a characteristic of hazardous waste"	Board	Changed the em-dash to "No" in column "3"
721.Appendix Z, "commercial chemical products listed in Section 721.133"	Board	Changed the em-dashes to "No" in columns "3" and "4"
722.112(b)	Board	Changed "the Administrator" to "USEPA Region 5"; changed "USEPA form 8700-12" to capitalized "USEPA Form 8700-12"; added "the generator must . . . directly to USEPA" to explain the need to obtain a copy of the form from the Agency for submission to both the Agency and USEPA, to compensate for removal of this instruction from Form 8700-12 from the July 2006 and November 2009 versions
722.134(c)(1)	Board	Added the metric volume limit as a parenthetical "(208 ℓ)" after "55 gallons"
722.134(j)(2)	Board	Changed "USEPA ID" to "USEPA identification number"
722.187(a)	Board	Corrected the spelling "Activites" to "Activities"
724.152(b) Board note	Board, USEPA	Changed "Office of Solid Waste and Emergency Response" to Office of Resource Conservation and Recovery"
725.152(b) Board note	Board, USEPA	Changed "Office of Solid Waste and Emergency Response" to Office of Resource Conservation and Recovery"

HISTORY OF RCRA SUBTITLE C AND UIC ADOPTION ILLINOIS ENVIRONMENTAL PROTECTION AGENCY OR BOARD ACTION EDITORIAL CONVENTIONS

It has previously been the practice of the Board to include an historical discussion in its RCRA Subtitle C and UIC identical-in-substance rulemaking proposals. However, in the last RCRA Subtitle C update docket, RCRA Subtitle C Update, USEPA Amendments (July 1, 1999 through December 31, 1999), R00-13 (May 18, 2000), the Board indicated that it would cease this practice. Therefore, for a complete historical summary of the Board's RCRA Subtitle C and UIC rulemakings and programs, interested persons should refer back to the May 18, 2000 opinion and order in R00-13.

The historical summary contains all Board actions taken to adopt and maintain these programs since their inception and until May 18, 2000. It includes a listing of all site-specific rulemaking and adjusted standards proceedings filed that relate to these programs. It also lists all USEPA program authorizations issued during that timeframe. As necessary the Board will continue to update the historical summary as a segment of the opinion in each RCRA Subtitle C and UIC update docket, but those opinions will not repeat the information contained in the opinion of May 18, 2000, in docket R00-13.

The following summarizes the history of the Illinois RCRA Subtitle C hazardous waste and UIC programs since May 18, 2000:

History of RCRA Subtitle C and State Hazardous Waste Rules Adoption

The Board has adopted and amended the RCRA Subtitle C hazardous waste rules in the following docket since May 18, 2000:

R00-13	RCRA Subtitle C Update, USEPA Regulations (July 1, 1999 through December 31, 1999), R00-13 (May 18, 2000); published at 24 Ill. Reg. 9443 (July 7, 2000), effective June 20, 2000.
R01-3	RCRA Subtitle C Update, USEPA Regulations (January 1, 2000 through June 30, 2000), R01-3 (Dec. 7, 2000); published at 25 Ill. Reg. 1266 (Jan. 26, 2001), effective January 11, 2001.
R01-23	RCRA Subtitle C Update, USEPA Regulations (July 1, 2000 through December 31, 2000), R01-23 (May 17, 2001); published at 25 Ill. Reg. 9108 (July 20, 2001), effective July 9, 2001. (Consolidated with UIC update docket R01-21.)
R02-1	RCRA Subtitle C Update, USEPA Regulations (January 1, 2001 through June 30, 2001), R02-1 (Apr. 18, 2002); published at 26 Ill. Reg. 6667 (May 3, 2002), effective April 22, 2002. (Consolidated with RCRA Subtitle C Update docket R02-12 and UIC Update docket R02-17.)

R02-12 RCRA Subtitle C Update, USEPA Regulations (July 1, 2001 through December 31, 2001), R02-12 (Apr. 18, 2002); published at 26 Ill. Reg. 6667 (May 3, 2002), effective April 22, 2002. (Consolidated with RCRA Subtitle C Update docket R02-1 and UIC Update docket R02-17.)

R03-7 RCRA Subtitle C Update, USEPA Regulations (January 1, 2002 through June 30, 2002), R03-7 (Jan. 9, 2003); published at 27 Ill. Reg. 3496, effective February 14, 2003.

R03-18 RCRA Subtitle C Update, USEPA Regulations (July 1, 2002 through December 31, 2002), R03-7 (June 5, 2003); published at 27 Ill. Reg. 12683, effective July 17, 2003.

R04-6 RCRA Subtitle C Update, USEPA Regulations (January 1, 2003 through June 30, 2003), R04-6 (Aug. 7, 2003). (Dismissed because no federal actions in the period.)

R04-16 RCRA Subtitle C Update, USEPA Regulations (July 1, 2003 through December 31, 2003), R04-16 (Apr. 1, 2004); published at 28 Ill. Reg. 10693, effective July 19, 2004.

R05-2 RCRA Subtitle C Update, USEPA Regulations (January 1, 2004 through June 30, 2004 and October 25, 2004), R05-2 (Mar. 3, 2005); published at 29 Ill. Reg. 6290, effective April 22, 2005.

R05-13 RCRA Subtitle C Update, USEPA Regulations (July 1, 2004 through December 31, 2004), R05-13 (Feb. 3, 2005) (Dismissed because no federal actions in the period.)

R06-7 RCRA Subtitle C Update, USEPA Regulations (July 1, 2005 through December 31, 2005), R06-7 (Jan. 5, 2006 and Feb. 2, 2006); published at 30 Ill. Reg. 2845, effective February 23, 2006. (Consolidated with UIC Update docket R06-5 and RCRA Subtitle D Update docket R06-6.)

R06-18 RCRA Subtitle C Update, USEPA Regulations (July 1, 2005 through December 31, 2005), R06-18 (Nov. 16, 2006); published at 31 Ill. Reg. 438, effective December 20, 2007. (Consolidated with UIC Update docket R06-5 and RCRA Subtitle D Update docket R06-7.)

R07-5 RCRA Subtitle C Update, USEPA Regulations (January 1, 2006 through June 30, 2006), R07-5, R07-14 (June 5, 2008); published at 32 Ill. Reg. 11672, effective July 14, 2008. (Consolidated with RCRA Subtitle C Update docket R07-14.)

R07-14 RCRA Subtitle C Update, USEPA Regulations (July 1, 2005 through December 31, 2005), R07-14 (June 5, 2008); published at 32 Ill. Reg.

11672, effective July 14, 2008. (Consolidated with RCRA Subtitle C Update docket R07-5.)

R08-3 RCRA Subtitle C Update, USEPA Regulations (January 1, 2007 through June 30, 2007), R08-3 (Sep. 6, 2007). (Dismissed because no federal actions in the period.)

R08-16 RCRA Subtitle C Update, USEPA Regulations (July 1, 2007 through December 31, 2007), R08-16 (May 1, 2008). (Dismissed because no federal actions in the period.)

R09-3 RCRA Subtitle C Update, USEPA Regulations (January 1, 2008 through June 30, 2008), R09-3 (Nov. 20, 2008); published at 33 Ill. Reg. 922, effective December 30, 2008.

R09-16 RCRA Subtitle C Update, USEPA Regulations (July 1, 2008 through December 31, 2008), R09-16. (This docket.) (Consolidated with RCRA Subtitle C Update docket R10-4.)

R10-4 RCRA Subtitle C Update, USEPA Regulations (January 1, 2009 through June 30, 2009), R10-4. (This docket.) (Consolidated with RCRA Subtitle C Update docket R09-16.)

R10-13 RCRA Subtitle C Update, USEPA Regulations (July 1, 2009 through December 31, 2009), R09-3 (Apr. 1, 2010). (Dismissed because no federal actions in the period.)

R11-2 RCRA Subtitle C Update, USEPA Regulations (January 1, 2010 through June 30, 2010), R11-2. (Reserved docket.)

The Board has taken other actions since May 18, 2000 relating to administration of the Illinois hazardous waste program. The Board has received the following petitions for a solid waste determination:

AS 01-7 *In re* Petition of Progressive Environmental Services, Inc. for an Adjusted Standard under 35 Ill. Adm. Code 720.131(c), AS 02-7 (Jan. 10, 2002) (granted as to used automotive antifreeze).

AS 02-2 *In re* Petition of World Recycling, Inc. d/b/a Planet Earth Antifreeze for an Adjusted Standard under 35 Ill. Adm. Code 720.131, AS 02-2 (May 2, 2002) (granted as to used automotive antifreeze).

AS 06-4 *In re* Petition of Big River Zinc Corp. for an Adjusted Standard under 35 Ill. Adm. Code 720.131(c), AS 06-4 (May 2, 2002) (granted as to EAFD (K061 waste) used in a zinc recycling process).

AS 08-9 *In re* Petition of Big River Zinc Corp. for and Adjusted Standard Under 35 Ill. Adm. Code 721.131(c), AS 08-9 (granted revision of the solid waste determination made in *In re* Petition of Big River Zinc Corp. for and Adjusted Standard Under 35 Ill. Adm. Code 721.131(c), AS 99-3 (May 6, 1999) as to zinc oxide raw material containing EAFD (K061 waste)).

The Board has considered petitions since May 18, 2000 for hazardous waste delisting:

AS 05-3 *In re* Petition of Waste Management of Illinois, Inc. for RCRA Waste Delisting Under 35 Ill. Adm. Code 720.122 for Solid Treatment Residual for CID Recycling and Disposal Facility Biological Liquid Treatment Center, AS 05-3 (Mar. 17, 2005) (dismissed for lack of proof of timely publication and for deficiencies in the petition; relating to lime-conditioned filter cake from the treatment of hazardous and non-hazardous leachates and wastewaters (F001, F002, F003, F004, F005, F039, U202, U210, U220, and U228 wastes).

AS 05-7 *In re* Petition of Waste Management of Illinois, Inc. for RCRA Waste Delisting Under 35 Ill. Adm. Code 720.122 for Solid Treatment Residual for CID Recycling and Disposal Facility Biological Liquid Treatment Center, AS 05-7 (Dec. 15, 2005) (denied as to lime-conditioned filter cake from the treatment of hazardous and non-hazardous leachates and wastewaters (F001, F002, F003, F004, F005, F039, U202, U210, U220, and U228 wastes).

AS 06-2 *In re* Petition of BP Products North America, Inc. for RCRA Waste Delisting Pursuant to 35 Ill. Adm. Code 720.122, AS 06-2 (Mar. 2, 2006) (dismissed for lack of proof of timely publication; relating to leachate from a landfill containing dissolved air floatation float (K048 waste)).

AS 07-1 *In re* Petition of BP Products North America, Inc. for RCRA Waste Delisting Under 35 Ill. Adm. Code 720.122, AS 07-1 (Feb. 15, 2007) (denied as to leachate from a landfill containing dissolved air floatation float (K048 waste)).

AS 08-5 *In re* Petition of BFI Waste Systems of North America, Inc. for Waste Delisting, AS 08-5 Dec. 4, 2008) (granted delisting as to landfill leachate (F039 waste)).

AS 08-10 *In re* RCRA Delisting Adjusted Standard Petition of Peoria Disposal Co., AS 08-10 (Jan. 8, 2009) (granted delisting as to stabilized EAFD (K061 waste)).

The Board has heard petitions since May 18, 2000 for boiler designations for burning off-specification oil for energy recovery:

AS 06-1 *In re* Petition of LaFarge Midwest, Inc. for Boiler Determination Pursuant to 35 Ill. Adm. Code 720.132 and 720.133, AS 06-1 (Apr. 20, 2006) (granted as to a slag dryer).

AS 06-3 *In re* Petition of LaFarge Midwest, Inc. for Boiler Determination Through Adjusted Standard Proceedings Pursuant to 35 Ill. Adm. Code 720.132 and 720.133, AS 06-3 (June 1, 2006) (granted as to two raw mill dryers).

The Board has granted relief since May 18, 2000 from a permit requirement applicable to HWM facility:

AS 00-14 *In re* Petition of Heritage Environmental Services, LLC. for an Adjusted Standard from 35 Ill. Adm. Code 702.126(d)(1), AS 00-14 (June 8, 2000) (dismissed for lack of proof of timely publication; relating to alternative permit application certification language).

AS 00-15 *In re* Petition of Heritage Environmental Services, LLC. for an Adjusted Standard from 35 Ill. Adm. Code 702.126(d)(1), AS 00-15 (Feb. 1, 2001) (alternative permit application certification language).

History of UIC Rules Adoption

The Board has adopted and amended Underground Injection Control (UIC) regulations in the following dockets since May 18, 2000:

R00-11 UIC Update, USEPA Regulations (July 1, 1999 through December 31, 1999), R00-11 (Dec. 7, 2000); published at 25 Ill. Reg. 18585 (December 22, 2001), effective December 7, 2001. (Consolidated with docket R01-1.)

R01-1 UIC Update, USEPA Regulations (Jan. 1, 2000 through June 30, 2000), R01-1 (Dec. 7, 2000); published at 25 Ill. Reg. 18585 (Dec. 22, 2001), effective December 7, 2001. (Consolidated with docket R00-11.)

R01-21 UIC Update, USEPA Regulations (July 1, 2000 through December 31, 2000), R01-21 (May 17, 2001); published at 25 Ill. Reg. 9108 (July 20, 2001), effective July 9, 2001. (Consolidated with UIC update docket R01-23.)

R02-17 UIC Update, USEPA Regulations (July 1, 2001 through December 31, 2001), R02-17 (Apr. 18, 2002); published at 26 Ill. Reg. 6667 (May 3, 2002), effective April 22, 2002. (Consolidated with RCRA Subtitle C Update dockets R02-1 and R02-12.)

R03-5 UIC Update, USEPA Regulations (January 1, 2002 through June 30, 2002), R03-5 (Aug. 8, 2002). (Dismissed because no federal actions in the period.)

R03-16 UIC Update, USEPA Regulations (July 1, 2002 through December 31, 2002), R03-16 (Feb. 6, 2003). (Dismissed because no federal actions in the period.)

R04-4 UIC Update, USEPA Regulations (January 1, 2003 through June 30, 2003), R04-4 (Aug. 7, 2003). (Dismissed because no federal actions in the period.)

R04-14 UIC Update, USEPA Regulations (July 1, 2003 through December 31, 2003), R04-14 (Mar. 4, 2004). (Dismissed because no federal actions in the period.)

R05-7 UIC Update, USEPA Regulations (January 1, 2004 through June 30, 2004), R05-7 (Sept. 16, 2004). (Dismissed because no federal actions in the period.)

R05-18 UIC Update, USEPA Regulations (July 1, 2004 through December 31, 2004), R05-18 (Feb. 3, 2005). (Dismissed because no federal actions in the period.)

R06-5 UIC Update, USEPA Regulations (July 1, 2005 through December 31, 2005), R06-5 (Jan. 5, 2006 and Feb. 2, 2006); published at 30 Ill. Reg. 2845, effective February 23, 2006. (Consolidated with RCRA Subtitle D Update docket R06-6 and RCRA Subtitle C Update docket R06-7.)

R06-16 UIC Update, USEPA Regulations (July 1, 2005 through December 31, 2005), R06-16 (Nov. 16, 2006); published at 31 Ill. Reg. 438, effective December 20, 2007. (Consolidated with RCRA Subtitle D Update docket R06-17 and RCRA Subtitle C Update docket R06-18.)

R07-3 UIC Update, USEPA Regulations (January 1, 2006 through June 30, 2006), R07-3 (Sep. 21, 2006). (Dismissed because no federal actions in the period.)

R07-12 UIC Update, USEPA Regulations (July 1, 2005 through December 31, 2005), R07-12 (Feb. 1, 2007). (Dismissed because no federal actions in the period.)

R08-1 UIC Update, USEPA Regulations (January 1, 2007 through June 30, 2007), R08-1 (Sep. 6, 2007) (Dismissed because no federal actions in the period.)

R08-14 UIC Update, USEPA Regulations (July 1, 2007 through December 31, 2007), R08-14 (Mar. 6, 2008). (Dismissed because no federal actions in the period.)

R09-1 UIC Update, USEPA Regulations (January 1, 2008 through June 30, 2008), R09-1 (Aug. 21, 2008) (Dismissed because no federal actions in the period.)

R09-14 UIC Update, USEPA Regulations (July 1, 2008 through December 31, 2008), R09-14 (Feb. 19, 2009). (Dismissed because no federal actions in the period.)

R10-2 UIC Update, USEPA Regulations (January 1, 2009 through June 30, 2009), R10-2 (Aug. 20, 2009) (Dismissed because no federal actions in the period.)

R10-11 UIC Update, USEPA Regulations (July 1, 2009 through December 31, 2009), R10-11 (Apr. 1, 2010). (Dismissed because no federal actions in the period.)

R11-1 UIC Update, USEPA Regulations (January 1, 2010 through June 30, 2010), R11-1 (Reserved docket.)

The Board has received petitions for a "no migration determination" to allow the continued underground injection of hazardous waste:

AS 07-6 *In re* Petition of Cabot Corporation for Adjusted Standard from 35 Ill. Adm. Code 738.Subpart B (May 17, 2007), AS 07-5. (presently pending as to modification of the exemption granted in Petition of Cabot Corporation for Adjusted Standard from 35 Ill. Adm. Code 738.Subpart B (Mar. 7, 1996), AS 96-3 to allow continued injection of D002, F003, and F039 wastes until December 31, 2027).

AS 07-5 *In re* Petition of Cabot Corporation for Adjusted Standard from 35 Ill. Adm. Code 738.Subpart B (May 17, 2007), AS 07-5. (dismissed for lack of proof of timely publication; relating to modification of the exemption granted in Petition of Cabot Corporation for Adjusted Standard from 35 Ill. Adm. Code 738.Subpart B (Mar. 7, 1996), AS 96-3 as to injection of D002, F003, and F039 wastes).

I, John T. Therriault, Assistant Clerk of the Illinois Pollution Control Board, certify that the Board adopted the above opinion on June 17, 2010, by a vote of _____.

_____
John T. Therriault, Assistant Clerk
Illinois Pollution Control Board