

ILLINOIS POLLUTION CONTROL BOARD  
September 17, 1998

IN THE MATTER OF: )  
)  
RCRA UPDATE, USEPA REGULATIONS ) R98-21  
(July 1, 1997, through December 31, 1997) ) (Identical-in-Substance  
) Rulemaking - Land  
)

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IN THE MATTER OF: )  
)  
RCRA UPDATE, USEPA REGULATIONS ) R99-2  
(January 1, 1998, through June 30, 1998) ) (Identical-in-Substance  
) Rulemaking - Land  
)

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IN THE MATTER OF: )  
)  
UIC UPDATE, USEPA REGULATIONS ) R99-7  
(January 1, 1998, through June 30, 1998) ) (Identical-in-Substance  
) Rulemaking - Land  
)

Proposed Rule. Proposal for Public Comment.

ORDER OF THE BOARD (by K.M. Hennessey):

Pursuant to Sections 13(c) and 22.4(a) of the Environmental Protection Act (Act) (415 ILCS 5/13(c) & 22.4(a) (1996)), the Board proposes amendments to the Illinois regulations that are “identical-in-substance” to hazardous waste regulations adopted by the United States Environmental Protection Agency (USEPA) to implement Subtitle C of the federal Resource Conservation and Recovery Act of 1976 (RCRA Subtitle C), 42 U.S.C. §§ 6921 *et seq.* (1996). The Board further proposes amendments to the Illinois regulations that are “identical-in-substance” to underground injection control (UIC) regulations adopted by the USEPA to implement provisions of the Safe Drinking Water Act (SDWA), 42 USC § 300h *et seq.* (1996). The nominal timeframe of this consolidated docket includes federal RCRA Subtitle C amendments adopted by USEPA in the periods July 1, 1997, through December 31, 1997, and January 1, 1998, through June 30, 1998. The nominal timeframe also includes federal UIC amendments adopted in the period January 1, 1998, through June 30, 1998.

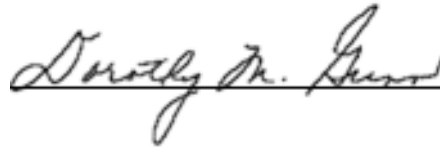
Section 22.4(a) provides for quick adoption of regulations that are “identical-in-substance” to federal regulations adopted by USEPA to implement Sections 3001 through 3005 of RCRA, 42 U.S.C. §§ 6921-6925 (1996)) and that Title VII of the Act and Section 5 of the Administrative Procedure Act (APA) (5 ILCS 100/5-35 & 5-40 (1996)) shall not apply. Section 13(c) similarly provides for quick adoption of regulations that are “identical-in-substance” to federal regulations adopted by USEPA to implement Section 1421 of SDWA, 42

U.S.C. § 300h (1996)). Because this consolidated rulemaking is not subject to Section 5 of the APA, it is not subject to first-notice or to second-notice review by the Joint Committee on Administrative Rules (JCAR). The federal RCRA Subtitle C regulations are found at 40 C.F.R. 260 through 268, 270 through 271, 279, and, more recently, 273. The federal UIC regulations are found at 40 C.F.R. 144 through 148.

This order is supported by an opinion adopted on the same day. The Board will submit Notices of Proposed Amendments for publication in the Illinois Register. The complete text of the proposed amendments follows.

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, do hereby certify that the above order was adopted on the 17th day of September 1998 by a vote of 7-0.

A handwritten signature in cursive script, reading "Dorothy M. Gunn", written over a horizontal line.

Dorothy M. Gunn, Clerk  
Illinois Pollution Control Board

TITLE 35: ENVIRONMENTAL PROTECTION  
 SUBTITLE G: WASTE DISPOSAL  
 CHAPTER I: POLLUTION CONTROL BOARD  
 SUBCHAPTER b: PERMITS

PART 703  
 RCRA PERMIT PROGRAM

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## 703.Appendix A Classification of Permit Modifications

AUTHORITY: Implementing Section 22.4 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/22.4 and 27].

SOURCE: Adopted in R82-19, 53 PCB 131, at 7 Ill. Reg. 14289, effective October 12, 1983; amended in R83-24 at 8 Ill. Reg. 206, effective December 27, 1983; amended in R84-9 at 9 Ill. Reg. 11899, effective July 24, 1985; amended in R85-22 at 10 Ill. Reg. 1110, effective January 2, 1986; amended in R85-23 at 10 Ill. Reg. 13284, effective July 28, 1986; amended in R86-1 at 10 Ill. Reg. 14093, effective August 12, 1986; amended in R86-19 at 10 Ill. Reg. 20702, effective December 2, 1986; amended in R86-28 at 11 Ill. Reg. 6121, effective March 24, 1987; amended in R86-46 at 11 Ill. Reg. 13543, effective August 4, 1987; amended in R87-5 at 11 Ill. Reg. 19383, effective November 12, 1987; amended in R87-26 at 12 Ill. Reg. 2584, effective January 15, 1988; amended in R87-39 at 12 Ill. Reg. 13069, effective July 29, 1988; amended in R88-16 at 13 Ill. Reg. 447, effective December 27, 1988; amended in R89-1 at 13 Ill. Reg. 18477, effective November 13, 1989; amended in R89-9 at 14 Ill. Reg. 6278, effective April 16, 1990; amended in R90-2 at 14 Ill. Reg. 14492, effective August 22, 1990; amended in R90-11 at 15 Ill. Reg. 9616, effective June 17, 1991; amended in R91-1 at 15 Ill. Reg. 14554, effective September 30, 1991; amended in R91-13 at 16 Ill. Reg. 9767, effective June 9, 1992; amended in R92-10 at 17 Ill. Reg. 5774, effective March 26, 1993; amended in R93-4 at 17 Ill. Reg. 20794, effective November 22, 1993; amended in R93-16 at 18 Ill. Reg. 6898, effective April 26, 1994; amended in R94-7 at 18 Ill. Reg. 12392, effective July 29, 1994; amended in R94-5 at 18 Ill. Reg. 18316, effective December 20, 1994; amended in R95-6 at 19 Ill. Reg. 9920, effective June 27, 1995; amended in R95-20 at 20 Ill. Reg. 11225, effective August 1, 1996; amended in R96-10/R97-3/R97-5 at 22 Ill. Reg. 533, effective December 16, 1997; amended in R98-12 at 22 Ill. Reg. 7632, effective April 15, 1998; amended in R97-21/R98-3/R98-5 at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_; amended in R98-21/R99-2/R99-7 at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

## SUBPART C: AUTHORIZATION BY RULE AND INTERIM STATUS

## Section 703.155 Changes During Interim Status

- a) Except as provided in subsection (b), below, the owner or operator of an interim status facility may make the following changes at the facility:
  - 1) Treatment, storage or disposal of new hazardous wastes not previously identified in Part A of the permit application (and, in the case of newly listed or identified wastes, addition of the units being used to treat, store or dispose of the hazardous wastes on the date of the listing or identification) if the owner or operator submits a revised Part A permit application prior to such treatment, storage or disposal;
  - 2) Increases in the design capacity of processes used at the facility if the owner or operator submits a revised Part A permit application prior to such a change (along with a justification explaining the need for the change) and the Agency approves the change because:
    - A) There is a lack of available treatment, storage or disposal capacity at other hazardous waste management facilities; or
    - B) The change is necessary to comply with a federal, State or local requirement, including 35 Ill. Adm. Code 725, 728 or 729.
  - 3) Changes in the processes for the treatment, storage or disposal of hazardous waste may be made at a facility or addition of processes if the owner or operator submits a revised Part A permit application prior to such a change (along with a justification explaining the need for change) and the Agency approves the change because:
    - A) The change is necessary to prevent a threat to human health or the environment because of an emergency situation; or
    - B) The change is necessary to comply with a federal, State or local requirement, including 35 Ill. Adm. Code 725, 728 or 729;
  - 4) Changes in the ownership or operational control of a facility if the new owner or operator submits a revised Part A permit application no later than 90 days prior to the scheduled change. When a transfer of ownership or operational control of a facility occurs, the old owner or operator shall comply with the requirements of 35 Ill. Adm. Code 725.Subpart H (financial requirements), until the new owner or operator has demonstrated to the Agency that it is complying with the requirements of that Subpart. The new owner or operator shall

demonstrate compliance with the financial assurance requirements within six months after the date of the change in the ownership or operational control of the facility. Upon demonstration to the Agency by the new owner or operator of compliance with the financial assurance requirements, the Agency shall notify the old owner or operator in writing that the old owner or operator no longer needs to comply with 35 Ill. Adm. Code 725.Subpart H as of the date of demonstration. All other interim status duties are transferred effective immediately upon the date of the change of ownership or operational control of the facility;

- 5) Changes made in accordance with an interim status corrective action order issued by: USEPA under Section 3008(h) of the Resource Conservation and Recovery Act or other federal authority; a court pursuant to a judicial action brought USEPA; a court pursuant to the Environmental Protection Act; or, the Board. Changes under this subsection are limited to the treatment, storage or disposal of solid waste from releases that originate within the boundary of the facility.
  - 6) Addition of newly regulated units for the treatment, storage or disposal of hazardous waste if the owner or operator submits a revised Part A permit application on or before the date on which the unit becomes subject to the new requirements.
- b) Except as specifically allowed under this subsection, changes listed under subsection (a), above, must not be made if they amount to reconstruction of the HWM facility. Reconstruction occurs when the capital investment in the changes to the facility exceeds fifty percent of the capital cost of a comparable entirely new HWM facility. If all other requirements are met, the following changes may be made even if they amount to a reconstruction:
- 1) Changes made solely for the purpose of complying with requirements of 35 Ill. Adm. Code 725.293 for tanks and ancillary equipment.
  - 2) If necessary to comply with federal, State or local requirements, including 35 Ill. Adm. Code 725, 728 or 729, changes to an existing unit, changes solely involving tanks or containers, or addition of replacement surface impoundments that satisfy the statutory standards of Section 35 Ill. Adm. Code 728.139.
  - 3) Changes that are necessary to allow owners or operators to continue handling newly listed or identified hazardous wastes that have been treated, stored or disposed of at the facility prior to the effective date of the rule establishing the new listing or identification.
  - 4) Changes during closure of a facility or of a unit within a facility made in accordance with an approved closure plan.

- 5) Changes necessary to comply with an interim status corrective action order issued by: USEPA under Section 3008(h) of the Resource Conservation and Recovery Act or other federal authority; a court pursuant to a judicial action brought by USEPA; a court pursuant to the Environmental Protection Act; or, the Board. Changes under this subsection are limited to the treatment, storage or disposal of solid waste from releases that originate within the boundary of the facility.
- 6) Changes to treat or store, in tanks, containers or containment buildings, hazardous wastes subject to land disposal restrictions imposed in 35 Ill. Adm. Code 728, provided that such changes are made solely for the purpose of complying with 35 Ill. Adm. Code 728.
- 7) Addition of newly regulated units under subsection (a)(6), above.
- 8) Changes necessary to comply with the federal Clean Air Act (CAA) Maximum Achievable Control Technology (MACT) emissions standards of 40 CFR 63, Subpart EEE--National Emission Standards for Hazardous Air Pollutants From Hazardous Waste Combustors.

~~Board Note:~~ BOARD NOTE: Derived from 40 CFR 270.72 (19907), as amended 57-63 Fed. Reg. 37281 33829, August 18, 1992. (June 19, 1998). The federal CAA MACT standards are directly implemented in Illinois pursuant to Section 39.5 of the Environmental Protection Act [415 ILCS 5/39.5].

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

## SUBPART G:CHANGES TO PERMITS

### Section 703.280 Permit Modification at the Request of the Permittee

- a) Class 1 modifications. See Section 703.281.
- b) Class 2 modifications. See Section 703.282.
- c) Class 3 modifications. See Section 703.283.
- d) Other modifications.
  - 1) In the case of modifications not explicitly listed in Appendix A, the permittee may submit a Class 3 modification request to the Agency, or the permittee may request a determination by the Agency that the modification be reviewed and approved as a Class 1 or Class 2



modification. If the permittee requests that the modification be classified as a Class 1 or 2 modification, the permittee shall provide the Agency with the necessary information to support the requested classification.

- 2) The Agency shall make the determination described in subsection (d)(1), above, as promptly as practicable. In determining the appropriate class for a specific modification, the Agency shall consider the similarity of the modification to other modifications codified in Appendix A and the following criteria:
  - A) Class 1 modifications apply to minor changes that keep the permit current with routine changes to the facility or its operation. These changes do not substantially alter the permit conditions or reduce the capacity of the facility to protect human health or the environment. In the case of Class 1 modifications, the Agency may require prior approval.
  - B) Class 2 modifications apply to changes that are necessary to enable a permittee to respond, in a timely manner, to any of the following:
    - i) Common variations in the types and quantities of the wastes managed under the facility permit,
    - ii) Technological advances, and
    - iii) Changes necessary to comply with new regulations, where these changes can be implemented without substantially changing design specifications or management practices in the permit.
  - C) Class 3 modifications substantially alter the facility or its operation.
- e) Temporary authorizations.
  - 1) Upon request of the permittee, the Agency shall, without prior public notice and comment, grant the permittee a temporary authorization in accordance with this subsection. Temporary authorizations have a term of not more than 180 days.
  - 2) Procedures.
    - A) The permittee may request a temporary authorization for:

- i) Any Class 2 modification meeting the criteria in subsection (e)(3)(B) of this Section; and
  - ii) Any Class 3 modification that meets the criteria in subsection (e)(3)(B)(i), below; or that meets the criteria in subsection (e)(3)(B)(iii) through (v), below, and provides improved management or treatment of a hazardous waste already listed in the facility permit.
- B) The temporary authorization request must include:
- i) A description of the activities to be conducted under the temporary authorization;
  - ii) An explanation of why the temporary authorization is necessary; and
  - iii) Sufficient information to ensure compliance with 35 Ill. Adm. Code 724 standards.
- C) The permittee shall send a notice about the temporary authorization request to all persons on the facility mailing list maintained by the Agency and to appropriate units of State and local governments as specified in 35 Ill. Adm. Code 705.163(a)(5). This notification must be made within seven days after submission of the authorization request.
- 3) The Agency shall approve or deny the temporary authorization as quickly as practical. To issue a temporary authorization, the Agency shall find:
- A) The authorized activities are in compliance with the standards of 35 Ill. Adm. Code 724.
  - B) The temporary authorization is necessary to achieve one of the following objectives before action is likely to be taken on a modification request:
    - i) To facilitate timely implementation of closure or corrective action activities;
    - ii) To allow treatment or storage in tanks, containers or in containment buildings in accordance with 35 Ill. Adm. Code 728;

- iii) To prevent disruption of ongoing waste management activities;
  - iv) To enable the permittee to respond to sudden changes in the types or quantities of the wastes managed under the facility permit; or
  - v) To facilitate other changes to protect human health and the environment.
- 4) A temporary authorization shall be reissued for one additional term of up to 180 days provided that the permittee has requested a Class 2 or 3 permit modification for the activity covered in the temporary authorization, and:
  - A) The reissued temporary authorization constitutes the Agency's decision on a Class 2 permit modification in accordance with Section 703.282(f)(1)(D) or (f)(2)(D), or
  - B) The Agency determines that the reissued temporary authorization involving a Class 3 permit modification request is warranted to allow the authorized activities to continue while the modification procedures of 35 Ill. Adm. Code 703.283 are conducted.
- f) Public notice and appeals of permit modification decisions.
  - 1) The Agency shall notify persons on the facility mailing list and appropriate units of State and local government within 10 days of any decision to grant or deny a Class 2 or 3 permit modification request. The Agency shall also notify such persons within 10 days after an automatic authorization for a Class 2 modification goes into effect under Section 703.282(f)(3) or (f)(5).
  - 2) The Agency's decision to grant or deny a Class 2 or 3 permit modification request may be appealed under the permit appeal procedures of 35 Ill. Adm. Code 705.212.
  - 3) An automatic authorization that goes into effect under Section 703.282(f)(3) or (f)(5) may be appealed under the permit appeal procedures of 35 Ill. Adm. Code 705.212; however, the permittee may continue to conduct the activities pursuant to the automatic authorization until the Board enters a final order on the appeal notwithstanding the provisions of 35 Ill. Adm. Code 705.204.
- g) Newly regulated wastes and units.

- 1) The permittee is authorized to continue to manage wastes listed or identified as hazardous under 35 Ill. Adm. Code 721, or to continue to manage hazardous waste in units newly regulated as hazardous waste management units, if:
  - A) The unit was in existence as a hazardous waste facility with respect to the newly listed or characterized waste or newly regulated waste management unit on the effective date of the final rule listing or identifying the waste, or regulating the unit;
  - B) The permittee submits a Class 1 modification request on or before the date on which the waste becomes subject to the new requirements;
  - C) The permittee is in compliance with the applicable standards of 35 Ill. Adm. Code 725 and 726;
  - D) The permittee also submits a complete class 2 or 3 modification request within 180 days after the effective date of the rule listing or identifying the waste, or subjecting the unit to management standards under 35 Ill. Adm. Code 724, 725 or 726; and
  - E) In the case of land disposal units, the permittee certifies that such unit is in compliance with all applicable requirements of 35 Ill. Adm. Code 725 for groundwater monitoring and financial responsibility requirements on the date 12 months after the effective date of the rule identifying or listing the waste as hazardous, or regulating the unit as a hazardous waste management unit. If the owner or operator fails to certify compliance with all these requirements, the owner or operator loses authority to operate under this Section.
- 2) New wastes or units added to a facility's permit under this subsection do not constitute expansions for the purpose of the 25 percent capacity expansion limit for Class 2 modifications.
- h) Military hazardous waste munitions treatment and disposal. The permittee is authorized to continue to accept waste military munitions notwithstanding any permit conditions barring the permittee from accepting off-site wastes, if:
  - 1) The facility was in existence as a hazardous waste facility and the facility was already permitted to handle the waste military munitions on the date when the waste military munitions became subject to hazardous waste regulatory requirements;

- 2) On or before the date when the waste military munitions become subject to hazardous waste regulatory requirements, the permittee submits a Class 1 modification request to remove or amend the permit provision restricting the receipt of off-site waste munitions; and
- 3) The permittee submits a complete Class 2 modification request within 180 days of the date when the waste military munitions became subject to hazardous waste regulatory requirements.
- i) Permit modification list. The Agency shall maintain a list of all approved permit modifications and shall publish a notice once a year in a State-wide newspaper that an updated list is available for review.
- j) Combustion facility changes to meet federal 40 CFR 63 MACT standards. The following procedures apply to hazardous waste combustion facility permit modifications requested under Section 703. Appendix A, paragraph L(9).
  - 1) Facility owners or operators must comply with the federal notification of intent to comply (NIC) requirements of 40 CFR 63.1211 before a permit modification can be requested under this Section.
  - 2) If the Agency does not act to either approve or deny the request within 90 days of receiving it, the request shall be deemed approved. The Agency may, at its discretion, extend this 90-day deadline one time for up to 30 days by notifying the facility owner or operator in writing before the 90 days has expired.

BOARD NOTE: Derived from 40 CFR 270.42(d) through ~~(i)~~-(j) (1997), as amended at 63 Fed. Reg. 33829 (June 19, 1998).

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 703. Appendix A Classification of Permit Modifications

Class Modifications

A. General Permit Provisions

- 1 1. Administrative and informational changes.
- 1 2. Correction of typographical errors.
- 1 3. Equipment replacement or upgrading with functionally equivalent components (e.g., pipes, valves, pumps, conveyors, controls).

4. Changes in the frequency of or procedures for monitoring, reporting, sampling or maintenance activities by the permittee:
  - 1 a. To provide for more frequent monitoring, reporting or maintenance.
  - 2 b. Other changes.
5. Schedule of compliance:
  - 1\* a. Changes in interim compliance dates, with prior approval of the Agency.
  - 3 b. Extension of final compliance date.
- 1\* 6. Changes in expiration date of permit to allow earlier permit termination, with prior approval of the Agency.
- 1\* 7. Changes in ownership or operational control of a facility, provided the procedures of Section 703.260(b) are followed.

#### B. General Facility Standards

1. Changes to waste sampling or analysis methods:
  - 1 a. To conform with Agency guidance or Board regulations.
  - 1\* b. To incorporate changes associated with F039 (multi-source leachate) sampling or analysis methods.
  - 1\* c. To incorporate changes associated with underlying hazardous constituents in ignitable or corrosive wastes.
  - 2 d. Other changes.
2. Changes to analytical quality assurance/control plan:
  - 1 a. To conform with agency guidance or regulations.
  - 2 b. Other changes.
- 1 3. Changes in procedures for maintaining the operating record.
- 2 4. Changes in frequency or content of inspection schedules.
5. Changes in the training plan:
  - 2 a. That affect the type or decrease the amount of training given to

employees.

1                   b.     Other changes.

6.     Contingency plan:

2                   a.     Changes in emergency procedures (i.e., spill or release response procedures).

1                   b.     Replacement with functionally equivalent equipment, upgrade or relocate emergency equipment listed.

2                   c.     Removal of equipment from emergency equipment list.

1                   d.     Changes in name, address or phone number of coordinators or other persons or agencies identified in the plan.

Note: When a permit modification (such as introduction of a new unit) requires a change in facility plans or other general facility standards, that change must be reviewed under the same procedures as the permit modification.

7.     CQA plan:

1                   a.     Changes that the CQA officer certifies in the operating record will provide equivalent or better certainty that the unit components meet the design specifications.

2                   b.     Other changes.

Note: When a permit modification (such as introduction of a new unit) requires a change in facility plans or other general facility standards, that change shall be reviewed under the same procedures as a permit modification.

C.     Groundwater Protection

1.     Changes to wells:

2                   a.     Changes in the number, location, depth or design of upgradient or downgradient wells of permitted groundwater monitoring system.

1                   b.     Replacement of an existing well that has been damaged or rendered inoperable, without change to location, design or depth of the well.

1\*               2.     Changes in groundwater sampling or analysis procedures or monitoring schedule,

with prior approval of the Agency.

- 1\* 3. Changes in statistical procedure for determining whether a statistically significant change in groundwater quality between upgradient and downgradient wells has occurred, with prior approval of the Agency.
- 2\* 4. Changes in point of compliance.
- 5. Changes in indicator parameters, hazardous constituents or concentration limits (including ACLs (Alternate Concentration Limits)):
  - 3 a. As specified in the groundwater protection standard.
  - 2 b. As specified in the detection monitoring program.
- 2 6. Changes to a detection monitoring program as required by 35 Ill. Adm. Code 724.198(j), unless otherwise specified in this Appendix.
- 7. Compliance monitoring program:
  - 3 a. Addition of compliance monitoring program as required by 35 Ill. Adm. Code 724.198(h)(4) and 724.199.
  - 2 b. Changes to a compliance monitoring program as required by 35 Ill. Adm. Code 724.199(k), unless otherwise specified in this Appendix.
- 8. Corrective action program:
  - 3 a. Addition of a corrective action program as required by 35 Ill. Adm. Code 724.199(i)(2) and 724.200.
  - 2 b. Changes to a corrective action program as required by 35 Ill. Adm. Code 724.200(h), unless otherwise specified in this Appendix.

#### D. Closure

- 1. Changes to the closure plan:
  - 1\* a. Changes in estimate of maximum extent of operations or maximum inventory of waste on-site at any time during the active life of the facility, with prior approval of the Agency.
  - 1\* b. Changes in the closure schedule for any unit, changes in the final closure schedule for the facility or extension of the closure period, with prior approval of the Agency.



- 1\* c. Changes in the expected year of final closure, where other permit conditions are not changed, with prior approval of the Agency.
- 1\* d. Changes in procedures for decontamination of facility equipment or structures, with prior approval of the Agency.
- 2 e. Changes in approved closure plan resulting from unexpected events occurring during partial or final closure, unless otherwise specified in this Appendix.
- 2 f. Extension of the closure period to allow a landfill, surface impoundment or land treatment unit to receive non-hazardous wastes after final receipt of hazardous wastes under 35 Ill. Adm. Code 724.213(d) or (e).
- 3 2. Creation of a new landfill unit as part of closure.
- 3 3. Addition of the following new units to be used temporarily for closure activities:
  - 3 a. Surface impoundments.
  - 3 b. Incinerators.
  - 3 c. Waste piles that do not comply with 35 Ill. Adm. Code 724.350(c).
  - 2 d. Waste piles that comply with 35 Ill. Adm. Code 724.350(c).
  - 2 e. Tanks or containers (other than specified below).
  - 1\* f. Tanks used for neutralization, dewatering, phase separation or component separation, with prior approval of the Agency.

#### E. Post-Closure

- 1 1. Changes in name, address or phone number of contact in post-closure plan.
- 2 2. Extension of post-closure care period.
- 3 3. Reduction in the post-closure care period.
- 1 4. Changes to the expected year of final closure, where other permit conditions are not changed.
- 2 5. Changes in post-closure plan necessitated by events occurring during the active life of the facility, including partial and final closure.

#### F. Containers

1. Modification or addition of container units:
  - 3 a. Resulting in greater than 25% increase in the facility's container storage capacity, except as provided in F(1)(c) and F(4)(a).
  - 2 b. Resulting in up to 25% increase in the facility's container storage capacity, except as provided in F(1)(c) and F(4)(a).
  - 1 c. Or treatment processes necessary to treat wastes that are restricted from land disposal to meet some or all of the applicable treatment standards or to treat wastes to satisfy (in whole or in part) the standard of "use of practically available technology that yields the greatest environmental benefit" contained in 40 CFR 268.8(a)(2)(ii), incorporated by reference in 35 Ill. Adm. Code 728.108, with prior approval of the Agency. This modification may also involve the addition of new waste codes or narrative description of wastes. It is not applicable to dioxin-containing wastes (F020, F021, F022, F023, F026, F027 and F028).
2. Modification of container units without an increased capacity or alteration of the system:
  - 2 a. Modification of a container unit without increasing the capacity of the unit.
  - 1 b. Addition of a roof to a container unit without alteration of the containment system.
3. Storage of different wastes in containers, except as provided in F(4):
  - 3 a. That require additional or different management practices from those authorized in the permit.
  - 2 b. That do not require additional or different management practices from those authorized in the permit.

Note: See Section 703.280(g) for modification procedures to be used for the management of newly listed or identified wastes.
4. Storage or treatment of different wastes in containers:
  - 2 a. That require addition of units or change in treatment process or management standards, provided that the wastes are restricted from land disposal and are to be treated to meet some or all of the applicable treatment standards, or are to be treated to satisfy (in whole or in part) the standard of "use of practically available technology that yields the greatest

environmental benefit" contained in 40 CFR 268.8(a)(2)(ii), incorporated by reference in 35 Ill. Adm. Code 728.108. It is not applicable to dioxin-containing wastes (F020, F021, F022, F023, F026, F027 and F028).

- 1\*                    b.      That do not require the addition of units or a change in the treatment process or management standards, and provided that the units have previously received wastes of the same type (e.g., incinerator scrubber water). This modification is not applicable to dioxin-containing wastes (F020, F021, F022, F023, F026, F027 and F028).
- G.      Tanks
- 1.
- 3                    a.      Modification or addition of tank units resulting in greater than 25% increase in the facility's tank capacity, except as provided in paragraphs G(1)(c), G(1)(d) and G(1)(e).
- 2                    b.      Modification or addition of tank units resulting in up to 25% increase in the facility's tank capacity, except as provided in paragraphs G(1)(d) and G(1)(e).
- 2                    c.      Addition of a new tank that will operate for more than 90 days using any of the following physical or chemical treatment technologies: neutralization, dewatering, phase separation or component separation.
- 1\*                    d.      After prior approval of the Agency, addition of a new tank that will operate for up to 90 days using any of the following physical or chemical treatment technologies: neutralization, dewatering, phase separation or component separation.
- 1\*                    e.      Modification or addition of tank units or treatment processes that are necessary to treat wastes that are restricted from land disposal to meet some or all of the applicable treatment standards or to treat wastes to satisfy (in whole or in part) the standard of "use of practically available technology that yields the greatest environmental benefit" contained in 40 CFR 268.8(a)(2)(ii), incorporated by reference in 35 Ill. Adm. Code 728.108, with prior approval of the Agency. This modification may also involve the addition of new waste codes. It is not applicable to dioxin-containing wastes (F020, F021, F022, F023, F026, F027 and F028).
- 2                    2.      Modification of a tank unit or secondary containment system without increasing the capacity of the unit.
- 1                    3.      Replacement of a tank with a tank that meets the same design standards and has a capacity within  $\pm 10\%$  of the replaced tank provided:

- a. The capacity difference is no more than 1500 gallons,
  - b. The facility's permitted tank capacity is not increased and
  - c. The replacement tank meets the same conditions in the permit.
- 2 4. Modification of a tank management practice.
5. Management of different wastes in tanks:
- 3 a. That require additional or different management practices, tank design, different fire protection specifications or significantly different tank treatment process from that authorized in the permit, except as provided in paragraph G(5)(c).
  - 2 b. That do not require additional or different management practices, tank design, different fire protection specification or significantly different tank treatment process than authorized in the permit, except as provided in paragraph G(5)(d).
- Note:See Section 703.280(g) for modification procedures to be used for the management of newly listed or identified wastes.
- 1\* c. That require addition of units or change in treatment processes or management standards, provided that the wastes are restricted from land disposal and are to be treated to meet some or all of the applicable treatment standards, or that are to be treated to satisfy (in whole or in part) the standard of "use of practically available technology that yields the greatest environmental benefit" contained in 40 CFR 268.8(a)(2)(ii), incorporated by reference in 35 Ill. Adm. Code 728.108.The modification is not applicable to dioxin-containing wastes (F020, F021, F022, F023, F026, F027 and F028).
  - 1 d. That do not require the addition of units or a change in the treatment process or management standards, and provided that the units have previously received wastes of the same type (e.g., incinerator scrubber water).This modification is not applicable to dioxin-containing wastes (F020, F021, F022, F023, F026, F027 and F028).
- Note:See Section 703.280(g) for modification procedures to be used for the management of newly listed or identified wastes.

H. Surface Impoundments

- 3 1. Modification or addition of surface impoundment units that result in increasing

the facility's surface impoundment storage or treatment capacity.

- 3           2.    Replacement of a surface impoundment unit.
- 2           3.    Modification of a surface impoundment unit without increasing the facility's surface impoundment storage or treatment capacity and without modifying the unit's liner, leak detection system or leachate collection system.
- 2           4.    Modification of a surface impoundment management practice.
- 5           5.    Treatment, storage or disposal of different wastes in surface impoundments:
  - 3           a.    That require additional or different management practices or different design of the liner or leak detection system than authorized in the permit.
  - 2           b.    That do not require additional or different management practices or different design of the liner or leak detection system than authorized in the permit.

Note: See Section 703.280(g) for modification procedures to be used for the management of newly listed or identified wastes.

  - 1           c.    That are wastes restricted from land disposal that meet the applicable treatment standards or that are treated to satisfy the standard of "use of practically available technology that yields the greatest environmental benefit" contained in 40 CFR 268.8(a)(2)(ii), incorporated by reference in 35 Ill. Adm. Code 728.108, and provided that the unit meets the minimum technological requirements stated in 40 CFR 268.5(h)(2), incorporated by reference in 35 Ill. Adm. Code 728.105. This modification is not applicable to dioxin-containing wastes (F020, F021, F022, F023, F026, F027 and F028).
  - 1           d.    That are residues from wastewater treatment or incineration, provided the disposal occurs in a unit that meets the minimum technological requirements stated in 40 CFR 268.5(h)(2), incorporated by reference in 35 Ill. Adm. Code 728.105, and provided further that the surface impoundment has previously received wastes of the same type (for example, incinerator scrubber water). This modification is not applicable to dioxin-containing wastes (F020, F021, F022, F023, F026, F027 and F028).
- 1\*          6.    Modifications of unconstructed units to comply with 35 Ill. Adm. Code 724.321(c), 724.322, 724.323 and 724.326(d).
7.    Changes in response action plan:

- 3 a. Increase in action leakage rate.
- 3 b. Change in a specific response reducing its frequency or effectiveness.
- 2 c. Other changes.

Note: See Section 703.280(g) for modification procedures to be used for the management of newly listed or identified wastes.

I. Enclosed Waste Piles. For all waste piles, except those complying with 35 Ill. Adm. Code 724.350(c), modifications are treated the same as for a landfill. The following modifications are applicable only to waste piles complying with 35 Ill. Adm. Code 724.350(c).

- 1. Modification or addition of waste pile units:
  - 3 a. Resulting in greater than 25% increase in the facility's waste pile storage or treatment capacity.
  - 2 b. Resulting in up to 25% increase in the facility's waste pile storage or treatment capacity.
- 2. Modification of waste pile unit without increasing the capacity of the unit.
- 1. 3. Replacement of a waste pile unit with another waste pile unit of the same design and capacity and meeting all waste pile conditions in the permit.
- 2. 4. Modification of a waste pile management practice.
- 5. Storage or treatment of different wastes in waste piles:
  - 3 a. That require additional or different management practices or different design of the unit.
  - 2 b. That do not require additional or different management practices or different design of the unit.

Note: See Section 703.280(g) for modification procedures to be used for the management of newly listed or identified wastes.

- 2. 6. Conversion of an enclosed waste pile to a containment building unit.

Note: See Section 703.280(g) for modification procedures to be used for the management of newly listed or identified wastes.

J. Landfills and Unenclosed Waste Piles

- 3 1. Modification or addition of landfill units that result in increasing the facility's disposal capacity.
- 3 2. Replacement of a landfill.
- 3 3. Addition or modification of a liner, leachate collection system, leachate detection system, run-off control or final cover system.
- 2 4. Modification of a landfill unit without changing a liner, leachate collection system, leachate detection system, run-off control or final cover system.
- 2 5. Modification of a landfill management practice.
6. Landfill different wastes:
- 3 a. That require additional or different management practices, different design of the liner, leachate collection system or leachate detection system.
- 2 b. That do not require additional or different management practices, different design of the liner, leachate collection system or leachate detection system.
- Note: See Section 703.280(g) for modification procedures to be used for the management of newly listed or identified wastes.
- 1 c. That are wastes restricted from land disposal that meet the applicable treatment standards or that are treated to satisfy the standard of "use of practically available technology that yields the greatest environmental benefit" contained in 40 CFR 268.8(a)(2)(ii), incorporated by reference in 35 Ill. Adm. Code 728.108, and provided that the landfill unit meets the minimum technological requirements stated in 40 CFR 268.5(h)(2), incorporated by reference in 35 Ill. Adm. Code 728.105. This modification is not applicable to dioxin-containing wastes (F020, F021, F022, F023, F026, F027 and F028).
- 1 d. That are residues from wastewater treatment or incineration, provided the disposal occurs in a landfill unit that meets the minimum technological requirements stated in 40 CFR 268.5(h)(2), incorporated by reference in 35 Ill. Adm. Code 728.105, and provided further that the landfill has previously received wastes of the same type (for example, incinerator ash). This modification is not applicable to dioxin-containing wastes (F020, F021, F022, F023, F026, F027 and F028).
- 1\* 7. Modification of unconstructed units to comply with 35 Ill. Adm. Code

724.351(c), 724.352, 724.353, 724.354(c), 724.401(c), 724.402, 724.403(c) and 724.404.

8. Changes in response action plan:

- 3 a. Increase in action leakage rate.
- 3 b. Change in a specific response reducing its frequency or effectiveness.
- 2 c. Other changes.

Note: See Section 703.280(g) for modification procedures to be used for the management of newly listed or identified wastes.

K. Land Treatment

- 3 1. Lateral expansion of or other modification of a land treatment unit to increase area extent.
- 2 2. Modification of run-on control system.
- 3 3. Modify run-off control system.
- 2 4. Other modification of land treatment unit component specifications or standards required in permit.
- 5 5. Management of different wastes in land treatment units:
  - 3 a. That require a change in permit operating conditions or unit design specifications.
  - 2 b. That do not require a change in permit operating conditions or unit design specifications.

Note: See Section 703.280(g) for modification procedures to be used for the management of newly listed or identified wastes.

- 6 6. Modification of a land treatment unit management practice to:
  - 3 a. Increase rate or change method of waste application.
  - 1 b. Decrease rate of waste application.
- 2 7. Modification of a land treatment unit management practice to change measures of pH or moisture content or to enhance microbial or chemical reactions.



- 3 8. Modification of a land treatment unit management practice to grow food chain crops, to add to or replace existing permitted crops with different food chain crops or to modify operating plans for distribution of animal feeds resulting from such crops.
- 3 9. Modification of operating practice due to detection of releases from the land treatment unit pursuant to 35 Ill. Adm. Code 724.378(g)(2).
- 3 10. Changes in the unsaturated zone monitoring system resulting in a change to the location, depth, number of sampling points or replace unsaturated zone monitoring devices or components of devices with devices or components that have specifications different from permit requirements.
- 2 11. Changes in the unsaturated zone monitoring system that do not result in a change to the location, depth, number of sampling points, or that replace unsaturated zone monitoring devices or components of devices with devices or components having specifications different from permit requirements.
- 2 12. Changes in background values for hazardous constituents in soil and soil-pore liquid.
- 2 13. Changes in sampling, analysis or statistical procedure.
- 2 14. Changes in land treatment demonstration program prior to or during the demonstration.
- 1\* 15. Changes in any condition specified in the permit for a land treatment unit to reflect results of the land treatment demonstration, provided performance standards are met, and the Agency's prior approval has been received.
- 1\* 16. Changes to allow a second land treatment demonstration to be conducted when the results of the first demonstration have not shown the conditions under which the wastes can be treated completely, provided the conditions for the second demonstration are substantially the same as the conditions for the first demonstration and have received the prior approval of the Agency.
- 3 17. Changes to allow a second land treatment demonstration to be conducted when the results of the first demonstration have not shown the conditions under which the wastes can be treated completely, where the conditions for the second demonstration are not substantially the same as the conditions for the first demonstration.
- 2 18. Changes in vegetative cover requirements for closure.

L. Incinerators, Boilers and Industrial Furnaces

- 3 1. Changes to increase by more than 25% any of the following limits authorized in the permit: A thermal feed rate limit, a feedstream feed rate limit, a chlorine/chloride feed rate limit, a metal feed rate limit or an ash feed rate limit. The Agency shall require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means.
- 2 2. Changes to increase by up to 25% any of the following limits authorized in the permit: A thermal feed rate limit, a feedstream feed rate limit, a chlorine/chloride feed rate limit, a metal feed rate limit or an ash feed rate limit. The Agency shall require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means.
- 3 3. Modification of an incinerator, boiler or industrial furnace unit by changing the internal size or geometry of the primary or secondary combustion units, by adding a primary or secondary combustion unit, by substantially changing the design of any component used to remove HCl/Cl<sub>2</sub>, metals or particulate from the combustion gases or by changing other features of the incinerator, boiler or industrial furnace that could affect its capability to meet the regulatory performance standards. The Agency shall require a new trial burn to substantiate compliance with the regulatory performance standards, unless this demonstration can be made through other means.
- 2 4. Modification of an incinerator, boiler or industrial furnace unit in a manner that will not likely affect the capability of the unit to meet the regulatory performance standards but which will change the operating conditions or monitoring requirements specified in the permit. The Agency may require a new trial burn to demonstrate compliance with the regulatory performance standards.
5. Operating requirements:
  - 3 a. Modification of the limits specified in the permit for minimum or maximum combustion gas temperature, minimum combustion gas residence time, oxygen concentration in the secondary combustion chamber, flue gas carbon monoxide or hydrocarbon concentration, maximum temperature at the inlet to the PM emission control system or operating parameters for the air pollution control system. The Agency shall require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means.
  - 3 b. Modification of any stack gas emission limits specified in the permit, or modification of any conditions in the permit concerning emergency shutdown or automatic waste feed cutoff procedures or controls.

- 2 c. Modification of any other operating condition or any inspection or recordkeeping requirement specified in the permit.
6. Burning different wastes:
- 3 a. If the waste contains a POHC that is more difficult to burn than authorized by the permit or if burning of the waste requires compliance with different regulatory performance standards than specified in the permit, the Agency shall require a new trial burn to substantiate compliance with the regulatory performance standards, unless this demonstration can be made through other means.
- 2 b. If the waste does not contain a POHC that is more difficult to burn than authorized by the permit and if burning of the waste does not require compliance with different regulatory performance standards than specified in the permit.
- ~~BOARD NOTE~~ Note: See Section 703.280(g) for modification procedures to be used for the management of newly listed or identified wastes.
7. Shakedown and trial burn:
- 2 a. Modification of the trial burn plan or any of the permit conditions applicable during the shakedown period for determining operational readiness after construction, the trial burn period or the period immediately following the trial burn.
- 1\* b. Authorization of up to an additional 720 hours of waste burning during the shakedown period for determining operational readiness after construction, with the prior approval of the Agency.
- 1\* c. Changes in the operating requirements set in the permit for conducting a trial burn, provided the change is minor and has received the prior approval of the Agency.
- 1\* d. Changes in the ranges of the operating requirements set in the permit to reflect the results of the trial burn, provided the change is minor and has received the prior approval of the Agency.
- 1 8. Substitution of an alternate type of nonhazardous waste fuel that is not specified in the permit.
- 1\* 9. Technology changes needed to meet standards under federal 40 CFR 63 (Subpart EEE--National Emission Standards for Hazardous Air Pollutants From Hazardous Waste Combustors), provided the procedures of 35 Ill. Adm. Code 703.280(j) are followed.

M. Containment Buildings.

1. Modification or addition of containment building units:
  - 3 a. Resulting in greater than 25% increase in the facility's containment building storage or treatment capacity.
  - 2 b. Resulting in up to 25% increase in the facility's containment building storage or treatment capacity.
- 2 2. Modification of a containment building unit or secondary containment system without increasing the capacity of the unit.
- 3 3. Replacement of a containment building with a containment building that meets the same design standards provided:
  - 1 a. The unit capacity is not increased.
  - 1 b. The replacement containment building meets the same conditions in the permit.
- 2 4. Modification of a containment building management practice.
- 5 5. Storage or treatment of different wastes in containment buildings:
  - 3 a. That require additional or different management practices.
  - 2 b. That do not require additional or different management practices

N. Corrective Action.

- 3 1. Approval of a corrective action management unit pursuant to 35 Ill. Adm. Code 724.652.
- 2 2. Approval of a temporary unit or time extension pursuant to 35 Ill. Adm. Code 724.653.

Note:\* indicates modifications requiring prior Agency approval.

BOARD NOTE:Derived from 40 CFR 270.42, Appendix I (19927), as amended at ~~58-63 Fed. Reg. 868533829, February 16, 1993~~ (June 19, 1998).

(Source:Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

TITLE 35: ENVIRONMENTAL PROTECTION  
 SUBTITLE G: WASTE DISPOSAL  
 CHAPTER I: POLLUTION CONTROL BOARD  
 SUBCHAPTER c: HAZARDOUS WASTE OPERATING REQUIREMENTS

PART 720  
 HAZARDOUS WASTE MANAGEMENT SYSTEM: GENERAL

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720.102	Availability of Information; Confidentiality of Information
720.103	Use of Number and Gender

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720.141	Procedures for case-by-case regulation of hazardous waste Recycling Activities
720.Appendix A	Overview of 40 CFR, Subtitle C Regulations

**AUTHORITY:** Implementing Section 22.4 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/22.4 and 27].

**SOURCE:** Adopted in R81-22, 43 PCB 427, at 5 Ill. Reg. 9781, effective May 17, 1982; amended and codified in R81-22, 45 PCB 317, at 6 Ill. Reg. 4828, effective May 17, 1982; amended in R82-19 at 7 Ill. Reg. 14015, effective October 12, 1983; amended in R84-9, 53 PCB 131 at 9 Ill. Reg. 11819, effective July 24, 1985; amended in R85-22 at 10 Ill. Reg. 968, effective January 2, 1986; amended in R86-1 at 10 Ill. Reg. 13998, effective August 12, 1986; amended in R86-19 at 10 Ill. Reg. 20630, effective December 2, 1986; amended in R86-28 at 11 Ill. Reg. 6017, effective March 24, 1987; amended in R86-46 at

11 Ill. Reg. 13435, effective August 4, 1987; amended in R87-5 at 11 Ill. Reg. 19280, effective November 12, 1987; amended in R87-26 at 12 Ill. Reg. 2450, effective January 15, 1988; amended in R87-39 at 12 Ill. Reg. 12999, effective July 29, 1988; amended in R88-16 at 13 Ill. Reg. 362, effective December 27, 1988; amended in R89-1 at 13 Ill. Reg. 18278, effective November 13, 1989; amended in R89-2 at 14 Ill. Reg. 3075, effective February 20, 1990; amended in R89-9 at 14 Ill. Reg. 6225, effective April 16, 1990; amended in R90-10 at 14 Ill. Reg. 16450, effective September 25, 1990; amended in R90-17 at 15 Ill. Reg. 7934, effective May 9, 1991; amended in R90-11 at 15 Ill. Reg. 9323, effective June 17, 1991; amended in R91-1 at 15 Ill. Reg. 14446, effective September 30, 1991; amended in R91-13 at 16 Ill. Reg. 9489, effective June 9, 1992; amended in R92-1 at 16 Ill. Reg. 17636, effective November 6, 1992; amended in R92-10 at 17 Ill. Reg. 5625, effective March 26, 1993; amended in R93-4 at 17 Ill. Reg. 20545, effective November 22, 1993; amended in R93-16 at 18 Ill. Reg. 6720, effective April 26, 1994; amended in R94-7 at 18 Ill. Reg. 12160, effective July 29, 1994; amended in R94-17 at 18 Ill. Reg. 17480, effective November 23, 1994; amended in R95-6 at 19 Ill. Reg. 9508, effective June 27, 1995; amended in R95-20 at 20 Ill. Reg. 10929, August 1, 1996; amended in R96-10/R97-3/R97-5 at 22 Ill. Reg. 256, effective December 16, 1997; amended in R98-12 at 22 Ill. Reg. 7590, effective April 15, 1998; amended in R97-21/R98-3/R98-5 at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_; amended in R98-21/R99-2/R99-7 at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

## SUBPART B: DEFINITIONS

### Section 720.111      References

- a)      The following publications are incorporated by reference for the purposes of this Part and 35 Ill. Adm. Code 703 through 705, 721 through 726, 728, 730, 731, 733, 738, and 739:

ACI. Available from the American Concrete Institute, Box 19150, Redford Station, Detroit, Michigan 48219:

ACI 318-83: "Building Code Requirements for Reinforced Concrete", adopted September, 1983.

ANSI. Available from the American National Standards Institute, 1430 Broadway, New York, New York 10018, 212-354-3300:

ANSI B31.3 and B31.4. See ASME/ANSI B31.3 and B31.4.

API. Available from the American Petroleum Institute, 1220 L Street, N.W., Washington, D.C. 20005, 202-682-8000:

“Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems”, API Recommended Practice 1632, Second Edition, December, 1987.

“Evaporative Loss from External Floating-Roof Tanks”, API Publication 2517, Third Edition, February, 1989.

“Guide for Inspection of Refinery Equipment, Chapter XIII, Atmospheric and Low Pressure Storage Tanks”, 4th Edition, 1981, reaffirmed December, 1987.

“Installation of Underground Petroleum Storage Systems”, API Recommended Practice 1615, Fourth Edition, November, 1987.

APTI. Available from the Air and Waste Management Association, Box 2861, Pittsburgh, PA 15230, 412-232-3444:

APTI Course 415: Control of Gaseous Emissions, USEPA Publication EPA-450/2-81-005, December, 1981.

ASME. Available from the American Society of Mechanical Engineers, 345 East 47th Street, New York, NY 10017, 212-705-7722:

“Chemical Plant and Petroleum Refinery Piping”, ASME/ANSI B31.3-1987, as supplemented by B31.3a-1988 and B31.3b-1988. Also available from ANSI.

“Liquid Transportation Systems for Hydrocarbons, Liquid Petroleum Gas, Anhydrous Ammonia, and Alcohols”, ASME/ANSI B31.4-1986, as supplemented by B31.4a-1987. Also available from ANSI.

ASTM. Available from American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103, 215-299-5400:

ASTM C 94-90, Standard Specification for Ready-Mixed Concrete, approved March 30, 1990.

ASTM D 88-87, Standard Test Method for Saybolt Viscosity, April 24, 1981, reapproved January, 1987.

ASTM D 93-85, Standard Test Methods for Flash Point by Pensky-Martens Closed Tester, approved October 25, 1985.

ASTM D 1946-90, Standard Practice for Analysis of Reformed Gas by Gas Chromatography, approved March 30, 1990.

ASTM D 2161-87, Standard Practice for Conversion of Kinematic Viscosity to Saybolt Universal or to Saybolt Furol Viscosity, March 27, 1987.

ASTM D 2267-88, Standard Test Method for Aromatics in Light Naphthas and Aviation Gasolines by Gas Chromatography, approved November 17, 1988.

ASTM D 2382-88, Standard Test Method for Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High Precision Method), approved October 31, 1988.

ASTM D 2879-92, Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, approved 1992.

ASTM D 3828-87, Standard Test Methods for Flash Point of Liquids by Setaflash Closed Tester, approved December 14, 1988.

ASTM E 168-88, Standard Practices for General Techniques of Infrared Quantitative Analysis, approved May 27, 1988.

ASTM E 169-87, Standard Practices for General Techniques of Ultraviolet-Visible Quantitative Analysis, approved February 1, 1987.

ASTM E 260-85, Standard Practice for Packed Column Gas Chromatography, approved June 28, 1985.

ASTM Method G 21-70 (1984a) -- Standard Practice for Determining Resistance of Synthetic Polymer Materials to Fungi.

ASTM Method G 22-76 (1984b) -- Standard Practice for Determining Resistance of Plastics to Bacteria.

GPO. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, 202-783-3238:

Standard Industrial Classification Manual (1972), and 1977 Supplement, republished in 1983.



“Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA Publication number SW-846 (Third Edition, November, 1986), as amended by Updates I (July, 1992), II (September, 1994), IIA (August, 1993), IIB (January, 1995), and III (December, 1996) (Document Number 955-001-00000-1).

NACE. Available from the National Association of Corrosion Engineers, 1400 South Creek Dr., Houston, TX 77084, 713-492-0535:

“Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems”, NACE Recommended Practice RP-02-85, approved March, 1985.

NFPA. Available from the National Fire Protection Association, Batterymarch Park, Boston, MA 02269, 617-770-3000 or 800-344-3555:

“Flammable and Combustible Liquids Code” NFPA 30, issued July 17, 1987. Also available from ANSI.

NTIS. Available from the U.S. Department of Commerce, National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161, 703-487-4600:

APTI Course 415: Control of Gaseous Emissions, USEPA Publication EPA-450/2-81-005, December, 1981.

“Generic Quality Assurance Project Plan for Land Disposal Restrictions Program”, EPA/530-SW-87-011, March 15, 1987. (Document number PB 88-170766.)

“Guideline on Air Quality Models”, Revised 1986. (Document number PB86-245-248 (Guideline) and PB88-150-958 (Supplement), also set forth at 40 CFR 51, Appendix W).

“Methods for Chemical Analysis of Water and Wastes”, Third Edition, March, 1983. (Document number PB 84-128677).

“Methods Manual for Compliance with BIF Regulations”, December, 1990. (Document number PB91-120-006).

“Petitions to Delist Hazardous Wastes -- A Guidance Manual, Second Edition”, EPA/530-R-93-007, March, 1993. (Document Number PB 93-169 365).

“Screening Procedures for Estimating the Air Quality Impact of Stationary Sources”, October, 1992, Publication Number EPA-450/R-92-019.

“Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA Publication number SW-846 (Third Edition, November, 1986), as amended by Updates I (July, 1992), II (September, 1994), IIA (August, 1993), IIB (January, 1995), and III (December, 1996) (Document Number 955-001-00000-1).

OECD. Organisation for Economic Co-operation and Development, Environment Directorate, 2 rue Andre Pascal, 75775 Paris Cedex 16, France):

OECD Guideline for Testing of Chemicals, Method 301B: “CO<sub>2</sub> Evolution (Modified Sturm Test)”, adopted 17 July 1992.

Table 2.B of the Annex of OECD Council Decision C(88)90(Final) of 27 May 1988.

STI. Available from the Steel Tank Institute, 728 Anthony Trail, Northbrook, IL 60062, 708-498-1980:

“Standard for Dual Wall Underground Steel Storage Tanks” (1986).

U.S. DOD. Available from the United States Department of Defense:

“DOD Ammunition and Explosive Safety Standards” (DOD 6055.9-STD), as in effect on November 8, 1995.

The Motor Vehicle Inspection Report (DD Form 626), as in effect on November 8, 1995.

Requisition Tracking Form (DD Form 1348), as in effect on November 8, 1995.

The Signature and Talley Record (DD Form 1907), as in effect on November 8, 1995.

Special Instructions for Motor Vehicle Drivers (DD Form 836), as in effect on November 8, 1995.

USEPA. Available from United States Environmental Protection Agency, Office of Drinking Water, State Programs Division, WH 550 E, Washington, D.C. 20460:

“Technical Assistance Document: Corrosion, Its Detection and Control in Injection Wells”, EPA 570/9-87-002, August, 1987.

USEPA. Available from Receptor Analysis Branch, USEPA (MD-14), Research Triangle Park, NC 27711:

“Screening Procedures for Estimating the Air Quality Impact of Stationary Sources, Revised”, October, 1992, Publication Number EPA-450/R-92-019.

USEPA. Available from RCRA Information Center (RIC), 1235 Jefferson-Davis Highway, first floor, Arlington, VA 22203 (Docket # F-94-IEHF-FFFFF):

OECD Amber List of Wastes, Appendix 4 to the OECD Council Decision C(92)39/FINAL (Concerning the Control of Transfrontier Movements of Wastes Destined for Recovery Operations) (May 1993).

OECD Green List of Wastes, Appendix 3 to the OECD Council Decision C(92)39/FINAL (Concerning the Control of Transfrontier Movements of Wastes Destined for Recovery Operations) (May 1994).

OECD Red List of Wastes, Appendix 5 to the OECD Council Decision C(92)39/FINAL (Concerning the Control of Transfrontier Movements of Wastes Destined for Recovery Operations) (May 1993).

Table 2.B of the Annex of OECD Council Decision C(88)90(Final) (May 27, 1988).

U.S. GSA. Available from the United States Government Services Administration:

Government Bill of Lading (GBL) (GSA Standard Form 1109), as in effect on November 8, 1995.

- b) Code of Federal Regulations. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20401, 202-783-3238:

10 CFR 20, Appendix B (1997)

40 CFR 51.100(ii) (1997)

40 CFR 51, Appendix W (1997)

40 CFR 52.741, Appendix B (1997)

40 CFR 60 (1997)

40 CFR 61, Subpart V (1997)

40 CFR 63 (1997), as amended at 63 Fed. Reg. 18504 (Apr. 15, 1998)

40 CFR 136 (1997), as corrected at 63 Fed. Reg. 38756 (July 20, 1998) and 63 Fed. Reg. 44146 (Aug. 18, 1998) and amended at 62 Fed. Reg. 48394 (Sep. 15, 1997)

40 CFR 142 (1997)

40 CFR 220 (1997)

40 CFR 260.20 (1997)

40 CFR 264 (1997)

40 CFR 268.Appendix IX (1997)

40 CFR 302.4, 302.5 and 302.6 (1997)

40 CFR 761 (1997)

49 CFR 171 (1997)

49 CFR 173 (1997)

49 CFR 178 (1997)

c) Federal Statutes

Section 3004 of the Resource Conservation and Recovery Act (42 U.S.C. 6901 et seq.), as amended through December 31, 1987.

Sections 201(v), 201(w), and 360b(j) of the Federal Food, Drug, and Cosmetic Act (FFDCA; 21 U.S.C. §§ 321(v), 321(w) & 512(j)), as amended through October 25, 1994.

Section 1412 of the Department of Defense Authorization Act of 1986, Pub. L. 99-145, 50 U.S.C. 1521(j)(1) (1997).

- d) This Section incorporates no later editions or amendments.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

TITLE 35: ENVIRONMENTAL PROTECTION  
SUBTITLE G: WASTE DISPOSAL  
CHAPTER I: POLLUTION CONTROL BOARD  
SUBCHAPTER c: HAZARDOUS WASTE OPERATING REQUIREMENTS

PART 721  
IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

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721.103	Definition of Hazardous Waste
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Table D	Wastes Excluded by the Board by Adjusted Standard
721.Appendix J	Method of Analysis for Chlorinated Dibenzo-p-Dioxins and Dibenzofurans (Repealed)
721.Appendix Z	Table to Section 721.102

AUTHORITY: Implementing Section 22.4 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/22.4 and 27].

SOURCE: Adopted in R81-22, 43 PCB 427, at 5 Ill. Reg. 9781, effective May 17, 1982; amended and codified in R81-22, 45 PCB 317, at 6 Ill. Reg. 4828, effective May 17, 1982; amended in R82-18, 51 PCB 31, at 7 Ill. Reg. 2518, effective February 22, 1983; amended in R82-19, 53 PCB 131, at 7 Ill. Reg. 13999, effective October 12, 1983; amended in R84-34, 61 PCB 247, at 8 Ill. Reg. 24562, effective December 11, 1984; amended in R84-9, at 9 Ill. Reg. 11834, effective July 24, 1985; amended in R85-22 at 10 Ill. Reg. 998, effective January 2, 1986; amended in R85-2 at 10 Ill. Reg. 8112, effective May 2, 1986; amended in R86-1 at 10 Ill. Reg. 14002, effective August 12, 1986; amended in R86-19 at 10 Ill. Reg. 20647, effective December 2, 1986; amended in R86-28 at 11 Ill. Reg. 6035, effective March 24, 1987; amended in R86-46 at 11 Ill. Reg. 13466, effective August 4, 1987; amended in R87-32 at 11 Ill. Reg. 16698, effective September 30, 1987; amended in R87-5 at 11 Ill. Reg. 19303, effective November 12, 1987; amended in R87-26 at 12 Ill. Reg. 2456, effective January 15, 1988; amended in R87-30 at 12 Ill. Reg. 12070, effective July 12, 1988; amended in R87-39 at 12 Ill. Reg. 13006, effective July 29, 1988; amended in R88-16 at 13 Ill. Reg. 382, effective December 27, 1988; amended in R89-1 at 13 Ill. Reg. 18300, effective November 13, 1989; amended in R90-2 at 14 Ill. Reg. 14401, effective August 22, 1990; amended in R90-10 at 14 Ill. Reg. 16472, effective September 25, 1990; amended in R90-17 at 15 Ill. Reg. 7950,

effective May 9, 1991; amended in R90-11 at 15 Ill. Reg. 9332, effective June 17, 1991; amended in R91-1 at 15 Ill. Reg. 14473, effective September 30, 1991; amended in R91-12 at 16 Ill. Reg. 2155, effective January 27, 1992; amended in R91-26 at 16 Ill. Reg. 2600, effective February 3, 1992; amended in R91-13 at 16 Ill. Reg. 9519, effective June 9, 1992; amended in R92-1 at 16 Ill. Reg. 17666, effective November 6, 1992; amended in R92-10 at 17 Ill. Reg. 5650, effective March 26, 1993; amended in R93-4 at 17 Ill. Reg. 20568, effective November 22, 1993; amended in R93-16 at 18 Ill. Reg. 6741, effective April 26, 1994; amended in R94-7 at 18 Ill. Reg. 12175, effective July 29, 1994; amended in R94-17 at 18 Ill. Reg. 17490, effective November 23, 1994; amended in R95-6 at 19 Ill. Reg. 9522, effective June 27, 1995; amended in R95-20 at 20 Ill. Reg. 10963, effective August 1, 1996; amended in R96-10/R97-3/R97-5 at 22 Ill. Reg. 275, effective December 16, 1997; amended in R98-12 at 22 Ill. Reg. 7615, effective April 15, 1998; amended in R97-21/R98-3/R98-5 at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_; amended in R98-21/R99-2/R99-7 at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

## SUBPART A: GENERAL PROVISIONS

### Section 721.102 Definition of Solid Waste

- a) Solid waste.
  - 1) A solid waste is any discarded material that is not excluded by Section 721.104(a) or that is not excluded pursuant to 35 Ill. Adm. Code 720.130 and 720.131.
  - 2) A discarded material is any material that is:
    - A) Abandoned, as explained in subsection (b) of this Section;
    - B) Recycled, as explained in subsection (c) of this Section;
    - C) Considered inherently waste-like, as explained in subsection (d) of this Section; or
    - D) A military munition identified as a solid waste in 35 Ill. Adm. Code 726.302.
- 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 subsections (c)(1) through (c)(4) of this Section if they are:
- 1) Used in a manner constituting disposal.
    - A) Materials noted with a “yes” in column 1 of the table in Section 721.Appendix Z are solid wastes when they are:
      - i) Applied to or placed on the land in a manner that constitutes disposal; or
      - ii) 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).
    - B) However, commercial chemical products listed in Section 721.133 are not solid wastes if they are applied to the land and that is their ordinary manner of use.
  - 2) Burned for energy recovery.
    - A) Materials noted with a “yes” in column 2 of the table in Section 721.Appendix Z are solid wastes when they are:
      - i) Burned to recover energy;
      - ii) Used to produce a fuel or are otherwise contained in fuels (in which case the fuel itself remains a solid waste);
      - iii) Contained in fuels (in which case the fuel itself remains a solid waste).
    - B) However, commercial chemical products listed in Section 721.133 are not solid wastes if they are themselves fuels.
  - 3) Reclaimed. Materials noted with a “yes” in column 3 of the table in Section 721.Appendix Z are solid wastes when reclaimed (except as provided under Section 721.104(a)(15)). Materials noted with a “--” in column 3 of Section 721.Appendix Z are not solid wastes when reclaimed (except as provided under Section 721.104(a)(15)).



- 4) Accumulated speculatively. Materials noted with “yes” in column 4 of the table in Section 721. Appendix Z are solid wastes when accumulated speculatively.
- d) Inherently waste-like materials. The following materials are solid wastes when they are recycled in any manner:
- 1) Hazardous waste numbers 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 Subpart C or D of this Part, except for brominated material that meets the following criteria:
    - A) The material must contain a bromine concentration of at least 45 percent;
    - B) The material must contain less than a total of one percent of toxic organic compounds listed in Section 721. Appendix H; and
    - C) The material is processed continually on-site in the halogen acid furnace via direct conveyance (hard piping).
  - 3) The following criteria are used to add wastes to the list:
    - A) Disposal method or toxicity.
      - i) The materials are ordinarily disposed of, burned, or incinerated; or
      - ii) The materials contain toxic constituents listed in Section 721. Appendix H 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
    - B) 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:

- A) Used or reused as ingredients in an industrial process to make a product, provided the materials are not being reclaimed; or
  - B) Used or reused as effective substitutes for commercial products; or
  - ~~C) Returned to the original process from which they are generated without first being reclaimed. The materials 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 so there is no placement on the land.~~
  - C) In cases where the materials are generated and reclaimed within the primary mineral processing industry, the conditions of the exclusion found at Section 721.104(a)(15) apply rather than this provision.
- 2) The following materials are solid wastes, even if the recycling involves use, reuse, or return to the original process (described in subsections (e)(1)(A) through (e)(1)(C) of this Section):
- A) Materials used in a manner constituting disposal or used to produce products that are applied to the land; or
  - B) Materials burned for energy recovery, used to produce a fuel, or contained in fuels; or
  - C) Materials accumulated speculatively; or
  - D) Materials listed in subsections (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 or Section 21 of the Environmental Protection Act that raise a claim that a certain material is not a solid waste or that the material 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, the person 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 that the material 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.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

## Section 721.103 Definition of Hazardous Waste

- a) A solid waste, as defined in Section 721.102, is a hazardous waste if:
- 1) It is not excluded from regulation as a hazardous waste under Section 721.104(b); and
  - 2) It meets any of the following criteria:
    - A) It exhibits any of the characteristics of hazardous waste identified in 721-Subpart C of this Part. However, any mixture of a waste from the extraction, beneficiation, and processing of ores and minerals excluded under Section 721.104(b)(7) and any other solid waste exhibiting a characteristic of hazardous waste under Subpart C of this Part is a hazardous waste only if it exhibits a characteristic that would not have been exhibited by the excluded waste alone if such mixture had not occurred, or if the mixture continues to exhibit any of the characteristics exhibited by the non-excluded wastes prior to mixture. Further, for the purposes of applying the toxicity characteristic to such mixtures, the mixture is also a hazardous waste if it exceeds the maximum concentration for any contaminant listed in Section 721.124 that would not have been exceeded by the excluded waste alone if the mixture had not occurred or if it continues to exceed the maximum concentration for any contaminant exceeded by the nonexempt waste prior to mixture.
      - ~~i) — Except that any mixture of a waste from the extraction, beneficiation, or processing of ores or minerals excluded under Section 721.104(b)(7) and any other solid waste exhibiting a characteristic of hazardous waste under 721-Subpart C is a hazardous waste only: if it exhibits a characteristic that would not have been exhibited by the excluded waste alone if such mixture had not occurred, or if it continues to exhibit any of the characteristics exhibited by the non-excluded wastes prior to mixture.~~
      - ~~ii) — Further, for the purposes of applying the toxicity characteristic to such mixtures under subsection (a)(2)(A)(i) above, the mixture is also a hazardous waste: if it exceeds the maximum concentration for any contaminant listed in Section 721.124 that would not have been exceeded by the excluded waste alone if the mixture had not occurred, or if it continues to exceed the~~

~~maximum concentration for any contaminant exceeded by the nonexempt waste prior to mixture.~~

- B) It is listed in 721.Subpart D of this Part and has not been excluded from the lists in 721.Subpart D of this Part under 35 Ill. Adm. Code 720.120 and 720.122.
- C) It is a mixture of a solid waste and a hazardous waste that is listed in 721.Subpart D of this Part solely because it exhibits one or more of the characteristics of hazardous waste identified in 721.Subpart C of this Part, unless: the resultant mixture no longer exhibits any characteristic of hazardous waste identified in Subpart C of this Part, or unless the solid waste is excluded from regulation under Section 721.104(b)(7) and the resultant mixture no longer exhibits any characteristic of hazardous waste identified in Subpart C of this Part for which the hazardous waste listed in Subpart D of this Part was listed. (However, nonwastewater mixtures are still subject to the requirements of 35 Ill. Adm. Code 728, even if they no longer exhibit a characteristic at the point of land disposal).
- i) ~~the resultant mixture no longer exhibits any characteristic of hazardous waste identified in 721.Subpart C, or~~
  - ii) ~~the solid waste is excluded from regulation under Section 721.104(b)(7) and the resultant mixture no longer exhibits any characteristic of hazardous waste identified in 721.Subpart C for which the hazardous waste listed in 721.Subpart D was listed.~~
  - iii) ~~Nonwastewater mixtures are still subject to the requirements of 35 Ill. Adm. Code 728, even if they no longer exhibit a characteristic at the point of land disposal.~~
- D) It is a mixture of solid waste and one or more hazardous wastes listed in 721.Subpart D of this Part and has not been excluded from this subsection (a)(2) under 35 Ill. Adm. Code 720.120 and 720.122; however, the following mixtures of solid wastes and hazardous wastes listed in 721.Subpart D of this Part are not hazardous wastes (except by application of subsection (a)(2)(A) or (a)(2)(B) ~~above of this Section~~) if the generator demonstrates that the mixture consists of wastewater the discharge of which is subject to regulation under either 35 Ill. Adm. Code 309 or 310 (including wastewater at facilities that have eliminated the discharge of wastewater) and:

- i) One or more of the following solvents listed in Section 721.131: carbon tetrachloride, tetrachloroethylene, trichloroethylene, provided that the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system does not exceed 1 part per million;
- ii) One or more of the following spent solvents listed in Section 721.131: methylene chloride, 1,1,1-trichloroethane, chlorobenzene, o-dichlorobenzene, cresols, cresylic acid, nitrobenzene, toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, spent chlorofluorocarbon solvents, provided that the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system does not exceed 25 parts per million;
- iii) One of the following wastes listed in Section 721.132: heat exchanger bundle cleaning sludge from the petroleum refining industry (USEPA hazardous waste no. K050);
- iv) A discarded commercial chemical product or chemical intermediate listed in Section 721.133 arising from de minimis losses of these materials from manufacturing operations in which these materials are used as raw materials or are produced in the manufacturing process. For purposes of this subsection, "de minimis" losses include those from normal material handling operations (e.g., spills from the unloading or transfer of materials from bins or other containers, leaks from pipes, valves, or other devices used to transfer materials); minor leaks of process equipment, storage tanks, or containers; leaks from well-maintained pump packings and seals; sample purgings; relief device discharges; discharges from safety showers and rinsing and cleaning of personal safety equipment; and rinsate from empty containers or from containers that are rendered empty by that rinsing;
- v) Wastewater resulting from laboratory operations containing toxic (T) wastes listed in ~~721~~-Subpart D of this Part, provided that the annualized average flow of laboratory wastewater does not exceed one percent of total

wastewater flow into the headworks of the facility's wastewater treatment or pretreatment system or provided that the wastes' combined annualized average concentration does not exceed one part per million in the headworks of the facility's wastewater treatment or pretreatment facility. Toxic (T) wastes used in laboratories that are demonstrated not to be discharged to wastewater are not to be included in this calculation;

- vi) One or more of the following wastes listed in Section 721.132: wastewaters from the production of carbamates and carbamoyl oximes (USEPA Hazardous Waste No. K157), provided that the maximum weekly usage of formaldehyde, methyl chloride, methylene chloride, and triethylamine (including all amounts that cannot be demonstrated to be reacted in the process, destroyed through treatment, or recovered, i.e., what is discharged or volatilized) divided by the average weekly flow of process wastewater prior to any dilutions into the headworks of the facility's wastewater treatment system does not exceed a total of 5 parts per million by weight; or
  - vii) Wastewaters derived from the treatment of one or more of the following wastes listed in Section 721.132: organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes (USEPA Hazardous Waste No. K156), provided, that the maximum concentration of formaldehyde, methyl chloride, methylene chloride, and triethylamine prior to any dilutions into the headworks of the facility's wastewater treatment system does not exceed a total of 5 milligrams per liter.
- E) Rebuttable presumption for used oil. Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in 721.Subpart D of this Part. Persons may rebut this presumption by demonstrating that the used oil does not contain hazardous waste (for example, by using an analytical method from SW-846, incorporated by reference at 35 Ill. Adm. Code 720.111, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in Section 721.Appendix H).

- i) The rebuttable presumption does not apply to metalworking oils or fluids containing chlorinated paraffins if they are processed through a tolling arrangement as described in 35 Ill. Adm. Code 739.124(c) to reclaim metalworking oils or fluids. The presumption does apply to metalworking oils or fluids if such oils or fluids are recycled in any other manner, or disposed.
  - ii) The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.
- b) A solid waste that is not excluded from regulation under subsection (a)(1)~~-above~~ of this Section becomes a hazardous waste when any of the following events occur:
  - 1) In the case of a waste listed in ~~721.Subpart D of this Part~~, when the waste first meets the listing description set forth in ~~721.Subpart D of this Part~~ Part.
  - 2) In the case of a mixture of solid waste and one or more listed hazardous wastes, when a hazardous waste listed in ~~721.Subpart D of this Part~~ is first added to the solid waste.
  - 3) In the case of any other waste (including a waste mixture), when the waste exhibits any of the characteristics identified in ~~721.Subpart C of this Part~~ this Part.
- c) Unless and until it meets the criteria of subsection (d)~~-below~~ of this Section, a hazardous waste will remain a hazardous waste.
 

BOARD NOTE: This subsection corresponds with 40 CFR 261.3(c)(1). The Board has codified 40 CFR 261.3(c)(2) at subsection (e)~~-below~~ of this Section.
- d) Any solid waste described in subsection (c)~~-above~~ of this Section is not a hazardous waste if it meets the following criteria:
  - 1) In the case of any solid waste, it does not exhibit any of the characteristics of hazardous waste identified in ~~721.Subpart C of this Part~~ Part. (However, wastes that exhibit a characteristic at the point of generation may still be subject to the requirements of 35 Ill. Adm. Code 728, even if they no longer exhibit a characteristic at the point of land disposal.)

- 2) In the case of a waste that is a listed waste under 721.Subpart D of this Part, a waste that contains a waste listed under 721.Subpart D of this Part, or a waste that is derived from a waste listed in 721.Subpart D of this Part, it also has been excluded from subsection (c) above of this Section under 35 Ill. Adm. Code 720.120 and 720.122.
- e) Specific inclusions and exclusions.
- 1) Except as otherwise provided in subsection (e)(2) below of this Section, 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.)
- 2) The following solid wastes are not hazardous even though they are generated from the treatment, storage, or disposal of a hazardous waste unless they exhibit one or more of the characteristics of hazardous waste:
- A) Waste pickle liquor sludge generated by lime stabilization of spent pickle liquor from the iron and steel industry (SIC Codes 331 and 332).
- B) Wastes from burning any of the materials exempted from regulation by any of Section 721.106(a)(3)(D) through (a)(3)(F).
- C) Nonwastewater residues, such as slag, resulting from high temperature metal recovery (HTMR) processing of K061, K062, or F006 waste in the units identified in this subsection that are disposed of in non-hazardous waste units, provided that these residues meet the generic exclusion levels identified in the tables in this subsection for all constituents and the residues exhibit no characteristics of hazardous waste. The types of units identified are rotary kilns, flame reactors, electric furnaces, plasma arc furnaces, slag reactors, rotary hearth furnace/electric furnace combinations, or the following types of industrial furnaces (as defined in 35 Ill. Adm. Code 720.110): blast furnaces, smelting, melting and refining furnaces (including pyrometallurgical devices such as cupolas, reverberator furnaces, sintering machines, roasters, and foundry furnaces), and other furnaces designated by the Agency pursuant to that definition.



- i) Testing requirements must be incorporated in a facility's waste analysis plan or a generator's self-implementing waste analysis plan; at a minimum, composite samples of residues must be collected and analyzed quarterly and when the process or operation generating the waste changes.
- ii) Persons claiming this exclusion in an enforcement action will have the burden of proving by clear and convincing evidence that the material meets all of the exclusion requirements. The generic exclusion levels are:

Constituent	Maximum for any single composite sample (mg/L)
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Generic exclusion levels for K061 and K062 nonwastewater HTMR residues.

Antimony	0.10
Arsenic	0.50
Barium	7.6
Beryllium	0.010
Cadmium	0.050
Chromium (total)	0.33
Lead	0.15
Mercury	0.009
Nickel	1.0
Selenium	0.16
Silver	0.30
Thallium	0.020
Vanadium	1.26
Zinc	70

Generic exclusion levels for F006 nonwastewater HTMR residues

Antimony	0.10
Arsenic	0.50
Barium	7.6
Beryllium	0.010
Cadmium	0.050
Chromium (total)	0.33
Cyanide (total) (mg/kg)	1.8
Lead	0.15
Mercury	0.009
Nickel	1.0

Selenium	0.16
Silver	0.30
Thallium	0.020
Zinc	70

- iii) A one-time notification and certification must be placed in the facility's files and sent to the Agency (or, for out-of-State shipments, to the appropriate Regional Administrator of USEPA or the state agency authorized to implement 40 CFR 268 requirements) for K061, K062, or F006 HTMR residues that meet the generic exclusion levels for all constituents and do not exhibit any characteristics and which are sent to RCRA Subtitle D (municipal solid waste landfill) units. The notification and certification that is placed in the generator's or treater's files must be updated if the process or operation generating the waste changes or if the RCRA Subtitle D unit receiving the waste changes. However, the generator or treater need only notify the Agency on an annual basis if such changes occur. Such notification and certification should be sent to the Agency by the end of the calendar year, but no later than December 31. The notification must include the following information: the name and address of the nonhazardous waste management unit receiving the waste shipment; the USEPA hazardous waste number and treatability group at the initial point of generation; and the treatment standards applicable to the waste at the initial point of generation. The certification must be signed by an authorized representative and must state as follows:

“I certify under penalty of law that the generic exclusion levels for all constituents have been met without impermissible dilution and that no characteristic of hazardous waste is exhibited. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.”

BOARD NOTE: This subsection would normally correspond with 40 CFR 261.3(e), a subsection which has been deleted and marked “reserved” by USEPA. Rather, this subsection corresponds with 40 CFR 261.3(c)(2), which the Board codified here to comport with codification requirements and enhance clarity.

- D) Biological treatment sludge from the treatment of one of the following wastes listed in Section 721.132: organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes (USEPA Hazardous Waste No. K156) and wastewaters from the production of carbamates and carbamoyl oximes (USEPA Hazardous Waste No. K157).
- f) Notwithstanding subsections (a) through (e) ~~above of this Section~~ and provided the debris, as defined in 35 Ill. Adm. Code 728.102, does not exhibit a characteristic identified at ~~721.Subpart C of this Part~~, the following materials are not subject to regulation under 35 Ill. Adm. Code 720, 721 to 726, 728, or 730:
- 1) Hazardous debris as defined in 35 Ill. Adm. Code 728.102 that has been treated using one of the required extraction or destruction technologies specified in 35 Ill. Adm. Code 728.Table F; persons claiming this exclusion in an enforcement action will have the burden of proving by clear and convincing evidence that the material meets all of the exclusion requirements; or
  - 2) Debris as defined in 35 Ill. Adm. Code 728.102 that the Agency, considering the extent of contamination, has determined is no longer contaminated with hazardous waste.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 721.104 Exclusions

- a) Materials that are not solid wastes. The following materials are not solid wastes for the purpose of this Part:
- 1) Sewage:
    - A) Domestic sewage (untreated sanitary wastes that pass through a sewer system); and
    - B) Any mixture of domestic sewage and other waste that passes through a sewer system to publicly-owned treatment works for treatment.
  - 2) Industrial wastewater discharges that are point source discharges with National Pollutant Discharge Elimination System (NPDES) permits issued by the Agency pursuant to Section 12(f) of the Environmental Protection Act and 35 Ill. Adm. Code 309.

BOARD NOTE: This exclusion applies only to the actual point source discharge. It does not exclude industrial wastewaters while they are being collected, stored, or treated before discharge, nor does it exclude sludges that are generated by industrial wastewater treatment.

- 3) Irrigation return flows.
- 4) Source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.).
- 5) Materials subjected to in-situ mining techniques that are not removed from the ground as part of the extraction process.
- 6) Pulping liquors (i.e., black liquors) that are reclaimed in a pulping liquor recovery furnace and then reused in the pulping process, unless accumulated speculatively, as defined in Section 721.101(c).
- 7) Spent sulfuric acid used to produce virgin sulfuric acid unless it is accumulated speculatively, as defined in Section 721.101(c).
- 8) Secondary materials that are reclaimed and returned to the original process or processes in which they were generated where they are reused in the production process, provided:
  - A) Only tank storage is involved, and the entire process through completion of reclamation is closed by being entirely connected with pipes or other comparable enclosed means of conveyance;
  - B) Reclamation does not involve controlled flame combustion (such as occurs in boilers, industrial furnaces or incinerators);
  - C) The secondary materials are never accumulated in such tanks for over twelve months without being reclaimed; and
  - D) The reclaimed material is not used to produce a fuel or used to produce products that are used in a manner constituting disposal.
- 9) Wood preserving wastes.
  - A) Spent wood preserving solutions that have been used and which are reclaimed and reused for their original intended purpose; ~~and~~
  - B) Wastewaters from the wood preserving process that have been reclaimed and which are reused to treat wood; and

- C) Prior to reuse, the wood preserving wastewaters and spent wood preserving solutions described in subsections (a)(9)(A) and (a)(9)(B) of this Section, so long as they meet all of the following conditions:
- i) The wood preserving wastewaters and spent wood preserving solutions are reused on-site at water borne plants in the production process for their original intended purpose;
  - ii) Prior to reuse, the wastewaters and spent wood preserving solutions are managed to prevent release to either land or groundwater or both;
  - iii) Any unit used to manage wastewaters or spent wood preserving solutions prior to reuse can be visually or otherwise determined to prevent such releases;
  - iv) Any drip pad used to manage the wastewaters or spent wood preserving solutions prior to reuse complies with the standards in 35 Ill. Adm. Code 725.Subpart W, regardless of whether the plant generates a total of less than 100 kg/month of hazardous waste; and
  - v) Prior to operating pursuant to this exclusion, the plant owner or operator submits a one-time notification to the Agency stating that the plant intends to claim the exclusion, giving the date on which the plant intends to begin operating under the exclusion, and containing the following language: "I have read the applicable regulation establishing an exclusion for wood preserving wastewaters and spent wood preserving solutions and understand it requires me to comply at all times with the conditions set out in the regulation." The plant must maintain a copy of that document in its on-site records for a period of no less than three years from the date specified in the notice. The exclusion applies only so long as the plant meets all of the conditions. **If the plant goes out of compliance with any condition, it may apply to the Agency for reinstatement. The Agency shall reinstate the exclusion in writing if it finds that the plant has returned to compliance with all conditions and that violations are not likely to recur.** If the Agency denies an application, it shall transmit to the applicant specific, detailed statements in writing as to the reasons it denied the application. The

applicant under this subsection (a)(9)(C)(v) may appeal the Agency's determination to deny the reinstatement, to grant the reinstatement with conditions, or to terminate a reinstatement before the Board pursuant to Section 40 of the Act [415 ILCS 5/40].

- 10) Hazardous waste numbers 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 toxicity characteristic specified in Section 721.124, when subsequent to generation these materials are recycled to coke ovens, to the tar recovery process as a feedstock to produce coal tar, or are mixed with coal tar prior to the tar's sale or refining. This exclusion is conditioned on there being no land disposal of the waste from the point it is generated to the point it is recycled to coke ovens, to tar recovery, to the tar refining processes, or prior to when it is mixed with coal.
- 11) Nonwastewater splash condenser dross residue from the treatment of hazardous waste number K061 in high temperature metals recovery units, provided it is shipped in drums (if shipped) and not land disposed before recovery.
- 12) Recovered oil from petroleum refining, exploration, and production and from transportation incident thereto that is to be inserted into the petroleum refining process (SIC Code 2911) at or before a point (other than direct insertion into a coker) where contaminants are removed. This exclusion applies to recovered oil stored or transported prior to insertion, except that the oil must not be stored in a manner involving placement on the land and the oil must not be accumulated speculatively before being recycled. Recovered oil is oil that has been reclaimed from secondary materials (such as wastewater) generated from normal petroleum refining, exploration, and production, and from transportation practices. Recovered oil includes oil that is recovered from refinery wastewater collection and treatment systems, oil recovered from oil and gas drilling operations, and oil recovered from wastes removed from crude oil storage tanks. Recovered oil does not include (among other things) oil-bearing hazardous wastes listed in Subpart D of this Part (e.g., K048 through K052, F037, and F038). However, oil recovered from such wastes may be considered recovered oil. Recovered oil also does not include used oil as defined in 35 Ill. Adm. Code 739.100.
- 13) Excluded scrap metal (processed scrap metal, unprocessed home scrap metal, and unprocessed prompt scrap metal) being recycled.
- 14) Shredded circuit boards being recycled, provided that they meet the following conditions:

- A) The circuit boards are stored in containers sufficient to prevent a release to the environment prior to recovery; and
- B) The circuit boards are free of mercury switches, mercury relays and nickel-cadmium batteries and lithium batteries.

15) Condensates derived from the overhead gases from kraft mill steam strippers that are used to comply with federal Clean Air Act regulation 40 CFR 63.446(e). The exemption applies only to combustion at the mill generating the condensates.

16) Secondary materials (i.e., sludges, by-products, and spent materials as defined in Section 721.101) (other than hazardous wastes listed in Subpart D of this Part) generated within the primary mineral processing industry from which minerals, acids, cyanide, water, or other values are recovered by mineral processing, provided that:

A) The secondary material is legitimately recycled to recover minerals, acids, cyanide, water, or other values;

B) The secondary material is not accumulated speculatively;

C) Except as provided in subsection (a)(15)(D) of this Section, the secondary material is stored in tanks, containers, or buildings that meet the following minimum integrity standards: a building must be an engineered structure with a floor, walls, and a roof all of which are made of non-earthen materials providing structural support (except that smelter buildings may have partially earthen floors, provided that the secondary material is stored on the non-earthen portion), and have a roof suitable for diverting rainwater away from the foundation; a tank must be free standing, not be a surface impoundment (as defined in 35 Ill. Adm. Code 720.110), and be manufactured of a material suitable for containment of its contents; a container must be free standing and be manufactured of a material suitable for containment of its contents. If a tank or container contains any particulate which may be subject to wind dispersal, the owner or operator must operate the unit in a manner that controls fugitive dust. A tank, container, or building must be designed, constructed and operated to prevent significant releases to the environment of these materials.

D) The Agency shall allow by permit that solid mineral processing secondary materials only may be placed on pads, rather than in tanks, containers, or buildings if the facility owner or operator can demonstrate the following: the solid mineral processing

secondary materials do not contain any free liquid; the pads are designed, constructed, and operated to prevent significant releases of the secondary material into the environment; and the pads provide the same degree of containment afforded by the non-RCRA tanks, containers, and buildings eligible for exclusion.

- i) The Agency shall also consider whether storage on pads poses the potential for significant releases via groundwater, surface water, and air exposure pathways. Factors to be considered for assessing the groundwater, surface water, air exposure pathways must include the following: the volume and physical and chemical properties of the secondary material, including its potential for migration off the pad; the potential for human or environmental exposure to hazardous constituents migrating from the pad via each exposure pathway; and the possibility and extent of harm to human and environmental receptors via each exposure pathway.
- ii) Pads must meet the following minimum standards: they must be designed of non-earthen material that is compatible with the chemical nature of the mineral processing secondary material; they must be capable of withstanding physical stresses associated with placement and removal; they must have run on/runoff controls; they must be operated in a manner which controls fugitive dust; and they must have integrity assurance through inspections and maintenance programs.
- iii) Before making a determination under this subsection (a)(16)(D), the Agency shall provide notice and the opportunity for comment to all persons potentially interested in the determination. This can be accomplished by placing notice of this action in major local newspapers, or broadcasting notice over local radio stations.

BOARD NOTE: See 35 Ill. Adm. Code 703.Subpart D for the RCRA Subtitle C permit public notice requirements.

- E) The owner or operator provides a notice to the Agency, identifying the following information: the types of materials to be recycled, the type and location of the storage units and recycling processes, and the annual quantities expected to be placed in land-based units. This notification must be updated



when there is a change in the type of materials recycled or the location of the recycling process.

F) For purposes of subsection (b)(7) of this Section, mineral processing secondary materials must be the result of mineral processing and may not include any listed hazardous wastes. Listed hazardous wastes and characteristic hazardous wastes generated by non-mineral processing industries are not eligible for the conditional exclusion from the definition of solid waste.

17) Comparable fuels or comparable syngas fuels (i.e., comparable or syngas fuels) that meet the requirements of Section 721.138.

b) Solid wastes that are not hazardous wastes. The following solid wastes are not hazardous wastes:

1) Household waste, including household waste that has been collected, transported, stored, treated, disposed, recovered (e.g., refuse-derived fuel), or reused. "Household waste" means any waste material (including garbage, trash, and sanitary wastes in septic tanks) derived from households (including single and multiple residences, hotels, and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas). A resource recovery facility managing municipal solid waste shall not be deemed to be treating, storing, disposing of, or otherwise managing hazardous wastes for the purposes of regulation under this Part, if such facility:

A) Receives and burns only:

- i) Household waste (from single and multiple dwellings, hotels, motels, and other residential sources); and
- ii) Solid waste from commercial or industrial sources that does not contain hazardous waste; and

B) Such facility does not accept hazardous waste and the owner or operator of such facility has established contractual requirements or other appropriate notification or inspection procedures to assure that hazardous wastes are not received at or burned in such facility.

BOARD NOTE: The U.S. Supreme Court determined, in *City of Chicago v. Environmental Defense Fund, Inc.*, 511 U.S. 328, 114 S. Ct. 1588, 128 L. Ed. 2d 302 (1994), that this exclusion and RCRA section 3001(i) (42 U.S.C. § 6921(i)) do not exclude the ash from facilities covered by this subsection from regulation

as a hazardous waste. At 59 Fed. Reg. 29372 (June 7, 1994), USEPA granted facilities managing ash from such facilities that is determined a hazardous waste under Subpart C of this Part until December 7, 1994 to file a Part A permit application pursuant to 35 Ill. Adm. Code 703.181. At 60 Fed. Reg. 6666 (Feb. 3, 1995), USEPA stated that it interpreted that the point at which ash becomes subject to RCRA Subtitle C regulation is when that material leaves the combustion building (including connected air pollution control equipment).

- 2) Solid wastes generated by any of the following that are returned to the soil as fertilizers:
  - A) The growing and harvesting of agricultural crops, or
  - B) The raising of animals, including animal manures.
- 3) Mining overburden returned to the mine site.
- 4) Fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels, except as provided in 35 Ill. Adm. Code 726.212 for facilities that burn or process hazardous waste.
- 5) Drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil, natural gas, or geothermal energy.
- 6) Chromium wastes:
  - A) Wastes that fail the test for the toxicity characteristic (Sections 721.124 and 721.Appendix B) because chromium is present or which are listed in Subpart D of this Part due to the presence of chromium, that do not fail the test for the toxicity characteristic for any other constituent or which are not listed due to the presence of any other constituent, and that do not fail the test for any other characteristic, if it is shown by a waste generator or by waste generators that:
    - i) The chromium in the waste is exclusively (or nearly exclusively) trivalent chromium;
    - ii) The waste is generated from an industrial process that uses trivalent chromium exclusively (or nearly exclusively) and the process does not generate hexavalent chromium; and

- iii) The waste is typically and frequently managed in non-oxidizing environments.
- B) Specific wastes that meet the standard in subsection (b)(6)(A) of this Section (so long as they do not fail the test for the toxicity characteristic for any other constituent and do not exhibit any other characteristic) are:
- i) Chrome (blue) trimmings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish, hair save/chrome tan/retan/wet finish, retan/wet finish, no beamhouse, through-the-blue, and shearling;
  - ii) Chrome (blue) shavings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish, hair save/chrome tan/retan/wet finish, retan/wet finish, no beamhouse, through-the-blue, and shearling;
  - iii) Buffing dust generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish, hair save/chrome tan/retan/wet finish, retan/wet finish, no beamhouse, through-the-blue;
  - iv) Sewer screenings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish, hair save/chrome tan/retan/wet finish, retan/wet finish, no beamhouse, through-the-blue, and shearling;
  - v) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish, hair save/chrome tan/retan/wet finish, retan/wet finish, no beamhouse, through-the-blue, and shearling;
  - vi) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish, hair save/chrome tan/retan/wet finish, and through-the-blue;

- vii) Waste scrap leather from the leather tanning industry, the shoe manufacturing industry, and other leather product manufacturing industries; and
  - viii) Wastewater treatment sludges from the production of titanium dioxide pigment using chromium-bearing ores by the chloride process.
- 7) Solid waste from the extraction, beneficiation, and processing of ores and minerals (including coal, phosphate rock, and overburden from the mining of uranium ore), except as provided by 35 Ill. Adm. Code 726.212 for facilities that burn or process hazardous waste.

A) For purposes of this subsection (b)(7), beneficiation of ores and minerals is restricted to the following activities: crushing; grinding; washing; dissolution; crystallization; filtration; sorting; sizing; drying; sintering; pelletizing; briquetting; calcining to remove water or carbon dioxide; roasting; autoclaving or chlorination in preparation for leaching (except where the roasting (or autoclaving or chlorination) and leaching sequence produces a final or intermediate product that does not undergo further beneficiation or processing); gravity concentration; magnetic separation; electrostatic separation; floatation; ion exchange; solvent extraction; electrowinning; precipitation; amalgamation; and heap, dump, vat tank, and in situ leaching.

B) For the purposes of this subsection (b)(7), solid waste from the processing of ores and minerals includes only the following wastes as generated:

Ai) Slag from primary copper processing;

Bii) Slag from primary lead processing;

Ciii) Red and brown muds from bauxite refining;

Div) Phosphogypsum from phosphoric acid production;

Eiv) Slag from elemental phosphorus production;

Fvi) Gasifier ash from coal gasification;

Gvii) Process wastewater from coal gasification;

- ~~H~~viii) Calcium sulfate wastewater treatment plant sludge from primary copper processing<sub>7,2</sub>;
- ~~I~~x) Slag tailings from primary copper processing<sub>7,2</sub>;
- ~~J~~x) Fluorogypsum from hydrofluoric acid production<sub>7,2</sub>;
- ~~K~~xi) Process wastewater from hydrofluoric acid production<sub>7,2</sub>;
- ~~L~~xii) Air pollution control dust or sludge from iron blast furnaces<sub>7,2</sub>;
- ~~M~~xiii) Iron blast furnace slag<sub>7,2</sub>;
- ~~N~~xiv) Treated residue from roasting and leaching of chrome ore<sub>7,2</sub>;
- ~~O~~xv) Process wastewater from primary magnesium processing by the anhydrous process<sub>7,2</sub>;
- ~~P~~xvi) Process wastewater from phosphoric acid production<sub>7,2</sub>;
- ~~Q~~xvii) Basic oxygen furnace and open hearth furnace air pollution control dust or sludge from carbon steel production<sub>7,2</sub>;
- ~~R~~xviii) Basic oxygen furnace and open hearth furnace slag from carbon steel production<sub>7,2</sub>;
- ~~S~~xix) Chloride processing waste solids from titanium tetrachloride production<sub>7,2</sub>; and
- ~~T~~xx) Slag from primary zinc ~~smelting~~ production.

C) A residue derived from co-processing mineral processing secondary materials with normal beneficiation raw materials remains excluded under this subsection (b) if the following conditions are fulfilled:

- i) The owner or operator processes at least 50 percent by weight normal beneficiation raw materials; and
- ii) The owner or operator legitimately reclaims the secondary mineral processing materials.

- 8) Cement kiln dust waste, except as provided by 35 Ill. Adm. Code 726.212 for facilities that burn or process hazardous waste.
  - 9) Solid waste that consists of discarded arsenical-treated wood or wood products that fails the test for the toxicity characteristic for hazardous waste codes D004 through D017 and which is not a hazardous waste for any other reason if the waste is generated by persons that utilize the arsenical-treated wood and wood products for these materials' intended end use.
  - 10) Petroleum-contaminated media and debris that fail the test for the toxicity characteristic of Section 721.124 (hazardous waste codes D018 through D043 only) and which are subject to corrective action regulations under 35 Ill. Adm. Code 731.
  - 11) This subsection corresponds with 40 CFR 261.4(b)(11), which expired by its own terms on January 25, 1993. This statement maintains structural parity with USEPA regulations.
  - 12) Used chlorofluorocarbon refrigerants from totally enclosed heat transfer equipment, including mobile air conditioning systems, mobile refrigeration, and commercial and industrial air conditioning and refrigeration systems, that use chlorofluorocarbons as the heat transfer fluid in a refrigeration cycle, provided the refrigerant is reclaimed for further use.
  - 13) Non-terne plated used oil filters that are not mixed with wastes listed in Subpart D of this Part, if these oil filters have been gravity hot-drained using one of the following methods:
    - A) Puncturing the filter anti-drain back valve or the filter dome end and hot-draining;
    - B) Hot-draining and crushing;
    - C) Dismantling and hot-draining; or
    - D) Any other equivalent hot-draining method that will remove used oil.
  - 14) Used oil re-refining distillation bottoms that are used as feedstock to manufacture asphalt products.
- c) Hazardous wastes that are exempted from certain regulations. A hazardous waste that is generated in a product or raw material storage tank, a product or raw material transport vehicle or vessel, a product or raw material pipeline, or

in a manufacturing process unit, or an associated non-waste-treatment manufacturing unit, is not subject to regulation under 35 Ill. Adm. Code 702, 703, 705, and 722 through 725, and 728 or to the notification requirements of section 3010 of RCRA until it exits the unit in which it was generated, unless the unit is a surface impoundment, or unless the hazardous waste remains in the unit more than 90 days after the unit ceases to be operated for manufacturing or for storage or transportation of product or raw materials.

d) Samples

- 1) Except as provided in subsection (d)(2) of this Section, a sample of solid waste or a sample of water, soil, or air that is collected for the sole purpose of testing to determine its characteristics or composition is not subject to any requirements of this Part or 35 Ill. Adm. Code 702, 703, 705, and 722 through 728. The sample qualifies when:
  - A) The sample is being transported to a laboratory for the purpose of testing;
  - B) The sample is being transported back to the sample collector after testing;
  - C) The sample is being stored by the sample collector before transport to a laboratory for testing;
  - D) The sample is being stored in a laboratory before testing;
  - E) The sample is being stored in a laboratory for testing but before it is returned to the sample collector; or
  - F) The sample is being stored temporarily in the laboratory after testing for a specific purpose (for example, until conclusion of a court case or enforcement action where further testing of the sample may be necessary).
- 2) In order to qualify for the exemption in subsection (d)(1)(A) or (d)(1)(B) of this Section, a sample collector shipping samples to a laboratory and a laboratory returning samples to a sample collector shall:
  - A) Comply with U.S. Department of Transportation (USDOT), U.S. Postal Service (USPS), or any other applicable shipping requirements; or
  - B) Comply with the following requirements if the sample collector determines that USDOT, USPS, or other shipping requirements do not apply to the shipment of the sample:

- i) Assure that the following information accompanies the sample: The sample collector's name, mailing address, and telephone number; the laboratory's name, mailing address, and telephone number; the quantity of the sample; the date of the shipment; and a description of the sample.
    - ii) Package the sample so that it does not leak, spill, or vaporize from its packaging.
  - 3) This exemption does not apply if the laboratory determines that the waste is hazardous but the laboratory is no longer meeting any of the conditions stated in subsection (d)(1) of this Section.
- e) Treatability study samples.
  - 1) Except as is provided in subsection (e)(2) of this Section, a person that generates or collects samples for the purpose of conducting treatability studies, as defined in 35 Ill. Adm. Code 720.110, are not subject to any requirement of 35 Ill. Adm. Code 721 through 723 or to the notification requirements of section 3010 of the Resource Conservation and Recovery Act. Nor are such samples included in the quantity determinations of Section 721.105 and 35 Ill. Adm. Code 722.134(d) when:
    - A) The sample is being collected and prepared for transportation by the generator or sample collector;
    - B) The sample is being accumulated or stored by the generator or sample collector prior to transportation to a laboratory or testing facility; or
    - C) The sample is being transported to the laboratory or testing facility for the purpose of conducting a treatability study.
  - 2) The exemption in subsection (e)(1) of this Section is applicable to samples of hazardous waste being collected and shipped for the purpose of conducting treatability studies provided that:
    - A) The generator or sample collector uses (in "treatability studies") no more than 10,000 kg of media contaminated with non-acute hazardous waste, 1000 kg of non-acute hazardous waste other than contaminated media, 1 kg of acute hazardous waste, or 2500 kg of media contaminated with acute hazardous waste for each process being evaluated for each generated wastestream;



- B) The mass of each shipment does not exceed 10,000 kg; the 10,000 kg quantity may be all media contaminated with non-acute hazardous waste, or may include 2500 kg of media contaminated with acute hazardous waste, 1000 kg of hazardous waste, and 1 kg of acute hazardous waste;
- C) The sample must be packaged so that it does not leak, spill, or vaporize from its packaging during shipment and the requirements of subsections (e)(2)(C)(i) or (e)(2)(C)(ii) of this Section are met.
  - i) The transportation of each sample shipment complies with U.S. Department of Transportation (USDOT), U.S. Postal Service (USPS), or any other applicable shipping requirements; or
  - ii) If the USDOT, USPS, or other shipping requirements do not apply to the shipment of the sample, the following information must accompany the sample: The name, mailing address, and telephone number of the originator of the sample; the name, address, and telephone number of the facility that will perform the treatability study; the quantity of the sample; the date of the shipment; and, a description of the sample, including its USEPA hazardous waste number;
- D) The sample is shipped to a laboratory or testing facility that is exempt under subsection (f) of this Section, or has an appropriate RCRA permit or interim status;
- E) The generator or sample collector maintains the following records for a period ending three years after completion of the treatability study:
  - i) Copies of the shipping documents;
  - ii) A copy of the contract with the facility conducting the treatability study;
  - iii) Documentation showing: The amount of waste shipped under this exemption; the name, address, and USEPA identification number of the laboratory or testing facility that received the waste; the date the shipment was made; and whether or not unused samples and residues were returned to the generator; and

- F) The generator reports the information required in subsection (e)(2)(E)(iii) of this Section in its report under 35 Ill. Adm. Code 722.141.
- 3) The Agency may grant requests on a case-by-case basis for up to an additional two years for treatability studies involving bioremediation. The Agency may grant requests, on a case-by-case basis, for quantity limits in excess of those specified in subsections (e)(2)(A), (e)(2)(B), and (f)(4) of this Section, for up to an additional 5000 kg of media contaminated with non-acute hazardous waste, 500 kg of non-acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste, and 1 kg of acute hazardous waste:
- A) In response to requests for authorization to ship, store, and conduct further treatability studies on additional quantities in advance of commencing treatability studies. Factors to be considered in reviewing such requests include the nature of the technology, the type of process (e.g., batch versus continuous), the size of the unit undergoing testing (particularly in relation to scale-up considerations), the time or quantity of material required to reach steady-state operating conditions, or test design considerations, such as mass balance calculations.
- B) In response to requests for authorization to ship, store, and conduct treatability studies on additional quantities after initiation or completion of initial treatability studies when: There has been an equipment or mechanical failure during the conduct of the treatability study, there is need to verify the results of a previously-conducted treatability study, there is a need to study and analyze alternative techniques within a previously-evaluated treatment process, or there is a need to do further evaluation of an ongoing treatability study to determine final specifications for treatment.
- C) The additional quantities allowed and timeframes allowed in subsections (e)(3)(A) and (e)(3)(B) of this Section are subject to all the provisions in subsections (e)(1) and (e)(2)(B) through (e)(2)(F) of this Section. The generator or sample collector shall apply to the Agency and provide in writing the following information:
- i) The reason why the generator or sample collector requires additional time or quantity of sample for the treatability study evaluation and the additional time or quantity needed;

- ii) Documentation accounting for all samples of hazardous waste from the wastestream that have been sent for or undergone treatability studies, including the date each previous sample from the waste stream was shipped, the quantity of each previous shipment, the laboratory or testing facility to which it was shipped, what treatability study processes were conducted on each sample shipped, and the available results of each treatability study;
  - iii) A description of the technical modifications or change in specifications that will be evaluated and the expected results;
  - iv) If such further study is being required due to equipment or mechanical failure, the applicant shall include information regarding the reason for the failure or breakdown and also include what procedures or equipment improvements have been made to protect against further breakdowns; and
  - v) Such other information as the Agency determines is necessary.
- 4) Final Agency determinations pursuant to this subsection (e) may be appealed to the Board.
- f) Samples undergoing treatability studies at laboratories or testing facilities. Samples undergoing treatability studies and the laboratory or testing facility conducting such treatability studies (to the extent such facilities are not otherwise subject to RCRA requirements) are not subject to any requirement of this Part, or of 35 Ill. Adm. Code 702, 703, 705, 722 through 726, and 728 or to the notification requirements of Section 3010 of the Resource Conservation and Recovery Act, provided that the requirements of subsections (f)(1) through (f)(11) of this Section are met. A mobile treatment unit may qualify as a testing facility subject to subsections (f)(1) through (f)(11) of this Section. Where a group of mobile treatment units are located at the same site, the limitations specified in subsections (f)(1) through (f)(11) of this Section apply to the entire group of mobile treatment units collectively as if the group were one mobile treatment unit.
  - 1) No less than 45 days before conducting treatability studies, the facility notifies the Agency in writing that it intends to conduct treatability studies under this subsection (f).
  - 2) The laboratory or testing facility conducting the treatability study has a USEPA identification number.

- 3) No more than a total of 10,000 kg of “as received” media contaminated with non-acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste, or 250 kg of other “as received” hazardous waste is subject to initiation of treatment in all treatability studies in any single day. “As received” waste refers to the waste as received in the shipment from the generator or sample collector.
- 4) The quantity of “as received” hazardous waste stored at the facility for the purpose of evaluation in treatability studies does not exceed 10,000 kg, the total of which can include 10,000 kg of media contaminated with non-acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste, 1000 kg of non-acute hazardous wastes other than contaminated media, and 1 kg of acute hazardous waste. This quantity limitation does not include treatment materials (including nonhazardous solid waste) added to “as received” hazardous waste.
- 5) No more than 90 days have elapsed since the treatability study for the sample was completed, or no more than one year (two years for treatability studies involving bioremediation) has elapsed since the generator or sample collector shipped the sample to the laboratory or testing facility, whichever date first occurs. Up to 500 kg of treated material from a particular waste stream from treatability studies may be archived for future evaluation up to five years from the date of initial receipt. Quantities of materials archived are counted against the total storage limit for the facility.
- 6) The treatability study does not involve the placement of hazardous waste on the land or open burning of hazardous waste.
- 7) The facility maintains records for three years following completion of each study that show compliance with the treatment rate limits and the storage time and quantity limits. The following specific information must be included for each treatability study conducted:
  - A) The name, address, and USEPA identification number of the generator or sample collector of each waste sample;
  - B) The date the shipment was received;
  - C) The quantity of waste accepted;
  - D) The quantity of “as received” waste in storage each day;
  - E) The date the treatment study was initiated and the amount of “as received” waste introduced to treatment each day;

- F) The date the treatability study was concluded;
  - G) The date any unused sample or residues generated from the treatability study were returned to the generator or sample collector or, if sent to a designated facility, the name of the facility and the USEPA identification number.
- 8) The facility keeps, on-site, a copy of the treatability study contract and all shipping papers associated with the transport of treatability study samples to and from the facility for a period ending three years from the completion date of each treatability study.
- 9) The facility prepares and submits a report to the Agency by March 15 of each year that estimates the number of studies and the amount of waste expected to be used in treatability studies during the current year, and includes the following information for the previous calendar year:
- A) The name, address, and USEPA identification number of the facility conducting the treatability studies;
  - B) The types (by process) of treatability studies conducted;
  - C) The names and addresses of persons for whom studies have been conducted (including their USEPA identification numbers);
  - D) The total quantity of waste in storage each day;
  - E) The quantity and types of waste subjected to treatability studies;
  - F) When each treatability study was conducted; and
  - G) The final disposition of residues and unused sample from each treatability study.
- 10) The facility determines whether any unused sample or residues generated by the treatability study are hazardous waste under Section 721.103 and, if so, are subject to 35 Ill. Adm. Code 702, 703, and 721 through 728, unless the residues and unused samples are returned to the sample originator under the exemption of subsection (e) of this Section.
- 11) The facility notifies the Agency by letter when the facility is no longer planning to conduct any treatability studies at the site.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 721.105      Special Requirements for Hazardous Waste Generated by Small Quantity Generators

- a) A generator is a conditionally exempt small quantity generator in a calendar month if it generates no more than 100 kilograms of hazardous waste in that month. 35 Ill. Adm. Code 700 explains the relation of this to the 100 kg/mo exception of 35 Ill. Adm. Code 809.
- b) Except for those wastes identified in subsections (e), (f), (g) and (j) of this Section, a conditionally exempt small quantity generator's hazardous wastes are not subject to regulation under 35 Ill. Adm. Code 702, 703, 705 and 722 through 726 and 728, and the notification requirements of section 3010 of Resource Conservation and Recovery Act, provided the generator complies with the requirements of subsections (f), (g) and (j) of this Section.
- c) When making the quantity determinations of this Part and 35 Ill. Adm. Code 722, the generator must include all hazardous waste that it generates, except the following hazardous waste:
  - 1) Hazardous waste that is exempt from regulation under Section 721.104(c) through (f), 721.106(a)(3), 721.107(a)(1), or 721.108;
  - 2) Hazardous waste that is managed immediately upon generation only in on-site elementary neutralization units, wastewater treatment units, or totally enclosed treatment facilities, as defined in 35 Ill. Adm. Code 720.110;
  - 3) Hazardous waste that is recycled, without prior storage or accumulation, only in an on-site process subject to regulation under Section 721.106(c)(2);
  - 4) Hazardous waste that is used oil managed under the requirements of Section 721.106(a)(4) and 35 Ill. Adm. Code 739;
  - 5) Hazardous waste that is spent lead-acid batteries managed under the requirements of 35 Ill. Adm. Code 726.Subpart G; and
  - 6) Hazardous waste that is universal waste managed under Section 721.109 and 35 Ill. Adm. Code 733.
- d) In determining the quantity of hazardous waste it generates, a generator need not include:
  - 1) Hazardous waste when it is removed from on-site storage; or

- 2) Hazardous waste produced by on-site treatment (including reclamation) of its hazardous waste so long as the hazardous waste that is treated was counted once; or
  - 3) Spent materials that are generated, reclaimed and subsequently reused on-site, so long as such spent materials have been counted once.
- e) If a generator generates acute hazardous waste in a calendar month in quantities greater than set forth below, all quantities of that acute hazardous waste are subject to full regulation under 35 Ill. Adm. Code 702, 703, 705 and 722 through 726 and 728, and the notification requirements of section 3010 of the Resource Conservation and Recovery Act:
- 1) A total of one kilogram of one or more of the acute hazardous wastes listed in Section 721.131, 721.132, or 721.133(e); or
  - 2) A total of 100 kilograms of any residue or contaminated soil, waste or other debris resulting from the clean-up of a spill, into or on any land or water, of any one or more of the acute hazardous wastes listed in Section 721.131, 721.132, or 721.133(e).

BOARD NOTE: "Full regulation" means those regulations applicable to generators of greater than 1000 kg of non-acute hazardous waste in a calendar month.

- f) In order for acute hazardous wastes generated by a generator of acute hazardous wastes in quantities equal to or less than those set forth in subsection (e)(1) or (e)(2) of this Section to be excluded from full regulation under this Section, the generator must comply with the following requirements:
- 1) 35 Ill. Adm. Code 722.111.
  - 2) The generator may accumulate acute hazardous waste on-site. If the generator accumulates at any time acute hazardous wastes in quantities greater than set forth in subsection (e)(1) or (e)(2) of this Section, all of those accumulated wastes are subject to regulation under 35 Ill. Adm. Code 702, 703, 705 and 722 through 726 and 728, and the applicable notification requirements of section 3010 of the Resource Conservation and Recovery Act. The time period of 35 Ill. Adm. Code 722.134(a), for accumulation of wastes on-site, begins when the accumulated wastes exceed the applicable exclusion limit.
  - 3) A conditionally exempt small quantity generator may either treat or dispose of its acute hazardous waste in an on-site facility or ensure delivery to an off-site treatment, storage, or disposal facility, any of

which, if located in the United States, meets any of the following conditions:

- A) The facility is permitted under 35 Ill. Adm. Code 702 and 703;
- B) The facility has interim status under 35 Ill. Adm. Code 702, 703 and 725;
- C) The facility is authorized to manage hazardous waste by a state with a hazardous waste management program approved by USEPA pursuant to 40 CFR 271;
- D) The facility is permitted, licensed, or registered by a state to manage municipal solid waste and, if managed in a municipal solid waste landfill facility, the landfill is subject to 35 Ill. Adm. Code 810 through 814 or 40 CFR 258;
- E) The facility is permitted, licensed, or registered by a state to manage non-municipal non-hazardous waste and, if managed in a non-municipal non-hazardous waste disposal unit, the unit is subject to the requirements of 40 CFR 257.5 through 257.30;

BOARD NOTE: The Illinois non-hazardous waste landfill regulations, 35 Ill. Adm. Code 810 through 814, do not allow the disposal of hazardous waste in a landfill regulated under those rules. The Board intends that subsections (f)(3)(D) and (f)(3)(E) of this Section impose a federal requirement on the hazardous waste generator. The Board specifically does not intend that these subsections authorize any disposal of conditionally-exempt small quantity generator waste in a landfill not specifically permitted to accept the particular hazardous waste.

- F) The facility is one that:
  - i) Beneficially uses or reuses or legitimately recycles or reclaims its waste; or
  - ii) Treats its waste prior to beneficial use or reuse, or legitimate recycling or reclamation; or
- G) For universal waste managed under 35 Ill. Adm. Code 733 or 40 CFR 273, the facility is a universal waste handler or destination facility subject to the requirements of 35 Ill. Adm. Code 733 or 40 CFR 273.



- g) In order for hazardous waste generated by a conditionally exempt small quantity generator in quantities of less than 100 kilograms of hazardous waste during a calendar month to be excluded from full regulation under this Section, the generator must comply with the following requirements:
- 1) 35 Ill. Adm. Code 722.111;
  - 2) The conditionally exempt small quantity generator may accumulate hazardous waste on-site. If it accumulates at any time more than a total of 1000 kilograms of the generator's hazardous waste, all of those accumulated wastes are subject to regulation under the special provisions of 35 Ill. Adm. Code 722 applicable to generators of between 100 kg and 1000 kg of hazardous waste in a calendar month as well as the requirements of 35 Ill. Adm. Code 702, 703, 705 and 723 through 726 and 728, and the applicable notification requirements of Section 3010 of the Resource Conservation and Recovery Act. The time period of 35 Ill. Adm. Code 722.134(d) for accumulation of wastes on-site begins for a small quantity generator when the accumulated wastes exceed 1000 kilograms;
  - 3) A conditionally exempt small quantity generator may either treat or dispose of its hazardous waste in an on-site facility or ensure delivery to an off-site treatment, storage, or disposal facility, any of which, if located in the United States, meets any of the following conditions:
    - A) The facility is permitted under 35 Ill. Adm. Code 702 and 703;
    - B) The facility has interim status under 35 Ill. Adm. Code 702, 703 and 725;
    - C) The facility is authorized to manage hazardous waste by a state with a hazardous waste management program approved by USEPA under 40 CFR 271 (1986);
    - D) The facility is permitted, licensed, or registered by a state to manage municipal solid waste and, if managed in a municipal solid waste landfill facility, the landfill is subject to 35 Ill. Adm. Code 810 through 814 or 40 CFR 258;
    - E) The facility is permitted, licensed, or registered by a state to manage non-municipal non-hazardous waste and, if managed in a non-municipal non-hazardous waste disposal unit, the unit is subject to the requirements of 40 CFR 257.5 through 257.30;

BOARD NOTE: The Illinois non-hazardous waste landfill regulations, 35 Ill. Adm. Code 810 through 814, do not allow the disposal of hazardous waste in a landfill regulated under those rules. The Board intends that subsections (g)(3)(D) and (g)(3)(E) of this Section impose a federal requirement on the hazardous waste generator. The Board specifically does not intend that these subsections authorize any disposal of conditionally-exempt small quantity generator waste in a landfill not specifically permitted to accept the particular hazardous waste.

- F) The facility is one that:
  - i) Beneficially uses or re-uses, or legitimately recycles or reclaims the small quantity generator's waste; or
  - ii) Treats its waste prior to beneficial use or re-use, or legitimate recycling or reclamation; or
- G) For universal waste managed under 35 Ill. Adm. Code 733 or 40 CFR 273, the facility is a universal waste handler or destination facility subject to the requirements of 35 Ill. Adm. Code 733 or 40 CFR 273.
- h) Hazardous waste subject to the reduced requirements of this Section may be mixed with non-hazardous waste and remain subject to these reduced requirements even though the resultant mixture exceeds the quantity limitations identified in this Section, unless the mixture meets any of the characteristics of hazardous wastes identified in Subpart C.
- i) If a small quantity generator mixes a solid waste with a hazardous waste that exceeds a quantity exclusion level of this Section, the mixture is subject to full regulation.
- j) If a conditionally exempt small quantity generator's hazardous wastes are mixed with used oil, the mixture is subject to 35 Ill. Adm. Code 739, ~~if it is destined to be burned for energy recovery.~~ Any material produced from such a mixture by processing, blending, or other treatment is also so regulated ~~if it is destined to be burned for energy recovery.~~

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 721.106 Requirements for Recyclable Materials

- a) Recyclable materials:

- 1) Hazardous wastes that are recycled are subject to the requirements for generators, transporters, and storage facilities of subsections (b) and (c) of this Section, except for the materials listed in subsections (a)(2) and (a)(3) of this Section. Hazardous wastes that are recycled will be known as “recyclable materials”.
- 2) The following recyclable materials are not subject to the requirements of this Section but are regulated under 35 Ill. Adm. Code 726.Subparts C through H and all applicable provisions in 35 Ill. Adm. Code 702, 703, and 705.
  - A) Recyclable materials used in a manner constituting disposal (35 Ill. Adm. Code 726.Subpart C);
  - B) Hazardous wastes burned for energy recovery in boilers and industrial furnaces that are not regulated under 35 Ill. Adm. Code 724.Subpart O or 725.Subpart O (35 Ill. Adm. Code 726.Subpart H);
  - C) Recyclable materials from which precious metals are reclaimed (35 Ill. Adm. Code 726.Subpart F);
  - D) Spent lead-acid batteries that are being reclaimed (35 Ill. Adm. Code 726.Subpart G).
- 3) The following recyclable materials are not subject to regulation under 35 Ill. Adm. Code 722 through 726, 728, or 702, 703, or 705 and are not subject to the notification requirements of section 3010 of the Resource Conservation and Recovery Act:
  - A) Industrial ethyl alcohol that is reclaimed except that, unless provided otherwise in an international agreement as specified in 35 Ill. Adm. Code 722.158:
    - i) A person initiating a shipment for reclamation in a foreign country and any intermediary arranging for the shipment shall comply with the requirements applicable to a primary exporter in 35 Ill. Adm. Code 722.153; 722.156(a)(1) through (a)(4), (a)(6), and (b); and 722.157; shall export such materials only upon consent of the receiving country and in conformance with the USEPA Acknowledgment of Consent, as defined in 35 Ill. Adm. Code 722.Subpart E; and shall provide a copy of the USEPA Acknowledgment of Consent to the shipment to the transporter transporting the shipment for export;

- ii) Transporters transporting a shipment for export shall not accept a shipment if the transporter knows that the shipment does not conform to the USEPA Acknowledgement of Consent, shall ensure that a copy of the USEPA Acknowledgement of Consent accompanies the shipment, and shall ensure that it is delivered to the facility designated by the person initiating the shipment;
- B) Scrap metal that is not excluded under Section 721.104(a)(13);
  - C) Fuels produced from the refining of oil-bearing hazardous wastes along with normal process streams at a petroleum refining facility if such wastes result from normal petroleum refining, production, and transportation practices (this exemption does not apply to fuels produced from oil recovered from oil-bearing hazardous waste where such recovered oil is already excluded under Section 721.104(a)(12));
  - D) Petroleum refining wastes.
    - i) Hazardous waste fuel produced from oil-bearing hazardous wastes from petroleum refining, production, or transportation practices or produced from oil reclaimed from such hazardous wastes, where such hazardous wastes are reintroduced into a process that does not use distillation or does not produce products from crude oil, so long as the resulting fuel meets the used oil specification under 35 Ill. Adm. Code ~~726.140(e)~~ 739.111 and so long as no other hazardous wastes are used to produce the hazardous waste fuel;
    - ii) Hazardous waste fuel produced from oil-bearing hazardous waste from petroleum refining production, and transportation practices, where such hazardous wastes are reintroduced into a refining process after a point at which contaminants are removed, so long as the fuel meets the used oil fuel specification under 35 Ill. Adm. Code ~~726.140(e)~~ 739.111; and
    - iii) Oil reclaimed from oil-bearing hazardous wastes from petroleum refining, production, and transportation practices, which reclaimed oil is burned as a fuel without reintroduction to a refining process, so long as the reclaimed oil meets the used oil fuel specification under 35 Ill. Adm. Code ~~726.140(e)~~ 739.111; and

- E) Petroleum coke produced from petroleum refinery hazardous wastes containing oil by the same person that generated the wastes unless the resulting coke product exceeds one or more of the characteristics of hazardous waste in ~~721~~.Subpart C of this Part.
- 4) Used oil that is recycled and is also a hazardous waste solely because it exhibits a hazardous characteristic is not subject to the requirements of 35 Ill. Adm. Code 720 through 728, but it is regulated under 35 Ill. Adm. Code 739. Used oil that is recycled includes any used oil that is reused for any purpose following its original use (including the purpose for which the oil was originally used). Such term includes, but is not limited to, oil that is re-refined, reclaimed, burned for energy recovery, or reprocessed.
  - 5) Hazardous waste that is exported to or imported from designated member countries of the Organization for Economic Cooperation and Development (OECD), as defined in Section 722.158(a)(1), for the purpose of recovery is subject to the requirements of 35 Ill. Adm. Code 722.Subpart H if it is subject to either the hazardous waste manifesting requirements of 35 Ill. Adm. Code 722 or the universal waste management standards of 35 Ill. Adm. Code 733.
- b) Generators and transporters of recyclable materials are subject to the applicable requirements of 35 Ill. Adm. Code 722 and 723 and the notification requirements under section 3010 of the Resource Conservation and Recovery Act, except as provided in subsection (a) of this Section.
  - c) Storage and recycling:
    - 1) Owners or operators of facilities that store recyclable materials before they are recycled are regulated under all applicable provisions of 35 Ill. Adm. Code 702, 703, and 705; 724.Subparts A through L, AA, BB, and CC; and 725.Subparts A through L, AA, BB, and CC; 726; 728; and the notification requirement under section 3010 of the Resource Conservation and Recovery Act, except as provided in subsection (a) of this Section. (The recycling process itself is exempt from regulation, except as provided in subsection (d) of this Section.)
    - 2) Owners or operators of facilities that recycle recyclable materials without storing them before they are recycled are subject to the following requirements, except as provided in subsection (a) of this Section:
      - A) Notification requirements under section 3010 of the Resource Conservation and Recovery Act,

- B) 35 Ill. Adm. Code 725.171 and 725.172 (dealing with the use of the manifest and manifest discrepancies), and
- C) subsection (d) of this Section.
- d) Owners or operators of facilities required to have a RCRA permit pursuant to 35 Ill. Adm. Code 703 with hazardous waste management units that recycle hazardous wastes are subject to 35 Ill. Adm. Code 724.Subparts AA and BB and 725.Subparts AA and BB.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### SUBPART D: LISTS OF HAZARDOUS WASTE

##### Section 721.132 Hazardous Waste from Specific Sources

The following solid wastes are listed hazardous wastes from specific sources unless they are excluded under 35 Ill. Adm. Code 720.120 and 720.122 and listed in Section 721.Appendix I.

##### USEPA

Hazardous Waste No.	Industry and Hazardous Waste	Hazard Code
Wood Preservation:		
K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote or pentachlorophenol.	(T)
Inorganic Pigments:		
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments.	(T)
K003	Wastewater treatment sludge from the production of molybdate orange pigments.	(T)
K004	Wastewater treatment sludge from the production of zinc yellow pigments.	(T)
K005	Wastewater treatment sludge from the production of chrome green pigments.	(T)
K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated).	(T)

K007	Wastewater treatment sludge from the production of iron blue pigments.	(T)
K008	Oven residue from the production of chrome oxide green pigments.	(T)
Organic Chemicals:		
K009	Distillation bottoms from the production of acetaldehyde from ethylene.	(T)
K010	Distillation side cuts from the production of acetaldehyde from ethylene.	(T)
K011	Bottom stream from the wastewater stripper in the production of acrylonitrile.	(R,T)
K013	Bottom stream from the acetonitrile column in the production of acrylonitrile.	(T)
K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile.	(T)
K015	Still bottoms from the distillation of benzyl chloride.	(T)
K016	Heavy ends or distillation residues from the production of carbon tetrachloride.	(T)
K017	Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin.	(T)
K018	Heavy ends from the fractionation column in ethyl chloride production.	(T)
K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production.	(T)
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production.	(T)
K021	Aqueous spent antimony catalyst waste from fluoromethanes production.	(T)
K022	Distillation bottom tars from the production of phenol/acetone from cumene.	(T)

K023	Distillation light ends from the production of phthalic anhydride from naphthalene.	(T)
K024	Distillation bottoms from the production of phthalic anhydride from naphthalene.	(T)
K093	Distillation light ends from the production of phthalic anhydride from ortho-xylene.	(T)
K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene.	(T)
K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene.	(T)
K026	Stripping still tails from the production of methyl ethyl pyridines.	(T)
K027	Centrifuge and distillation residues from toluene diisocyanate production.	(R,T)
K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane.	(T)
K029	Waste from the product stream stripper in the production of 1,1,1-trichloroethane.	(T)
K095	Distillation bottoms from the production of 1,1,1-trichloroethane.	(T)
K096	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.	(T)
K030	Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene.	(T)
K083	Distillation bottoms from aniline production.	(T)
K103	Process residues from aniline extraction from the production of aniline.	(T)
K104	Combined wastewater streams generated from nitrobenzene/aniline production.	(T)



K085	Distillation or fractionation column bottoms from the production of chlorobenzenes.	(T)
K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.	(T)
K107	Column bottoms from product separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	(C,T)
K108	Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	(I,T)
K109	Spent filter cartridges from the product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	(T)
K110	Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	(T)
K111	Product wastewaters from the production of dinitrotoluene via nitration of toluene.	(C,T)
K112	Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K113	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K114	Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K115	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K116	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine.	(T)

K117	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene.	(T)
K118	Spent adsorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	(T)
K136	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	(T)
<u>K140</u>	<u>Floor sweepings, off-specification product and spent filter media from the production of 2,4,6-tribromophenol.</u>	<u>(T)</u>
K156	Organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.)	(T)
K157	Wastewaters (including scrubber waters, condenser waters, washwaters, and separation waters) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.)	(T)
K158	Bag house dusts and filter/separation solids from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.)	(T)
K159	Organics from the treatment of thiocarbamate wastes.	(T)
K161	Purification solids (including filtration, evaporation, and centrifugation solids), bag house dust and floor sweepings from the production of dithiocarbamate acids and their salts. (This listing does not include K125 or K126.)	(R,T)

#### Inorganic Chemicals:

K071	Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used.	(T)
K073	Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production.	(T)

K106 Wastewater treatment sludge from the mercury cell process in chlorine production. (T)

Pesticides:

K031 By-product salts generated in the production of MSMA and cacodylic acid. (T)

K032 Wastewater treatment sludge from the production of chlordane. (T)

K033 Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane. (T)

K034 Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane. (T)

K097 Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane. (T)

K035 Wastewater treatment sludges generated in the production of creosote. (T)

K036 Still bottoms from toluene reclamation distillation in the production of disulfoton. (T)

K037 Wastewater treatment sludges from the production of disulfoton. (T)

K038 Wastewater from the washing and stripping of phorate production. (T)

K039 Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate. (T)

K040 Wastewater treatment sludge from the production of phorate. (T)

K041 Wastewater treatment sludge from the production of toxaphene. (T)

K098 Untreated process wastewater from the production of toxaphene. (T)

K042 Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T. (T)

K043 2,6-Dichlorophenol waste from the production of 2,4-D. (T)

K099 Untreated wastewater from the production of 2,4-D. (T)

K123	Process wastewater (including supernates, filtrates and washwaters) from the production of ethylenebisdithiocarbamic acid and its salts.	(T)
K124	Reactor vent scrubber water from the production of ethylenebis-dithiocarbamic acid and its salts.	(C,T)
K125	Filtration, evaporation and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salts.	(T)
K126	Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdi-thiocarbamic acid and its salts.	(T)
K131	Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide.	(C,T)
K132	Spent absorbent and wastewater separator solids from the production of methyl bromide.	(T)

#### Explosives:

K044	Wastewater treatment sludges from the manufacturing and processing of explosives.	(R)
K045	Spent carbon from the treatment of wastewater containing explosives.	(R)
K046	Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds.	(T)
K047	Pink/red water from TNT operations.	(R)

#### Petroleum Refining:

K048	Dissolved air flotation (DAF) float from the petroleum refining industry.	(T)
K049	Slop oil emulsion solids from the petroleum refining industry.	(T)
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry.	(T)
K051	API separator sludge from the petroleum refining industry.	(T)

K052	Tank bottoms (leaded) from the petroleum refining industry.	(T)
Iron and Steel:		
K061	Emission control dust/sludge from the primary production of steel in electric furnaces.	(T)
K062	Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332) (as defined in 35 Ill. Adm. Code 720.110).	(C,T)
Primary Copper:		
K064	Acid plant blowdown slurry or sludge resulting from the thickening of blowdown slurry from primary copper production.	(T)
Primary Lead:		
K065	Surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities.	(T)
Primary Zinc:		
K066	Sludge from treatment of process wastewater or acid plant blowdown from primary zinc production.	(T)

BOARD NOTE: This waste listing is the subject of a judicial remand in American Mining Congress v. EPA, 907 F.2d 1179 (D.D.C. 1990). The Board intends that this listing not become enforceable in Illinois until the first date upon which the Board RCRA program becomes "not equivalent to the Federal program", within the meaning of section 3006(b) of the RCRA Act, 42 U.S.C. 6926(b), the Board RCRA rules become "less stringent" than the USEPA rules, as this phrase is used in section 3009, 42 U.S.C. 6929, or the Board RCRA rules are not "identical in substance" with the federal rules as that term is intended by 415 ILCS 5/7.2 and 22.4 as a result of some action by USEPA with regard to this listing in response to the American Mining Congress remand.

Primary Aluminum:

K088	Spent potliners from primary aluminum reduction.	(T)
Ferroalloys:		
K090	Emission control dust or sludge from ferrochromiumsilicon production.	(T)

K091 Emission control dust or sludge from ferrochromium production. (T)

Secondary Lead:

K069 Emission control dust/sludge from secondary lead smelting. (T)

BOARD NOTE: This listing is administratively stayed for sludge generated from secondary acid scrubber systems. The stay will remain in effect until this note is removed.

K100 Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting. (T)

Veterinary Pharmaceuticals:

K084 Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds. (T)

K101 Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds. (T)

K102 Residue from use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds. (T)

Ink Formulation:

K086 Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps and stabilizers containing chromium and lead. (T)

Coking:

K060 Ammonia still lime sludge from coking operations. (T)

K087 Decanter tank tar sludge from coking operations. (T)

K141 Process residues from the recovery of coal tar, including, but not limited to, collecting sump residues from the production of coke from coal or the recovery of coke by-products produced from coal. This listing does not include K087 (decanter tank tar sludges from coking operations). (T)

- K142 Tar storage tank residues from the production of coke from coal or from the recovery of coke by-products produced from coal. (T)
- K143 Process residues from the recovery of light oil, including, but not limited to, those generated in stills, decanters, and wash oil recovery units from the recovery of coke by-products produced from coal. (T)
- K144 Wastewater sump residues from light oil refining, including, but not limited to, intercepting or contamination sump sludges from the recovery of coke by-products produced from coal. (T)
- K145 Residues from naphthalene collection and recovery operations from the recovery of coke by-products produced from coal. (T)
- K147 Tar storage tank residues from coal tar refining. (T)
- K148 Residues from coal tar distillation, including but not limited to, still bottoms. (T)
- K149 Distillation bottoms from the production of  $\alpha$ - (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups. (This waste does not include still bottoms from the distillation of benzyl chloride.) (T)
- K150 Organic residuals, excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes associated with the production of  $\alpha$ - (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups. (T)
- K151 Wastewater treatment sludges, excluding neutralization and biological sludges, generated during the treatment of wastewaters from the production of  $\alpha$ - (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups. (T)

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 721.133 Discarded Commercial Chemical Products, Off-Specification Species, Container Residues, and Spill Residues Thereof

The following materials or items are hazardous wastes if and when they are discarded or intended to be discarded as described in Section 721.102(a)(2)(A), when they are mixed with

waste oil or used oil or other material and applied to the land for dust suppression or road treatment, when they are otherwise applied to the land in lieu of their original intended use or when they are contained in products that are applied to land in lieu of their original intended use, or when, in lieu of their original intended use, they are produced for use as (or as a component of) a fuel, distributed for use as a fuel, or burned as a fuel.

- a) Any commercial chemical product, or manufacturing chemical intermediate having the generic name listed in subsection (e) or (f) of this Section.
- b) Any off-specification commercial chemical product or manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in subsection (e) or (f) of this Section.
- c) Any residue remaining in a container or inner liner removed from a container that has held any commercial chemical product or manufacturing chemical intermediate having the generic name listed in subsection (e) or (f) of this Section, unless the container is empty as defined in Section 721.107(b)(3).

BOARD NOTE: Unless the residue is being beneficially used or reused, or legitimately recycled or reclaimed, or being accumulated, stored, transported, or treated prior to such use, reuse, recycling, or reclamation, the Board considers the residue to be intended for discard, and thus a hazardous waste. An example of a legitimate reuse of the residue would be where the residue remains in the container and the container is used to hold the same commercial chemical product or manufacturing chemical intermediate it previously held. An example of the discard of the residue would be where the drum is sent to a drum reconditioner that reconditions the drum but discards the residue.

- d) Any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill into or on any land or water of any commercial chemical product or manufacturing chemical intermediate having the generic name listed in subsection (e) or (f) of this Section, or any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill into or on any land or water, of any off-specification chemical product or manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in subsection (e) or (f) of this Section.

BOARD NOTE: The phrase “commercial chemical product or manufacturing chemical intermediate having the generic name listed in ...” refers to a chemical substance that is manufactured or formulated for commercial or manufacturing use which consists of the commercially pure grade of the chemical, any technical grades of the chemical that are produced or marketed, and all formulations in which the chemical is the sole active ingredient. It does not refer to a material, such as a manufacturing process waste, that contains any of the substances listed in subsection (e) or (f) of this Section. Where a manufacturing process waste is deemed to be a hazardous waste because it



contains a substance listed in subsection (e) or (f) of this Section, such waste will be listed in either Sections 721.131 or 721.132 or will be identified as a hazardous waste by the characteristics set forth in Subpart C.

- e) The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products or manufacturing chemical intermediates referred to in subsections (a) through (d) of this Section, are identified as acute hazardous waste (H) and are subject to the small quantity exclusion defined in Section 721.105(e). These wastes and their corresponding USEPA Hazardous Waste Numbers are:

BOARD NOTE: For the convenience of the regulated community the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), and R (Reactivity). The absence of a letter indicates that the compound only is listed for acute toxicity.

<u>USEPA</u> Hazardous Waste No.	<u>Chemical</u> Abstracts No. (CAS No.)	Substance
P023	107-20-0	Acetaldehyde, chloro-
P002	591-08-2	Acetamide, N-(aminothioxomethyl)
P057	640-19-7	Acetamide, 2-fluoro-
P058	62-74-8	Acetic acid, fluoro-, sodium salt
P002	591-08-2	1-Acetyl-2-thiourea
P003	107-02-8	Acrolein
P070	116-06-3	Aldicarb
P203	1646-88-4	Aldicarb sulfone
P004	309-00-2	Aldrin
P005	107-18-6	Allyl alcohol
P006	20859-73-8	Aluminum phosphide (R,T)
P007	2763-96-4	5-(Aminomethyl)-3-isoxazolol
P008	504-24-5	4-Aminopyridine
P009	131-74-8	Ammonium picrate (R)
P119	7803-55-6	Ammonium vanadate
P099	506-61-6	Argentate(1-), bis(cyano-C)-, potassium
P010	7778-39-4	Arsenic acid H <sub>3</sub> AsO <sub>4</sub>
P012	1327-53-3	Arsenic oxide As <sub>2</sub> O <sub>3</sub>
P011	1303-28-2	Arsenic oxide As <sub>2</sub> O <sub>5</sub>
P011	1303-28-2	Arsenic pentoxide
P012	1327-53-3	Arsenic trioxide
P038	692-42-2	Arsine, diethyl-
P036	696-28-6	Arsonous dichloride, phenyl-
P054	151-56-4	Aziridine
P067	75-55-8	Aziridine, 2-methyl
P013	542-62-1	Barium cyanide

P024	106-47-8	Benzenamine, 4-chloro-
P077	100-01-6	Benzenamine, 4-nitro-
P028	100-44-7	Benzene, (chloromethyl)-
P042	51-43-4	1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-, (R)-
P046	122-09-8	Benzeneethanamine, $\alpha,\alpha$ -dimethyl-
P014	108-98-5	Benzenethiol
P127	1563-66-2	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-, methylcarbamate
P188	57-64-7	Benzoic acid, 2-hydroxy-, compound with (3a <i>S</i> - <i>cis</i> )-1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrolo[2,3- <i>b</i> ]indol-5-yl methylcarbamate ester (1:1)
P001	81-81-2*	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, and salts, when present at concentrations greater than 0.3 percent
P028	100-44-7	Benzyl chloride
P015	7440-41-7	Beryllium powder
P017	598-31-2	Bromoacetone
P018	357-57-3	Brucine
P045	39196-18-6	2-Butanone,3,3-dimethyl-1-(methylthio)-, O-[methylamino)carbonyl] oxime
P021	592-01-8	Calcium cyanide
P021	592-01-8	Calcium cyanide $\text{Ca}(\text{CN})_2$
P189	55285-14-8	Carbamic acid, [(dibutylamino)- thio]methyl-, 2,3-dihydro-2,2-dimethyl-7-benzofuranyl ester
P191	644-64-4	Carbamic acid, dimethyl-, 1-[(dimethyl-amino)-carbonyl]-5-methyl-1H-pyrazol-3-yl ester
P192	119-38-0	Carbamic acid, dimethyl-, 3-methyl-1-(1-methylethyl)-1H-pyrazol-5-yl ester
P190	1129-41-5	Carbamic acid, methyl-, 3-methylphenyl ester
P127	1563-66-2	Carbofuran
P022	75-15-0	Carbon disulfide
P095	75-44-5	Carbonic dichloride
P189	55285-14-8	Carbosulfan
P023	107-20-0	Chloroacetaldehyde
P024	106-47-8	p-Chloroaniline
P026	5344-82-1	1-(o-Chlorophenyl)thiourea
P027	542-76-7	3-Chloropropionitrile
P029	544-92-3	Copper cyanide
P029	544-92-3	Copper cyanide $\text{CuCN}$
P202	64-00-6	m-Cumenyl methylcarbamate
P030		Cyanides (soluble cyanide salts), not otherwise specified
P031	460-19-5	Cyanogen
P033	506-77-4	Cyanogen chloride

P033	506-77-4	Cyanogen chloride CNCl
P034	131-89-5	2-Cyclohexyl-4,6-dinitrophenol
P016	542-88-1	Dichloromethyl ether
P036	696-28-6	Dichlorophenylarsine
P037	60-57-1	Dieldrin
P038	692-42-2	Diethylarsine
P041	311-45-5	Diethyl-p-nitrophenyl phosphate
P040	297-97-2	O,O-Diethyl O-pyrazinyl phosphorothioate
P043	55-91-4	Diisopropylfluorophosphate (DFP)
P191	644-64-4	Dimetilan
P004	309-00-2	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1 $\alpha$ ,4 $\alpha$ ,4a $\beta$ ,5 $\alpha$ ,8 $\alpha$ ,8a $\beta$ )-
P060	465-73-6	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1 $\alpha$ ,4 $\alpha$ ,4a $\beta$ ,5 $\beta$ ,8 $\beta$ ,8a $\beta$ )-
P037	60-57-1	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1 $\alpha$ ,2 $\beta$ ,2a $\alpha$ ,3 $\beta$ ,6 $\beta$ ,6a $\alpha$ ,7 $\beta$ ,7a $\alpha$ )-
P051	72-20-8*	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1 $\alpha$ ,2 $\beta$ ,2a $\beta$ ,3 $\alpha$ ,6 $\alpha$ ,6a $\beta$ ,7 $\beta$ ,7a $\alpha$ )-, and metabolites
P044	60-51-5	Dimethoate
P046	122-09-8	$\alpha$ , $\alpha$ -Dimethylphenethylamine
P047	534-52-1*	4,6-Dinitro-o-cresol and salts
P048	51-28-5	2,4-Dinitrophenol
P020	88-85-7	Dinoseb
P085	152-16-9	Diphosphoramidate, octamethyl-
P111	107-49-3	Diphosphoric acid, tetraethyl ester
P039	298-04-4	Disulfoton
P049	541-53-7	Dithiobiuret
P185	26419-73-8	1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-, O-[(methylamino)- carbonyl]oxime
P050	115-29-7	Endosulfan
P088	145-73-3	Endothall
P051	72-20-8	Endrin
P051	72-20-8	Endrin, and metabolites
P042	51-43-4	Epinephrine
P031	460-19-5	Ethanedinitrile
P194	23135-22-0	Ethanimidothioc acid, 2-(dimethylamino)-N-[[[(methylamino)carbonyl]oxy]-2-oxo-, methyl ester
P066	16752-77-5	Ethanimidothioc acid, N-[[[(methylamino)-carbonyl]oxy]-, methyl ester

P101	107-12-0	Ethyl cyanide
P054	151-56-4	Ethylenimine
P097	52-85-7	Famphur
P056	7782-41-4	Fluorine
P057	640-19-7	Fluoroacetamide
P058	62-74-8	Fluoroacetic acid, sodium salt
P198	23422-53-9	Formetanate hydrochloride
P197	17702-57-7	Formparanate
P065	628-86-4	Fulminic acid, mercury (2+) salt (R,T)
P059	76-44-8	Heptachlor
P062	757-58-4	Hexaethyl tetraphosphate
P116	79-19-6	Hydrazinecarbothioamide
P068	60-34-4	Hydrazine, methyl-
P063	74-90-8	Hydrocyanic acid
P063	74-90-8	Hydrogen cyanide
P096	7803-51-2	Hydrogen phosphide
P060	465-73-6	Isodrin
P192	119-38-0	Isolan
P202	64-00-6	3-Isopropylphenyl-N-methylcarbamate
P007	2763-96-4	3(2H)-Isoxazolone, 5-(aminomethyl)-
P196	15339-36-3	Manganese, bis(dimethylcarbamo- dithioato-S,S')-
P196	15339-36-3	Manganese dimethyldithiocarbamate
P092	62-38-4	Mercury, (acetato-O)phenyl-
P065	628-86-4	Mercury fulminate (R,T)
P082	62-75-9	Methanamine, N-methyl-N-nitroso-
P064	624-83-9	Methane, isocyanato-
P016	542-88-1	Methane, oxybis[chloro-
P112	509-14-8	Methane, tetranitro- (R)
P118	75-70-7	Methanethiol, trichloro-
P198	23422-53-9	Methanimidamide, N,N-dimethyl-N'-[3- [[methylamino)-carbonyl]oxy]phenyl]-, monohydrochloride
P197	17702-57-7	Methanimidamide, N,N-dimethyl-N'-[2-methyl- 4-[[methylamino)carbonyl]oxy]phenyl]-
P199	2032-65-7	Methiocarb
P050	115-29-7	6,9-Methano-2,4,3-benzodioxathiepen, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexa- hydro-, 3-oxide
P059	76-44-8	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-hepta- chloro-3a,4,7,7a-tetrahydro-
P066	16752-77-5	Methomyl
P068	60-34-4	Methyl hydrazine
P064	624-83-9	Methyl isocyanate
P069	75-86-5	2-Methylactonitrile
P071	298-00-0	Methyl parathion

P190	1129-41-5	Metolcarb
P129	315-8-4	Mexacarbate
P072	86-88-4	$\alpha$ -Naphthylthiourea
P073	13463-39-3	Nickel carbonyl
P073	13463-39-3	Nickel carbonyl Ni(CO) <sub>4</sub> , (T-4)-
P074	557-19-7	Nickel cyanide
P074	557-19-7	Nickel cyanide Ni(CN) <sub>2</sub>
P075	54-11-5*	Nicotine, and salts
P076	10102-43-9	Nitric oxide
P077	100-01-6	p-Nitroaniline
P078	10102-44-0	Nitrogen dioxide
P076	10102-43-9	Nitrogen oxide NO
P078	10102-44-0	Nitrogen oxide NO <sub>2</sub>
P081	55-63-0	Nitroglycerine (R)
P082	62-75-9	N-Nitrosodimethylamine
P084	4549-40-0	N-Nitrosomethylvinylamine
P085	152-16-9	Octamethylpyrophosphoramidate
P087	20816-12-0	Osmium oxide OsO <sub>4</sub> , (T-4)-
P087	20816-12-0	Osmium tetroxide
P088	145-73-3	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
P194	23135-22-0	Oxamyl
P089	56-38-2	Parathion
P034	131-89-5	Phenol, 2-cyclohexyl-4,6-dinitro-
P128	315-18-4	Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester)
P199	2032-65-7	Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate
P048	51-28-5	Phenol, 2,4-dinitro-
P047	534-52-1*	Phenol, 2-methyl-4,6-dinitro-, and salts
P202	64-00-6	Phenol, 3-(1-methylethyl)-, methyl carbamate
P201	2631-37-0	Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate
P020	88-85-7	Phenol, 2-(1-methylpropyl)-4,6-dinitro-
P009	131-74-8	Phenol, 2,4,6-trinitro-, ammonium salt (R)
P092	62-38-4	Phenylmercury acetate
P093	103-85-5	Phenylthiourea
P094	298-02-2	Phorate
P095	75-44-5	Phosgene
P096	7803-51-2	Phosphine
P041	311-45-5	Phosphoric acid, diethyl 4-nitrophenyl ester
P039	298-04-4	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl] ester
P094	298-02-2	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester

P044	60-51-5	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl]ester
P043	55-91-4	Phosphorofluoridic acid, bis(1-methylethyl)ester
P089	56-38-2	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester
P040	297-97-2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
P097	52-85-7	Phosphorothioic acid, O-[4-[(dimethylamino)-sulfonyl]phenyl] O,O-dimethyl ester
P071	298-00-0	Phosphorothioic acid, O,O-dimethyl O-(4-nitrophenyl) ester
P204	57-47-6	Physostigmine
P188	57-64-7	Physostigmine salicylate
P110	78-00-2	Plumbane, tetraethyl-
P098	151-50-8	Potassium cyanide
P098	151-50-8	Potassium cyanide KCN
P099	506-61-6	Potassium silver cyanide
P201	2631-37-0	Promecarb
P203	1646-88-4	Propanal, 2-methyl-2-(methyl-sulfonyl)-, O-[(methylamino)carbonyl] oxime
P070	116-06-3	Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime
P101	107-12-0	Propanenitrile
P027	542-76-7	Propanenitrile, 3-chloro-
P069	75-86-5	Propanenitrile, 2-hydroxy-2-methyl-
P081	55-63-0	1,2,3-Propanetriol, trinitrate- (R)
P017	598-31-2	2-Propanone, 1-bromo-
P102	107-19-7	Propargyl alcohol
P003	107-02-8	2-Propenal
P005	107-18-6	2-Propen-1-ol
P067	75-55-8	1,2-Propylenimine
P102	107-19-7	2-Propyn-1-ol
P008	504-24-5	4-Pyridinamine
P075	54-11-5*	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)- and salts
P204	57-47-6	Pyrrolo[2,3-b]indol-5-ol, 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-, methylcarbamate (ester), (3aS-cis)-
P114	12039-52-0	Selenious acid, dithallium (1+) salt
P103	630-10-4	Selenourea
P104	506-64-9	Silver cyanide
P104	506-64-9	Silver cyanide AgCN
P105	26628-22-8	Sodium azide
P106	143-33-9	Sodium cyanide
P106	143-33-9	Sodium cyanide NaCN
P108	57-24-9*	Strychnidin-10-one, and salts

P018	357-57-3	Strychnidin-10-one, 2,3-dimethoxy-
P108	57-24-9*	Strychnine and salts
P115	7446-18-6	Sulfuric acid, dithallium (1+) salt
P109	3689-24-5	Tetraethyldithiopyrophosphate
P110	78-00-2	Tetraethyl lead
P111	107-49-3	Tetraethylpyrophosphate
P112	509-14-8	Tetranitromethane (R)
P062	757-58-4	Tetraphosphoric acid, hexaethyl ester
P113	1314-32-5	Thallic oxide
P113	1314-32-5	Thallium oxide $Tl_2O_3$
P114	12039-52-0	Thallium (I) selenite
P115	7446-18-6	Thallium (I) sulfate
P109	3689-24-5	Thiodiphosphoric acid, tetraethyl ester
P045	39196-18-4	Thiofanox
P049	541-53-7	Thioimidodicarbonic diamide $[(H_2N)C(S)]_2NH$
P014	108-98-5	Thiophenol
P116	79-19-6	Thiosemicarbazide
P026	5344-82-1	Thiourea, (2-chlorophenyl)-
P072	86-88-4	Thiourea, 1-naphthalenyl-
P093	103-85-5	Thiourea, phenyl-
P123	8001-35-2	Toxaphene
P185	26419-73-8	Tirpate
P118	75-70-7	Trichloromethanethiol
P119	7803-55-6	Vanadic acid, ammonium salt
P120	1314-62-1	Vanadium oxide $V_2O_5$
P120	1314-62-1	Vanadium pentoxide
P084	4549-40-0	Vinylamine, N-methyl-N-nitroso-
P001	81-81-2*	Warfarin, and salts, when present at concentrations greater than 0.3 percent
P121	557-21-1	Zinc cyanide
P121	557-21-1	Zinc cyanide $Zn(CN)_2$
P205	137-30-4	Zinc, bis(dimethylcarbamo-dithioato-S,S')-
P122	1314-84-7	Zinc phosphide $Zn_3P_2$ , when present at concentrations greater than 10% (R,T)
P205	137-30-4	Ziram

BOARD NOTE: An asterisk (\*) following the CAS number indicates that the CAS number is given for the parent compound only.

- f) The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products referred to in subsections (a) through (d) of this Section, are identified as toxic wastes (T) unless otherwise designated and are subject to the small quantity exclusion defined in Section 721.105(a) and (g). These wastes and their corresponding USEPA Hazardous Waste Numbers are:

BOARD NOTE: For the convenience of the regulated community, the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), R (Reactivity), I (Ignitability), and C (Corrosivity). The absence of a letter indicates that the compound is only listed for toxicity.

<u>USEPA</u> Hazardous Waste No.	Chemical Abstracts No. (CAS No.)	Substance
U394	30558-43-1	A2213
U001	75-07-0	Acetaldehyde (I)
U034	75-87-6	Acetaldehyde, trichloro-
U187	62-44-2	Acetamide, N-(4-ethoxyphenyl)-
U005	53-96-3	Acetamide, N-9H-fluoren-2-yl-
U240	P 94-75-7	Acetic acid, (2,4-dichlorophenoxy)-, salts and esters
U112	141-78-6	Acetic acid, ethyl ester (I)
U144	301-04-2	Acetic acid, lead (2+) salt
U214	563-68-8	Acetic acid, thallium (1+) salt
See F027	93-76-5	Acetic acid, (2,4,5-trichlorophenoxy)-
U002	67-64-1	Acetone (I)
U003	75-05-8	Acetonitrile (I,T)
U004	98-86-2	Acetophenone
U005	53-96-3	2-Acetylaminofluorene
U006	75-36-5	Acetyl chloride (C,R,T)
U007	79-06-1	Acrylamide
U008	79-10-7	Acrylic acid (I)
U009	107-13-1	Acrylonitrile
U011	61-82-5	Amitrole
U012	62-53-3	Aniline (I,T)
U136	75-60-5	Arsinic acid, dimethyl-
U014	492-80-8	Auramine
U015	115-02-6	Azaserine
U010	50-07-7	Azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione, 6-amino-8-[[[(aminocarbonyl)oxy]methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-, [1a-S-(1 $\alpha$ ,8 $\beta$ ,8 $\alpha$ ,8 $\beta$ )]-
U280	101-27-9	Barban
U278	22781-23-3	Bendiocarb
U364	22961-82-6	Bendiocarb phenol
U271	17804-35-2	Benomyl
U157	56-49-5	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-
U016	225-51-4	Benz(c)acridine
U017	98-87-3	Benzal chloride
U192	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-



U018	56-55-3	Benz[a]anthracene
U094	57-97-6	Benz[a]anthracene, 7,12-dimethyl-
U012	62-53-3	Benzenamine (I,T)
U014	492-80-8	Benzenamine, 4,4'-carbonimidoylbis[N,N-dimethyl-
U049	3165-93-3	Benzenamine, 4-chloro-2-methyl-, hydrochloride
U093	60-11-7	Benzenamine, N,N-dimethyl-4-(phenylazo)-
U328	95-53-4	Benzenamine, 2-methyl-
U353	106-49-0	Benzenamine, 4-methyl-
U158	101-14-4	Benzenamine, 4,4'-methylenebis[2-chloro-
U222	636-21-5	Benzenamine, 2-methyl-, hydrochloride
U181	99-55-8	Benzenamine, 2-methyl-5-nitro-
U019	71-43-2	Benzene (I,T)
U038	510-15-6	Benzeneacetic acid, 4-chloro- $\alpha$ -(4-chlorophenyl)- $\alpha$ -hydroxy-, ethyl ester
U030	101-55-3	Benzene, 1-bromo-4-phenoxy-
U035	305-03-3	Benzenebutanoic acid, 4-[bis(2-chloroethyl)-amino]-
U037	108-90-7	Benzene, chloro-
U221	25376-45-8	Benzenediamine, ar-methyl-
U028	117-81-7	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester
U069	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester
U088	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester
U102	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester
U107	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl ester
U070	95-50-1	Benzene, 1,2-dichloro-
U071	541-73-1	Benzene, 1,3-dichloro-
U072	106-46-7	Benzene, 1,4-dichloro-
U060	72-54-8	Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro-
U017	98-87-3	Benzene, (dichloromethyl)-
U223	26471-62-5	Benzene, 1,3-diisocyanatomethyl- (R,T)
U239	1330-20-7	Benzene, dimethyl- (I,T)
U201	108-46-3	1,3-Benzenediol
U127	118-74-1	Benzene, hexachloro-
U056	110-82-7	Benzene, hexahydro- (I)
U220	108-88-3	Benzene, methyl-
U105	121-14-2	Benzene, 1-methyl-2,4-dinitro-
U106	606-20-2	Benzene, 2-methyl-1,3-dinitro-
U055	98-82-8	Benzene, (1-methylethyl)- (I)
U169	98-95-3	Benzene, nitro-
U183	608-93-5	Benzene, pentachloro-
U185	82-68-8	Benzene, pentachloronitro-
U020	98-09-9	Benzenesulfonic acid chloride (C,R)

U020	98-09-9	Benzenesulfonyl chloride (C,R)
U207	95-94-3	Benzene, 1,2,4,5-tetrachloro-
U061	50-29-3	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-chloro-
U247	72-43-5	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-methoxy-
U023	98-07-7	Benzene, (trichloromethyl)-
U234	99-35-4	Benzene, 1,3,5-trinitro-
U021	92-87-5	Benzidene
U202	P 81-07-2	1,2-Benzisothiazol-3(2H)-one, 1,1-dioxide, and salts
U203	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-
U141	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-
U090	94-58-6	1,3-Benzodioxole, 5-propyl-
U278	22781-23-3	1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate
U364	22961-82-6	1,3-Benzodioxol-4-ol, 2,2-dimethyl-
U367	1563-38-8	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-
U064	189-55-9	Benzo[ <i>rst</i> ]pentaphene
U248	P 81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, and salts, when present at concentrations of 0.3 percent or less
U022	50-32-8	Benzo[ <i>a</i> ]pyrene
U197	106-51-4	p-Benzoquinone
U023	98-07-7	Benzotrichloride (C,R,T)
U085	1464-53-5	2,2'-Bioxirane
U021	92-87-5	[1,1'-Biphenyl]-4,4'-diamine
U073	91-94-1	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-
U091	119-90-4	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-
U095	119-93-7	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-
U225	75-25-2	Bromoform
U030	101-55-3	4-Bromophenyl phenyl ether
U128	87-68-3	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-
U172	924-16-3	1-Butanamine, N-butyl-N-nitroso-
U031	71-36-3	1-Butanol (I)
U159	78-93-3	2-Butanone (I,T)
U160	1338-23-4	2-Butanone, peroxide (R,T)
U053	4170-30-3	2-Butenal
U074	764-41-0	2-Butene, 1,4-dichloro- (I,T)
U143	303-34-4	2-Butenoic acid, 2-methyl-, 7-[[2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy]-methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, [1S-[1 $\alpha$ (Z), 7(2S*,3R*), 7 $\alpha$ ]]-
U031	71-36-3	n-Butyl alcohol (I)
U136	75-60-5	Cacodylic acid
U032	13765-19-0	Calcium chromate

U372	10605-21-7	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester
U271	17804-35-2	Carbamic acid, [1-[(butylamino)carbonyl]-1H-benzimidazol-2-yl]-, methyl ester
U280	101-27-9	Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester
U238	51-79-6	Carbamic acid, ethyl ester
U178	615-53-2	Carbamic acid, methylnitroso-, ethyl ester
U373	122-42-9	Carbamic acid, phenyl-, 1-methylethyl ester
U409	23564-05-8	Carbamic acid, [1,2-phenylenebis(imino-carbonothioyl)]bis-, dimethyl ester
U097	79-44-7	Carbamic chloride, dimethyl-
U114	P 111-54-6	Carbamodithioic acid, 1,2-ethanediylbis-, salts and esters
U062	2303-16-4	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester
U389	2303-17-5	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester
U387	52888-80-9	Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester
U279	63-25-2	Carbaryl
U372	10605-21-7	Carbendazim
U367	1563-38-8	Carbofuran phenol
U215	6533-73-9	Carbonic acid, dithallium (1+) salt
U033	353-50-4	Carbonic difluoride
U156	79-22-1	Carbonochloridic acid, methyl ester (I,T)
U033	353-50-4	Carbon oxyfluoride (R,T)
U211	56-23-5	Carbon tetrachloride
U034	75-87-6	Chloral
U035	305-03-3	Chlorambucil
U036	57-74-9	Chlordane, $\alpha$ and $\gamma$ isomers
U026	494-03-1	Chlornaphazin
U037	108-90-7	Chlorobenzene
U038	510-15-6	Chlorobenzilate
U039	59-50-7	p-Chloro-m-cresol
U042	110-75-8	2-Chloroethyl vinyl ether
U044	67-66-3	Chloroform
U046	107-30-2	Chloromethyl methyl ether
U047	91-58-7	$\beta$ -Chloronaphthalene
U048	95-57-8	o-Chlorophenol
U049	3165-93-3	4-Chloro-o-toluidine, hydrochloride
U032	13765-19-0	Chromic acid $H_2CrO_4$ , calcium salt
U050	218-01-9	Chrysene
U051		Creosote
U052	1319-77-3	Cresol (Cresylic acid)
U053	4170-30-3	Crotonaldehyde

U055	98-82-8	Cumeme (I)
U246	506-68-3	Cyanogen bromide CNBr
U197	106-51-4	2,5-Cyclohexadiene-1,4-dione
U056	110-82-7	Cyclohexane (I)
U129	58-89-9	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1 $\alpha$ ,2 $\alpha$ ,3 $\beta$ ,4 $\alpha$ ,5 $\alpha$ ,6 $\beta$ )-
U057	108-94-1	Cyclohexanone (I)
U130	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-
U058	50-18-0	Cyclophosphamide
U240	P 94-75-7	2,4-D, salts and esters
U059	20830-81-3	Daunomycin
U060	72-54-8	DDD
U061	50-29-3	DDT
U062	2303-16-4	Diallate
U063	53-70-3	Dibenz[a,h]anthracene
U064	189-55-9	Dibenzo[a,i]pyrene
U066	96-12-8	1,2-Dibromo-3-chloropropane
U069	84-74-2	Dibutyl phthalate
U070	95-50-1	o-Dichlorobenzene
U071	541-73-1	m-Dichlorobenzene
U072	106-46-7	p-Dichlorobenzene
U073	91-94-1	3,3'-Dichlorobenzidine
U074	764-41-0	1,4-Dichloro-2-butene (I,T)
U075	75-71-8	Dichlorodifluoromethane
U078	75-35-4	1,1-Dichloroethylene
U079	156-60-5	1,2-Dichloroethylene
U025	111-44-4	Dichloroethyl ether
U027	108-60-1	Dichloroisopropyl ether
U024	111-91-1	Dichloromethoxy ethane
U081	120-83-2	2,4-Dichlorophenol
U082	87-65-0	2,6-Dichlorophenol
U084	542-75-6	1,3-Dichloropropene
U085	1464-53-5	1,2:3,4-Diepoxybutane (I,T)
U395	5952-26-1	Diethylene glycol, dicarbamate
U108	123-91-1	1,4-Diethyleneoxide
U028	117-81-7	Diethylhexyl phthalate
U086	1615-80-1	N,N'-Diethylhydrazine
U087	3288-58-2	O,O-Diethyl S-methyl dithiophosphate
U088	84-66-2	Diethyl phthalate
U089	56-53-1	Diethylstilbestrol
U090	94-58-6	Dihydrosafrole
U091	119-90-4	3,3'-Dimethoxybenzidine
U092	124-40-3	Dimethylamine (I)
U093	60-11-7	p-Dimethylaminoazobenzene
U094	57-97-6	7,12-Dimethylbenz[a]anthracene
U095	119-93-7	3,3'-Dimethylbenzidine

U096	80-15-9	$\alpha$ , $\alpha$ -Dimethylbenzylhydroperoxide (R)
U097	79-44-7	Dimethylcarbamoyl chloride
U098	57-14-7	1,1-Dimethylhydrazine
U099	540-73-8	1,2-Dimethylhydrazine
U101	105-67-9	2,4-Dimethylphenol
U102	131-11-3	Dimethyl phthalate
U103	77-78-1	Dimethyl sulfate
U105	121-14-2	2,4-Dinitrotoluene
U106	606-20-2	2,6-Dinitrotoluene
U107	117-84-0	Di-n-octyl phthalate
U108	123-91-1	1,4-Dioxane
U109	122-66-7	1,2-Diphenylhydrazine
U110	142-84-7	Dipropylamine (I)
U111	621-64-7	Di-n-propylnitrosamine
U041	106-89-8	Epichlorohydrin
U001	75-07-0	Ethanal (I)
U404	121-44-8	Ethanamine, N,N-diethyl-
U174	55-18-5	Ethanamine, N-ethyl-N-nitroso-
U155	91-80-5	1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)-
U067	106-93-4	Ethane, 1,2-dibromo-
U076	75-34-3	Ethane, 1,1-dichloro-
U077	107-06-2	Ethane, 1,2-dichloro-
U131	67-72-1	Ethane, hexachloro-
U024	111-91-1	Ethane, 1,1'-[methylenebis(oxy)]bis[2-chloro-
U117	60-29-7	Ethane, 1,1'-oxybis- (I)
U025	111-44-4	Ethane, 1,1'-oxybis[2-chloro-
U184	76-01-7	Ethane, pentachloro-
U208	630-20-6	Ethane, 1,1,1,2-tetrachloro-
U209	79-34-5	Ethane, 1,1,2,2-tetrachloro-
U218	62-55-5	Ethanethioamide
U226	71-55-6	Ethane, 1,1,1-trichloro-
U227	79-00-5	Ethane, 1,1,2-trichloro-
U410	59669-26-0	Ethanimidothioic acid, N,N'- [thiobis[(methyl-imino)carbonyloxy]]bis-, dimethyl ester
U394	30558-43-1	Ethanimidothioic acid, 2-(dimethylamino)-N-hydroxy-2-oxo-, methyl ester
U359	110-80-5	Ethanol, 2-ethoxy-
U173	1116-54-7	Ethanol, 2,2'-(nitrosoimino)bis-
U395	5952-26-1	Ethanol, 2,2'-oxybis-, dicarbamate
U004	98-86-2	Ethanone, 1-phenyl-
U043	75-01-4	Ethene, chloro-
U042	110-75-8	Ethene, (2-chloroethoxy)-
U078	75-35-4	Ethene, 1,1-dichloro-
U079	156-60-5	Ethene, 1,2-dichloro-, (E)-
U210	127-18-4	Ethene, tetrachloro-

U228	79-01-6	Ethene, trichloro-
U112	141-78-6	Ethyl acetate (I)
U113	140-88-5	Ethyl acrylate (I)
U238	51-79-6	Ethyl carbamate (urethane)
U117	60-29-7	Ethyl ether
U114	P 111-54-6	Ethylenebisdithiocarbamic acid, salts and esters
U067	106-93-4	Ethylene dibromide
U077	107-06-2	Ethylene dichloride
U359	110-80-5	Ethylene glycol monoethyl ether
U115	75-21-8	Ethylene oxide (I,T)
U116	96-45-7	Ethylenethiourea
U076	75-34-3	Ethylidene dichloride
U118	97-63-2	Ethyl methacrylate
U119	62-50-0	Ethyl methanesulfonate
U120	206-44-0	Fluoranthene
U122	50-00-0	Formaldehyde
U123	64-18-6	Formic acid (C,T)
U124	110-00-9	Furan (I)
U125	98-01-1	2-Furancarboxaldehyde (I)
U147	108-31-6	2,5-Furandione
U213	109-99-9	Furan, tetrahydro- (I)
U125	98-01-1	Furfural (I)
U124	110-00-9	Furfuran (I)
U206	18883-66-4	Glucopyranose, 2-deoxy-2-(3-methyl-3-nitroso-ureido)-, D-
U206	18883-66-4	D-Glucose, 2-deoxy-2-[[[(methylnitrosoamino)-carbonyl]amino]-
U126	765-34-4	Glycidylaldehyde
U163	70-25-7	Guanidine, N-methyl-N'-nitro-N-nitroso-
U127	118-74-1	Hexachlorobenzene
U128	87-68-3	Hexachlorobutadiene
U130	77-47-4	Hexachlorocyclopentadiene
U131	67-72-1	Hexachloroethane
U132	70-30-4	Hexachlorophene
U243	1888-71-7	Hexachloropropene
U133	302-01-2	Hydrazine (R,T)
U086	1615-80-1	Hydrazine, 1,2-diethyl-
U098	57-14-7	Hydrazine, 1,1-dimethyl-
U099	540-73-8	Hydrazine, 1,2-dimethyl-
U109	122-66-7	Hydrazine, 1,2-diphenyl-
U134	7664-39-3	Hydrofluoric acid (C,T)
U134	7664-39-3	Hydrogen fluoride (C,T)
U135	7783-06-4	Hydrogen sulfide
U135	7783-06-4	Hydrogen sulfide H <sub>2</sub> S
U096	80-15-9	Hydroperoxide, 1-methyl-1-phenylethyl- (R)
U116	96-45-7	2-Imidazolidinethione

U137	193-39-5	Indeno[1,2,3-cd]pyrene
U190	85-44-9	1,3-Isobenzofurandione
U140	78-83-1	Isobutyl alcohol (I,T)
U141	120-58-1	Isosafrole
U142	143-50-0	Kepone
U143	303-34-4	Lasiocarpene
U144	301-04-2	Lead acetate
U146	1335-32-6	Lead, bis(acetato-O)tetrahydroxytri-
U145	7446-27-7	Lead phosphate
U146	1335-32-6	Lead subacetate
U129	58-89-9	Lindane
U163	70-25-7	MNNG
U147	108-31-6	Maleic anhydride
U148	123-33-1	Maleic hydrazide
U149	109-77-3	Malononitrile
U150	148-82-3	Melphalan
U151	7439-97-6	Mercury
U152	126-98-7	Methacrylonitrile (I,T)
U092	124-40-3	Methanamine, N-methyl- (I)
U029	74-83-9	Methane, bromo-
U045	74-87-3	Methane, chloro- (I,T)
U046	107-30-2	Methane, chloromethoxy-
U068	74-95-3	Methane, dibromo-
U080	75-09-2	Methane, dichloro-
U075	75-71-8	Methane, dichlorodifluoro-
U138	74-88-4	Methane, iodo-
U119	62-50-0	Methanesulfonic acid, ethyl ester
U211	56-23-5	Methane, tetrachloro-
U153	74-93-1	Methanethiol (I,T)
U225	75-25-2	Methane, tribromo-
U044	67-66-3	Methane, trichloro-
U121	75-69-4	Methane, trichlorofluoro-
U036	57-74-9	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-
U154	67-56-1	Methanol (I)
U155	91-80-5	Methapyrilene
U142	143-50-0	1,3,4-Metheno-2H-cyclobuta[cd]pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro-
U247	72-43-5	Methoxychlor
U154	67-56-1	Methyl alcohol (I)
U029	74-83-9	Methyl bromide
U186	504-60-9	1-Methylbutadiene (I)
U045	74-87-3	Methyl chloride (I,T)
U156	79-22-1	Methyl chlorocarbonate (I,T)
U226	71-55-6	Methylchloroform
U157	56-49-5	3-Methylcholanthrene

U158	101-14-4	4,4'-Methylenebis(2-chloroaniline)
U068	74-95-3	Methylene bromide
U080	75-09-2	Methylene chloride
U159	78-93-3	Methyl ethyl ketone (MEK) (I,T)
U160	1338-23-4	Methyl ethyl ketone peroxide (R,T)
U138	74-88-4	Methyl iodide
U161	108-10-1	Methyl isobutyl ketone (I)
U162	80-62-6	Methyl methacrylate (I,T)
U161	108-10-1	4-Methyl-2-pentanone (I)
U164	56-04-2	Methylthiouracil
U010	50-07-7	Mitomycin C
U059	20830-81-3	5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy)- $\alpha$ -L-lyxo-hexapyranosyl)oxyl]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-
U167	134-32-7	1-Naphthalenamine
U168	91-59-8	2-Naphthalenamine
U026	494-03-1	Naphthaleneamine, N,N'-bis(2-chloroethyl)-
U165	91-20-3	Naphthalene
U047	91-58-7	Naphthalene, 2-chloro-
U166	130-15-4	1,4-Naphthalenedione
U236	72-57-1	2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl-[1,1'-biphenyl]-4,4'-diyl)bis(azo)bis[5-amino-4-hydroxy]-, tetrasodium salt
U279	63-25-2	1-Naphthalenol, methylcarbamate
U166	130-15-4	1,4-Naphthoquinone
U167	134-32-7	$\alpha$ -Naphthylamine
U168	91-59-8	$\beta$ -Naphthylamine
U217	10102-45-1	Nitric acid, thallium (1+) salt
U169	98-95-3	Nitrobenzene (I,T)
U170	100-02-7	p-Nitrophenol
U171	79-46-9	2-Nitropropane (I,T)
U172	924-16-3	N-Nitrosodi-n-butylamine
U173	1116-54-7	N-Nitrosodiethanolamine
U174	55-18-5	N-Nitrosodiethylamine
U176	759-73-9	N-Nitroso-N-ethylurea
U177	684-93-5	N-Nitroso-N-methylurea
U178	615-53-2	N-Nitroso-N-methylurethane
U179	100-75-4	N-Nitrosopiperidine
U180	930-55-2	N-Nitrosopyrrolidine
U181	99-55-8	5-Nitro-o-toluidine
U193	1120-71-4	1,2-Oxathiolane, 2,2-dioxide
U058	50-18-0	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis-(2-chloroethyl)tetrahydro-, 2-oxide
U115	75-21-8	Oxirane (I,T)



U126	765-34-4	Oxiranecarboxyaldehyde
U041	106-89-8	Oxirane, (chloromethyl)-
U182	123-63-7	Paraldehyde
U183	608-93-5	Pentachlorobenzene
U184	76-01-7	Pentachloroethane
U185	82-68-8	Pentachloronitrobenzene (PCNB)
See F027	87-86-5	Pentachlorophenol
U161	108-10-1	Pentanol, 4-methyl-
U186	504-60-9	1,3-Pentadiene (I)
U187	62-44-2	Phenacetin
U188	108-95-2	Phenol
U048	95-57-8	Phenol, 2-chloro-
U039	59-50-7	Phenol, 4-chloro-3-methyl-
U081	120-83-2	Phenol, 2,4-dichloro-
U082	87-65-0	Phenol, 2,6-dichloro-
U089	56-53-1	Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis-, (E)-
U101	105-67-9	Phenol, 2,4-dimethyl-
U052	1319-77-3	Phenol, methyl-
U132	70-30-4	Phenol, 2,2'-methylenebis[3,4,6-trichloro-
U411	114-26-1	Phenol, 2-(1-methylethoxy)-, methylcarbamate
U170	100-02-7	Phenol, 4-nitro-
See F027	87-86-5	Phenol, pentachloro-
See F027	58-90-2	Phenol, 2,3,4,6-tetrachloro-
See F027	95-95-4	Phenol, 2,4,5-trichloro-
See F027	88-06-2	Phenol, 2,4,6-trichloro-
U150	148-82-3	L-Phenylalanine, 4-[bis(2-chloroethyl)amino]-
U145	7446-27-7	Phosphoric acid, lead (2+) salt (2:3)
U087	3288-58-2	Phosphorodithioic acid, O,O-diethyl S-methyl ester
U189	1314-80-3	Phosphorus sulfide (R)
U190	85-44-9	Phthalic anhydride
U191	109-06-8	2-Picoline
U179	100-75-4	Piperidine, 1-nitroso-
U192	23950-58-5	Pronamide
U194	107-10-8	1-Propanamine (I,T)
U111	621-64-7	1-Propanamine, N-nitroso-N-propyl-
U110	142-84-7	1-Propanamine, N-propyl- (I)
U066	96-12-8	Propane, 1,2-dibromo-3-chloro-
U083	78-87-5	Propane, 1,2-dichloro-
U149	109-77-3	Propanedinitrile
U171	79-46-9	Propane, 2-nitro- (I,T)
U027	108-60-1	Propane, 2,2'-oxybis[2-chloro-
See F027	93-72-1	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-
U193	1120-71-4	1,3-Propane sultone
U235	126-72-7	1-Propanol, 2,3-dibromo-, phosphate (3:1)

U140	78-83-1	1-Propanol, 2-methyl- (I,T)
U002	67-64-1	2-Propanone (I)
U007	79-06-1	2-Propenamide
U084	542-75-6	1-Propene, 1,3-dichloro-
U243	1888-71-7	1-Propene, 1,1,2,3,3,3-hexachloro-
U009	107-13-1	2-Propenenitrile
U152	126-98-7	2-Propenenitrile, 2-methyl- (I,T)
U008	79-10-7	2-Propenoic acid (I)
U113	140-88-5	2-Propenoic acid, ethyl ester (I)
U118	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester
U162	80-62-6	2-Propenoic acid, 2-methyl-, methyl ester (I,T)
U373	122-42-9	Propham
U411	114-26-1	Propoxur
See F027	93-72-1	Propionic acid, 2-(2,4,5-trichlorophenoxy)-
U194	107-10-8	n-Propylamine (I,T)
U083	78-87-5	Propylene dichloride
U387	52888-80-9	Prosulfocarb
U148	123-33-1	3,6-Pyridazinedione, 1,2-dihydro-
U196	110-86-1	Pyridine
U191	109-06-8	Pyridine, 2-methyl-
U237	66-75-1	2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]-
U164	58-04-2	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-
U180	930-55-2	Pyrrolidine, 1-nitroso-
U200	50-55-5	Reserpine
U201	108-46-3	Resorcinol
U202	P 81-07-2	Saccharin and salts
U203	94-59-7	Safrole
U204	7783-00-8	Selenious acid
U204	7783-00-8	Selenium dioxide
U205	7488-56-4	Selenium sulfide
U205	7488-56-4	Selenium sulfide SeS <sub>2</sub> (R,T)
U015	115-02-6	L-Serine, diazoacetate (ester)
See F027	93-72-1	Silvex (2,4,5-TP)
U206	18883-66-4	Streptozotocin
U103	77-78-1	Sulfuric acid, dimethyl ester
U189	1314-80-3	Sulfur phosphide (R)
See F027	93-76-5	2,4,5-T
U207	95-94-3	1,2,4,5-Tetrachlorobenzene
U208	630-20-6	1,1,1,2-Tetrachloroethane
U209	79-34-5	1,1,2,2-Tetrachloroethane
U210	127-18-4	Tetrachloroethylene
See F027	58-90-2	2,3,4,6-Tetrachlorophenol
U213	109-99-9	Tetrahydrofuran (I)
U214	563-68-8	Thallium (I) acetate

U215	6533-73-9	Thallium (I) carbonate
U216	7791-12-0	Thallium (I) chloride
U216	7791-12-0	Thallium chloride TICl
U217	10102-45-1	Thallium (I) nitrate
U218	62-55-5	Thioacetamide
U410	59669-26-0	Thiodicarb
U153	74-93-1	Thiomethanol (I,T)
U244	137-26-8	Thioperoxydicarbonic diamide [(H <sub>2</sub> N)C(S)] <sub>2</sub> S <sub>2</sub> , tetramethyl-
U409	23564-05-8	Thiophanate-methyl
U219	62-56-6	Thiourea
U244	137-26-8	Thiram
U220	108-88-3	Toluene
U221	25376-45-8	Toluenediamine
U223	26471-62-5	Toluene diisocyanate (R,T)
U328	95-53-4	o-Toluidine
U353	106-49-0	p-Toluidine
U222	636-21-5	o-Toluidine hydrochloride
U389	2303-17-5	Triallate
U011	61-82-5	1H-1,2,4-Triazol-3-amine
<u>U408</u>	<u>118-79-6</u>	<u>2,4,6-Tribromophenol</u>
U227	79-00-5	1,1,2-Trichloroethane
U228	79-01-6	Trichloroethylene
U121	75-69-4	Trichloromonofluoromethane
See F027	95-95-4	2,4,5-Trichlorophenol
See F027	88-06-2	2,4,6-Trichlorophenol
U404	121-44-8	Triethylamine
U234	99-35-4	1,3,5-Trinitrobenzene (R,T)
U182	123-63-7	1,3,5-Trioxane, 2,4,6-trimethyl-
U235	126-72-7	Tris(2,3-dibromopropyl) phosphate
U236	72-57-1	Trypan blue
U237	66-75-1	Uracil mustard
U176	759-73-9	Urea, N-ethyl-N-nitroso-
U177	684-93-5	Urea, N-methyl-N-nitroso-
U043	75-01-4	Vinyl chloride
U248	P 81-81-2	Warfarin, and salts, when present at concentrations of 0.3 percent or less
U239	1330-20-7	Xylene (I)
U200	50-55-5	Yohimban-16-carboxylic acid, 11,17-dimeth- oxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester, (3β,16β,17α,18β,20α)-
U249	1314-84-7	Zinc phosphide Zn <sub>3</sub> P <sub>2</sub> , when present at concentrations of 10 percent or less

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 721.138      Comparable or Syngas Fuel Exclusion

Wastes that meet the following comparable or syngas fuel requirements are not solid wastes:

- a) Comparable fuel specifications.
  - 1) Physical specifications.
    - A) Heating value. The heating value must exceed 5,000 BTU/lb (11,500 J/g).
    - B) Viscosity. The viscosity must not exceed: 50 cs, as-fired.
  - 2) Constituent specifications. For the compounds listed, the constituent specification levels and minimum required detection limits (where non-detect is the constituent specification) are set forth in the table at subsection (d) of this Section.
- b) Synthesis gas fuel specification. Synthesis gas fuel (i.e., syngas fuel) that is generated from hazardous waste must fulfill the following requirements:
  - 1) It must have a minimum Btu value of 100 Btu/Scf;
  - 2) It must contain less than 1 ppmv of total halogen;
  - 3) It must contain less than 300 ppmv of total nitrogen other than diatomic nitrogen (N<sub>2</sub>);
  - 4) It must contain less than 200 ppmv of hydrogen sulfide; and
  - 5) It must contain less than 1 ppmv of each hazardous constituent in the target list of Section 721.Appendix H constituents.
- c) Implementation. Waste that meets the comparable or syngas fuel specifications provided by subsections (a) or (b) of this Section (these constituent levels must be achieved by the comparable fuel when generated, or as a result of treatment or blending, as provided in subsections (c)(3) or (c)(4) of this Section) is excluded from the definition of solid waste provided that the following requirements are met:
  - 1) Notices. For purposes of this Section, the person claiming and qualifying for the exclusion is called the comparable or syngas fuel generator and the person burning the comparable or syngas fuel is called the comparable or syngas burner. The person that generates the comparable fuel or syngas fuel must claim and certify to the exclusion.

A) Notice to the Agency.

- i) The generator must submit a one-time notice to the Agency, certifying compliance with the conditions of the exclusion and providing documentation as required by subsection (c)(1)(A)(iii) of this Section;
- ii) If the generator is a company that generates comparable or syngas fuel at more than one facility, the generator shall specify at which sites the comparable or syngas fuel will be generated;
- iii) A comparable or syngas fuel generator's notification to the Agency must contain the items listed in subsection (c)(1)(C) of this Section.

B) Public notice. Prior to burning an excluded comparable or syngas fuel, the burner must publish in a major newspaper of general circulation local to the site where the fuel will be burned, a notice entitled "Notification of Burning a Comparable or Syngas Fuel Excluded Under the Resource Conservation and Recovery Act" containing the following information:

- i) The name, address, and USEPA identification number of the generating facility;
- ii) The name and address of the unit(s) that will burn the comparable or syngas fuel;
- iii) A brief, general description of the manufacturing, treatment, or other process generating the comparable or syngas fuel;
- iv) An estimate of the average and maximum monthly and annual quantity of the waste claimed to be excluded; and
- v) The name and mailing address of the Agency, to which the claim was submitted.

C) Required content of comparable or syngas notification to the Agency.

- i) The name, address, and USEPA identification number of the person or facility claiming the exclusion;

- ii) The applicable USEPA hazardous waste code(s) for the hazardous waste;
- iii) The name and address of the units that meet the requirements of subsection (c)(2) of this Section which will burn the comparable or syngas fuel; and
- iv) The following statement, signed and submitted by the person claiming the exclusion or its authorized representative:

Under penalty of criminal and civil prosecution for making or submitting false statements, representations, or omissions, I certify that the requirements of 35 Ill. Adm. Code 721.138 have been met for all waste identified in this notification. Copies of the records and information required by 35 Ill. Adm. Code 721.138(c)(10) are available at the comparable or syngas fuel generator's facility. Based on my inquiry of the individuals immediately responsible for obtaining the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

BOARD NOTE: Subsections (c)(1)(C)(i) through (c)(1)(C)(iv) are derived from 40 CFR 261.138(c)(1)(i)(C)(1) and (c)(1)(i)(C)(4), which the Board has codified here to comport with Illinois Administrative Code format requirements.

- 2) Burning. The comparable or syngas fuel exclusion for fuels that meet the requirements of subsections (a) or (b) and (c)(1) of this Section applies only if the fuel is burned in the following units that also shall be subject to federal, state, and local air emission requirements, including all applicable federal Clean Air Act (CAA) maximum achievable control technology (MACT) requirements:
  - A) Industrial furnaces, as defined in 35 Ill. Adm. Code 720.110;
  - B) Boilers, as defined in 35 Ill. Adm. Code 720.110, that are further defined as follows:

- i) Industrial boilers located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes; or
    - ii) Utility boilers used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale;
  - C) Hazardous waste incinerators subject to regulation under 35 Ill. Adm. Code 724.Subpart O or 725.Subpart O or applicable CAA MACT standards.
- 3) Blending to meet the viscosity specification. A hazardous waste blended to meet the viscosity specification must fulfill the following requirements:
- A) As generated and prior to any blending, manipulation, or processing, the waste must meet the constituent and heating value specifications of subsections (a)(1)(A) and (a)(2) of this Section;
  - B) The waste must be blended at a facility that is subject to the applicable requirements of 35 Ill. Adm. Code 724 and 725 or 35 Ill. Adm. Code 722.134; and
  - C) The waste must not violate the dilution prohibition of subsection (c)(6) of this Section.
- 4) Treatment to meet the comparable fuel exclusion specifications.
- A) A hazardous waste may be treated to meet the exclusion specifications of subsections (a)(1) and (a)(2) of this Section provided the treatment fulfills the following requirements:
    - i) The treatment destroys or removes the constituent listed in the specification or raises the heating value by removing or destroying hazardous constituents or materials;
    - ii) The treatment is performed at a facility that is subject to the applicable requirements of 35 Ill. Adm. Code 724 and 725 or 35 Ill. Adm. Code 722.134; and
    - iii) The treatment does not violate the dilution prohibition of subsection (c)(6) of this Section.

B) Residuals resulting from the treatment of a hazardous waste listed in Subpart D of this Part to generate a comparable fuel remain a hazardous waste.

5) Generation of a syngas fuel.

A) A syngas fuel can be generated from the processing of hazardous wastes to meet the exclusion specifications of subsection (b) of this Section provided the processing fulfills the following requirements:

i) The processing destroys or removes the constituent listed in the specification or raises the heating value by removing or destroying constituents or materials;

ii) The processing is performed at a facility that is subject to the applicable requirements of 35 Ill. Adm. Code 724 and 725 or 35 Ill. Adm. Code 722.134 or is an exempt recycling unit pursuant to Section 261.106(c); and

iii) The processing does not violate the dilution prohibition of subsection (c)(6) of this Section.

B) Residuals resulting from the treatment of a hazardous waste listed in Subpart D of this Part to generate a syngas fuel remain a hazardous waste.

6) Dilution prohibition for comparable and syngas fuels. No generator, transporter, handler, or owner or operator of a treatment, storage, or disposal facility shall in any way dilute a hazardous waste to meet the exclusion specifications of subsection (a)(1)(A), (a)(2) or (b) of this Section.

7) Waste analysis plans. The generator of a comparable or syngas fuel shall develop and follow a written waste analysis plan which describes the procedures for sampling and analysis of the hazardous waste to be excluded. The waste analysis plan shall be developed in accordance with the applicable sections of the "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (SW-846). The plan shall be followed and retained at the facility excluding the waste.

A) At a minimum, the plan must specify the following:

i) The parameters for which each hazardous waste will be analyzed and the rationale for the selection of those parameters;



- ii) The test methods which will be used to test for these parameters;
  - iii) The sampling method which will be used to obtain a representative sample of the waste to be analyzed;
  - iv) The frequency with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate and up to date; and
  - v) If process knowledge is used in the waste determination, any information prepared by the generator in making such determination.
- B) The waste analysis plan must also contain records of the following:
- i) The dates and times waste samples were obtained, and the dates the samples were analyzed;
  - ii) The names and qualifications of the person(s) who obtained the samples;
  - iii) A description of the temporal and spatial locations of the samples;
  - iv) The name and address of the laboratory facility at which analyses of the samples were performed;
  - v) A description of the analytical methods used, including any clean-up and sample preparation methods;
  - vi) All quantitation limits achieved and all other quality control results for the analysis (including method blanks, duplicate analyses, matrix spikes, etc.), laboratory quality assurance data, and description of any deviations from analytical methods written in the plan or from any other activity written in the plan which occurred;
  - vii) All laboratory results demonstrating that the exclusion specifications have been met for the waste; and
  - viii) All laboratory documentation that support the analytical results, unless a contract between the claimant and the laboratory provides for the documentation to be

maintained by the laboratory for the period specified in subsection (c)(11) of this Section and also provides for the availability of the documentation to the claimant upon request.

C) Syngas fuel generators shall submit for approval, prior to performing sampling, analysis, or any management of a syngas fuel as an excluded waste, a waste analysis plan containing the elements of subsection (c)(7)(A) of this Section to the appropriate regulatory authority. The approval of waste analysis plans must be stated in writing and received by the facility prior to sampling and analysis to demonstrate the exclusion of a syngas. The approval of the waste analysis plan may contain such provisions and conditions as the regulatory authority deems appropriate.

8) Comparable fuel sampling and analysis.

A) General. For each waste for which an exclusion is claimed, the generator of the hazardous waste must test for all the constituents on Section 721. Appendix H, except those that the generator determines, based on testing or knowledge, should not be present in the waste. The generator is required to document the basis of each determination that a constituent should not be present. The generator may not determine that any of the following categories of constituents should not be present:

i) A constituent that triggered the toxicity characteristic for the waste constituents that were the basis of the listing of the waste stream, or constituents for which there is a treatment standard for the waste code in 35 Ill. Adm. Code 728.140;

ii) A constituent detected in previous analysis of the waste;

iii) Constituents introduced into the process that generates the waste; or

iv) Constituents that are byproducts or side reactions to the process that generates the waste.

Note to subsection (c)(8): Any claim under this Section must be valid and accurate for all hazardous constituents; a determination not to test for a hazardous constituent will not shield a generator from liability should that constituent later be found in the waste above the exclusion specifications.

- B) For each waste for which the exclusion is claimed where the generator of the comparable or syngas fuel is not the original generator of the hazardous waste, the generator of the comparable or syngas fuel may not use process knowledge pursuant to subsection (c)(8)(A) of this Section and must test to determine that all of the constituent specifications of subsections (a)(2) and (b) of this Section have been met.
- C) The comparable or syngas fuel generator may use any reliable analytical method to demonstrate that no constituent of concern is present at concentrations above the specification levels. It is the responsibility of the generator to ensure that the sampling and analysis are unbiased, precise, and representative of the waste. For the waste to be eligible for exclusion, a generator must demonstrate the following:
- i) That each constituent of concern is not present in the waste above the specification level at the 95 percent upper confidence limit around the mean; and
  - ii) That the analysis could have detected the presence of the constituent at or below the specification level at the 95 percent upper confidence limit around the mean.
- D) Nothing in this paragraph preempts, overrides or otherwise negates the provision in 35 Ill. Adm. Code 722.111, which requires any person that generates a solid waste to determine if that waste is a hazardous waste.
- E) In an enforcement action, the burden of proof to establish conformance with the exclusion specification shall be on the generator claiming the exclusion.
- F) The generator must conduct sampling and analysis in accordance with their waste analysis plan developed under subsection (c)(7) of this Section.
- G) Syngas fuel and comparable fuel that has not been blended in order to meet the kinematic viscosity specifications must be analyzed as generated.
- H) If a comparable fuel is blended in order to meet the kinematic viscosity specifications, the generator shall undertake the following actions:

- i) Analyze the fuel as generated to ensure that it meets the constituent and heating value specifications; and
    - ii) After blending, analyze the fuel again to ensure that the blended fuel continues to meet all comparable or syngas fuel specifications.
  - I) Excluded comparable or syngas fuel must be re-tested, at a minimum, annually and must be retested after a process change that could change the chemical or physical properties of the waste.
- 9) Speculative accumulation. Any persons handling a comparable or syngas fuel are subject to the speculative accumulation test under Section 721.102(c)(4).
- 10) Records. The generator must maintain records of the following information on-site:
- A) All information required to be submitted to the implementing authority as part of the notification of the claim:
    - i) The owner or operator name, address, and RCRA facility USEPA identification number of the person claiming the exclusion;
    - ii) The applicable USEPA hazardous waste codes for each hazardous waste excluded as a fuel; and
    - iii) The certification signed by the person claiming the exclusion or his authorized representative.
  - B) A brief description of the process that generated the hazardous waste and process that generated the excluded fuel, if not the same;
  - C) An estimate of the average and maximum monthly and annual quantities of each waste claimed to be excluded;
  - D) Documentation for any claim that a constituent is not present in the hazardous waste as required under subsection (c)(8)(A) of this Section;
  - E) The results of all analyses and all detection limits achieved as required under subsection (c)(8) of this Section;

- F) If the excluded waste was generated through treatment or blending, documentation as required under subsection (c)(3) or (c)(4) of this Section;
- G) If the waste is to be shipped off-site, a certification from the burner as required under subsection (c)(12) of this Section;
- H) A waste analysis plan and the results of the sampling and analysis that includes the following:
- i) The dates and times waste samples were obtained, and the dates the samples were analyzed;
  - ii) The names and qualifications of the person(s) that obtained the samples;
  - iii) A description of the temporal and spatial locations of the samples;
  - iv) The name and address of the laboratory facility at which analyses of the samples were performed;
  - v) A description of the analytical methods used, including any clean-up and sample preparation methods;
  - vi) All quantitation limits achieved and all other quality control results for the analysis (including method blanks, duplicate analyses, matrix spikes, etc.), laboratory quality assurance data, and description of any deviations from analytical methods written in the plan or from any other activity written in the plan which occurred;
  - vii) All laboratory analytical results demonstrating that the exclusion specifications have been met for the waste; and
  - viii) All laboratory documentation that support the analytical results, unless a contract between the claimant and the laboratory provides for the documentation to be maintained by the laboratory for the period specified in subsection (c)(11) of this Section and also provides for the availability of the documentation to the claimant upon request; and
- I) If the generator ships comparable or syngas fuel off-site for burning, the generator shall retain for each shipment the following information on-site:

- i) The name and address of the facility receiving the comparable or syngas fuel for burning;
  - ii) The quantity of comparable or syngas fuel shipped and delivered;
  - iii) The date of shipment or delivery;
  - iv) A cross-reference to the record of comparable or syngas fuel analysis or other information used to make the determination that the comparable or syngas fuel meets the specifications as required under subsection (c)(8) of this Section; and
  - v) A one-time certification by the burner as required under subsection (c)(12) of this Section.
- 11) Records retention. Records must be maintained for the period of three years. A generator shall maintain a current waste analysis plan during that three year period.
- 12) Burner certification. Prior to submitting a notification to the Agency, a comparable or syngas fuel generator that intends to ship their fuel off-site for burning must obtain a one-time written, signed statement from the burner that includes the following:
- A) A certification that the comparable or syngas fuel will only be burned in an industrial furnace or boiler, utility boiler, or hazardous waste incinerator, as required under subsection (c)(2) of this Section;
  - B) Identification of the name and address of the units that will burn the comparable or syngas fuel; and
  - C) A certification that the state in which the burner is located is authorized to exclude wastes as comparable or syngas fuel under the provisions of this Section.
- 13) Ineligible waste codes. Wastes that are listed because of presence of dioxins or furans, as set out in Section 721. Appendix G, are not eligible for this exclusion, and any fuel produced from or otherwise containing these wastes remains a hazardous waste subject to full RCRA hazardous waste management requirements.
- d) Table of detection and detection limit values for comparable fuel specification:

<u>Chemical name</u>	<u>CAS No</u>	<u>Concentration limit (mg/kg at 10,000 BTU/lb)</u>	<u>Minimum required detection limit (mg/kg)</u>
Total Nitrogen as N	na	4900	
Total Halogens as Cl	na	540	
Total Organic Halogens as Cl	na	25 or individual halogenated organics listed below.	
Polychlorinated biphenyls, total [Arocolors, total] <sup>a</sup>	1336-36-3	Non-detect	1.4
Cyanide, total	57-12-5	Non-detect	1.0
<u>Metals:</u>			
Antimony, total	7440-36-0	7.9	
Arsenic, total	7440-38-2	0.23	
Barium, total	7440-39-3	23	
Beryllium, total	7440-41-7	1.2	
Cadmium, total	7440-43-9	1.2	
Chromium, total	7440-47-3	2.3	
Cobalt	7440-48-4	4.6	
Lead, total	7439-92-1	31	
Manganese	7439-96-5	1.2	
Mercury, total	7439-97-6	0.24	
Nickel, total	7440-02-0	58	
Selenium, total	7782-49-2	0.15	
Silver, total	7440-22-4	2.3	
Thallium, total	7440-28-0	23	
<u>Hydrocarbons:</u>			
Benzo[a]anthracene	56-55-3	1100	
Benzene	71-43-2	4100	
Benzo[b]fluoranthene	205-99-2	960	
Benzo[k]fluoranthene	207-08-9	1900	
Benzo[a]pyrene	50-32-8	960	
Chrysene	218-01-9	1400	
Dibenzo[a,h]anthracene	53-70-3	960	
7,12-Dimethylbenz[a]-anthracene	57-97-6	1900	
Fluoranthene	206-44-0	1900	
Indeno(1,2,3-cd)pyrene	193-39-5	960	
3-Methylcholanthrene	56-49-5	1900	
Naphthalene	91-20-3	3200	
Toluene	108-88-3	36000	
<u>Oxygetes:</u>			

Acetophenone	<u>98-86-2</u>	<u>1900</u>	
Acrolein	<u>107-02-8</u>	<u>37</u>	
Allyl alcohol	<u>107-18-6</u>	<u>30</u>	
Bis(2-ethylhexyl)- phthalate [Di-2-ethyl- hexyl phthalate]	<u>117-81-7</u>	<u>1900</u>	
Butyl benzyl phthalate	<u>85-68-7</u>	<u>1900</u>	
o-Cresol [2-Methyl phenol]	<u>95-48-7</u>	<u>220</u>	
m-Cresol [3-Methyl phenol]	<u>108-39-4</u>	<u>220</u>	
p-Cresol [4-Methyl phenol]	<u>106-44-5</u>	<u>220</u>	
Di-n-butyl phthalate	<u>84-74-2</u>	<u>1900</u>	
Diethyl phthalate	<u>84-66-2</u>	<u>1900</u>	
2,4-Dimethylphenol	<u>105-67-9</u>	<u>1900</u>	
Dimethyl phthalate	<u>131-11-3</u>	<u>1900</u>	
Di-n-octyl phthalate	<u>117-84-0</u>	<u>960</u>	
Endothall	<u>145-73-3</u>	<u>100</u>	
Ethyl methacrylate	<u>97-63-2</u>	<u>37</u>	
2-Ethoxyethanol [Ethylene glycol monoethyl ether].	<u>110-80-5</u>	<u>100</u>	
Isobutyl alcohol	<u>78-83-1</u>	<u>37</u>	
Isosafrole	<u>120-58-1</u>	<u>1900</u>	
Methyl ethyl ketone [2- Butanone]	<u>78-93-3</u>	<u>37.</u>	
Methyl methacrylate	<u>80-62-6</u>	<u>37.</u>	
1,4-Naphthoquinone	<u>130-15-4</u>	<u>1900.</u>	
Phenol	<u>108-95-2</u>	<u>1900.</u>	
Propargyl alcohol [2- Propyn-1-ol]	<u>107-19-7</u>	<u>30.</u>	
Safrole	<u>94-59-7</u>	<u>1900.</u>	
<u>Sulfonated Organics:</u>			
Carbon disulfide	<u>75-15-0</u>	<u>Non-detect</u>	<u>37</u>
Disulfoton	<u>298-04-4</u>	<u>Non-detect</u>	<u>1900</u>
Ethyl methanesulfonate	<u>62-50-0</u>	<u>Non-detect</u>	<u>1900</u>
Methyl methane- sulfonate	<u>66-27-3</u>	<u>Non-detect</u>	<u>1900</u>
Phorate	<u>298-02-2</u>	<u>Non-detect</u>	<u>1900</u>
1,3-Propane sultone	<u>1120-71-4</u>	<u>Non-detect</u>	<u>100</u>
Tetraethyldithiopyro- phosphate [Sulfotepp]	<u>3689-24-5</u>	<u>Non-detect</u>	<u>1900</u>
Thiophenol [Benzene-	<u>108-98-5</u>	<u>Non-detect</u>	<u>30</u>



thiol]			
<u>O,O,O-Triethyl phosphorothioate</u>	<u>126-68-1</u>	<u>Non-detect</u>	<u>1900</u>
Nitrogenated Organics:			
<u>Acetonitrile [Methyl cyanide]</u>	<u>75-05-8</u>	<u>Non-detect</u>	<u>37</u>
<u>2-Acetylaminofluorene [2-AAF]</u>	<u>53-96-3</u>	<u>Non-detect</u>	<u>1900</u>
<u>Acrylonitrile</u>	<u>107-13-1</u>	<u>Non-detect</u>	<u>37</u>
<u>4-Aminobiphenyl</u>	<u>92-67-1</u>	<u>Non-detect</u>	<u>1900</u>
<u>4-Aminopyridine</u>	<u>504-24-5</u>	<u>Non-detect</u>	<u>100</u>
<u>Aniline</u>	<u>62-53-3</u>	<u>Non-detect</u>	<u>1900</u>
<u>Benzidine</u>	<u>92-87-5</u>	<u>Non-detect</u>	<u>1900</u>
<u>Dibenz[a,j]acridine</u>	<u>224-42-0</u>	<u>Non-detect</u>	<u>1900</u>
<u>O,O-Diethyl O-pyrazinyl phosphorothioate [Thionazin].</u>	<u>297-97-2</u>	<u>Non-detect</u>	<u>1900</u>
<u>Dimethoate</u>	<u>60-51-5</u>	<u>Non-detect</u>	<u>1900</u>
<u>p-(Dimethylamino)azobenzene [4-Dimethylaminoazobenzene].</u>	<u>60-11-7</u>	<u>Non-detect</u>	<u>1900</u>
<u>3,3'-Dimethylbenzidine</u>	<u>119-93-7</u>	<u>Non-detect</u>	<u>1900</u>
<u>a,a-Dimethylphenethylamine.</u>	<u>122-09-8</u>	<u>Non-detect</u>	<u>1900</u>
<u>3,3'-Dimethoxybenzidine</u>	<u>119-90-4</u>	<u>Non-detect</u>	<u>100</u>
<u>1,3-Dinitrobenzene [m-Dinitrobenzene]</u>	<u>99-65-0</u>	<u>Non-detect</u>	<u>1900</u>
<u>4,6-Dinitro-o-cresol</u>	<u>534-52-1</u>	<u>Non-detect</u>	<u>1900</u>
<u>2,4-Dinitrophenol</u>	<u>51-28-5</u>	<u>Non-detect</u>	<u>1900</u>
<u>2,4-Dinitrotoluene</u>	<u>121-14-2</u>	<u>Non-detect</u>	<u>1900</u>
<u>2,6-Dinitrotoluene</u>	<u>606-20-2</u>	<u>Non-detect</u>	<u>1900</u>
<u>Dinoseb [2-sec-Butyl-4,6-dinitrophenol]</u>	<u>88-85-7</u>	<u>Non-detect</u>	<u>1900</u>
<u>Diphenylamine</u>	<u>122-39-4</u>	<u>Non-detect</u>	<u>1900</u>
<u>Ethyl carbamate [Urethane]</u>	<u>51-79-6</u>	<u>Non-detect</u>	<u>100</u>
<u>Ethylenethiourea (2-Imidazolidinethione)</u>	<u>96-45-7</u>	<u>Non-detect</u>	<u>110</u>
<u>Famphur</u>	<u>52-85-7</u>	<u>Non-detect</u>	<u>1900</u>
<u>Methacrylonitrile</u>	<u>126-98-7</u>	<u>Non-detect</u>	<u>37</u>
<u>Methapyrilene</u>	<u>91-80-5</u>	<u>Non-detect</u>	<u>1900</u>
<u>Methomyl</u>	<u>16752-77-5</u>	<u>Non-detect</u>	<u>57</u>
<u>2-Methylactonitrile</u>	<u>75-86-5</u>	<u>Non-detect</u>	<u>100</u>

[Acetone cyanohydrin].			
Methyl parathion	<u>298-00-0</u>	<u>Non-detect</u>	<u>1900</u>
MNNG (N-Metyl-N-nitroso-N'-nitro-guanidine)	<u>70-25-7</u>	<u>Non-detect</u>	<u>110</u>
1-Naphthylamine, [ $\alpha$ -Naphthylamine]	<u>134-32-7</u>	<u>Non-detect</u>	<u>1900</u>
2-Naphthylamine, [ $\beta$ -Naphthylamine]	<u>91-59-8</u>	<u>Non-detect</u>	<u>1900</u>
Nicotine	<u>54-11-5</u>	<u>Non-detect</u>	<u>100</u>
4-Nitroaniline, [p-Nitroaniline]	<u>100-01-6</u>	<u>Non-detect</u>	<u>1900</u>
Nitrobenzene	<u>98-95-3</u>	<u>Non-detect</u>	<u>1900</u>
p-Nitrophenol, [p-Nitrophenol]	<u>100-02-7</u>	<u>Non-detect</u>	<u>1900</u>
5-Nitro-o-toluidine	<u>99-55-8</u>	<u>Non-detect</u>	<u>1900</u>
N-Nitrosodi-n-butyl-amine	<u>924-16-3</u>	<u>Non-detect</u>	<u>1900</u>
N-Nitrosodiethylamine	<u>55-18-5</u>	<u>Non-detect</u>	<u>1900</u>
N-Nitrosodiphenyl-amine, [Diphenylnitros-amine]	<u>86-30-6</u>	<u>Non-detect</u>	<u>1900</u>
N-Nitroso-N-methyl-ethylamine	<u>10595-95-6</u>	<u>Non-detect</u>	<u>1900</u>
N-Nitrosomorpholine	<u>59-89-2</u>	<u>Non-detect</u>	<u>1900</u>
N-Nitrosopiperidine	<u>100-75-4</u>	<u>Non-detect</u>	<u>1900</u>
N-Nitrosopyrrolidine	<u>930-55-2</u>	<u>Non-detect</u>	<u>1900</u>
2-Nitropropane	<u>79-46-9</u>	<u>Non-detect</u>	<u>30</u>
Parathion	<u>56-38-2</u>	<u>Non-detect</u>	<u>1900</u>
Phenacetin	<u>62-44-2</u>	<u>Non-detect</u>	<u>1900</u>
1,4-Phenylene diamine, [p-Phenylenediamine]	<u>106-50-3</u>	<u>Non-detect</u>	<u>1900</u>
N-Phenylthiourea	<u>103-85-5</u>	<u>Non-detect</u>	<u>57</u>
2-Picoline [alpha-Picoline]	<u>109-06-8</u>	<u>Non-detect</u>	<u>1900</u>
Propythioracil [6-Propyl-2-thiouracil]	<u>51-52-5</u>	<u>Non-detect</u>	<u>100</u>
Pyridine	<u>110-86-1</u>	<u>Non-detect</u>	<u>1900</u>
Strychnine	<u>57-24-9</u>	<u>Non-detect</u>	<u>100</u>
Thioacetamide	<u>62-55-5</u>	<u>Non-detect</u>	<u>57</u>
Thiofanox	<u>39196-18-4</u>	<u>Non-detect</u>	<u>100</u>
Thiourea	<u>62-56-6</u>	<u>Non-detect</u>	<u>57</u>
Toluene-2,4-diamine [2,4-Diaminotoluene]	<u>95-80-7</u>	<u>Non-detect</u>	<u>57</u>

Toluene-2,6-diamine [2,6-Diaminotoluene]	<u>823-40-5</u>	<u>Non-detect</u>	<u>57</u>
o-Toluidine	<u>95-53-4</u>	<u>Non-detect</u>	<u>2200</u>
p-Toluidine	<u>106-49-0</u>	<u>Non-detect</u>	<u>100</u>
1,3,5-Trinitrobenzne, [sym-Trinitobenzene]	<u>99-35-4</u>	<u>Non-detect</u>	<u>2000</u>
Halogenated Organics <sup>b</sup> :			
Allyl chloride	<u>107-05-1</u>	<u>Non-detect</u>	<u>37</u>
Aramite	<u>104-57-8</u>	<u>Non-detect</u>	<u>1900</u>
Benzal chloride [Di- chloromethyl benzene]	<u>98-87-3</u>	<u>Non-detect</u>	<u>100</u>
Benzyl chloride	<u>100-44-77</u>	<u>Non-detect</u>	<u>100</u>
Bis(2-chloroethyl)ether [Dichloroethyl ether]	<u>111-44-4</u>	<u>Non-detect</u>	<u>1900</u>
Bromoform [Tribromo- methane]	<u>75-25-2</u>	<u>Non-detect</u>	<u>37</u>
Bromomethane [Methyl bromide]	<u>74-83-9</u>	<u>Non-detect</u>	<u>37</u>
4-Bromophenyl phenyl ether [p-Bromodiphenyl ether]	<u>101-55-3</u>	<u>Non-detect</u>	<u>1900</u>
Carbon tetrachloride	<u>56-23-5</u>	<u>Non-detect</u>	<u>37</u>
Chlordane	<u>57-74-9</u>	<u>Non-detect</u>	<u>14</u>
p-Chloroaniline	<u>106-47-8</u>	<u>Non-detect</u>	<u>1900</u>
Chlorobenzene	<u>108-90-7</u>	<u>Non-detect</u>	<u>37</u>
Chlorobenzilate	<u>510-15-6</u>	<u>Non-detect</u>	<u>1900</u>
p-Chloro-m-cresol	<u>59-50-7</u>	<u>Non-detect</u>	<u>1900</u>
2-Chloroethyl vinyl ether	<u>110-75-8</u>	<u>Non-detect</u>	<u>37</u>
Chloroform	<u>67-66-3</u>	<u>Non-detect</u>	<u>37</u>
Chloromethane [Methyl chloride]	<u>74-87-3</u>	<u>Non-detect</u>	<u>37</u>
2-Chlorophthalene [beta-Chlorophthalene]	<u>91-58-7</u>	<u>Non-detect</u>	<u>1900</u>
2-Chlorophenol [o- Chlorophenol]	<u>95-57-8</u>	<u>Non-detect</u>	<u>1900</u>
Chloroprene [2-Chloro- 1,3-butadiene]	<u>1126-99-8</u>	<u>Non-detect</u>	<u>37</u>
2,4-D [2,4-Dichloro- phenoxyacetic acid]	<u>94-75-7</u>	<u>Non-detect</u>	<u>7.0</u>
Diallate	<u>2303-16-4</u>	<u>Non-detect</u>	<u>1900</u>
1,2-Dibromo-3-chloro- propane	<u>96-12-8</u>	<u>Non-detect</u>	<u>37</u>
1,2-Dichlorobenzene	<u>95-50-1</u>	<u>Non-detect</u>	<u>1900</u>

[o-Dichlorobenzene]			
1,3-Dichlorobenzene [m-Dichlorobenzene]	<u>541-73-1</u>	<u>Non-detect</u>	<u>1900</u>
1,4-Dichlorobenzene [p-Dichlorobenzene]	<u>106-46-7</u>	<u>Non-detect</u>	<u>1900</u>
3,3'-Dichlorobenzidine	<u>91-94-1</u>	<u>Non-detect</u>	<u>1900</u>
Dichlorodifluoro- methane [CFC-12]	<u>75-71-8</u>	<u>Non-detect</u>	<u>37</u>
1,2-Dichloroethane [Ethylene dichloride]	<u>107-06-2</u>	<u>Non-detect</u>	<u>37</u>
1,1-Dichloroethylene [Vinylidene chloride]	<u>75-35-4</u>	<u>Non-detect</u>	<u>37</u>
Dichloromethoxy ethane [Bis(2-chloro- ethoxy)methane]	<u>111-91-1</u>	<u>Non-detect</u>	<u>1900</u>
2,4-Dichlorophenol	<u>120-83-2</u>	<u>Non-detect</u>	<u>1900</u>
2,6-Dichlorophenol	<u>87-65-0</u>	<u>Non-detect</u>	<u>1900</u>
1,2-Dichloropropane [Propylene dichloride]	<u>78-87-5</u>	<u>Non-detect</u>	<u>37</u>
cis-1,3-Dichloro- propylene	<u>10061-01-5</u>	<u>Non-detect</u>	<u>37</u>
trans-1,3-Dichloro- propylene	<u>10061-02-6</u>	<u>Non-detect</u>	<u>37</u>
1,3-Dichloro-2- propanol	<u>96-23-1</u>	<u>Non-detect</u>	<u>30</u>
Endosulfan I	<u>959-98-8</u>	<u>Non-detect</u>	<u>1.4</u>
Endosulfan II	<u>33213-65-9</u>	<u>Non-detect</u>	<u>1.4</u>
Endrin	<u>72-20-8</u>	<u>Non-detect</u>	<u>1.4</u>
Endrin aldehyde	<u>7421-93-4</u>	<u>Non-detect</u>	<u>1.4</u>
Endrin Ketone	<u>53494-70-5</u>	<u>Non-detect</u>	<u>1.4</u>
Epichlorohydrin [1- Chloro-2,3-epoxy propane]	<u>106-89-8</u>	<u>Non-detect</u>	<u>30</u>
Ethylidene dichloride [1,1-Dichloroethane]	<u>75-34-3</u>	<u>Non-detect</u>	<u>37</u>
2-Fluoroacetamide	<u>640-19-7</u>	<u>Non-detect</u>	<u>100</u>
Heptachlor	<u>76-44-8</u>	<u>Non-detect</u>	<u>1.4</u>
Heptachlor epoxide	<u>1024-57-3</u>	<u>Non-detect</u>	<u>2.8</u>
Hexachlorobenzene	<u>118-74-1</u>	<u>Non-detect</u>	<u>1900</u>
Hexachloro-1,3-buta- diene [Hexachlorobuta- diene]	<u>87-68-3</u>	<u>Non-detect</u>	<u>1900</u>
Hexachlorocyclopenta- diene	<u>77-47-4</u>	<u>Non-detect</u>	<u>1900</u>

Hexachloroethane	<u>67-72-1</u>	Non-detect	<u>1900</u>
Hexachlorophene	<u>70-30-4</u>	Non-detect	<u>1000</u>
Hexachloropropene [Hexachloropropylene]	<u>1888-71-7</u>	Non-detect	<u>1900</u>
Isodrin	<u>465-73-6</u>	Non-detect	<u>1900</u>
Kepone [Chlordecone]	<u>143-50-0</u>	Non-detect	<u>3600</u>
Lindane [gamma-Hexachlorocyclohexane] [gamma-BHC]	<u>58-89-9</u>	non-detect	<u>1.4</u>
Methylene chloride [Dichloromethane]	<u>75-09-2</u>	non-detect	<u>37</u>
4,4'-methylene-bis(2-chloroaniline)	<u>101-14-4</u>	non-detect	<u>100</u>
Methyl iodide [Iodomethane]	<u>74-88-4</u>	non-detect	<u>37</u>
Pentachlorobenzene	<u>608-93-5</u>	non-detect	<u>1900</u>
Pentachloroethane	<u>76-01-7</u>	non-detect	<u>37</u>
Pentachloronitrobenzene [PCNB] [Quintobenzene] [Quintozene]	<u>82-68-8</u>	non-detect	<u>1900</u>
Pentachlorophenol	<u>87-86-5</u>	non-detect	<u>1900</u>
Pronamide	<u>23950-58-5</u>	non-detect	<u>1900</u>
Silvex [2,4,5-Trichlorophenoxypropionic acid]	<u>93-72-1</u>	non-detect	<u>7.0</u>
2,3,7,8-Tetrachlorodibenzo-p-dioxin [2,3,7,8-TCDD]	<u>1746-01-6</u>	non-detect	<u>30</u>
1,2,4,5-Tetrachlorobenzene	<u>95-94-3</u>	non-detect	<u>1900</u>
1,1,2,2-Tetrachloroethane	<u>79-34-5</u>	non-detect	<u>37</u>
Tetrachloroethylene [Perchloroethylene]	<u>127-18-4</u>	non-detect	<u>37</u>
2,3,4,6-Tetrachlorophenol	<u>58-90-2</u>	non-detect	<u>1900</u>
1,2,4-Trichlorobenzene	<u>120-82-1</u>	non-detect	<u>1900</u>
1,1,1-Trichloroethane [Methyl chloroform]	<u>71-55-6</u>	non-detect	<u>37</u>
1,1,2-Trichloroethane [Vinyl trichloride]	<u>79-00-5</u>	non-detect	<u>37</u>
Trichloroethylene	<u>79-01-6</u>	non-detect	<u>37</u>
Trichlorofluoromethane	<u>75-69-4</u>	non-detect	<u>37</u>

<u>[Trichloromonofluoromethane]</u>			
2,4,5-Trichlorophenol	95-95-4	non-detect	1900
2,4,6-Trichlorophenol	88-06-2	non-detect	1900
1,2,3-Trichloropropane	96-18-4	non-detect	37
Vinyl Chloride	75-01-4	non-detect	37

<sup>a</sup> Absence of PCBs can also be demonstrated by using appropriate screening methods, e.g., immunoassay kit for PCB in oils (Method 4020) or colorimetric analysis for PCBs in oil (Method 9079).

<sup>b</sup> Some minimum required detection limits are above the total halogen limit of 540 ppm. The detection limits reflect what was achieved during USEPA testing and analysis and also analytical complexity associated with measuring all halogen compounds on Section 721. Appendix H at low levels. USEPA stated that it recognizes that in practice the presence of these compounds will be functionally limited by the molecular weight and the total halogen limit of 540 ppm.

(Source: Added at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### Section 721. Appendix G Basis for Listing Hazardous Wastes

<u>USEPA hazard-ous waste No.</u>	<u>Hazardous constituents for which listed</u>
F001	Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chlorinated fluorocarbons.
F002	Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane.
F003	N.A.
F004	Cresols and cresylic acid, nitrobenzene.
F005	Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, 2-ethoxyethanol, benzene, 2-nitropropane.
F006	Cadmium, hexavalent chromium, nickel, cyanide (complexed).
F007	Cyanide (salts).
F008	Cyanide (salts).
F009	Cyanide (salts).
F010	Cyanide (salts).
F011	Cyanide (salts).
F012	Cyanide (complexed).
F019	Hexavalent chromium, cyanide (complexed).

- F020 Tetra- and pentachlorodibenzo-p-dioxins; tetra- and pentachlorodibenzofurans; tri- and tetrachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amines and other salts.
- F021 Penta- and hexachlorodibenzo-p-dioxins; penta- and hexachlorodibenzofurans; pentachlorophenol and its derivatives.
- F022 Tetra-, penta- and hexachlorodibenzo-p-dioxins; tetra-, penta- and hexachlorodibenzofurans.
- F023 Tetra- and pentachlorodibenzo-p-dioxins; tetra- and pentachlorodibenzofurans; tri- and tetra- chlorophenols and their chlorophenoxy derivative acids, esters, ethers, amines and other salts.
- F024 Chloromethane, dichloromethane, trichloromethane, carbon tetrachloride, chloroethylene, 1,1-dichloroethane, 1,2-dichloroethane, trans-1,2-dichloroethylene, 1,1-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethylene, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, tetrachloroethylene, pentachloroethane, hexachloroethane, allyl chloride (3-chloropropene), dichloropropane, dichloropropene, 2-chloro-1,3-butadiene, hexachloro-1,3-butadiene, hexachlorocyclopentadiene, hexachlorocyclohexane, benzene, chlorobenzene, dichlorobenzenes, 1,2,4-trichlorobenzene, tetrachlorobenzenes, pentachlorobenzene, hexachlorobenzene, toluene, naphthalene.
- F025 Chloromethane, dichloromethane, trichloromethane; carbon tetrachloride; chloroethylene; 1,1-dichloroethane; 1,2-dichloroethane; trans-1,2-dichloroethylene; 1,1-dichloroethylene; 1,1,1-trichloroethane; 1,1,2-trichloroethane; trichloroethylene; 1,1,1,2-tetrachloroethane; 1,1,2,2-tetrachloroethane; tetrachloroethylene; pentachloroethane; hexachloroethane; allyl chloride (3-chloropropene); dichloropropane; dichloropropene; 2-chloro-1,3-butadiene; hexachloro-1,3-butadiene; hexachlorocyclopentadiene; benzene; chlorobenzene; dichlorobenzene; 1,2,4-trichlorobenzene; tetrachlorobenzene; pentachlorobenzene; hexachlorobenzene; toluene; naphthalene.
- F026 Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans.
- F027 Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.
- F028 Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.
- F032 Benz(a)anthracene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, pentachlorophenol, arsenic, chromium, tetra-, penta-, hexa-, heptachlorodibenzo-p-dioxins, tetra-, penta-, hexa-, heptachlorodibenzofurans.
- F034 Benz(a)anthracene, benzo(k)fluoranthene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, naphthalene, arsenic chromium.

F035	Arsenic, chromium and lead.
F037	Benzene, benzo(a)pyrene, chrysene, lead, chromium.
F038	Benzene, benzo(a)pyrene, chrysene, lead, chromium.
F039	All constituents for which treatment standards are specified for multi-source leachate (wastewaters and non-wastewaters) under 35 Ill. Adm. Code 728. Table B (Constituent Concentrations in Waste).
K001	Pentachlorophenol, phenol, 2-chlorophenol, p-chloro-m-cresol, 2,4-dimethylphenol, 2,4- dinitrophenol, trichlorophenols, tetrachlorophenols, 2,4- dinitrophenol, cresosote, chrysene, naphthalene, fluoranthene, benzo(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, benz(a)anthracene, dibenz(a)anthracene, acenaphthalene.
K002	Hexavalent chromium, lead.
K003	Hexavalent chromium, lead.
K004	Hexavalent chromium.
K005	Hexavalent chromium, lead.
K006	Hexavalent chromium.
K007	Cyanide (complexed), hexavalent chromium.
K008	Hexavalent chromium.
K009	Chloroform, formaldehyde, methylene chloride, methyl chloride, paraldehyde, formic acid.
K010	Chloroform, formaldehyde, methylene chloride, methyl chloride, paraldehyde, formic acid, chloroacetaldehyde.
K011	Acrylonitrile, acetonitrile, hydrocyanic acid.
K013	Hydrocyanic acid, acrylonitrile, acetonitrile.
K014	Acetonitrile, acrylamide.
K015	Benzyl chloride, chlorobenzene, toluene, benzotrichloride.
K016	Hexachlorobenzene, hexachlorobutadiene, carbon tetrachloride, hexachloroethane, perchloroethylene.
K017	Epichlorohydrin, chloroethers [bis(chloromethyl) ether and bis- (2-chloroethyl) ethers], trichloropropane, dichloropropanols.
K018	1,2-dichloroethane, trichloroethylene, hexachlorobutadiene, hexachlorobenzene.
K019	Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrachloroethanes (1,1,2,2-tetrachloroethane and 1,1,1,2-tetrachloroethane), trichloroethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl chloride, vinylidene chloride.
K020	Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrachloro-ethanes (1,1,2,2-tetrachloroethane and 1,1,1,2-tetrachloroethane), trichloroethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl chloride, vinylidene chloride.
K021	Antimony, carbon tetrachloride, chloroform.
K022	Phenol, tars (polycyclic aromatic hydrocarbons).
K023	Phthalic anhydride, maleic anhydride.
K024	Phthalic anhydride, 1,4-naphthoquinone.
K025	Meta-dinitrobenzene, 2,4-dinitrotoluene.
K026	Paraldehyde, pyridines, 2-picoline.



K027	Toluene diisocyanate, toluene-2,4-diamine.
K028	1,1,1-trichloroethane, vinyl chloride.
K029	1,2-dichloroethane, 1,1,1-trichloroethane, vinyl chloride, vinylidene chloride, chloroform.
K030	Hexachlorobenzene, hexachlorobutadiene, hexachloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, ethylene dichloride.
K031	Arsenic.
K032	Hexachlorocyclopentadiene.
K033	Hexachlorocyclopentadiene.
K034	Hexachlorocyclopentadiene.
K035	Creosote, chrysene, naphthalene, fluoranthene, benzo(b) fluoranthene, benzo(a)-pyrene, indeno(1,2,3-cd) pyrene, benzo(a)anthracene, dibenzo(a)anthracene, acenaphthalene.
K036	Toluene, phosphorodithioic and phosphorothioic acid esters.
K037	Toluene, phosphorodithioic and phosphorothioic acid esters.
K038	Phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters.
K039	Phosphorodithioic and phosphorothioic acid esters.
K040	Phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters.
K041	Toxaphene.
K042	Hexachlorobenzene, ortho-dichlorobenzene.
K043	2,4-dichlorophenol, 2,6-dichlorophenol, 2,4,6-trichlorophenol.
K044	N.A.
K045	N.A.
K046	Lead.
K047	N.A.
K048	Hexavalent chromium, lead.
K049	Hexavalent chromium, lead.
K050	Hexavalent chromium.
K051	Hexavalent chromium, lead.
K052	Lead.
K060	Cyanide, naphthalene, phenolic compounds, arsenic.
K061	Hexavalent chromium, lead, cadmium.
K062	Hexavalent chromium, lead.
K064	Lead, cadmium.
K065	Lead, cadmium.
K066	Lead, cadmium.
K069	Hexavalent chromium, lead, cadmium.
K071	Mercury.
K073	Chloroform, carbon tetrachloride, hexachloroethane, trichloroethane, tetrachloroethylene, dichloroethylene, 1,1,2,2-tetrachloroethane.
K083	Aniline, diphenylamine, nitrobenzene, phenylenediamine.
K084	Arsenic.
K085	Benzene, dichlorobenzenes, trichlorobenzenes, tetrachlorobenzenes, pentachlorobenzene, hexachlorobenzene, benzyl chloride.
K086	Lead, hexavalent chromium.
K087	Phenol, naphthalene.

K088	Cyanide (complexes).
K090	Chromium.
K091	Chromium.
K093	Phthalic anhydride, maleic anhydride.
K094	Phthalic anhydride.
K095	1,1,2-trichloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane.
K096	1,2-dichloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane.
K097	Chlordane, heptachlor.
K098	Toxaphene.
K099	2,4-dichlorophenol, 2,4,6-trichlorophenol.
K100	Hexavalent chromium, lead, cadmium.
K101	Arsenic.
K102	Arsenic.
K103	Aniline, nitrobenzene, phenylenediamine.
K104	Aniline, benzene, diphenylamine, nitrobenzene, phnylenediamine.
K105	Benzene, monochlorobenzene, dichlorobenzenes, 2,4,6-trichlorophenol.
K106	Mercury.
K111	2,4-Dinitrotoluene.
K112	2,4-Toluenediamine, o-toluidine, p-toluidine, aniline.
K113	2,4-Toluenediamine, o-toluidine, p-toluidine, aniline.
K114	2,4-Toluenediamine, o-toluidine, p-toluidine.
K115	2,4-Toluenediamine.
K116	Carbon tetrachloride, tetrachloroethylene, chloroform, phosgene.
K117	Ethylene dibromide.
K118	Ethylene dibromide.
K123	Ethylene thiourea.
K124	Ethylene thiourea.
K125	Ethylene thiourea.
K126	Ethylene thiourea.
K131	Dimethyl sulfate, methyl bromide.
K132	Methyl bromide.
K136	Ethylene dibromide.
<u>K140</u>	<u>2,4,6-Tribromophenol.</u>
K141	Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene.
K142	Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene.
K143	Benzene, benz(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene.
K144	Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene.
K145	Benzene, benz(a)anthracene, benzo(a)pyrene, dibenz(a,h)anthracene, naphthalene.
K147	Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene.
K148	Benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene.

K149	Benzotrichloride, benzyl chloride, chloroform, chloromethane, chlorobenzene, 1,4-dichlorobenzene, hexachlorobenzene, pentachlorobenzene, 1,2,4,5-tetrachlorobenzene, toluene.
K150	Carbon tetrachloride, chloroform, chloromethane, 1,4-dichlorobenzene, hexachlorobenzene, pentachlorobenzene, 1,2,4,5-tetrachlorobenzene, 1,1,2,2-tetrachloroethane, tetrachloroethylene, 1,2,4-trichlorobenzene.
K151	Benzene, carbon tetrachloride, chloroform, hexachlorobenzene, pentachlorobenzene, toluene, 1,2,4,5-tetrachlorobenzene, tetrachloroethylene.
K156	Benomyl, carbaryl, carbendazim, carbofuran, carbosulfan, formaldehyde, methylene chloride, triethylamine.
K157	Carbon tetrachloride, formaldehyde, methyl chloride, methylene chloride, pyridine, triethylamine.
K158	Benomyl, carbendazim, carbofuran, carbosulfan, chloroform, methylene chloride.
K159	Benzene, butylate, EPTC, molinate, pebulate, vernolate.
K161	Antimony, arsenic, metam-sodium, ziram.

N.A.--Waste is hazardous because it fails the test for the characteristic of ignitability, corrosivity or reactivity.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### Section 721.Appendix H Hazardous Constituents

Common Name	Chemical Abstracts Name	Chemical Abstracts Number (CAS No.)	USEPA Hazardous Waste Number
A2213	Ethanimidothioic acid, 2-(dimethylamino)-N-hydroxy-2-oxo-, methyl ester	30558-43-1	U394
Acetonitrile	Same	75-05-8	U003
Acetophenone	Ethanone, 1-phenyl-	98-86-2	U004
2-Acetylaminofluorene	Acetamide, N-9H-fluoren-2-yl-	53-96-3	U005
Acetyl chloride	Same	75-36-5	U006
1-Acetyl-2-thiourea	Acetamide, N-(aminothioxomethyl)-	591-08-2	P002
Acrolein	2-Propenal	107-02-8	P003
Acrylamide	2-Propenamamide	79-06-1	U007
Acrylonitrile	2-Propenenitrile	107-13-1	U009
Aflatoxins	Same	1402-68-2	
Aldicarb	Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime	116-06-3	P070

Aldicarb sulfone	Propanal, 2-methyl-2- (methyl-sulfonyl)-, O-[(methylamino)-carbonyl]oxime	1646-88-4	P203
Aldrin	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1- $\alpha$ ,4- $\alpha$ ,4a- $\beta$ ,5- $\alpha$ ,8- $\alpha$ ,8a- $\beta$ )-	309-00-2	P004
Allyl alcohol	2-Propen-1-ol	107-18-6	P005
Allyl chloride	1-Propene, 3-chloro-	107-18-6	
Aluminum phosphide	Same	20859-73-8	P006
4-Aminobiphenyl	[1,1'-Biphenyl]-4-amine	92-67-1	
5-(Aminomethyl)-3-isoxazolol	3(2H)-Isoxazolone, 5-(aminomethyl)-	2763-96-4	P007
4-Aminopyridine	4-Pyridinamine	504-24-5	P008
Amitrole	1H-1,2,4-Triazol-3-amine	61-82-5	U011
Ammonium vanadate	Vanadic acid, ammonium salt	7803-55-6	U119
Aniline	Benzenamine	62-53-3	U012
Antimony	Same	7440-36-0	
Antimony compounds, N.O.S. (not otherwise specified)			
Aramite	Sulfurous acid, 2-chloroethyl-, 2-[4-(1,1-dimethylethyl)-phenoxy]-1-methylethyl ester	140-57-8	
Arsenic	Arsenic	7440-38-2	
Arsenic compounds, N.O.S.			
Arsenic acid	Arsenic acid $H_3AsO_4$	7778-39-4	P010
Arsenic pentoxide	Arsenic oxide $As_2O_5$	1303-28-2	P011
Arsenic trioxide	Arsenic oxide $As_2O_3$	1327-53-3	P012
Auramine	Benzenamine, 4,4'-carbonimidoylbis[N, N-dimethyl-L-Serine, diazoacetate (ester)	492-80-8	U014
Azaserine	L-Serine, diazoacetate (ester)	115-02-6	U015
Barban	Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester	101-27-9	U280
Barium	Same	7440-39-3	
Barium compounds, N.O.S.			
Barium cyanide	Same	542-62-1	P013
Bendiocarb	1,3-Benzodioxol-4-ol-2,2-dimethyl-, methyl carbamate	22781-23-3	U278
Bendiocarb phenol	1,3-Benzodioxol-4-ol-2,2-dimethyl-,	22961-82-6	U364
Benomyl	Carbamic acid, [1- [(butylamino)carbonyl]-1H-benzimidazol-2-yl]-, methyl ester	17804-35-2	U271
Benz[c]acridine	Same	225-51-4	U016
Benz[a]anthracene	Same	56-55-3	U018

Benzal chloride	Benzene, (dichloromethyl)-	98-87-3	U017
Benzene	Same	71-43-2	U018
Benzenearsonic acid	Arsonic acid, phenyl-	98-05-5	
Benzidine	[1,1'-Biphenyl]-4,4'-diamine	92-87-5	U021
Benzo[b]fluoranthene	Benz[e]acephenanthrylene	205-99-2	
Benzo[j]fluoranthene	Same	205-82-3	
Benzo(k)fluoranthene	Same	207-08-9	
Benzo[a]pyrene	Same	50-32-8	U022
p-Benzoquinone	2,5-Cyclohexadiene-1,4-dione	106-51-4	U197
Benzotrichloride	Benzene, (trichloromethyl)-	98-07-7	U023
Benzyl chloride	Benzene, (chloromethyl)-	100-44-7	P028
Beryllium powder	Same	7440-41-7	P015
Beryllium compounds, N.O.S.			
Bis(pentamethylene)thiuram tetrasulfide	Piperidine, 1,1'-(tetrathio-dicarbonothioyl)-bis-	120-54-7	
Bromoacetone	2-Propanone, 1-bromo-	598-31-2	P017
Bromoform	Methane, tribromo-	75-25-2	U225
4-Bromophenyl phenyl ether	Benzene, 1-bromo-4-phenoxy-	101-55-3	U030
Brucine	Strychnidin-10-one, 2,3-dimethoxy-	357-57-3	P018
Butylate	Carbamothioic acid, bis(2-methylpropyl)-, S-ethyl ester	2008-41-5	
Butyl benzyl phthalate	1,2-Benzenedicarboxylic acid, butyl phenylmethyl ester	85-68-7	
Cacodylic acid	Arsenic acid, dimethyl-	75-60-5	U136
Cadmium	Same	7440-43-9	
Cadmium compounds, N.O.S.			
Calcium chromate	Chromic acid H <sub>2</sub> CrO <sub>4</sub> , calcium salt	13765-19-0	U032
Calcium cyanide	Calcium cyanide Ca(CN) <sub>2</sub>	592-01-8	P021
Carbaryl	1-Naphthalenol, methyl-carbamate	63-25-2	U279
Carbendazim	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester	10605-21-7	U372
Carbofuran	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-, methylcarbamate	1563-66-2	P127
Carbofuran phenol	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-	1563-38-8	U367
Carbosulfan	Carbamic acid, [(dibutyl-amino)thio] methyl-, 2,3-dihydro-2,2-dimethyl-7-benzofuranyl ester	55285-14-8	P189
Carbon disulfide	Same	75-15-0	P022
Carbon oxyfluoride	Carbonic difluoride	353-50-4	U033
Carbon tetrachloride	Methane, tetrachloro-	56-23-5	U211
Chloral	Acetaldehyde, trichloro-	75-87-6	U034

Chlorambucil	Benzenebutanoic acid, 4[bis-(2-chloroethyl)amino]-	305-03-3	U035
Chlordane	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-	57-74-9	U036
Chlordane, $\alpha$ and $\gamma$ isomers			U036
Chlorinated benzenes, N.O.S.			
Chlorinated ethane, N.O.S.			
Chlorinated fluorocarbons, N.O.S.			
Chlorinated naphthalene, N.O.S.			
Chlorinated phenol, N.O.S.			
Chlornaphazine	Naphthalenamine, N,N'-bis(2-chloroethyl)-	494-03-1	U026
Chloroacetaldehyde	Acetaldehyde, chloro-	107-20-0	P023
Chloroalkyl ethers, N.O.S.			
p-Chloroaniline	Benzenamine, 4-chloro-	106-47-8	P024
Chlorobenzene	Benzene, chloro-	108-90-7	U037
Chlorobenzilate	Benzeneacetic acid, 4-chloro- $\alpha$ -(4-chlorophenyl)- $\alpha$ -hydroxy-, ethyl ester	510-15-6	U038
p-Chloro-m-cresol	Phenol, 4-chloro-3-methyl-	59-50-7	U039
2-Chloroethyl vinyl ether	Ethene, (2-chloroethoxy)-	110-75-8	U042
Chloroform	Methane, trichloro-	67-66-3	U044
Chloromethyl methyl ether	Methane, chloromethoxy-	107-30-2	U046
$\beta$ -Chloronaphthalene	Naphthalene, 2-chloro-	91-58-7	U047
o-Chlorophenol	Phenol, 2-chloro-	95-57-8	U048
1-(o-Chlorophenyl)thiourea	Thiourea, (2-chlorophenyl)-	5344-82-1	P026
Chloroprene	1,3-Butadiene, 2-chloro-	126-99-8	
3-Chloropropionitrile	Propanenitrile, 3-chloro-	542-76-7	P027
Chromium	Same	7440-47-3	
Chromium compounds, N.O.S.			
Chrysene	Same	218-01-9	U050
Citrus red No. 2	2-Naphthalenol, 1-[(2,5-dimethoxyphenyl)azo]-	6358-53-8	
Coal tar creosote	Same	8007-45-2	
Copper cyanide	Copper cyanide CuCN	544-92-3	P029
Copper dimethyldithiocarbamate	Copper, bis(dimethylcarbamo-dithioato-S,S')-,	137-29-1	
Creosote	Same		U051
Cresols (Cresylic acid)	Phenol, methyl-	1319-77-3	U052
Crotonaldehyde	2-Butenal	4170-30-3	U053
m-Cumenyl methylcarbamate	Phenol, 3-(methylethyl)-, methyl carbamate	64-00-6	P202

Cyanides (soluble salts and complexes), N.O.S.			P030
Cyanogen	Ethanedinitrile	460-19-5	P031
Cyanogen bromide	Cyanogen bromide (CN)Br	506-68-3	U246
Cyanogen chloride	Cyanogen chloride (CN)Cl	506-77-4	P033
Cycasin	$\beta$ -D-glucopyranoside, (methyl-ONN-azoxy)methyl-	14901-08-7	
Cycloate	Carbamothioic acid, cyclohexylethyl-, S-ethyl ester	1134-23-2	
2-Cyclohexyl-4,6-dinitrophenol	Phenol, 2-cyclohexyl-4,6-dinitro-	131-89-5	P034
Cyclophosphamide	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2-oxide	50-18-0	U058
2,4-D	Acetic acid, (2,4-dichlorophenoxy)-	94-75-7	U240
2,4-D, salts and esters	Acetic acid, (2,4-dichlorophenoxy)-, salts and esters		U240
Daunomycin	5, 12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- $\alpha$ -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, 8S-cis-	20830-81-3	U059
Dazomet	2H-1,3,5-thiadiazine-2-thione, tetrahydro-3,5-dimethyl	533-74-4	
DDD	Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro-	72-54-8	U060
DDE	Benzene, 1,1'-(dichloroethylenidene)bis[4-chloro-	72-55-9	
DDT	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-chloro-	50-29-3	U061
Diallate	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester	2303-16-4	U062
Dibenz[a,h]acridine	Same	226-36-8	
Dibenz[a,j]acridine	Same	224-42-0	
Dibenz[a,h]anthracene	Same	53-70-3	U063
7H-Dibenzo[c,g]carbazole	Same	194-59-2	
Dibenzo[a,e]pyrene	Naphtho[1,2,3,4-def]chrysene	192-65-4	
Dibenzo[a,h]pyrene	Dibenzo[b,def]chrysene	189-64-0	
Dibenzo[a,i]pyrene	Benzo[rst]pentaphene	189-55-9	U064
1,2-Dibromo-3-chloropropane	Propane, 1,2-dibromo-3-chloro-	96-12-8	U066

Dibutyl phthalate	1,2-Benzenedicarboxylic acid, dibutyl ester	84-74-2	U069
o-Dichlorobenzene	Benzene, 1,2-dichloro-	95-50-1	U070
m-Dichlorobenzene	Benzene, 1,3-dichloro-	541-73-1	U071
p-Dichlorobenzene	Benzene, 1,4-dichloro-	106-46-7	U072
Dichlorobenzene, N.O.S.	Benzene, dichloro-	25321-22-6	
3,3'-Dichlorobenzidine	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-	91-94-1	U073
1,4-Dichloro-2-butene	2-Butene, 1,4-dichloro-	764-41-0	U074
Dichlorodifluoromethane	Methane, dichlorodifluoro-	75-71-8	U075
Dichloroethylene, N.O.S.	Dichloroethylene	25323-30-2	
1,1-Dichloroethylene	Ethene, 1,1-dichloro-	75-35-4	U078
1,2-Dichloroethylene	Ethene, 1,2-dichloro-, (E)-	156-60-5	U079
Dichloroethyl ether	Ethane, 1,1'-oxybis[2-chloro-	111-44-4	U025
Dichloroisopropyl ether	Propane, 2,2'-oxybis[2-chloro-	108-60-1	U027
Dichloromethoxyethane	Ethane, 1,1'-[methylenebis-(oxy)bis[2-chloro-	111-91-1	U024
Dichloromethyl ether	Methane, oxybis[chloro-	542-88-1	P016
2,4-Dichlorophenol	Phenol, 2,4-dichloro-	120-83-2	U081
2,6-Dichlorophenol	Phenol, 2,6-dichloro-	87-65-0	U082
Dichlorophenylarsine	Arsonous dichloride, phenyl-	696-28-6	P036
Dichloropropane, N.O.S.	Propane, dichloro-	26638-19-7	
Dichloropropanol, N.O.S.	Propanol, dichloro-	26545-73-3	
Dichloropropene, N.O.S.	1-Propene, dichloro-	26952-23-8	
1,3-Dichloropropene	1-Propene, 1,3-dichloro-	542-75-6	U084
Dieldrin	2,7:3,6-Dimethanonaphth[2, 3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6, 6a,7,7a-octahydro-, (1 $\alpha$ ,2 $\beta$ ,2 $\alpha$ ,3 $\beta$ ,6 $\beta$ ,6 $\alpha$ ,7 $\beta$ ,7 $\alpha$ )-	60-57-1	P037
1,2:3,4-Diepoxycyclobutane	2,2'-Bioxirane	1464-53-5	U085
Diethylarsine	Arsine, diethyl-	692-42-2	P038
Diethylene glycol, dicarbamate	Ethanol, 2,2'-oxybis-, dicarbamate	5952-26-1	U395
1,4-Diethyleneoxide	1,4-Dioxane	123-91-1	U108
Diethylhexyl phthalate	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester	117-81-7	U028
N,N'-Diethylhydrazine	Hydrazine, 1,2-diethyl-	1615-80-1	U086
O,O-Diethyl-S-methyl dithiophosphate	Phosphorodithioic acid, O,O-diethyl S-methyl ester	3288-58-2	U087
Diethyl-p-nitrophenyl phosphate	Phosphoric acid, diethyl 4-nitrophenyl ester	311-45-5	P041
Diethyl phthalate	1,2-Benzenedicarboxylic acid, diethyl ester	84-66-2	U088



O,O-Diethyl O-pyrazinyl phosphorothioate	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester	297-97-2	P040
Diethylstilbestrol	Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis-, (E)-	56-53-1	U089
Dihydrosafrole	1,3-Benzodioxole, 5-propyl-	94-58-6	U090
Diisopropylfluorophosphate (DFP)	Phosphorofluoridic acid, bis(1-methylethyl) ester	55-91-4	P043
Dimethoate	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester	60-51-5	P044
Dimetilan	Carbamic acid, dimethyl-, 1-[(dimethylamino) carbonyl]-5-methyl-1H-pyrazol-3-yl ester	644-64-4	P191
3,3'-Dimethoxybenzidine	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-	119-90-4	U091
p-Dimethylaminoazobenzene	Benzenamine, N,N-dimethyl-4-(phenylazo)-	60-11-7	U093
7,12-Dimethylbenz[a]anthracene	Benz[a]anthracene, 7,12-dimethyl-	57-97-6	U094
3,3'-Dimethylbenzidine	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-	119-93-7	U095
Dimethylcarbamoyl chloride	Carbamic chloride, dimethyl-	79-44-7	U097
1,1-Dimethylhydrazine	Hydrazine, 1,1-dimethyl-	57-14-7	U098
1,2-Dimethylhydrazine	Hydrazine, 1,2-dimethyl-	540-73-8	U099
$\alpha,\alpha$ -Dimethylphenethylamine	Benzenethanamine, $\alpha,\alpha$ -dimethyl-	122-09-8	P046
2,4-Dimethylphenol	Phenol, 2,4-dimethyl-	105-67-9	U101
Dimethylphthalate	1,2-Benzenedicarboxylic acid, dimethyl ester	131-11-3	U102
Dimethyl sulfate	Sulfuric acid, dimethyl ester	77-78-1	U103
Dinitrobenzene, N.O.S.	Benzene, dinitro-	25154-54-5	
4,6-Dinitro-o-cresol	Phenol, 2-methyl-4,6-dinitro-	534-52-1	P047
4,6-Dinitro-o-cresol salts			P047
2,4-Dinitrophenol	Phenol, 2,4-dinitro-	51-28-5	P048
2,4-Dinitrotoluene	Benzene, 1-methyl-2,4-dinitro-	121-14-2	U105
2,6-Dinitrotoluene	Benzene, 2-methyl-1,3-dinitro-	606-20-2	U106
Dinoseb	Phenol, 2-(1-methylpropyl)-4,6-dinitro-	88-85-7	P020
Di-n-octyl phthalate	1,2-Benzenedicarboxylic acid, dioctyl ester	117-84-0	U107
Diphenylamine	Benzenamine, N-phenyl-	122-39-4	
1,2-Diphenylhydrazine	Hydrazine, 1,2-diphenyl-	122-66-7	U109
Di-n-propylnitrosamine	1-Propanamine, N-nitroso-N-propyl-	621-64-7	U111
Disulfiram	Thioperoxydicarbonic diamide, tetraethyl	97-77-8	

Disulfoton	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl] ester	298-04-4	P039
Dithiobiuret	Thioimidodicarbonic diamide [(H <sub>2</sub> N)C(S)] <sub>2</sub> NH	541-53-7	P049
Endosulfan	6, 9-Methano-2,4,3-benzodioxathiepen,6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide,	115-29-7	P050
Endothal	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid	145-73-3	P088
Endrin	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1a α,2β,2aβ,3α,6α,6aβ,7β,7α)-,	72-20-8	P051
Endrin metabolites			P051
Epichlorohydrin	Oxirane, (chloromethyl)-	106-89-8	U041
Epinephrine	1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-, (R)-	51-43-4	P042
EPTC	Carbamothioic acid, dipropyl-, S-ethyl ester	759-94-4	
Ethyl carbamate (urethane)	Carbamic acid, ethyl ester	51-79-6	U238
Ethyl cyanide	Propanenitrile	107-12-0	P101
Ethylenebisdithiocarbamic acid	Carbamodithioic acid, 1,2-ethanediylbis-	111-54-6	U114
Ethylenebisdithiocarbamic acid, salts and esters			U114
Ethylene dibromide	Ethane, 1,2-dibromo-	106-93-4	U067
Ethylene dichloride	Ethane, 1,2-dichloro-	107-06-2	
Ethylene glycol monoethyl ether	Ethanol, 2-ethoxy-	110-80-5	U359
Ethyleneimine	Aziridine	151-56-4	P054
Ethylene oxide	Oxirane	75-21-8	U115
Ethylenethiourea	2-Imidazolidinethione	96-45-7	U116
Ethylidene dichloride	Ethane, 1,1-dichloro-	75-34-3	U076
Ethyl methacrylate	2-Propenoic acid, 2-methyl-, ethyl ester	97-63-2	U118
Ethyl methanesulfonate	Methanesulfonic acid, ethyl ester	62-50-0	U119
Ethyl Ziram	Zinc, bis(diethylcarbamodithioato-S,S')-	14324-55-1	U407
Famphur	Phosphorothioic acid, O-[4-[(dimethylamino)sulfonyl]-phenyl] O,O-dimethyl ester	52-85-7	P097
Ferbam	Iron, tris(dimethylcarbamodithioato-S,S')-,	14484-64-1	

Fluoranthene	Same	206-44-0	U120
Fluorine	Same	7782-41-4	P056
Fluoroacetamide	Acetamide, 2-fluoro-	640-19-7	P057
Fluoroacetic acid, sodium salt	Acetic acid, fluoro-, sodium salt	62-74-8	P058
Formaldehyde	Same	50-00-0	U122
Formetanate hydrochloride	Methanimidamide, N,N-dimethyl-N'-[3-[[[(methylamino)carbonyl]oxy]phenyl]-, monohydrochloride	23422-53-9	P198
Formic acid	Same	64-18-16	U123
Formparanate	Methanimidamide, N,N-dimethyl-N'-[2-methyl-4-[[[(methylamino)carbonyl]oxy]-phenyl]-	17702-57-7	P197
Glycidylaldehyde	Oxiranecarboxaldehyde	765-34-4	U126
Halomethanes, N.O.S.			
Heptachlor	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-	76-44-8	P059
Heptachlor epoxide	2,5-Methano-2H-indeno[1,2b]oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1 $\alpha$ ,1b $\beta$ ,2 $\alpha$ ,5 $\alpha$ ,5a $\beta$ ,6 $\beta$ ,6a $\alpha$ )-	1024-57-3	
Heptachlor epoxide ( $\alpha$ , $\beta$ , and $\gamma$ isomers)			
Heptachlorodibenzofurans			
Heptachlorodibenzo-p-dioxins			
Hexachlorobenzene	Benzene, hexachloro-	118-74-1	U127
Hexachlorobutadiene	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	87-68-3	U128
Hexachlorocyclo-pentadiene	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-	77-47-4	U130
Hexachlorodibenzo-p-dioxins			
Hexachlorodibenzofurans			
Hexachloroethane	Ethane, hexachloro-	67-72-1	U131
Hexachlorophene	Phenol, 2,2'-methylenebis[3,4,6-trichloro-	70-30-4	U132
Hexachloropropene	1-Propene, 1,1,2,3,3,3-hexachloro-	1888-71-7	U243
Hexaethyltetraphosphate	Tetraphosphoric acid, hexaethyl ester	757-58-4	P062
Hydrazine	Same	302-01-2	U133
Hydrogen cyanide	Hydrocyanic acid	74-90-8	P063

Hydrogen fluoride	Hydrofluoric acid	7664-39-3	U134
Hydrogen sulfide	Hydrogen sulfide H <sub>2</sub> S	7783-06-4	U135
Indeno[1,2,3-cd]pyrene	Same	193-39-5	U137
3-Iodo-2-propynyl-n-butyl-carbamate	Carbamic acid, butyl-, 3-iodo-2-propynyl ester	55406-53-6	
Isobutyl alcohol	1-Propanol, 2-methyl-	78-83-1	U140
Isodrin	1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1 $\alpha$ ,4 $\alpha$ ,4a $\beta$ ,5 $\beta$ ,8 $\beta$ ,8a $\beta$ )-,	465-73-6	P060
Isolan	Carbamic acid, dimethyl-, 3-methyl-1-(1-methylethyl)-1H-pyrazol-5-yl ester	119-38-0	P192
Isosafrole	1,3-Benzodioxole, 5-(1-propenyl)-	120-58-1	U141
Kepone	1,3,4-Metheno-2H-cyclobuta-[cd]pentalen-2-one, 1,1a,3,3a,4,5,5a,5b,6-decachlorooctahydro-,	143-50-0	U142
Lasiocarpine	2-Butenoic acid, 2-methyl-, 7-[[2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy]methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, [1S-[1- $\alpha$ (Z),7(2S*,3R*),7a $\alpha$ ]]-	303-34-1	U143
Lead	Same	7439-92-1	
Lead and compounds, N.O.S.			
Lead acetate	Acetic acid, lead (2+) salt	301-04-2	U144
Lead phosphate	Phosphoric acid, lead (2+) salt (2:3)	7446-27-7	U145
Lead subacetate	Lead, bis(acetato-O)tetrahydroxytri-	1335-32-6	U146
Lindane	Cyclohexane, 1,2,3,4,5,6-hexachloro-, 1 $\alpha$ ,2 $\alpha$ ,3 $\beta$ ,4 $\alpha$ ,5 $\alpha$ ,6 $\beta$ )-	58-89-9	U129
Maleic anhydride	2,5-Furandione	108-31-6	U147
Maleic hydrazide	3,6-Pyridazinedione, 1,2-dihydro-	123-33-1	U148
Malononitrile	Propanedinitrile	109-77-3	U149
Manganese dimethyldithiocarbamate	Manganese, bis(dimethyl-carbamodithioato-S,S')-,	15339-36-3	P196
Melphalan	L-Phenylalanine, 4-[bis(2-chloroethyl)amino]-	148-82-3	U150
Mercury	Same	7439-97-6	U151

Mercury compounds, N.O.S.			
Mercury fulminate	Fulminic acid, mercury (2+) salt	628-86-4	P065
Metam Sodium	Carbamodithioic acid, methyl-, monosodium salt	137-42-8	
Methacrylonitrile	2-Propenenitrile, 2-methyl-	126-98-7	U152
Methapyrilene	1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)-	91-80-5	U155
Methiocarb	Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate	2032-65-7	P199
Metholmyl	Ethanimidothioic acid, N-[[[(methylamino)carbonyl]oxy]-, methyl ester	16752-77-5	P066
Methoxychlor	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-methoxy-	72-43-5	U247
Methyl bromide	Methane, bromo-	74-83-9	U029
Methyl chloride	Methane, chloro-	74-87-3	U045
Methylchlorocarbonate	Carbonochloridic acid, methyl ester	79-22-1	U156
Methyl chloroform	Ethane, 1,1,1-trichloro-	71-55-6	U226
3-Methylcholanthrene	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-	56-49-5	U157
4,4'-Methylenebis(2-chloroaniline)	Benzenamine, 4,4'-methylenebis[2-chloro-	101-14-4	U158
Methylene bromide	Methane, dibromo-	74-95-3	U068
Methylene chloride	Methane, dichloro-	75-09-2	U080
Methyl ethyl ketone (MEK)	2-Butanone	78-93-3	U159
Methyl ethyl ketone peroxide	2-Butanone, peroxide	1338-23-4	U160
Methyl hydrazine	Hydrazine, methyl-	60-34-4	P068
Methyl iodide	Methane, iodo-	74-88-4	U138
Methyl isocyanate	Methane, isocyanato-	624-83-9	P064
2-Methylactonitrile	Propanenitrile, 2-hydroxy-2-methyl-	75-86-5	P069
Methyl methacrylate	2-Propenoic acid, 2-methyl-, methyl ester	80-62-6	U162
Methyl methanesulfonate	Methanesulfonic acid, methyl ester	66-27-3	
Methyl parathion	Phosphorothioic acid, O,O-dimethyl O-(4-nitrophenyl) ester	298-00-0	P071
Methylthiouracil	4-(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-	56-04-2	U164
Metolcarb	Carbamic acid, methyl-, 3-methylphenyl ester	1129-41-5	P190

Mexacarbate	Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester)	315-18-4	P128
Mitomycin C	Azirino[2', 3':3, 4]pyrrolo[1, 2-a]indole-4, 7-dione, 6-amino-8-[[aminocarbonyl]oxy]-methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-, [1a-S-(1 $\alpha$ ,8 $\beta$ ,8 $\alpha$ ,8 $\beta$ )]-,	50-07-7	U010
Molinate	1H-Azepine-1-carbothioic acid, hexahydro-, S-ethyl ester	2212-67-1	
MNNG	Guanidine, N-methyl-N'-nitro-N-nitroso-	70-25-7	U163
Mustard gas	Ethane, 1,1'-thiobis[2-chloro-	505-60-2	U165
Naphthalene	Same	91-20-3	U165
1,4-Naphthoquinone	1,4-Naphthalenedione	130-15-4	U166
$\alpha$ -Naphthylamine	1-Naphthalenamine	134-32-7	U167
$\beta$ -Naphthylamine	2-Naphthalenamine	91-59-8	U168
$\alpha$ -Naphthylthiourea	Thiourea, 1-naphthalenyl-	86-88-4	P072
Nickel	Same	7440-02-0	
Nickel compounds, N.O.S.			
Nickel carbonyl	Nickel carbonyl Ni(CO) <sub>4</sub> , (T-4)-	13463-39-3	P073
Nickel cyanide	Nickel cyanide Ni(CN) <sub>2</sub>	557-19-7	P074
Nicotine	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-	54-11-5	P075
Nicotine salts			P075
Nitric oxide	Nitrogen oxide NO	10102-43-9	P076
p-Nitroaniline	Benzenamine, 4-nitro-	100-01-6	P077
Nitrobenzene	Benzene, nitro-	98-95-3	P078
Nitrogen dioxide	Nitrogen oxide NO <sub>2</sub>	10102-44-0	P078
Nitrogen mustard	Ethanamine, 2-chloro-N-(2-chloroethyl)-N-methyl-	51-75-2	
Nitrogen mustard, hydrochloride salt			
Nitrogen mustard N-oxide	Ethanamine, 2-chloro-N-(2-chloroethyl)-N-methyl-, N-oxide	126-85-2	
Nitrogen mustard, N-oxide, hydrochloride salt			
Nitroglycerin	1,2,3-Propanetriol, trinitrate	55-63-0	P081
p-Nitrophenol	Phenol, 4-nitro-	100-02-7	U170
2-Nitropropane	Propane, 2-nitro-	79-46-9	U171
Nitrosamines, N.O.S.		35576-91-1	

N-Nitrosodi-n-butylamine	1-Butanamine, N-butyl-N-nitroso-	924-16-3	U172
N-Nitrosodiethanolamine	Ethanol, 2,2'-(nitrosoimino)bis-	1116-54-7	U173
N-Nitrosodiethylamine	Ethanamine, N-ethyl-N-nitroso-	55-18-5	U174
N-Nitrosodimethylamine	Methanamine, N-methyl-N-nitroso-	62-75-9	P082
N-Nitroso-N-ethylurea	Urea, N-ethyl-N-nitroso-	759-73-9	U176
N-Nitrosomethylethylamine	Ethanamine, N-methyl-N-nitroso-	10595-95-6	
N-Nitroso-N-methylurea	Urea, N-methyl-N-nitroso-	684-93-5	U177
N-Nitroso-N-methylurethane	Carbamic acid, methylnitroso-, ethyl ester	615-53-2	U178
N-Nitrosomethylvinylamine	Vinylamine, N-methyl-N-nitroso-	4549-40-0	P084
N-Nitrosomorpholine	Morpholine, 4-nitroso-	59-89-2	
N-Nitrosornicotine	Pyridine, 3-(1-nitroso-2-pyrrolidinyl)-, (S)-	16543-55-8	
N-Nitrosopiperidine	Piperidine, 1-nitroso-	100-75-4	U179
N-Nitrosopyrrolidine	Pyrrolidine, 1-nitroso-	930-55-2	U180
N-Nitrososarcosine	Glycine, N-methyl-N-nitroso-	13256-22-9	
5-Nitro-o-toluidine	Benzenamine, 2-methyl-5-nitro-	99-55-8	U181
Octamethylpyrophosphoramidate	Diphosphoramidate, octamethyl-	152-16-9	P085
Osmium tetroxide	Osmium oxide OsO <sub>4</sub> , (T-4)	20816-12-0	P087
Oxamyl	Ethanimidothioc acid, 2-(dimethylamino)-N-[[[(methylamino)carbonyl]oxy]-2-oxo-, methyl ester	23135-22-0	P194
Paraldehyde	1,3,5-Trioxane, 2,4,6-trimethyl-	123-63-7	U182
Parathion	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester	56-38-2	P089
Pebulate	Carbamothioic acid, butylethyl-, S-propyl ester	1114-71-2	
Pentachlorobenzene	Benzene, pentachloro-	608-93-5	U183
Pentachlorodibenzo-p-dioxins			
Pentachlorodibenzofurans			
Pentachloroethane	Ethane, pentachloro-	76-01-7	U184
Pentachloronitrobenzene (PCNB)	Benzene, pentachloronitro-	82-68-8	U185
Pentachlorophenol	Phenol, pentachloro-	87-86-5	See F027
Phenacetin	Acetamide, N-(4-ethoxyphenyl)-	62-44-2	U187
Phenol	Same	108-95-2	U188
Phenylenediamine	Benzenediamine	25265-76-3	
Phenylmercury acetate	Mercury, (acetato-O)phenyl-	62-38-4	P092
Phenylthiourea	Thiourea, phenyl-	103-85-5	P093
Phosgene	Carbonic dichloride	75-44-5	P095

Phosphine	Same	7803-51-2	P096
Phorate	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester	298-02-2	P094
Phthalic acid esters, N.O.S.			
Phthalic anhydride	1,3-Isobenzofurandione	85-44-9	U190
Physostigmine	Pyrrolo[2,3-b]indol-5-ol, 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-, methylcarbamate (ester), (3aS-cis)-	57-47-6	P204
Physostigmine salicylate	Benzoic acid, 2-hydroxy-, compound with (3aS-cis)-1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrolo[2,3-b]-indol-5-yl methylcarbamate ester (1:1)	57-64-7	P188
2-Picoline	Pyridine, 2-methyl-	109-06-8	U191
Polychlorinated biphenyls, N.O.S.			
Potassium cyanide	Same	151-50-8	P098
Potassium dimethyldithiocarbamate	Carbamodithioc acid, dimethyl, potassium salt	128-03-0	
Potassium n-hydroxymethyl-n-methyl-dithiocarbamate	Carbamodithioc acid, (hydroxymethyl)methyl-, monopotassium salt	51026-28-9	
Potassium n-methyldithiocarbamate	Carbamodithioc acid, methyl-monopotassium salt	137-41-7	
Potassium silver cyanide	Argentate(1-), bis(cyano-C)-, potassium)	506-61-6	P099
Potassium pentachlorophenate	Pentachlorophenol, potassium salt	7778736	None
Promecarb	Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate	2631-37-0	P201
Pronamide	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-	23950-58-5	U192
1,3-Propane sultone	1,2-Oxathiolane, 2,2-dioxide	1120-71-4	U193
Propham	Carbamic acid, phenyl-, 1-methylethyl ester	122-42-9	U373
Propoxur	Phenol, 2-(1-methylethoxy)-, methylcarbamate	114-26-1	U411
n-Propylamine	1-Propanamine	107-10-8	U194
Propargyl alcohol	2-Propyn-1-ol	107-19-7	P102
Propylene dichloride	Propane, 1,2-dichloro-	78-87-5	U083
1,2-Propylenimine	Aziridine, 2-methyl-	75-55-8	P067
Propylthiouracil	4(1H)-Pyrimidinone, 2,3-dihydro-6-propyl-2-thio-	51-52-5	



Prosulfocarb	Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester	52888-80-9	U387
Pyridine	Same	110-86-1	U196
Reserpine	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester, (3 $\beta$ ,16 $\beta$ ,17 $\alpha$ ,18 $\beta$ ,20 $\alpha$ )-	50-55-5	U200
Resorcinol	1,3-Benzenediol	108-46-3	U201
Saccharin	1,2-Benzisothiazol-3(2H)-one, 1,1-dioxide	81-07-2	U202
Saccharin salts			U202
Safrole	1,3-Benzodioxole, 5-(2-propenyl)-	94-59-7	U203
Selenium	Same	7782-49-2	
Selenium compounds, N.O.S.			
Selenium dioxide	Selenious acid	7783-00-8	U204
Selenium sulfide	Selenium sulfide SeS <sub>2</sub>	7488-56-4	U205
Selenium, tetrakis(dimethyl-dithiocarbamate	Carbamodithioic acid, dimethyl-, tetraanhydrosulfide with orthothioselenious acid	144-34-3	
Selenourea	Same	630-10-4	P103
Silver	Same	7440-22-4	
Silver compounds, N.O.S.			
Silver cyanide	Silver cyanide AgCN	506-64-9	P104
Silvex (2,4,5-TP)	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-	93-72-1	See F027
Sodium cyanide	Sodium cyanide NaCN	143-33-9	P106
Sodium dibutyldithiocarbamate	Carbamodithioic acid, dibutyl-, sodium salt	136-30-1	
Sodium diethyldithiocarbamate	Carbamodithioic acid, diethyl-, sodium salt	148-18-5	
Sodium dimethyldithiocarbamate	Carbamodithioic acid, dimethyl-, sodium salt	128-04-1	
Sodium pentachlorophenate	Pentachlorophenol, sodium salt	131522	None
Streptozotocin	D-Glucose, 2-deoxy-2-[[[(methylnitrosoamino)carbonyl]amino]-	18883-66-4	U206
Strychnine	Strychnidin-10-one	57-24-9	P108
Strychnine salts			P108
Sulfallate	Carbamodithioic acid, diethyl-, 2-chloro-2-propenyl ester	95-06-7	
TCDD	Dibenzo[b,e][1,4]dioxin, 2,3,7,8-tetrachloro-	1746-01-6	
Tetrabutylthiuram disulfide	Thioperoxydicarbonic diamide, tetrabutyl	1634-02-2	

Tetramethylthiuram monosulfide	Bis(dimethylthiocarbamoyl) sulfide	97-74-5	
1,2,4,5-Tetrachlorobenzene	Benzene, 1,2,4,5-tetrachloro-	95-94-3	U207
Tetrachlorodibenzo-p-dioxins			
Tetrachlorodibenzofurans			
Tetrachloroethane, N.O.S.	Ethane, tetrachloro-, N.O.S.	25322-20-7	
1,1,1,2-Tetrachloroethane	Ethane, 1,1,1,2-tetrachloro-	630-20-6	U208
1,1,2,2-Tetrachloroethane	Ethane, 1,1,2,2-tetrachloro-	79-34-5	U209
Tetrachloroethylene	Ethene, tetrachloro-	127-18-4	U210
2,3,4,6-Tetrachlorophenol	Phenol, 2,3,4,6-tetrachloro-	58-90-2	See F027
2,3,4,6-Tetrachlorophenol, potassium salt	Same	53535276	None
2,3,4,6-Tetrachlorophenol, sodium salt	Same	25567559	None
Tetraethyldithiopyrophosphate	Thiodiphosphoric acid, tetraethyl ester	3689-24-5	P109
Tetraethyl lead	Plumbane, tetraethyl-	78-00-2	P110
Tetraethylpyrophosphate	Diphosphoric acid, tetraethyl ester	107-49-3	P111
Tetranitromethane	Methane, tetranitro-	509-14-8	P112
Thallium	Same	7440-28-0	
Thallium compounds			
Thallic oxide	Thallium oxide $Tl_2O_3$	1314-32-5	P113
Thallium (I) acetate	Acetic acid, thallium (1+) salt	563-68-8	U214
Thallium (I) carbonate	Carbonic acid, dithallium (1+) salt	6533-73-9	U215
Thallium (I) chloride	Thallium chloride $TlCl$	7791-12-0	U216
Thallium (I) nitrate	Nitric acid, thallium (1+) salt	10102-45-1	U217
Thallium selenite	Selenious acid, dithallium (1+) salt	12039-52-0	P114
Thallium (I) sulfate	Sulfuric acid, dithallium (1+) salt	7446-18-6	P115
Thioacetamide	Ethanethioamide	62-55-5	U218
Thiodicarb	Ethanimidothioic acid, N,N'-[thiobis[(methylimino)-carbonyloxy]]-bis-, dimethyl ester	59669-26-0	U410
Thiofanox	2-Butanone, 3,3-dimethyl-1-(methylthio)-, O-[(methylamino)carbonyl]oxime	39196-18-4	P045
Thiophanate-methyl	Carbamic acid, [1,2-phenylenebis(iminocarbonylthioyl)]-bis-, dimethyl ester	23564-05-8	U409
Thiomethanol	Methanethiol	74-93-1	U153
Thiophenol	Benzenethiol	108-98-5	P014
Thiosemicarbazide	Hydrazinecarbothioamide	79-19-6	P116

Thiourea	Same	62-56-6	P219
Thiram	Thioperoxydicarbonic diamide [(H <sub>2</sub> N)C(S)] <sub>2</sub> S <sub>2</sub> , tetramethyl-	137-26-8	U244
Tirpate	1,3-Dithiolane-2-carbox- aldehyde, 2,4-dimethyl-, O- [(methylamino)carbonyl] oxime	26419-73-8	P185
Toluene	Benzene, methyl-	108-88-3	U220
Toluenediamine	Benzenediamine, ar-methyl-	25376-45-8	U221
Toluene-2,4-diamine	1,3-Benzenediamine, 4-methyl-	95-80-7	
Toluene-2,6-diamine	1,3-Benzenediamine, 2-methyl-	823-40-5	
Toluene-3,4-diamine	1,2-Benzenediamine, 4-methyl-	496-72-0	
Toluene diisocyanate	Benzene, 1,3-diisocyanato- methyl-	26471-62-5	U223
o-Toluidine	Benzenamine, 2-methyl-	95-53-4	U328
o-Toluidine hydrochloride	Benzenamine, 2-methyl-, hydrochloride	636-21-5	U222
p-Toluidine	Benzenamine, 4-methyl-	106-49-0	U353
Toxaphene	Same	8001-35-2	P123
Triallate	Carbamothioic acid, bis(1- methylethyl)-, S-(2,3,3-tri- chloro-2-propenyl) ester	2303-17-5	U389
<u>2,4,6-Tribromophenol</u>	<u>Tribromophenol, 2,4,6-</u>	<u>118-79-6</u>	<u>U408</u>
1,2,4-Trichlorobenzene	Benzene, 1,2,4-trichloro-	120-82-1	
1,1,2-Trichloroethane	Ethane, 1,1,2-trichloro-	79-00-5	U227
Trichloroethylene	Ethene, trichloro-	79-01-6	U228
Trichloromethanethiol	Methanethiol, trichloro-	75-70-7	P118
Trichloromonofluoromethane	Methane, trichlorofluoro-	75-69-4	U121
2,4,5-Trichlorophenol	Phenol, 2,4,5-trichloro-	95-95-4	See F027
2,4,6-Trichlorophenol	Phenol, 2,4,6-trichloro-	88-06-2	See F027
2,4,5-T	Acetic acid, (2,4,5-trichloro- phenoxy)-	93-76-5	See F027
Trichloropropane, N.O.S.		25735-29-9	
1,2,3-Trichloropropane	Propane, 1,2,3-trichloro-	96-18-4	
Triethylamine	Ethanamine, N,N-diethyl-	121-44-8	U404
O,O,O-Triethylphosphorothioate	Phosphorothioic acid, O,O,O- triethyl ester	126-68-1	
1,3,5-Trinitrobenzene	Benzene, 1,3,5-trinitro-	99-35-4	U234
Tris(1-aziridiny)phosphine sulfide	Aziridine, 1,1',1''-phosphino- thioylidynetris-	52-24-4	
Tris(2,3-dibromopropyl) phosphate	1-Propanol, 2,3-dibromo-, phosphate (3:1)	126-72-7	U235
Trypan blue	2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl[1,1'- biphenyl]-4,4'-diyl)- bis(azo)]bis[5-amino-4- hydroxy]-, tetrasodium salt	72-57-1	U236

Uracil mustard	2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]-	66-75-1	U237
Vanadium pentoxide	Vanadium oxide V <sub>2</sub> O <sub>5</sub>	1314-62-1	P120
Vernolate	Carbamothioc acid, dipropyl-, S-propyl ester	1929-77-7	
Vinyl chloride	Ethene, chloro-	75-01-4	U043
Warfarin	2H-1-Benzopyran-2-one, 4- hydroxy-3-(3-oxo-1-phenyl- butyl)-, when present at concentrations less than 0.3 percent	81-81-2	U248
Warfarin	2H-1-Benzopyran-2-one, 4- hydroxy-3-(3-oxo-1-phenyl- butyl)-, when present at concentrations greater than 0.3 percent	81-81-2	P001
Warfarin salts, when present at concentrations less than 0.3 percent			U248
Warfarin salts, when present at concentrations greater than 0.3 percent			P001
Zinc cyanide	Zinc cyanide Zn(CN) <sub>2</sub>	557-21-1	P121
Zinc phosphide	Zinc phosphide P <sub>2</sub> Zn <sub>3</sub> , when present at concentrations greater than 10 percent	1314-84-7	P122
Zinc phosphide	Zinc phosphide P <sub>2</sub> Zn <sub>3</sub> , when present at concentrations of 10 percent or less	1314-84-7	U249
Ziram	Zinc, bis(dimethylcarbamo- dithioato-S,S')- (T-4)-	137-30-4	P205

Note: The abbreviation N.O.S. (not otherwise specified) signifies those members of the general class not specifically listed by name in this Section.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 721.Appendix Z Table to Section 721.102

Table

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	*1	*2	*3	*4
<u>Applicable Subsection of Section 721.102:</u>	<u>Use constituting disposal</u>	<u>Burning for energy recovery or use to produce a fuel</u>	<u>Reclamation (except as provided in 261.4(a)(15) for mineral processing secondary materials)</u>	<u>Speculative accumulation</u>
	<u>(c)(1)</u>	<u>(c)(2)</u>	<u>(c)(3)</u>	<u>(c)(4)</u>
Spent materials	Yes	Yes	Yes	Yes
Sludges (listed in Section 721.131 or 721.132)	Yes	Yes	Yes	Yes
Sludges exhibiting a characteristic of hazardous waste	Yes	Yes	No =	Yes
By-products (listed in Section 721.131 or 721.132)	Yes	Yes	Yes	Yes
By-products exhibiting a characteristic of hazardous waste	Yes	Yes	No =	Yes
Commercial chemical products listed in Section 721.133	Yes	Yes	No =	No =
Scrap metal other than excluded scrap metal (see Section 721.101-(c)(9))	Yes	Yes	Yes	Yes

Yes - Defined as a solid waste

No - Not defined as a solid waste

~~\*1 Use constituting disposal (Section 721.102(c)(1))~~

~~\*2 Burning for energy recovery or use to produce a fuel (Section 721.102(c)(2))~~

~~\*3 Reclamation (Section 721.102(c)(3))~~

~~\*4 Speculative accumulation (Section 721.102(c)(4))~~

BOARD NOTE: Derived from Table 1 to 40 CFR 261.2(e)(4) (1997), as amended at 63 Fed. Reg. 28636 (May 26, 1998). The terms “spent materials”, “sludges”, “by-products”, “scrap metal”, and “processed scrap metal” are defined in Section 721.101.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

TITLE 35: ENVIRONMENTAL PROTECTION  
 SUBTITLE G: WASTE DISPOSAL  
 CHAPTER I: POLLUTION CONTROL BOARD  
 SUBCHAPTER c: HAZARDOUS WASTE OPERATING REQUIREMENTS

PART 724  
 STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS  
 WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

SUBPART A: GENERAL PROVISIONS

Section	
724.101	Purpose, Scope and Applicability
724.103	Relationship to Interim Status Standards

SUBPART B: GENERAL FACILITY STANDARDS

Section	
724.110	Applicability
724.111	Identification Number
724.112	Required Notices
724.113	General Waste Analysis
724.114	Security
724.115	General Inspection Requirements
724.116	Personnel Training
724.117	General Requirements for Ignitable, Reactive or Incompatible Wastes
724.118	Location Standards
724.119	Construction Quality Assurance Program

SUBPART C: PREPAREDNESS AND PREVENTION

Section	
724.130	Applicability
724.131	Design and Operation of Facility
724.132	Required Equipment
724.133	Testing and Maintenance of Equipment
724.134	Access to Communications or Alarm System
724.135	Required Aisle Space
724.137	Arrangements with Local Authorities

#### SUBPART D: CONTINGENCY PLAN AND EMERGENCY PROCEDURES

##### Section

724.150	Applicability
724.151	Purpose and Implementation of Contingency Plan
724.152	Content of Contingency Plan
724.153	Copies of Contingency Plan
724.154	Amendment of Contingency Plan
724.155	Emergency Coordinator
724.156	Emergency Procedures

#### SUBPART E: MANIFEST SYSTEM, RECORDKEEPING AND REPORTING

##### Section

724.170	Applicability
724.171	Use of Manifest System
724.172	Manifest Discrepancies
724.173	Operating Record
724.174	Availability, Retention and Disposition of Records
724.175	Annual Report
724.176	Unmanifested Waste Report
724.177	Additional Reports

#### SUBPART F: RELEASES FROM SOLID WASTE MANAGEMENT UNITS

##### Section

724.190	Applicability
724.191	Required Programs
724.192	Groundwater Protection Standard
724.193	Hazardous Constituents
724.194	Concentration Limits
724.195	Point of Compliance
724.196	Compliance Period
724.197	General Groundwater Monitoring Requirements
724.198	Detection Monitoring Program
724.199	Compliance Monitoring Program
724.200	Corrective Action Program
724.201	Corrective Action for Solid Waste Management Units

#### SUBPART G: CLOSURE AND POST-CLOSURE

##### Section

724.210	Applicability
724.211	Closure Performance Standard
724.212	Closure Plan; Amendment of Plan
724.213	Closure; Time Allowed For Closure
724.214	Disposal or Decontamination of Equipment, Structures and Soils
724.215	Certification of Closure
724.216	Survey Plat

724.217	Post-closure Care and Use of Property
724.218	Post-closure Plan; Amendment of Plan
724.219	Post-closure Notices
724.220	Certification of Completion of Post-closure Care

#### SUBPART H: FINANCIAL REQUIREMENTS

Section	
724.240	Applicability
724.241	Definitions of Terms As Used In This Subpart
724.242	Cost Estimate for Closure
724.243	Financial Assurance for Closure
724.244	Cost Estimate for Post-closure Care
724.245	Financial Assurance for Post-closure Care
724.246	Use of a Mechanism for Financial Assurance of Both Closure and Post-closure Care
724.247	Liability Requirements
724.248	Incapacity of Owners or Operators, Guarantors or Financial Institutions
724.251	Wording of the Instruments

#### SUBPART I: USE AND MANAGEMENT OF CONTAINERS

Section	
724.270	Applicability
724.271	Condition of Containers
724.272	Compatibility of Waste With Container
724.273	Management of Containers
724.274	Inspections
724.275	Containment
724.276	Special Requirements for Ignitable or Reactive Waste
724.277	Special Requirements for Incompatible Wastes
724.278	Closure
724.279	Air Emission Standards

#### SUBPART J: TANK SYSTEMS

Section	
724.290	Applicability
724.291	Assessment of Existing Tank System's Integrity
724.292	Design and Installation of New Tank Systems or Components
724.293	Containment and Detection of Releases
724.294	General Operating Requirements
724.295	Inspections
724.296	Response to Leaks or Spills and Disposition of Leaking or unfit-for-use Tank Systems
724.297	Closure and Post-Closure Care
724.298	Special Requirements for Ignitable or Reactive Waste
724.299	Special Requirements for Incompatible Wastes
724.300	Air Emission Standards



### SUBPART K: SURFACE IMPOUNDMENTS

Section	
724.320	Applicability
724.321	Design and Operating Requirements
724.322	Action Leakage Rate
724.323	Response Actions
724.326	Monitoring and Inspection
724.327	Emergency Repairs; Contingency Plans
724.328	Closure and Post-closure Care
724.329	Special Requirements for Ignitable or Reactive Waste
724.330	Special Requirements for Incompatible Wastes
724.331	Special Requirements for Hazardous Wastes F020, F021, F022, F023, F026 and F027
724.332	Air Emission Standards

### SUBPART L: WASTE PILES

Section	
724.350	Applicability
724.351	Design and Operating Requirements
724.352	Action Leakage Rate
724.353	Response Action Plan
724.354	Monitoring and Inspection
724.356	Special Requirements for Ignitable or Reactive Waste
724.357	Special Requirements for Incompatible Wastes
724.358	Closure and Post-closure Care
724.359	Special Requirements for Hazardous Wastes F020, F021, F022, F023, F026 and F027

### SUBPART M: LAND TREATMENT

Section	
724.370	Applicability
724.371	Treatment Program
724.372	Treatment Demonstration
724.373	Design and Operating Requirements
724.376	Food-chain Crops
724.378	Unsaturated Zone Monitoring
724.379	Recordkeeping
724.380	Closure and Post-closure Care
724.381	Special Requirements for Ignitable or Reactive Waste
724.382	Special Requirements for Incompatible Wastes
724.383	Special Requirements for Hazardous Wastes F020, F021, F022, F023, F026 and F027

## SUBPART N: LANDFILLS

Section	
724.400	Applicability
724.401	Design and Operating Requirements
724.402	Action Leakage Rate
724.403	Monitoring and Inspection
724.404	Response Actions
724.409	Surveying and Recordkeeping
724.410	Closure and Post-closure Care
724.412	Special Requirements for Ignitable or Reactive Waste
724.413	Special Requirements for Incompatible Wastes
724.414	Special Requirements for Bulk and Containerized Liquids
724.415	Special Requirements for Containers
724.416	Disposal of Small Containers of Hazardous Waste in Overpacked Drums (Lab Packs)
724.417	Special Requirements for Hazardous Wastes F020, F021, F022, F023, F026 and F027

## SUBPART O: INCINERATORS

Section	
724.440	Applicability
724.441	Waste Analysis
724.442	Principal Organic Hazardous Constituents (POHCs)
724.443	Performance Standards
724.444	Hazardous Waste Incinerator Permits
724.445	Operating Requirements
724.447	Monitoring and Inspections
724.451	Closure

SUBPART S: CORRECTIVE ACTION FOR SOLID WASTE  
MANAGEMENT UNITS

Section	
724.652	Corrective Action Management Units
724.653	Temporary Units

## SUBPART W: DRIP PADS

Section	
724.670	Applicability
724.671	Assessment of existing drip pad integrity
724.672	Design and installation of new drip pads
724.673	Design and operating requirements
724.674	Inspections
724.675	Closure

### SUBPART X: MISCELLANEOUS UNITS

Section	
724.700	Applicability
724.701	Environmental Performance Standards
724.702	Monitoring, Analysis, Inspection, Response, Reporting and Corrective Action
724.703	Post-closure Care

### SUBPART AA: AIR EMISSION STANDARDS FOR PROCESS VENTS

Section	
724.930	Applicability
724.931	Definitions
724.932	Standards: Process Vents
724.933	Standards: Closed-Vent Systems and Control Devices
724.934	Test Methods and Procedures
724.935	Recordkeeping requirements
724.936	Reporting Requirements

### SUBPART BB: AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS

Section	
724.950	Applicability
724.951	Definitions
724.952	Standards: Pumps in Light Liquid Service
724.953	Standards: Compressors
724.954	Standards: Pressure Relief Devices in Gas/Vapor Service
724.955	Standards: Sampling Connecting Systems
724.956	Standards: Open-ended Valves or Lines
724.957	Standards: Valves in Gas/Vapor or Light Liquid Service
724.958	Standards: Pumps, Valves, Pressure Relief Devices and Other Connectors
724.959	Standards: Delay of Repair
724.960	Standards: Closed-vent Systems and Control Devices
724.961	Alternative Percentage Standard for Valves
724.962	Skip Period Alternative for Valves
724.963	Test Methods and Procedures
724.964	Recordkeeping Requirements
724.965	Reporting Requirements

### SUBPART CC: AIR EMISSION STANDARDS FOR TANKS, SURFACE IMPOUNDMENTS, AND CONTAINERS

Section	
724.980	Applicability
724.981	Definitions
724.982	Standards: General
724.983	Waste Determination Procedures
724.984	Standards: Tanks
724.985	Standards: Surface Impoundments
724.986	Standards: Containers

724.987	Standards: Closed-vent Systems and Control Devices
724.988	Inspection and Monitoring Requirements
724.989	Recordkeeping Requirements
724.990	Reporting Requirements
724.991	Alternative Control Requirements for Tanks

#### SUBPART DD: CONTAINMENT BUILDINGS

##### Section

724.1100	Applicability
724.1101	Design and operating standards
724.1102	Closure and Post-closure Care

#### SUBPART EE: HAZARDOUS WASTE MUNITIONS AND EXPLOSIVES STORAGE

##### Section

724.1200	Applicability
724.1201	Design and Operating Standards
724.1202	Closure and Post-Closure Care
724.Appendix A	Recordkeeping Instructions
724.Appendix B	EPA Report Form and Instructions (Repealed)
724.Appendix D	Cochran's Approximation to the Behrens-Fisher Student's T-Test
724.Appendix E	Examples of Potentially Incompatible Waste
724.Appendix I	Groundwater Monitoring List

**AUTHORITY:** Implementing Section 22.4 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/22.4 and 27].

**SOURCE:** Adopted in R82-19, 53 PCB 131, at 7 Ill. Reg. 14059, effective October 12, 1983; amended in R84-9 at 9 Ill. Reg. 11964, effective July 24, 1985; amended in R85-22 at 10 Ill. Reg. 1136, effective January 2, 1986; amended in R86-1 at 10 Ill. Reg. 14119, effective August 12, 1986; amended in R86-28 at 11 Ill. Reg. 6138, effective March 24, 1987; amended in R86-28 at 11 Ill. Reg. 8684, effective April 21, 1987; amended in R86-46 at 11 Ill. Reg. 13577, effective August 4, 1987; amended in R87-5 at 11 Ill. Reg. 19397, effective November 12, 1987; amended in R87-39 at 12 Ill. Reg. 13135, effective July 29, 1988; amended in R88-16 at 13 Ill. Reg. 458, effective December 28, 1988; amended in R89-1 at 13 Ill. Reg. 18527, effective November 13, 1989; amended in R90-2 at 14 Ill. Reg. 14511, effective August 22, 1990; amended in R90-10 at 14 Ill. Reg. 16658, effective September 25, 1990; amended in R90-11 at 15 Ill. Reg. 9654, effective June 17, 1991; amended in R91-1 at 15 Ill. Reg. 14572, effective October 1, 1991; amended in R91-13 at 16 Ill. Reg. 9833, effective June 9, 1992; amended in R92-1 at 16 Ill. Reg. 17702, effective November 6, 1992; amended in R92-10 at 17 Ill. Reg. 5806, effective March 26, 1993; amended in R93-4 at 17 Ill. Reg. 20830, effective November 22, 1993; amended in R93-16 at 18 Ill. Reg. 6973, effective April 26, 1994; amended in

R94-7 at 18 Ill. Reg. 12487, effective July 29, 1994; amended in R94-17 at 18 Ill. Reg. 17601, effective November 23, 1994; amended in R95-6 at 19 Ill. Reg. 9951, effective June 27, 1995; amended in R95-20 at 20 Ill. Reg. 11244, August 1, 1996; amended in R96-10/R97-3/R97-5 at 22 Ill. Reg. 636, effective December 16, 1997; amended in R98-12 at 22 Ill. Reg. 7638, effective April 15, 1998; amended in R97-21/R98-3/R98-5 at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_; amended in R98-21/R99-2/R99-7 at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

## SUBPART B: GENERAL FACILITY STANDARDS

### Section 724.115 General Inspection Requirements

- a) The owner or operator shall conduct inspections often enough to identify problems in time to correct them before they harm human health or the environment. The owner or operator shall inspect the facility for malfunctions and deterioration, operator errors, and discharges that may be causing or may lead to:
  - 1) Release of hazardous waste constituents to the environment; or
  - 2) A threat to human health.
- b) Inspection schedule.
  - 1) The owner or operator shall develop and follow a written schedule for inspecting monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment (such as dikes and sump pumps) that are important to preventing, detecting, or responding to environmental or human health hazards.
  - 2) The owner or operator shall keep this schedule at the facility.
  - 3) The schedule must identify the types of problems (e.g., malfunctions or deterioration) that are to be looked for during the inspection (e.g., inoperative sump pump, leaking fitting, eroding dike, etc.).
  - 4) The frequency of inspection may vary for the items on the schedule. However, ~~it~~ the frequency should be based on the rate of deterioration of the equipment and the probability of an environmental or human health incident if the deterioration, malfunction, or any operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, must be inspected daily when in use. At a minimum, the inspection schedule must include the items and frequencies called for in Sections 724.274, 724.293, 724.295, 724.326, 724.354,

724.378, 724.403, 724.447, 724.702, 724.933, 724.952, 724.953, 724.958, ~~724.988~~, and ~~724.991(b)~~ 724.983 through 724.990, where applicable.

BOARD NOTE: 35 Ill. Adm. Code 703 requires the inspection schedule to be submitted with Part B of the permit application. The Agency must evaluate the schedule along with the rest of the application to ensure that it adequately protects human health and the environment. As part of this review, the Agency may modify or amend the schedule as may be necessary.

- c) The owner or operator shall remedy any deterioration or malfunction of equipment or structures that the inspection reveals on a schedule which ensures that the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, remedial action must be taken immediately.
- d) The owner or operator shall record inspections in an inspection log or summary. The owner or operator shall keep these records for at least three years from the date of inspection. At a minimum, these records must include the date and time of the inspection, the name of the inspector, a notation of the observations made and the date, and nature of any repairs or other remedial actions.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

## SUBPART E: MANIFEST SYSTEM, RECORDKEEPING AND REPORTING

### Section 724.173      Operating Record

- a) The owner or operator shall keep a written operating record at the facility.
- b) The following information must be recorded as it becomes available and maintained in the operating record until closure of the facility:
  - 1) A description and the quantity of each hazardous waste received and the method or methods and date or dates of its treatment, storage, or disposal at the facility, as required by Section 724.Appendix A;
  - 2) The location of each hazardous waste within the facility and the quantity at each location. For disposal facilities, the location and quantity of each hazardous waste must be recorded on a map or diagram of each cell or disposal area. For all facilities, this information must include cross-

references to specific manifest document numbers, if the waste was accompanied by a manifest;

BOARD NOTE: See Section 724.219 for related requirements.

- 3) Records and results of waste analyses and waste determinations performed as specified in Sections 724.113, 724.117, 724.414, 724.441, 724.934, 724.963, and 724.983 and in 35 Ill. Adm. Code 728.104(a) and 728.107;
- 4) Summary reports and details of all incidents that require implementing the contingency plan, as specified in Section 724.156(j);
- 5) Records and results of inspections, as required by Section 724.115(d) (except these data need to be kept only three years);
- 6) Monitoring, testing, or analytical data and corrective action data where required by 724-Subpart F of this Part or Sections 724.119, 724.291, 724.293, 724.295, 724.322, 724.323, 724.326, 724.352 through 724.354, 724.376, 724.378, 724.380, 724.402 through 724.404, 724.409, 724.447, 724.702, 724.934(c) through (f), 724.935, 724.963(d) through (i), 724.964, ~~724.988, 724.989, and 724.991~~ 724.982 through 724.990;
- 7) For off-site facilities, notices to generators as specified in Section 724.112(b);
- 8) All closure cost estimates under Section 724.242 and, for disposal facilities, all post-closure cost estimates under Section 724.244;
- 9) A certification by the permittee, no less often than annually: that the permittee has a program in place to reduce the volume and toxicity of hazardous waste that the permittee generates, to the degree the permittee determines to be economically practicable, and that the proposed method of treatment, storage, or disposal is that practicable method currently available to the permittee that minimizes the present and future threat to human health and the environment;
- 10) Records of the quantities (and date of placement) for each shipment of hazardous waste placed in land disposal units under an extension of the effective date of any land disposal restriction granted pursuant to 35 Ill. Adm. Code 728.105, a petition pursuant to 35 Ill. Adm. Code 728.106 or a certification under 35 Ill. Adm. Code 728.108, and the applicable notice required of a generator under 35 Ill. Adm. Code 728.107(a);

- 11) For an off-site treatment facility, a copy of the notice, and the certification and demonstration, if applicable, required of the generator or the owner or operator under 35 Ill. Adm. Code 728.107 or 728.108;
- 12) For an on-site treatment facility, the information contained in the notice (except the manifest number), and the certification and demonstration, if applicable, required of the generator or the owner or operator under 35 Ill. Adm. Code 728.107 or 728.108;
- 13) For an off-site land disposal facility, a copy of the notice, and the certification and demonstration, if applicable, required of the generator or the owner or operator of a treatment facility under 35 Ill. Adm. Code 728.107 or 728.108, whichever is applicable; and
- 14) For an on-site land disposal facility, the information contained in the notice required of the generator or owner or operator of a treatment facility under 35 Ill. Adm. Code 728.107, except for the manifest number, and the certification and demonstration, required under 35 Ill. Adm. Code 728.108, whichever is applicable.
- 15) For an off-site storage facility, a copy of the notice, and the certification and demonstration if applicable, required of the generator or the owner or operator under 35 Ill. Adm. Code 728.107 or 728.108; and
- 16) For an on-site storage facility, the information contained in the notice (except the manifest number), and the certification and demonstration if applicable, required of the generator or the owner or operator under 35 Ill. Adm. Code 728.107 or 728.108.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

## SUBPART AA: AIR EMISSION STANDARDS FOR PROCESS VENTS

### Section 724.930      Applicability

- a) This Subpart applies to owners and operators of facilities that treat, store or dispose of hazardous wastes (except as provided in Section 724.101).
- b) Except for Sections 724.934(d) and (e), this Subpart applies to process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations that manage hazardous wastes with organic concentrations of at least 10 ppmw (parts per million by weight), if these operations are conducted in:



- 1) Units that are subject to the permitting requirements of 35 Ill. Adm. Code 703;
  - 2) A unit (including a hazardous waste recycling unit) that is not exempt from permitting under the provisions of 35 Ill. Adm. Code 722.134(a) (i.e., a hazardous waste recycling unit that is not a 90-day tank or container) and that is located at a hazardous waste management facility otherwise subject to the permitting requirements of 35 Ill. Adm. Code 703; or
  - 3) A unit that is exempt from permitting under the provisions of 35 Ill. Adm. Code 722.134(a) (i.e., a 90-day tank or container) and which is not a recycling unit under the provisions of 35 Ill. Adm. Code 721.106.
- ~~e) If the owner or operator of process vents subject to the requirements of Sections 724.932 through 724.936 has received a RCRA permit prior to December 21, 1990, the requirements of Sections 724.932 through 724.936 must be incorporated when the permit is reissued under 35 Ill. Adm. Code 705.201 or reviewed under 35 Ill. Adm. Code 702.161.~~
- c) For the owner and operator of a facility subject to this Subpart that received a final permit under 35 Ill. Adm. Code 702, 703, and 705 prior to December 6, 1996, the requirements of this Subpart shall be incorporated into the permit when the permit is reissued, renewed, or modified in accordance with the requirements of 35 Ill. Adm. Code 703 and 705. Until such date when the owner and operator receives a final permit incorporating the requirements of this subpart, the owner and operator is subject to the requirements of 35 Ill. Adm. Code 265.Subpart AA.
- BOARD NOTE: The requirements of Sections 724.932 through 724.936 apply to process vents on hazardous waste recycling units previously exempt under 35 Ill. Adm. Code 721.106(c)(1). Other exemptions under 35 Ill. Adm. Code 721.104, 722.134 and 724.101(g) are not affected by these requirements.
- ~~d) This subsection (d) corresponds with 40 CFR 264.1030(d), which is marked "reserved" by USEPA. This statement maintains structural consistency with USEPA rules.~~
- e) The requirements of this Subpart do not apply to the process vents at a facility where the facility owner or operator certifies that all of the process vents which would otherwise be subject to this Subpart are equipped with and operating air emission controls in accordance with the process vent requirements of an applicable federal Clean Air Act regulation codified under 40 CFR part 60,

part 61, or part 63. The documentation of compliance under regulations at 40 CFR part 60, part 61, or part 63 must be kept with, or made readily available with, the facility operating record.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 724.931 Definitions

As used in this Subpart, all terms not defined in the Subpart have the meaning given them in the Resource Conservation and Recovery Act and 35 Ill. Adm. Code 720 through 726.

“Air stripping operation” is a desorption operation employed to transfer one or more volatile components from a liquid mixture into a gas (air) either with or without the application of heat to the liquid. Packed towers, spray towers and bubble-cap, sieve, or valve-type plate towers are among the process configurations used for contacting the air and a liquid.

“Bottoms receiver” means a container or tank used to receive and collect the heavier bottoms fractions of the distillation feed stream that remain in the liquid phase.

“BTU” means British thermal unit.

“Closed-vent system” means a system that is not open to the atmosphere and that is composed of piping, connections, and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device.

“Condenser” means a heat-transfer device that reduces a thermodynamic fluid from its vapor phase to its liquid phase.

“Connector” means flanged, screwed, welded or other joined fittings used to connect two pipelines or a pipeline and a piece of equipment. For the purposes of reporting and recordkeeping, “connector” means flanged fittings that are not covered by insulation or other materials that prevent location of the fittings.

“Continuous recorder” means a data-recording device recording an instantaneous data value at least once every 15 minutes.

“Control device” means an enclosed combustion device, vapor recovery system, or flare. Any device the primary function of which is the recovery or capture of solvents or other organics for use, reuse, or sale (e.g., a primary condenser on a solvent recovery unit) is not a control device.

“Control device shutdown” means the cessation of operation of a control device for any purpose.

“Distillate receiver” means a container or tank used to receive and collect liquid material (condensed) from the overhead condenser of a distillation unit and from which the condensed liquid is pumped to larger storage tanks or other process units.

“Distillation operation” means an operation, either batch or continuous, separating one or more feed stream(s) into two or more exit streams, each exit stream having component concentrations different from those in the feed stream(s). The separation is achieved by the redistribution of the components between the liquid and vapor phase as they approach equilibrium within the distillation unit.

“Double block and bleed system” means two block valves connected in series with a bleed valve or line that can vent the line between the two block valves.

“Equipment” means each valve, pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, or flange, and any control devices or systems required by this Subpart.

“First attempt at repair” means to take rapid action for the purpose of stopping or reducing leakage of organic material to the atmosphere using best practices.

“Flame zone” means the portion of the combustion chamber in a boiler occupied by the flame envelope.

“Flow indicator” means a device that indicates whether gas flow is present in a vent stream.

~~First attempt at repair means to take rapid action for the purpose of stopping or reducing leakage of organic material to the atmosphere using best practices.~~

“Fractionation operation” means a distillation operation or method used to separate a mixture of several volatile components of different boiling points in successive stages, each stage removing from the mixture some proportion of one of the components.

“ft” means foot.

“h” means hour.

“Hazardous waste management unit shutdown” means a work practice or operational procedure that stops operation of a hazardous waste management unit or part of a hazardous waste management unit. An unscheduled work practice or operational procedure that stops operation of a hazardous waste management unit or part of a hazardous waste management unit for less than 24

hours is not a hazardous waste management unit shutdown. The use of spare equipment and technically feasible bypassing of equipment without stopping operation are not hazardous waste management unit shutdowns.

“Hot well” means a container for collecting condensate as in a steam condenser serving a vacuum-jet or steam-jet ejector.

“In gas-vapor service” means that the piece of equipment contains or contacts a hazardous waste stream that is in the gaseous state at operating conditions.

“In heavy liquid service” means that the piece of equipment is not in gas-vapor service or in light liquid service.

“In light liquid service” means that the piece of equipment contains or contacts a waste stream where the vapor pressure of one or more of the organic components in the stream is greater than 0.3 kilopascals (kPa) at 20 C, the total concentration of the pure organic components having a vapor pressure greater than 0.3 kPa at 20 C is equal to or greater than 20 percent by weight, and the fluid is a liquid at operating conditions.

“In situ sampling systems” means nonextractive samplers or in-line samplers.

“In vacuum service” means that equipment is operating at an internal pressure that is at least 5 kPa below ambient pressure.

“Kg” means kilogram.

“kPa” means kilopascals.

“lb” means pound.

“m” means meter.

“Mg” means Megagrams, or metric tonnes.

“MJ” means Megajoules, or ten to the sixth Joules.

“MW” means Megawatts.

“Malfunction” means any sudden failure of a control device or a hazardous waste management unit or failure of a hazardous waste management unit to operate in a normal or usual manner, so that organic emissions are increased.

“Open-ended valve or line” means any valve, except pressure relief valves, having one side of the valve seat in contact with process fluid and one side open to the atmosphere, either directly or through open piping.

“ppmv” means parts per million by volume.

“ppmw” ~~meant~~ means parts per million by weight.

“Pressure release” means the emission of materials resulting from the system pressure being greater than the set pressure of the pressure relief device.

“Process heater” means a device that transfers heat liberated by burning fuel to fluids contained in tubes, including all fluids except water that are heated to produce steam.

“Process vent” means any open-ended pipe or stack that is vented to the atmosphere either directly, through a vacuum-producing system, or through a tank (e.g., distillate receiver, condenser, bottoms receiver, surge control tank, separator tank, or hot well) associated with hazardous waste distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations.

“Repaired” means that equipment is adjusted, or otherwise altered, to eliminate a leak.

“s” means second.

“scm” means standard cubic meter.

“scft” ~~meant~~ means standard cubic foot.

“Sensor” means a device that measures a physical quantity or the change in a physical quantity, such as temperature, pressure, flow rate, pH, or liquid level.

“Separator tank” means a device used for separation of two immiscible liquids.

“Solvent extraction operation” means an operation or method of separation in which a solid or solution is contacted with a liquid solvent (the two being mutually insoluble) to preferentially dissolve and transfer one or more components into the solvent.

“Startup” means the setting in operation of a hazardous waste management unit or control device for any purpose.

“Steam stripping operation” means a distillation operation in which vaporization of the volatile constituents of a liquid mixture takes place by the introduction of steam directly in to the charge.

“Surge control tank” means a large-sized pipe or storage reservoir sufficient to contain the surging liquid discharge of the process tank to which it is connected.

“Thin-film evaporation operation” means a distillation operation that employs a heating surface consisting of a large diameter tube that may be either straight or tapered, horizontal or vertical. Liquid is spread on the tube wall by a rotating assembly of blades that maintain a close clearance from the wall or actually ride on the film of liquid on the wall.

“Vapor incinerator” means any enclosed combustion device that is used for destroying organic compounds and does not extract energy in the form of steam or process heat.

“Vented” means discharged through an opening, typically an open-ended pipe or stack, allowing the passage of a stream of liquids, gases, or fumes into the atmosphere. The passage of liquids, gases, or fumes is caused by mechanical means such as compressors or vacuum-producing systems or by process-related means such as evaporation produced by heating and not caused by tank loading and unloading (working losses) or by natural means such as diurnal temperature changes.

“yr” means year.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 724.933 Standards: Closed-Vent Systems and Control Devices

- a) Compliance Required.
  - 1) Owners or operators of closed-vent systems and control devices used to comply with provisions of this Part shall comply with the provisions of this Section.
  - 2) Implementation Schedule.
    - A) \_\_\_\_\_ The owner or operator of an existing facility that cannot install a closed-vent system and control device to comply with the provisions of this Subpart on the effective date that the facility becomes subject to the provisions of this Subpart shall prepare an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The controls must be installed as soon as possible, but the implementation schedule may allow up to 30 months after the effective date that the facility becomes subject to this Subpart for installation and startup.-

- B) ~~All units~~ Any unit that ~~begin~~ begins operation after December 21, 1990, and which is subject to the provisions of this Subpart when operation begins, must comply with the rules immediately (i.e., must have control devices installed and operating on startup of the affected unit); the ~~2-year~~ 30-month implementation schedule does not apply ~~to these units~~.
- C) The owner or operator of any facility in existence on the effective date of a statutory or regulatory amendment that renders the facility subject to this Subpart shall comply with all requirements of this subpart as soon as practicable but no later than 30 months after the effective date of the amendment. When control equipment required by this Subpart can not be installed and begin operation by the effective date of the amendment, the facility owner or operator shall prepare an implementation schedule that includes the following information: Specific calendar dates for award of contracts or issuance of purchase orders for the control equipment, initiation of on-site installation of the control equipment, completion of the control equipment installation, and performance of any testing to demonstrate that the installed equipment meets the applicable standards of this Subpart. The owner or operator shall enter the implementation schedule in the operating record or in a permanent, readily available file located at the facility.
- D) An owner or operator of a facility or unit that becomes newly subject to the requirements of this Subpart after December 8, 1997, due to an action other than those described in subsection (a)(2)(C) of this Section must comply with all applicable requirements immediately (i.e., the facility or unit must have control devices installed and operating on the date the facility or unit becomes subject to this Subpart; the 30-month implementation schedule does not apply).
- b) A control device involving vapor recovery (e.g., a condenser or adsorber) must be designed and operated to recover the organic vapors vented to it with an efficiency of 95 weight percent or greater unless the total organic emission limits of Section 724.932(a)(1) for all affected process vents is attained at an efficiency less than 95 weight percent.

- c) An enclosed combustion device (e.g., a vapor incinerator, boiler, or process heater) must be designed and operated to reduce the organic emissions vented to it by 95 weight percent or greater; to achieve a total organic compound concentration of 20 ppmv, expressed as the sum of the actual compounds and not in carbon equivalents, on a dry basis, corrected to three percent oxygen; or to provide a minimum residence time of 0.50 seconds at a minimum temperature of 760 degrees Celsius ( $^{\circ}$  C). If a boiler or process heater is used as the control device, then the vent stream must be introduced into the flame zone of the boiler or process heater.
- d) Flares:
- 1) A flare must be designed for and operated with no visible emissions, as determined by the methods specified in subsection (e)(1), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.
  - 2) A flare must be operated with a flame present at all times, as determined by the methods specified in subsection (f)(2)(C) of this Section.
  - 3) A flare must be used only if the net heating value of the gas being combusted is 11.2 MJ/scm (300 Btu/scf) or greater and the flare is steam-assisted or air-assisted or if the net heating value of the gas being combusted is 7.45 MJ/scm (200 Btu/scf) or greater and the flare is nonassisted. The net heating value of the gas being combusted must be determined by the methods specified in subsection (e)(2) of this Section.
  - 4) Exit Velocity.
    - A) A steam-assisted or nonassisted flare must be designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3) of this Section, less than 18.3 m/s (60 ft/s), except as provided in subsections (d)(4)(B) and (d)(4)(C) of this Section.
    - B) A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3) of this Section, equal to or greater than 18.3 m/s (60 ft/s) but less than 122 m/s (400 ft/s) is allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1000 Btu/scf).
    - C) A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3) of this Section, less than the velocity,  $V$ , as



determined by the method specified in subsection (e)(4) of this Section and less than 122 m/s (400 ft/s) is allowed.

- 5) An air-assisted flare must be designed and operated with an exit velocity less than the velocity,  $V$ , as determined by the method specified in subsection (e)(5) of this Section.
  - 6) A flare used to comply with this Section must be steam-assisted, air-assisted, or nonassisted.
- e) Compliance determination and equations.
- 1) Reference Method 22 in 40 CFR 60, incorporated by reference in 35 Ill. Adm. Code 720.111, must be used to determine the compliance of a flare with the visible emission provisions of this Subpart. The observation period is 2 hours and must be used according to Method 22.
  - 2) The net heating value of the gas being combusted in a flare must be calculated using the following equation:

$$H_T = K \times \sum_{i=1}^n C_i \times H_i$$

Where:

$H_T$  is the net heating value of the sample in MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25° C and 760 mm Hg, but the standard temperature for determining the volume corresponding to 1 mole is 20° C.

$K = 1.74 \times 10^7$  (1/ppm)(g mol/scm)(MJ/kcal) where standard temperature for (g mol/scm) 20° C.

$\Sigma(X_i)$  means the sum of the values of  $X$  for each component  $i$ , from  $i=1$  to  $n$ .

$C_i$  is the concentration of sample component  $i$  in ppm on a wet basis, as measured for organics by Reference Method 18 in 40 CFR 60, and for carbon monoxide, by ASTM D 1946-90, incorporated by reference in 35 Ill. Adm. Code 720.111.

$H_i$  is the net heat of combustion of sample component  $i$ , kcal/gmol at 25° C and 760 mm Hg. The heats of combustion must be determined using ASTM D 2382, incorporated by

reference in 35 Ill. Adm. Code 720.111, if published values are not available or cannot be calculated.

- 3) The actual exit velocity of a flare must be determined by dividing the volumetric flow rate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D in 40 CFR 60, incorporated by reference in 35 Ill. Adm. Code 720.111, as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.
- 4) The maximum allowed velocity in m/s,  $V_{\max}$ , for a flare complying with subsection (d)(4)(C) must be determined by the following equation:

$$\log_{10}(V_{\max}) = \frac{H_T + 28.8}{31.7}$$

Where:

$\log_{10}$  means logarithm to the base 10

$H_T$  is the net heating value as determined in subsection (e)(2).

- 5) The maximum allowed velocity in m/s,  $V_{\max}$ , for an air-assisted flare must be determined by the following equation:

$$V_{\max} = 8.706 + 0.7084H_T$$

Where:

$H_T$  is the net heating value as determined in subsection (e)(2) of this Section.

- f) The owner or operator shall monitor and inspect each control device required to comply with this Section to ensure proper operation and maintenance of the control device by implementing the following requirements:
  - 1) Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow indicator that provides a record of stream flow from each affected process vent to the control device at least once every hour. The flow indicator sensor must be installed in the vent stream at the nearest feasible point to the control device inlet but before the point at which the vent streams are combined.
  - 2) Install, calibrate, maintain, and operate according to the manufacturer's specifications a device to continuously monitor control device operation as specified below:

- A) For a thermal vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device must have accuracy of  $\pm 1$  percent of the temperature being monitored in  $^{\circ}\text{C}$  or  $\pm 0.5^{\circ}\text{C}$ , whichever is greater. The temperature sensor must be installed at a location in the combustion chamber downstream of the combustion zone.
- B) For a catalytic vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device must be capable of monitoring temperature at two locations and have an accuracy of  $\pm 1$  percent of the temperature being monitored in  $^{\circ}\text{C}$  or  $\pm 0.5^{\circ}\text{C}$ , whichever is greater. One temperature sensor must be installed in the vent stream at the nearest feasible point to the catalyst bed inlet and a second temperature sensor must be installed in the vent stream at the nearest feasible point to the catalyst bed outlet.
- C) For a flare, a heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame.
- D) For a boiler or process heater having a design heat input capacity less than 44 MW, a temperature monitoring device equipped with a continuous recorder. The device must have an accuracy of  $\pm 1$  percent of the temperature being monitored in  $^{\circ}\text{C}$  or  $\pm 0.5^{\circ}\text{C}$ , whichever is greater. The temperature sensor must be installed at a location in the furnace downstream of the combustion zone.
- E) For a boiler or process heater having a design heat input capacity greater than or equal to 44 MW, a monitoring device equipped with a continuous recorder to measure parameters that indicate good combustion operating practices are being used.
- F) For a condenser, either:
  - i) A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the condenser; or
  - ii) A temperature monitoring device equipped with a continuous recorder. The device must be capable of monitoring temperature with an accuracy of  $\pm 1$  percent of the temperature being monitored in  $^{\circ}\text{C}$  or  $\pm 0.5^{\circ}\text{C}$ , whichever is greater. The temperature sensor must be

installed at a location in the exhaust vent stream from the condenser exit (i.e., product side).

- G) For a carbon adsorption system that regenerates the carbon bed directly in the control device such as a fixed-bed carbon adsorber, either:
  - i) A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the carbon bed, or
  - ii) A monitoring device equipped with a continuous recorder to measure a parameter that indicates the carbon bed is regenerated on a regular, predetermined time cycle.
- 3) Inspect the readings from each monitoring device required by subsections (f)(1) and (f)(2) at least once each operating day to check control device operation and, if necessary, immediately implement the corrective measures necessary to ensure the control device operates in compliance with the requirements of this Section.
- g) An owner or operator using a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device shall replace the existing carbon in the control device with fresh carbon at a regular, predetermined time interval that is no longer than the carbon service life established as a requirement of Section 724.935(b)(4)(C)(vi).
- h) An owner or operator using a carbon adsorption system such as a carbon canister that does not regenerate the carbon bed directly onsite in the control device shall replace the existing carbon in the control device with fresh carbon on a regular basis by using one of the following procedures:
  - 1) Monitor the concentration level of the organic compounds in the exhaust vent stream from the carbon adsorption system on a regular schedule, and replace the existing carbon with fresh carbon immediately when carbon breakthrough is indicated. The monitoring frequency must be daily or at an interval no greater than 20 percent of the time required to consume the total carbon working capacity established as a requirement of Section 724.935(b)(4)(C)(vii), whichever is longer.
  - 2) Replace the existing carbon with fresh carbon at a regular, predetermined time interval that is less than the design carbon replacement interval established as a requirement of Section 724.935(b)(4)(C)(vii).

- i) An alternative operational or process parameter may be monitored if the operator demonstrates that the parameter will ensure that the control device is operated in conformance with these standards and the control device's design specifications.
- j) An owner or operator of an affected facility seeking to comply with the provisions of this Part by using a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system is required to develop documentation including sufficient information to describe the control device operation and identify the process parameter or parameters that indicate proper operation and maintenance of the control device.
- k) A closed-vent system must meet either of the following design requirements:
  - 1) A closed-vent system must be designed to operate with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background, as determined by the methods specified at Section 724.934(b), and by visual inspections; or
  - 2) A closed-vent system must be designed to operate at a pressure below atmospheric pressure. The system must be equipped with at least one pressure gauge or other pressure measurement device that can be read from a readily accessible location to verify that negative pressure is being maintained in the closed-vent system when the control device is operating.
- l) The owner or operator shall monitor and inspect each closed-vent system required to comply with this Section to ensure proper operation and maintenance of the closed-vent system by implementing the following requirements:
  - 1) Each closed-vent system that is used to comply with subsection (k)(1) of this Section shall be inspected and monitored in accordance with the following requirements:
    - A) An initial leak detection monitoring of the closed-vent system shall be conducted by the owner or operator on or before the date that the system becomes subject to this Section. The owner or operator shall monitor the closed-vent system components and connections using the procedures specified in Section 724.934(b) to demonstrate that the closed-vent system operates with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background.

- B) After initial leak detection monitoring required in subsection (l)(1)(A) of this Section, the owner or operator shall inspect and monitor the closed-vent system as follows:
    - i) Closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted and gasketed ducting flange) must be visually inspected at least once per year to check for defects that could result in air pollutant emissions. The owner or operator shall monitor a component or connection using the procedures specified in Section 724.934(b) to demonstrate that it operates with no detectable emissions following any time the component is repaired or replaced (e.g., a section of damaged hard piping is replaced with new hard piping) or the connection is unsealed (e.g., a flange is unbolted).
    - ii) Closed-vent system components or connections other than those specified in subsection (l)(1)(B)(i) of this Section must be monitored annually and at other times as requested by the Regional Administrator, except as provided for in subsection (o) of this Section, using the procedures specified in Section 724.934(b) to demonstrate that the components or connections operate with no detectable emissions.
  - C) In the event that a defect or leak is detected, the owner or operator shall repair the defect or leak in accordance with the requirements of subsection (l)(3) of this Section.
  - D) The owner or operator shall maintain a record of the inspection and monitoring in accordance with the requirements specified in Section 724.935.
- 2) Each closed-vent system that is used to comply with subsection (k)(2) of this Section must be inspected and monitored in accordance with the following requirements:
- A) The closed-vent system must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in ductwork or piping or loose connections.
  - B) The owner or operator shall perform an initial inspection of the closed-vent system on or before the date that the system becomes

subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year.

- C) In the event that a defect or leak is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (1)(3) of this Section.
  - D) The owner or operator shall maintain a record of the inspection and monitoring in accordance with the requirements specified in Section 724.935.
- 3) The owner or operator shall repair all detected defects as follows:
- A) Detectable emissions, as indicated by visual inspection or by an instrument reading greater than 500 ppmv above background, must be controlled as soon as practicable, but not later than 15 calendar days after the emission is detected, except as provided for in subsection (1)(3)(C) of this Section.
  - B) A first attempt at repair must be made no later than five calendar days after the emission is detected.
  - C) Delay of repair of a closed-vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown, or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment must be completed by the end of the next process unit shutdown.
  - D) The owner or operator shall maintain a record of the defect repair in accordance with the requirements specified in Section 724.935.
- m) A closed-vent system or control device used to comply with provisions of this Subpart must be operated at all times when emissions may be vented to it.
  - n) The owner or operator using a carbon adsorption system to control air pollutant emissions shall document that all carbon removed that is a hazardous waste and that is removed from the control device is managed in one of the following manners, regardless of the volatile organic concentration of the carbon:
    - 1) It is regenerated or reactivated in a thermal treatment unit that meets one of the following:

- A) The owner or operator of the unit has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of ~~724~~.Subpart X of this Part; or
  - B) The unit is equipped with and operating air emission controls in accordance with the applicable requirements of ~~724~~.Subparts AA and CC of this Part or 35 Ill. Adm. Code 725.Subparts AA and CC; or
  - C) The unit is equipped with and operating air emission controls in accordance with a national emission standard for hazardous air pollutants under 40 CFR 61 or 40 CFR 63.
- 2) It is incinerated in a hazardous waste incinerator for which the owner or operator has done either of the following:
- A) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of ~~724~~.Subpart O of this Part; or
  - B) The owner or operator has certified compliance in accordance with the interim status requirements of 35 Ill. Adm. Code 725.Subpart O.
- 3) It is burned in a boiler or industrial furnace for which the owner or operator has done either of the following:
- A) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of 35 Ill. Adm. Code 726.Subpart H; or
  - B) The owner or operator has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of 35 Ill. Adm. Code 726.Subpart H.
- o) Any components of a closed-vent system that are designated, as described in Section 724.935(c)(9), as unsafe to monitor are exempt from the requirements of subsection (l)(1)(B)(ii) of this Section if both of the following conditions are fulfilled:
- 1) The owner or operator of the closed-vent system has determined that the components of the closed-vent system are unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with subsection (l)(1)(B)(ii) of this Section; and



- 2) The owner or operator of the closed-vent system adheres to a written plan that requires monitoring the closed-vent system components using the procedure specified in subsection (1)(1)(B)(ii) as frequently as practicable during safe-to-monitor times.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

## SUBPART BB: AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS

### Section 724.950 Applicability

- a) The regulations in this Subpart apply to owners and operators of facilities that treat, store, or dispose of hazardous wastes (except as provided in Section 724.101).
- b) Except as provided in Section 724.964(k), this Subpart applies to equipment that contains or contacts hazardous wastes with organic concentrations of at least 10 percent by weight that are managed in one of the following:
  - 1) A unit that is subject to the RCRA permitting requirements of 35 Ill. Adm. Code 702, 703, and 705,
  - 2) A unit (including a hazardous waste recycling unit) that is not exempt from permitting under the provisions of 35 Ill. Adm. Code 722.134(a) (i.e., a hazardous waste recycling unit that is not a “90-day” tank or container) and that is located at a hazardous waste management facility otherwise subject to the permitting requirements of 35 Ill. Adm. Code 702, 703, and 705, or
  - 3) A unit that is exempt from permitting under the provisions of 35 Ill. Adm. Code 722.134(a) (i.e., a “90-day” tank or container) and which is not a recycling unit under the provisions of 35 Ill. Adm. Code 721.106.
- ~~e) If the owner or operator of equipment subject to the requirements of Sections 724.952 through 724.965 has received a RCRA permit prior to December 21, 1990, the requirements of Sections 724.952 through 724.965 must be incorporated when the permit is reissued under 35 Ill. Adm. Code 705.201 or reviewed under 35 Ill. Adm. Code 702.161.~~
- c) For the owner or operator of a facility subject to this Subpart that received a final permit under 35 Ill. Adm. Code 702, 703, and 705 prior to December 6, 1996, the requirements of this Subpart shall be incorporated into the permit when the permit is reissued, renewed, or modified in accordance with the requirements of 35 Ill. Adm. Code

703 and 705. Until such date when the owner or operator receives a final permit incorporating the requirements of this Subpart, the owner or operator is subject to the requirements of 35 Ill. Adm. Code 265.Subpart BB.

- d) Each piece of equipment to which this Subpart applies must be marked in such a manner that it can be distinguished readily from other pieces of equipment.
- e) Equipment that is in vacuum service is excluded from the requirements of Sections 724.952 to 724.960, if it is identified as required in Section 724.964(g)(5).
- f) Equipment that contains or contacts hazardous waste with an organic concentration of at least 10 percent by weight for ~~a period of~~ less than 300 hours per calendar year is excluded from the requirements of Sections 724.952 through 724.960 if it is identified as required in Section 724.964(g)(6).

BOARD NOTE: The requirements of Sections 724.952 through 724.965 apply to equipment associated with hazardous waste recycling units previously exempt under 35 Ill. Adm. Code 721.106(c)(1). Other exemptions under 35 Ill. Adm. Code 721.104 and 724.101(g) are not affected by these requirements.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 724.960 Standards: Closed-vent Systems and Control Devices

- a) ~~Owners~~ An owner or operators-operator of a closed-vent systems and-system or control devices-device subject to this Subpart shall comply with the provisions of Section 724.933.
- b) Implementation Schedule.
  - 1) The owner or operator of an existing facility that cannot install a closed-vent system and control device to comply with the provisions of this Subpart on the effective date that the facility becomes subject to the provisions of this Subpart shall prepare an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The controls must be installed as soon as possible, but the implementation schedule may allow up to 30 months after the effective date that the facility becomes subject to this Subpart for installation and startup.
  - 2) Any unit that begins operation after December 21, 1990, and which is subject to the provisions of this Subpart when

operation begins, must comply with the rules immediately (i.e., the unit must have control devices installed and operating on startup of the affected unit); the 30-month implementation schedule does not apply.

- 3) The owner or operator of any facility in existence on the effective date of a statutory or regulatory amendment that renders the facility subject to this Subpart shall comply with all requirements of this Subpart as soon as practicable but no later than 30 months after the effective date of the amendment. When control equipment required by this Subpart can not be installed and begin operation by the effective date of the amendment, the facility owner or operator shall prepare an implementation schedule that includes the following information: Specific calendar dates for award of contracts or issuance of purchase orders for the control equipment, initiation of on-site installation of the control equipment, completion of the control equipment installation, and performance of any testing to demonstrate that the installed equipment meets the applicable standards of this Subpart. The owner or operator shall enter the implementation schedule in the operating record or in a permanent, readily available file located at the facility.
- 4) An owner or operator of a facility or unit that becomes newly subject to the requirements of this Subpart due to an action other than those described in subsection (b)(3) of this Section shall comply with all applicable requirements immediately (i.e., the facility or unit must have control devices installed and operating on the date the facility or unit becomes subject to this Subpart; the 30-month implementation schedule does not apply).

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 724.962 Skip Period Alternative for Valves

- a) Election
- 1) An owner or operator subject to the requirements of Section 724.957 may elect for all valves within a hazardous waste management unit to comply with one of the alternative work practices specified in subsections (b)(2) and (3).
  - 2) An owner or operator shall notify the Agency before implementing one of the alternative work practices.

## b) Reduced Monitoring

- 1) An owner or operator shall comply with the requirements for valves, as described in Section 724.957, except as described in subsection (b)(2) and (3).
- 2) After two consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than ~~2~~-two percent, an owner or operator may begin to skip one of the quarterly leak detection periods (i.e., the owner or operator may monitor for leaks once every six months) for the valves subject to the requirements in Section 724.957.
- 3) After five consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than ~~2~~-two percent, an owner or operator may begin to skip three of the quarterly leak detection periods (i.e., the owner or operator may monitor for leaks once every year) for the valves subject to the requirements in Section 724.957.
- 4) If the percentage of valves leaking is greater than 2 percent, the owner or operator shall monitor monthly in compliance with the requirements in Section 724.957, but may again elect to use this Section after meeting the requirements of Section 724.957(c)(1).

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

## Section 724.964 Recordkeeping Requirements

## a) Lumping Units

- 1) Each owner or operator subject to the provisions of this Subpart shall comply with the recordkeeping requirements of this Section.
- 2) An owner or operator of more than one hazardous waste management unit subject to the provisions of this Subpart may comply with the recordkeeping requirements for these hazardous waste management units in one recordkeeping system if the system identifies each record by each hazardous waste management unit.

## b) Owners and operators shall record the following information in the facility operating record:

- 1) For each piece of equipment to which this Subpart applies:

- A) Equipment identification number and hazardous waste management unit identification.
  - B) Approximate locations within the facility (e.g., identify the hazardous waste management unit on a facility plot plan).
  - C) Type of equipment (e.g., a pump or pipeline valve).
  - D) Percent-by-weight total organics in the hazardous wastestream at the equipment.
  - E) Hazardous waste state at the equipment (e.g., gas-vapor or liquid).
  - F) Method of compliance with the standard (e.g., “monthly leak detection and repair” or “equipped with dual mechanical seals”).
- 2) For facilities that comply with the provisions of Section 724.933(a)(2), an implementation schedule as specified in that Section.
  - 3) Where an owner or operator chooses to use test data to demonstrate the organic removal efficiency or total organic compound concentration achieved by the control device, a performance test plan as specified in Section 724.935(b)(3).
  - 4) Documentation of compliance with Section 724.960, including the detailed design documentation or performance test results specified in Section 724.935(b)(4).
- c) When each leak is detected as specified in Sections 724.952, 724.953, 724.957 or 724.958, the following requirements apply:
- 1) A weatherproof and readily visible identification, marked with the equipment identification number, the date evidence of a potential leak was found in accordance with Section 724.958(a), and the date the leak was detected, must be attached to the leaking equipment.
  - 2) The identification on equipment except on a valve, may be removed after it has been repaired.
  - 3) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in Section 724.957(c) and no leak has been detected during those 2 months.

- d) When each leak is detected as specified in Sections 724.952, 724.953, 724.957 or 724.958, the following information must be recorded in an inspection log and must be kept in the facility operating record:
- 1) The instrument and operator identification numbers and the equipment identification number.
  - 2) The date evidence of a potential leak was found in accordance with Section 724.958(a).
  - 3) The date the leak was detected and the dates of each attempt to repair the leak.
  - 4) Repair methods applied in each attempt to repair the leak.
  - 5) “Above 10,000”, if the maximum instrument reading measured by the methods specified in Section 724.963(b) after each repair attempt is equal to or greater than 10,000 ppm.
  - 6) “Repair delayed” and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
  - 7) Documentation supporting the delay of repair of a valve in compliance with Section 724.959(c).
  - 8) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a hazardous waste management unit shutdown.
  - 9) The expected date of successful repair of the leak if a leak is not repaired within 15 calendar days.
  - 10) The date of successful repair of the leak.
- e) Design documentation and monitoring, operating and inspection information for each closed-vent system and control device required to comply with the provisions of Section 724.960 must be recorded and kept up-to-date in the facility operating record as specified in Section 724.935(c)(1) and (c)(2), and monitoring, operating and inspection information in Section 724.935(c)(3) through (c)(8).
- f) For a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system, the Agency shall specify the appropriate recordkeeping requirements, indicating proper operation and maintenance of the control device, in the RCRA permit.

- g) The following information pertaining to all equipment subject to the requirements in Sections 724.952 through 724.960 must be recorded in a log that is kept in the facility operating record:
- 1) A list of identification numbers for equipment (except welded fittings) subject to the requirements of this Subpart.
  - 2) List of Equipment
    - A) A list of identification numbers for equipment that the owner or operator elects to designate for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, under the provisions of Sections 724.952(e), 724.953(i) and 724.957(f).
    - B) The designation of this equipment as subject to the requirements of Section 724.952(e), 724.953(i) or 724.957(f) must be signed by the owner or operator.
  - 3) A list of equipment identification numbers for pressure relief devices required to comply with Section 724.954(a).
  - 4) Compliance tests.
    - A) The dates of each compliance test required in Sections 724.952(e), 724.953(i), 724.954 and 724.957(f).
    - B) The background level measured during each compliance test.
    - C) The maximum instrument reading measured at the equipment during each compliance test.
  - 5) A list of identification numbers for equipment in vacuum service.
  - 6) Identification, either by list or location (area or group), of equipment that contains or contacts hazardous waste with an organic concentration of at least 10 percent by weight for a period of less than 300 hours per year.
- h) The following information pertaining to all valves subject to the requirements of Section 724.957(g) and (h) must be recorded in a log that is kept in the facility operating record:
- 1) A list of identification numbers for valves that are designated as unsafe to monitor, an explanation for each valve stating why the valve is unsafe to monitor, and the plan for monitoring each valve.

- 2) A list of identification numbers for valves that are designated as difficult to monitor, an explanation for each valve stating why the valve is difficult to monitor, and the planned schedule for monitoring each valve.
- i) The following information must be recorded in the facility operating record for valves complying with Section 724.962:
    - 1) A schedule of monitoring.
    - 2) The percent of valves found leaking during each monitoring period.
  - j) The following information must be recorded in a log that is kept in the facility operating record:
    - 1) Criteria required in Sections 724.952(d)(5)(B) and 724.953(e)(2) and an explanation of the design criteria.
    - 2) Any changes to these criteria and the reasons for the changes.
  - k) The following information must be recorded in a log that is kept in the facility operating record for use in determining exemptions as provided in Section 724.950 and other specific Subparts:
    - 1) An analysis determining the design capacity of the hazardous waste management unit.
    - 2) A statement listing the hazardous waste influent to and effluent from each hazardous waste management unit subject to the requirements in Section 724.960 and an analysis determining whether these hazardous wastes are heavy liquids.
    - 3) An up-to-date analysis and the supporting information and data used to determine whether or not equipment is subject to the requirements in Sections 724.952 through 724.960. The record must include supporting documentation as required by Section 724.963(d)(3) when application of the knowledge of the nature of the hazardous wastestream or the process by which it was produced is used. If the owner or operator takes any action (e.g., changing the process that produced the waste) that could result in an increase in the total organic content of the waste contained in or contacted by equipment determined not to be subject to the requirements in Sections 724.952 through 724.960, then a new determination is required.



- l) Records of the equipment leak information required by subsection (d) of this Section and the operating information required by subsection (e) of this Section need be kept only 3 years.
- m) The owner or operator of any facility with equipment that is subject to this Subpart and to regulations at 40 CFR 60, ~~Subpart VV, or 40 CFR 61, Subpart V or 63~~, incorporated by reference in 35 Ill. Adm. Code 720.111, may elect to determine compliance with this Subpart by documentation of compliance either pursuant to Section 724.964, or by documentation of compliance with the regulations at 40 CFR 60, 61, or 63, pursuant to those the relevant provisions of 40 CFR 60, or 61, or 63, to the extent that the documentation under the regulation at 40 CFR 60 or 61 duplicates the documentation required under this Subpart. The documentation of compliance under the regulation at 40 CFR 60, or 61, or 63 must be kept with or made readily available with the facility operating record.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### SUBPART CC: AIR EMISSION STANDARDS FOR TANKS, SURFACE IMPOUNDMENTS, AND CONTAINERS

##### Section 724.980      Applicability

- a) The requirements of this Subpart apply, ~~effective October 6, 1996,~~ to owners and operators of all facilities that treat, store, or dispose of hazardous waste in tanks, surface impoundments, or containers subject to ~~724.~~Subpart I, J, or K of this Part, except as Section 724.101 and subsection (b) of this Section provide otherwise.

~~BOARD NOTE: USEPA adopted these regulations at 59 Fed. Reg. 62896 (Dec. 6, 1994), effective June 6, 1995. At 60 Fed. Reg. 26828 (May 19, 1995), 60 Fed. Reg. 56952 (Nov. 13, 1995), and 61 Fed. Reg. 28508 (June 5, 1996), USEPA delayed the effective date until October 6, 1996. If action by USEPA or a decision of a federal court changes the effectiveness of these regulations, the Board does not intend that the 724.Subpart CC rules be enforceable to the extent that they become more stringent than the federal regulations upon which they are based.~~

- b) The requirements of this Subpart do not apply to the following waste management units at the facility:
- 1) A waste management unit that holds hazardous waste placed in the unit before ~~October-December 6, 1996,~~ and in which no hazardous waste is added to the unit ~~on or after this date~~ December 6, 1996.

- 2) A container that has a design capacity less than or equal to 0.1 m<sup>3</sup> (3.5 ft<sup>3</sup> or 26.4 gal).
  - 3) A tank in which an owner or operator has stopped adding hazardous waste and the owner or operator has begun implementing or completed closure pursuant to an approved closure plan.
  - 4) A surface impoundment in which an owner or operator has stopped adding hazardous waste (except to implement an approved closure plan) and the owner or operator has begun implementing or completed closure pursuant to an approved closure plan.
  - 5) A waste management unit that is used solely for on-site treatment or storage of hazardous waste that is generated as the result of implementing remedial activities required pursuant to the Act or Board regulations or under the corrective action authorities of RCRA section 3004(u), 3004(v) or 3008(h); CERCLA authorities; or similar federal or State authorities.
  - 6) A waste management unit that is used solely for the management of radioactive mixed waste in accordance with all applicable regulations under the authority of the Atomic Energy Act (42 U.S.C. 2011 et seq.) and the Nuclear Waste Policy Act.
  - 7) A hazardous waste management unit that the owner or operator certifies is equipped with and operating air emission controls in accordance with the requirements of an applicable federal Clean Air Act regulation codified under 40 CFR 60, 61, or 63. For the purpose of complying with this subsection (b)(7), a tank for which the air emission control includes an enclosure, as opposed to a cover, must be in compliance with the enclosure and control device requirements of Section 724.984(i), except as provided in Section 724.982(c)(5).
  - 8) A tank that has a process vent, as defined in 35 Ill. Adm. Code 724.931.
- c) For the owner and operator of a facility subject to this Subpart and that received a final RCRA permit prior to ~~October~~ December 6, 1996, the requirements of this Subpart shall be incorporated into the permit when the permit is reissued, renewed, or modified in accordance with the requirements of 35 Ill. Adm. Code 703 and 705. Until such date when the owner and operator receives a final permit incorporating the requirements of this Subpart, the owner and operator is subject to the requirements of 35 Ill. Adm. Code 725.Subpart CC.
- d) The requirements of this Subpart, except for the recordkeeping requirements specified in Section 724.989(i), are stayed for a tank or container used for the management of hazardous waste generated by organic peroxide manufacturing

and its associated laboratory operations, when the owner or operator of the unit meets all of the following conditions:

- 1) The owner or operator identifies that the tank or container receives hazardous waste generated by an organic peroxide manufacturing process producing more than one functional family of organic peroxides or multiple organic peroxides within one functional family, that one or more of these organic peroxides could potentially undergo self-accelerating thermal decomposition at or below ambient temperatures, and that organic peroxides are the predominant products manufactured by the process. For the purposes of this subsection, “organic peroxide” means an organic compound that contains the bivalent -O-O- structure and which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms has been replaced by an organic radical.
- 2) The owner or operator prepares documentation, in accordance with Section 724.989(i), explaining why an undue safety hazard would be created if air emission controls specified in Sections 724.984 through 724.987 are installed and operated on the tanks and containers used at the facility to manage the hazardous waste generated by the organic peroxide manufacturing process or processes meeting the conditions of subsection (d)(1) of this Section.
- 3) The owner or operator notifies the Agency in writing that hazardous waste generated by an organic peroxide manufacturing process or processes meeting the conditions of subsection (d)(1) of this Section are managed at the facility in tanks or containers meeting the conditions of subsection (d)(2) of this Section. The notification must state the name and address of the facility and be signed and dated by an authorized representative of the facility owner or operator.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 724.982      Standards: General

- a) This Section applies to the management of hazardous waste in tanks, surface impoundments, and containers subject to this Subpart.
- b) The owner or operator shall control air pollutant emissions from each waste management unit in accordance with the standards specified in Section 724.984 through 724.987, as applicable to the waste management unit, except as provided for in subsection (c) of this Section.

- c) A tank, surface impoundment, or container is exempt from standards specified in Sections 724.984 through 724.987, as applicable, provided that all hazardous waste placed in the waste management unit is one of the following:
- 1) A tank, surface impoundment, or container for which all hazardous waste entering the unit has an average VO concentration at the point of waste origination of less than 500 parts per million by weight (ppmw). The average VO concentration shall be determined by the procedures specified in Section 724.983(a). The owner or operator shall review and update, as necessary, this determination at least once every 12 months following the date of the initial determination for the hazardous waste streams entering the unit.
  - 2) A tank, surface impoundment, or container for which the organic content of all the hazardous waste entering the waste management unit has been reduced by an organic destruction or removal process that achieves any one of the following conditions:
    - A) The process removes or destroys the organics contained in the hazardous waste to a level such that the average VO concentration of the hazardous waste at the point of waste treatment is less than the exit concentration limit ( $C_t$ ) established for the process. The average VO concentration of the hazardous waste at the point of waste treatment and the exit concentration limit for the process shall be determined using the procedures specified in Section 724.983(b).
    - B) The process removes or destroys the organics contained in the hazardous waste to a level such that the organic reduction efficiency ( $R$ ) for the process is equal to or greater than 95%, and the average VO concentration of the hazardous waste at the point of waste treatment is less than 100 ppmw. The organic reduction efficiency for the process and the average VO concentration of the hazardous waste at the point of waste treatment shall be determined using the procedures specified in Section 724.983(b).
    - C) The process removes or destroys the organics contained in the hazardous waste to such a level that the actual organic mass removal rate ( $MR$ ) for the process is equal to or greater than the required organic mass removal rate ( $RMR$ ) established for the process. The required organic mass removal rate and the actual organic mass removal rate for the process must be determined using the procedures specified in Section 724.983(b).

- D) The process is a biological process that destroys or degrades the organics contained in the hazardous waste so that either of the following conditions is met:
- i) The organic reduction efficiency (R) for the process is equal to or greater than 95%, and the organic biodegradation efficiency ( $R_{\text{bio}}$ ) for the process is equal to or greater than 95%. The organic reduction efficiency and the organic biodegradation efficiency for the process shall be determined using the procedures specified in Section 724.983(b).
  - ii) The total actual organic mass biodegradation rate ( $MR_{\text{bio}}$ ) for all hazardous waste treated by the process is equal to or greater than the required organic mass removal rate (RMR). The required organic mass removal rate and the actual organic mass biodegradation rate for the process shall be determined using the procedures specified in Section 724.983(b).
- E) The process removes or destroys the organics contained in the hazardous waste and meets all of the following conditions:
- i) From the point of waste origination through the point where the hazardous waste enters the treatment process, the hazardous waste is continuously managed in waste management units that use air emission controls in accordance with the standards specified in Sections 724.984 through 724.987, as applicable to the waste management unit.
  - ii) From the point of waste origination through the point where the hazardous waste enters the treatment process, any transfer of the hazardous waste is accomplished through continuous hard-piping or other closed system transfer that does not allow exposure of the waste to the atmosphere.  
  
BOARD NOTE: The USEPA considers a drain system that meets the requirements of 40 CFR 63, subpart RR, "National Emission Standards for Individual Drain Systems", to be a closed system.
  - iii) The average VO concentration of the hazardous waste at the point of waste treatment is less than the lowest average VO concentration at the point of waste origination,

determined for each of the individual hazardous waste streams entering the process or 500 ppmw, whichever value is lower. The average VO concentration of each individual hazardous waste stream at the point of waste origination shall be determined using the procedures specified in Section 724.983(a). The average VO concentration of the hazardous waste at the point of waste treatment shall be determined using the procedures specified in Section 724.983(b).

- F) A process that removes or destroys the organics contained in the hazardous waste to a level such that the organic reduction efficiency (R) for the process is equal to or greater than 95% and the owner or operator certifies that the average VO concentration at the point of waste origination for each of the individual waste streams entering the process is less than 10,000 ppmw. The organic reduction efficiency for the process and the average VO concentration of the hazardous waste at the point of waste origination shall be determined using the procedures specified in Section 724.983(b) and Section 724.983(a), respectively.
- G) A hazardous waste incinerator for which either of the following conditions is true:
  - i) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of 35 Ill. Adm. Code 726.Subpart H; or
  - ii) The owner or operator has designed and operates the incinerator in accordance with the interim status requirements of 35 Ill. Adm. Code 725.Subpart O.
- H) A boiler or industrial furnace for which either of the following conditions is true:
  - i) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of 35 Ill. Adm. Code 726.Subpart H; or
  - ii) The owner or operator has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of 35 Ill. Adm. Code 726.Subpart H.

- I) For the purpose of determining the performance of an organic destruction or removal process in accordance with the conditions in each of subsections (c)(2)(A) through (c)(2)(F) of this Section, the owner or operator shall account for VO concentrations determined to be below the limit of detection of the analytical method by using the following VO concentration:
- i) If Method 25D in 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111, is used for the analysis, one-half the blank value determined in Section 4.4 of the method or a value of 25 ppmw, whichever is less.
  - ii) If any other analytical method is used, one-half the the sum of the ~~limit~~ limits of detection established for ~~the method~~ each organic constituent in the waste that has a Henry's law constant value at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X) (which can also be expressed as  $1.8 \times 10^{-6}$  atmospheres/gram-mole/m<sup>3</sup>) at 25° C.
- 3) A tank or surface impoundment used for biological treatment of hazardous waste in accordance with the requirements of subsection (c)(2)(D) of this Section.
- 4) A tank, surface impoundment, or container for which all hazardous waste placed in the unit fulfills either of the following conditions:
- A) It meets the numerical concentration limits for organic hazardous constituents, applicable to the hazardous waste, as specified in 35 Ill. Adm. Code 728.Table T; or
  - B) ~~It has~~ The organic hazardous constituents in the waste have been treated by the treatment technology established by USEPA for the waste, as set forth in 35 Ill. Adm. Code 728.142(a), or ~~treated~~ have been removed or destroyed by an equivalent method of treatment approved by the Agency pursuant to 35 Ill. Adm. Code 728.142(b).
- 5) A tank used for bulk feed of hazardous waste to a waste incinerator and all of the following conditions are met:
- A) The tank is located inside an enclosure vented to a control device that is designed and operated in accordance with all applicable requirements specified under 40 CFR 61, subpart FF, "National

Emission Standards for Benzene Waste Operations”, incorporated by reference in 35 Ill. Adm. Code 720.111, for a facility at which the total annual benzene quantity from the facility waste is equal to or greater than 10 megagrams (11 tons) per year;

- B) The enclosure and control device serving the tank were installed and began operation prior to November 25, 1996; and
  - C) The enclosure is designed and operated in accordance with the criteria for a permanent total enclosure as specified in “Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure” under 40 CFR 52.741, appendix B, incorporated by reference in 35 Ill. Adm. Code 720.111. The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical or electrical equipment; or to direct air flow into the enclosure. The owner or operator shall perform the verification procedure for the enclosure as specified in Section 5.0 to “Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure” annually.
- d) The Agency may at any time perform or request that the owner or operator perform a waste determination for a hazardous waste managed in a tank, surface impoundment, or container that is exempted from using air emission controls under the provisions of this Section as follows:
- 1) The waste determination for average VO concentration of a hazardous waste at the point of waste origination shall be performed using direct measurement in accordance with the applicable requirements of Section 724.983(a). The waste determination for a hazardous waste at the point of waste treatment shall be performed in accordance with the applicable requirements of Section 724.983(b).
  - 2) In performing a waste determination pursuant to subsection (d)(1) of this Section, the sample preparation and analysis shall be conducted as follows:
    - A) In accordance with the method used by the owner or operator to perform the waste analysis, except in the case specified in subsection (d)(2)(B) of this Section.
    - B) If the Agency determines that the method used by the owner or operator was not appropriate for the hazardous waste managed in the tank, surface impoundment, or container, then the Agency may choose an appropriate method.



- 3) Where the owner or operator is requested to perform the waste determination, the Agency may elect to have an authorized representative observe the collection of the hazardous waste samples used for the analysis.
- 4) Where the results of the waste determination performed or requested by the Agency do not agree with the results of a waste determination performed by the owner or operator using knowledge of the waste, then the results of the waste determination performed in accordance with the requirements of subsection (d)(1) of this Section shall be used to establish compliance with the requirements of this Subpart.
- 5) Where the owner or operator has used an averaging period greater than one hour for determining the average VO concentration of a hazardous waste at the point of waste origination, the Agency may elect to establish compliance with this Subpart by performing or requesting that the owner or operator perform a waste determination using direct measurement based on waste samples collected within a one-hour period as follows:
  - A) The average VO concentration of the hazardous waste at the point of waste origination shall be determined by direct measurement in accordance with the requirements of Section 724.983(a).
  - B) Results of the waste determination performed or requested by the Agency showing that the average VO concentration of the hazardous waste at the point of waste origination is equal to or greater than 500 ppmw shall constitute noncompliance with this Subpart, except in a case as provided for in subsection (d)(5)(C) of this Section.
  - C) Where the average VO concentration of the hazardous waste at the point of waste origination previously has been determined by the owner or operator using an averaging period greater than one hour to be less than 500 ppmw but because of normal operating process variations the VO concentration of the hazardous waste determined by direct measurement for any given one-hour period may be equal to or greater than 500 ppmw, information that was used by the owner or operator to determine the average VO concentration of the hazardous waste (e.g., test results, measurements, calculations, and other documentation) and recorded in the facility records in accordance with the requirements of Section 724.983(a) and Section 724.989 shall be considered by the Agency together with the results of the waste determination performed or requested by the Agency in establishing compliance with this Subpart.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 724.983 Waste Determination Procedures

- a) Waste determination procedure for average volatile organic (VO) concentration of a hazardous waste at the point of waste origination.
  - 1) An owner or operator shall determine the average VO concentration at the point of waste origination for each hazardous waste placed in a waste management unit exempted under the provisions of Section 724.982(c)(1) from using air emission controls in accordance with standards specified in Section 724.984 through Section 724.987, as applicable to the waste management unit.
  - 2) ~~The~~ For a waste determination that is required by subsection (a)(1) of this Section, the average VO concentration of a hazardous waste at the point of waste origination ~~may~~ shall be determined in accordance with the procedures specified in 35 Ill. Adm. Code 725.984(a)(2) through (a)(4).
- b) Waste determination procedures for treated hazardous waste.
  - 1) An owner or operator shall perform the applicable waste determination for each treated hazardous waste placed in a waste management unit exempted under the provisions of Section 724.982(c)(2)(A) through (c)(2)(F) from using air emission controls in accordance with standards specified in Sections 724.984 through 724.987, as applicable to the waste management unit.
  - 2) The waste determination for a treated hazardous waste shall be performed in accordance with the procedures specified in 35 Ill. Adm. Code 725.984(b)(2) through (b)(9), as applicable to the treated hazardous waste.
- c) Procedure to determine the maximum organic vapor pressure of a hazardous waste in a tank.
  - 1) An owner or operator shall determine the maximum organic vapor pressure for each hazardous waste placed in a tank using Tank Level 1 controls in accordance with standards specified in Section 724.984(c).
  - 2) The maximum organic vapor pressure of the hazardous waste may be determined in accordance with the procedures specified in 35 Ill. Adm. Code 725.984(c)(2) through (c)(4).

- d) The procedure for determining no detectable organic emissions for the purpose of complying with this Subpart must be conducted in accordance with the procedures specified in 40 CFR 265.984(d).

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 724.984 Standards: Tanks

- a) The provisions of this Section apply to the control of air pollutant emissions from tanks for which Section 724.982(b) references the use of this Section for such air emission control.
- b) The owner or operator shall control air pollutant emissions from each tank subject to this Section in accordance with the following requirements, as applicable:
- 1) For a tank that manages hazardous waste that meets all of the conditions specified in subsections (b)(1)(A) through (b)(1)(C) of this Section, the owner or operator shall control air pollutant emissions from the tank in accordance with the Tank Level 1 controls specified in subsection (c) of this Section or the Tank Level 2 controls specified in subsection (d) of this Section.
    - A) The hazardous waste in the tank has a maximum organic vapor pressure that is less than the maximum organic vapor pressure limit for the tank's design capacity category as follows:
      - i) For a tank design capacity equal to or greater than 151 m<sup>3</sup> (39,900 gal), the maximum organic vapor pressure limit for the tank is 5.2 kPa (0.75 psig).
      - ii) For a tank design capacity equal to or greater than 75 m<sup>3</sup> (19,800 gal) but less than 151 m<sup>3</sup> (39,900 gal), the maximum organic vapor pressure limit for the tank is 27.6 kPa (4.00 psig).
      - iii) For a tank design capacity less than 75 m<sup>3</sup> (19,800 gal), the maximum organic vapor pressure limit for the tank is 76.6 kPa (11.1 psig).
    - B) The hazardous waste in the tank is not heated by the owner or operator to a temperature that is greater than the temperature at which the maximum organic vapor pressure of the hazardous waste is determined for the purpose of complying with subsection (b)(1)(A) of this Section.

- C) The hazardous waste in the tank is not treated by the owner or operator using a waste stabilization process, as defined in 35 Ill. Adm. Code 725.981.
- 2) For a tank that manages hazardous waste that does not meet all of the conditions specified in subsections (b)(1)(A) through (b)(1)(C) of this Section, the owner or operator shall control air pollutant emissions from the tank by using Tank Level 2 controls in accordance with the requirements of subsection (d) of this Section. Examples of tanks required to use Tank Level 2 controls include a tank used for a waste stabilization process and a tank for which the hazardous waste in the tank has a maximum organic vapor pressure that is equal to or greater than the maximum organic vapor pressure limit for the tank's design capacity category as specified in subsection (b)(1)(A) of this Section.
- c) Owners and operators controlling air pollutant emissions from a tank using Tank Level 1 controls must meet the requirements specified in subsections (c)(1) through (c)(4) of this Section:
    - 1) The owner or operator shall determine the maximum organic vapor pressure for a hazardous waste to be managed in the tank using Tank Level 1 controls before the first time the hazardous waste is placed in the tank. The maximum organic vapor pressure must be determined using the procedures specified in Section 724.983(c). Thereafter, the owner or operator shall perform a new determination whenever changes to the hazardous waste managed in the tank could potentially cause the maximum organic vapor pressure to increase to a level that is equal to or greater than the maximum organic vapor pressure limit for the tank design capacity category specified in subsection (b)(1)(A) of this Section, as applicable to the tank.
    - 2) The tank must be equipped with a fixed roof designed to meet the following specifications:
      - A) The fixed roof and its closure devices must be designed to form a continuous barrier over the entire surface area of the hazardous waste in the tank. The fixed roof may be a separate cover installed on the tank (e.g., a removable cover mounted on an open-top tank) or may be an integral part of the tank structural design (e.g., a horizontal cylindrical tank equipped with a hatch).
      - B) The fixed roof must be installed in a manner such that there are no visible cracks, holes, gaps, or other open spaces between roof section joints or between the interface of the roof edge and the tank wall.

- C) ~~Each~~ Either of the following must be true of each opening in the fixed roof and of any manifold system associated with the fixed roof ~~must be either:~~
- i) ~~Equipped~~ The opening or manifold system is equipped with a closure device designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the opening and the closure device; or
  - ii) ~~Connected~~ The opening or manifold system is connected by a closed-vent system that is vented to a control device. The control device must remove or destroy organics in the vent stream, and it must be operating whenever hazardous waste is managed in the tank, **except as provided for in subsection (c)(2)(iii)(E) of this Section.**
- D) The fixed roof and its closure devices must be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices must include the following: the organic vapor permeability; the effects of any contact with the hazardous waste or its vapors managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.
- E) The control device operated pursuant to subsection (c)(2)(C) of this Section needs not remove or destroy organics in the vent stream under the following conditions:
- i) During periods when it is necessary to provide access to the tank for performing the activities of paragraph (c)(2)(E)(ii) of this Section, venting of the vapor headspace underneath the fixed roof to the control device is not required, opening of closure devices is allowed, and removal of the fixed roof is allowed. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, and resume operation of the control device; and

**ii) During periods of routine inspection, maintenance, or other activities needed for normal operations, and for removal of accumulated sludge or other residues from the bottom of the tank.**

BOARD NOTE: Subsections (c)(2)(E)(i) and (c)(2)(E)(ii) are derived from 40 CFR 264.1084(c)(2)(iii)(B)(1) and (c)(2)(iii)(B)(2), which the Board has codified here to comport with Illinois Administrative Code format requirements.

- 3) Whenever a hazardous waste is in the tank, the fixed roof must be installed with each closure device secured in the closed position, except as follows:
- A) Opening of closure devices or removal of the fixed roof is allowed at the following times:
    - i) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample the liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.
    - ii) To remove accumulated sludge or other residues from the bottom of the tank.
  - B) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the tank internal pressure in accordance with the tank design specifications. The device must be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens must be established such that the device remains in the closed position whenever the tank internal pressure is within the internal pressure operating range determined by the owner or operator based on the tank manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable,

explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the tank internal pressure exceeds the internal pressure operating range for the tank as a result of loading operations or diurnal ambient temperature fluctuations.

- C) Opening of a safety device, as defined in 35 Ill. Adm. Code 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.
- 4) The owner or operator shall inspect the air emission control equipment in accordance with the following requirements.
- A) The fixed roof and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.
  - B) The owner or operator shall perform an initial inspection of the fixed roof and its closure devices on or before the date that the tank becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year except under the special conditions provided for in subsection (l) of this Section.
  - C) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (k) of this Section.
  - D) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 724.989(b).
- d) Owners and operators controlling air pollutant emissions from a tank using Tank Level 2 controls must use one of the following tanks:
- 1) A fixed-roof tank equipped with an internal floating roof in accordance with the requirements specified in subsection (e) of this Section;
  - 2) A tank equipped with an external floating roof in accordance with the requirements specified in subsection (f) of this Section;

- 3) A tank vented through a closed-vent system to a control device in accordance with the requirements specified in subsection (g) of this Section;
  - 4) A pressure tank designed and operated in accordance with the requirements specified in subsection (h) of this Section; or
  - 5) A tank located inside an enclosure that is vented through a closed-vent system to an enclosed combustion control device in accordance with the requirements specified in subsection (i) of this Section.
- e) The owner or operator that controls air pollutant emissions from a tank using a fixed roof with an internal floating roof shall meet the requirements specified in subsections (e)(1) through (e)(3) of this Section.
- 1) The tank must be equipped with a fixed roof and an internal floating roof in accordance with the following requirements:
    - A) The internal floating roof must be designed to float on the liquid surface except when the floating roof must be supported by the leg supports.
    - B) The internal floating roof must be equipped with a continuous seal between the wall of the tank and the floating roof edge that meets either of the following requirements:
      - i) A single continuous seal that is either a liquid-mounted seal or a metallic shoe seal, as defined in 35 Ill. Adm. Code 725.981; or
      - ii) Two continuous seals mounted one above the other. The lower seal may be a vapor-mounted seal.
    - C) The internal floating roof must meet the following specifications:
      - i) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.
      - ii) Each opening in the internal floating roof must be equipped with a gasketed cover or a gasketed lid except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains.



- iii) Each penetration of the internal floating roof for the purpose of sampling must have a slit fabric cover that covers at least 90 percent of the opening.
  - iv) Each automatic bleeder vent and rim space vent must be gasketed.
  - v) Each penetration of the internal floating roof that allows for passage of a ladder must have a gasketed sliding cover.
  - vi) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof must have a flexible fabric sleeve seal or a gasketed sliding cover.
- 2) The owner or operator shall operate the tank in accordance with the following requirements:
- A) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling must be continuous and must be completed as soon as practical.
  - B) Automatic bleeder vents are to be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports.
  - C) Prior to filling the tank, each cover, access hatch, gauge float well or lid on any opening in the internal floating roof must be bolted or fastened closed (i.e., no visible gaps). Rim space vents must be set to open only when the internal floating roof is not floating or when the pressure beneath the rim exceeds the manufacturer's recommended setting.
- 3) The owner or operator shall inspect the internal floating roof in accordance with the procedures specified as follows:
- A) The floating roof and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, any of the following: when the internal floating roof is not floating on the surface of the liquid inside the tank; when liquid has accumulated on top of the internal floating roof; when any portion of the roof seals have detached from the roof rim; when holes, tears, or other openings are visible in the seal fabric; when the gaskets no longer close off the hazardous waste surface

from the atmosphere; or when the slotted membrane has more than 10 percent open area.

- B) The owner or operator shall inspect the internal floating roof components as follows, except as provided in subsection (e)(3)(C) of this Section:
- i) Visually inspect the internal floating roof components through openings on the fixed-roof (e.g., manholes and roof hatches) at least once every 12 months after initial fill, and
  - ii) Visually inspect the internal floating roof, primary seal, secondary seal (if one is in service), gaskets, slotted membranes, and sleeve seals (if any) each time the tank is emptied and degassed and at least once every 10 years.
- C) As an alternative to performing the inspections specified in subsection (e)(3)(B) of this Section for an internal floating roof equipped with two continuous seals mounted one above the other, the owner or operator may visually inspect the internal floating roof, primary and secondary seals, gaskets, slotted membranes, and sleeve seals (if any) each time the tank is emptied and degassed and at least every five years.
- D) Prior to each inspection required by subsection (e)(3)(B) or (e)(3)(C) of this Section, the owner or operator shall notify the Agency in advance of each inspection to provide the Agency with the opportunity to have an observer present during the inspection. The owner or operator shall notify the Agency of the date and location of the inspection as follows:
- i) Prior to each visual inspection of an internal floating roof in a tank that has been emptied and degassed, written notification must be prepared and sent by the owner or operator so that it is received by the Agency at least 30 calendar days before refilling the tank, except when an inspection is not planned, as provided for in subsection (e)(3)(D)(ii) of this Section.
  - ii) When a visual inspection is not planned and the owner or operator could not have known about the inspection 30 calendar days before refilling the tank, the owner or operator shall notify the Agency as soon as possible, but no later than seven calendar days before refilling of the tank. This notification may be made by telephone and

immediately followed by a written explanation for why the inspection is unplanned. Alternatively, written notification, including the explanation for the unplanned inspection, may be sent so that it is received by the Agency at least seven calendar days before refilling the tank.

- E) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (k) of this Section.
- F) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 724.989(b).

**4) Safety devices, as defined in 35 Ill. Adm. Code 725.981, may be installed and operated as necessary on any tank complying with the requirements of this subsection (e).**

- f) The owner or operator that controls air pollutant emissions from a tank using an external floating roof must meet the requirements specified in subsections (f)(1) through (f)(3) of this Section.
  - 1) The owner or operator shall design the external floating roof in accordance with the following requirements:
    - A) The external floating roof must be designed to float on the liquid surface except when the floating roof must be supported by the leg supports.
    - B) The floating roof must be equipped with two continuous seals, one above the other, between the wall of the tank and the roof edge. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.
      - i) The primary seal must be a liquid-mounted seal or a metallic shoe seal, as defined in 35 Ill. Adm. Code 725.981. The total area of the gaps between the tank wall and the primary seal must not exceed 212 square centimeters (cm<sup>2</sup>) per meter (10.0 square inches (in<sup>2</sup>) per foot) of tank diameter, and the width of any portion of these gaps must not exceed 3.8 centimeters (cm) (1.5 in). If a metallic shoe seal is used for the primary seal, the metallic shoe seal must be designed so that one end extends into the liquid in the tank and the other end extends a vertical distance of at least 61 cm (24 in) above the liquid surface.

- ii) The secondary seal must be mounted above the primary seal and cover the annular space between the floating roof and the wall of the tank. The total area of the gaps between the tank wall and the secondary seal must not exceed 21.2 cm<sup>2</sup> per meter (1.00 in<sup>2</sup> per foot) of tank diameter, and the width of any portion of these gaps must not exceed 1.3 cm (0.51 in).
- C) The external floating roof must meet the following specifications:
- i) Except for automatic bleeder vents (vacuum breaker vents) and rim space vents, each opening in a noncontact external floating roof must provide a projection below the liquid surface.
  - ii) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof must be equipped with a gasketed cover, seal, or lid.
  - iii) Each access hatch and each gauge float well must be equipped with a cover designed to be bolted or fastened when the cover is secured in the closed position.
  - iv) Each automatic bleeder vent and each rim space vent must be equipped with a gasket.
  - v) Each roof drain that empties into the liquid managed in the tank must be equipped with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.
  - vi) Each unslotted and slotted guide pole well must be equipped with a gasketed sliding cover or a flexible fabric sleeve seal.
  - vii) Each unslotted guide pole must be equipped with a gasketed cap on the end of the pole.
  - viii) Each slotted guide pole must be equipped with a gasketed float or other device which closes off the liquid surface from the atmosphere.
  - ix) Each gauge hatch and each sample well must be equipped with a gasketed cover.

- 2) The owner or operator shall operate the tank in accordance with the following requirements:
  - A) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling must be continuous and must be completed as soon as practical.
  - B) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof must be secured and maintained in a closed position at all times except when the closure device must be open for access.
  - C) Covers on each access hatch and each gauge float well must be bolted or fastened when secured in the closed position.
  - D) Automatic bleeder vents must be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports.
  - E) Rim space vents must be set to open only at those times that the roof is being floated off the roof leg supports or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.
  - F) The cap on the end of each unslotted guide pole must be secured in the closed position at all times except when measuring the level or collecting samples of the liquid in the tank.
  - G) The cover on each gauge hatch or sample well must be secured in the closed position at all times except when the hatch or well must be opened for access.
  - H) Both the primary seal and the secondary seal must completely cover the annular space between the external floating roof and the wall of the tank in a continuous fashion except during inspections.
- 3) The owner or operator shall inspect the external floating roof in accordance with the procedures specified as follows:
  - A) The owner or operator shall measure the external floating roof seal gaps in accordance with the following requirements:
    - i) The owner or operator shall perform measurements of gaps between the tank wall and the primary seal within 60 calendar days after initial operation of the tank following

installation of the floating roof and, thereafter, at least once every five years.

- ii) The owner or operator shall perform measurements of gaps between the tank wall and the secondary seal within 60 calendar days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every year.
  - iii) If a tank ceases to hold hazardous waste for a period of one year or more, subsequent introduction of hazardous waste into the tank must be considered an initial operation for the purposes of subsections (f)(3)(A)(i) and (f)(3)(A)(ii) of this Section.
  - iv) The owner or operator shall determine the total surface area of gaps in the primary seal and in the secondary seal individually using the procedure of subsection (f)(3)(D) of this Section.
  - v) In the event that the seal gap measurements do not conform to the specifications in subsection (f)(1)(B) of this Section, the owner or operator shall repair the defect in accordance with the requirements of subsection (k) of this Section.
  - vi) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 724.989(b).
- B) The owner or operator shall visually inspect the external floating roof in accordance with the following requirements:
- i) The floating roof and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, any of the following conditions: holes, tears, or other openings in the rim seal or seal fabric of the floating roof; a rim seal detached from the floating roof; all or a portion of the floating roof deck being submerged below the surface of the liquid in the tank; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

- ii) The owner or operator shall perform an initial inspection of the external floating roof and its closure devices on or before the date that the tank becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in subsection (l) of this Section.
  - iii) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (k) of this Section.
  - iv) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 724.989(b).
- C) Prior to each inspection required by subsection (f)(3)(A) or (f)(3)(B) of this Section, the owner or operator shall notify the Agency in advance of each inspection to provide the Agency with the opportunity to have an observer present during the inspection. The owner or operator shall notify the Agency of the date and location of the inspection as follows:
- i) Prior to each inspection to measure external floating roof seal gaps as required under subsection (f)(3)(A) of this Section, written notification must be prepared and sent by the owner or operator so that it is received by the Agency at least 30 calendar days before the date the measurements are scheduled to be performed.
  - ii) Prior to each visual inspection of an external floating roof in a tank that has been emptied and degassed, written notification must be prepared and sent by the owner or operator so that it is received by the Agency at least 30 calendar days before refilling the tank, except when an inspection is not planned as provided for in subsection (f)(3)(C)(iii) of this Section.
  - iii) When a visual inspection is not planned and the owner or operator could not have known about the inspection 30 calendar days before refilling the tank, the owner or operator shall notify the Agency as soon as possible, but no later than seven calendar days before refilling of the tank. This notification may be made by telephone and immediately followed by a written explanation for why the inspection is unplanned. Alternatively, written

notification, including the explanation for the unplanned inspection, may be sent so that it is received by the Agency at least seven calendar days before refilling the tank.

- D) Procedure for determining the total surface area of gaps in the primary seal and the secondary seal:
- i) The seal gap measurements must be performed at one or more floating roof levels when the roof is floating off the roof supports.
  - ii) Seal gaps, if any, must be measured around the entire perimeter of the floating roof in each place where a 0.32 cm (0.125 in) diameter uniform probe passes freely (without forcing or binding against the seal) between the seal and the wall of the tank and measure the circumferential distance of each such location.
  - iii) For a seal gap measured under subsection (f)(3) of this Section, the gap surface area must be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.
  - iv) The total gap area must be calculated by adding the gap surface areas determined for each identified gap location for the primary seal and the secondary seal individually, and then dividing the sum for each seal type by the nominal ~~perimeter~~-diameter of the tank. These total gap areas for the primary seal and secondary seal are then compared to the respective standards for the seal type, as specified in subsection (f)(1)(B) of this Section.

BOARD NOTE: Subsections (f)(3)(D)(i) through (f)(3)(D)(iv) ~~correspond with~~ are derived from 40 CFR 264.1084(f)(3)(i)(D)(1) through (f)(3)(i)(D)(4), which the Board has codified here to comport with Illinois Administrative Code format requirements.

- 4) Safety devices, as defined in 35 Ill. Adm. Code 725.981, may be installed and operated as necessary on any tank complying with the requirements of subsection (f) of this Section.



- g) The owner or operator that controls air pollutant emissions from a tank by venting the tank to a control device shall meet the requirements specified in subsections (g)(1) through (g)(3) of this Section.
- 1) The tank must be covered by a fixed roof and vented directly through a closed-vent system to a control device in accordance with the following requirements:
    - A) The fixed roof and its closure devices must be designed to form a continuous barrier over the entire surface area of the liquid in the tank.
    - B) Each opening in the fixed roof not vented to the control device must be equipped with a closure device. If the pressure in the vapor headspace underneath the fixed roof is less than atmospheric pressure when the control device is operating, the closure devices must be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the fixed roof is equal to or greater than atmospheric pressure when the control device is operating, the closure device must be designed to operate with no detectable organic emissions.
    - C) The fixed roof and its closure devices must be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices must include the following: organic vapor permeability; the effects of any contact with the liquid and its vapor managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.
    - D) The closed-vent system and control device must be designed and operated in accordance with the requirements of Section 724.987.
  - 2) Whenever a hazardous waste is in the tank, the fixed roof must be installed with each closure device secured in the closed position and the vapor headspace underneath the fixed roof vented to the control device except as follows:

- A) Venting to the control device is not required, and opening of closure devices or removal of the fixed roof is allowed at the following times:
    - i) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.
    - ii) To remove accumulated sludge or other residues from the bottom of a tank.
  - B) Opening of a safety device, as defined in 35 Ill. Adm. Code 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.
- 3) The owner or operator shall inspect and monitor the air emission control equipment in accordance with the following procedures:
- A) The fixed roof and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, any of the following: visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.
  - B) The closed-vent system and control device must be inspected and monitored by the owner or operator in accordance with the procedures specified in Section 724.987.
  - C) The owner or operator shall perform an initial inspection of the air emission control equipment on or before the date that the tank becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in subsection (1) of this Section.

- D) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (k) of this Section.
  - E) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 724.989(b).
- h) The owner or operator that controls air pollutant emissions by using a pressure tank must meet the following requirements:
- 1) The tank must be designed not to vent to the atmosphere as a result of compression of the vapor headspace in the tank during filling of the tank to its design capacity.
  - 2) All tank openings must be equipped with closure devices designed to operate with no detectable organic emissions as determined using the procedure specified in Section 724.983(d).
  - 3) Whenever a hazardous waste is in the tank, the tank must be operated as a closed system that does not vent to the atmosphere except in the event that a safety device, as defined in 35 Ill. Adm. Code 725.981, is required to open to avoid an unsafe condition.
- i) The owner or operator that controls air pollutant emissions by using an enclosure vented through a closed-vent system to an enclosed combustion control device must meet the requirements specified in subsections (i)(1) through (i)(4) of this Section.
- 1) The tank must be located inside an enclosure. The enclosure must be designed and operated in accordance with the criteria for a permanent total enclosure, as specified in “Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure” under 40 CFR 52.741, appendix B, incorporated by reference in 35 Ill. Adm. Code 720.111. The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The owner or operator shall perform the verification procedure for the enclosure, as specified in Section 5.0 to “Procedure T-Criteria for and Verification of a Permanent or Temporary Total Enclosure”, initially when the enclosure is first installed and, thereafter, annually.
  - 2) The enclosure must be vented through a closed-vent system to an enclosed combustion control device that is designed and operated in

accordance with the standards for either a vapor incinerator, boiler, or process heater specified in Section 724.987.

- 3) Safety devices, as defined in 35 Ill. Adm. Code 725.981, may be installed and operated as necessary on any enclosure, closed-vent system, or control device used to comply with the requirements of subsections (i)(1) and (i)(2) of this Section.
  - 4) The owner or operator shall inspect and monitor the closed-vent system and control device as specified in Section 724.987.
- j) The owner or operator shall transfer hazardous waste to a tank subject to this Section in accordance with the following requirements:
- 1) Transfer of hazardous waste, except as provided in subsection (j)(2) of this Section, to the tank from another tank subject to this Section or from a surface impoundment subject to Section 724.985 must be conducted using continuous hard-piping or another closed system that does not allow exposure of the hazardous waste to the atmosphere. For the purpose of complying with this provision, an individual drain system is considered to be a closed system when it meets the requirements of 40 CFR 63, subpart RR, "National Emission Standards for Individual Drain Systems", incorporated by reference in 35 Ill. Adm. Code 720.111.
  - 2) The requirements of subsection (j)(1) of this Section do not apply when transferring a hazardous waste to the tank under any of the following conditions:
    - A) The hazardous waste meets the average VO concentration conditions specified in Section 724.982(c)(1) at the point of waste origination.
    - B) The hazardous waste has been treated by an organic destruction or removal process to meet the requirements in Section 724.982(c)(2).
    - C) The hazardous waste meets the requirements of Section 724.982(c)(4).**
- k) The owner or operator shall repair each defect detected during an inspection performed in accordance with the requirements of subsection (c)(4), (e)(3), (f)(3), or (g)(3) of this Section, as follows:
- 1) The owner or operator shall make first efforts at repair of the defect no later than five calendar days after detection, and repair must be

completed as soon as possible but no later than 45 calendar days after detection except as provided in subsection (k)(2) of this Section.

- 2) Repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the tank and no alternative tank capacity is available at the site to accept the hazardous waste normally managed in the tank. In this case, the owner or operator shall repair the defect the next time the process or unit that is generating the hazardous waste managed in the tank stops operation. Repair of the defect must be completed before the process or unit resumes operation.
- 1) Following the initial inspection and monitoring of the cover, as required by the applicable provisions of this Subpart, subsequent inspection and monitoring may be performed at intervals longer than one year under the following special conditions:
    - 1) In the case when inspecting or monitoring the cover would expose a worker to dangerous, hazardous, or other unsafe conditions, then the owner or operator may designate a cover as an “unsafe to inspect and monitor cover” and comply with all of the following requirements:
      - A) Prepare a written explanation for the cover stating the reasons why the cover is unsafe to visually inspect or to monitor, if required.
      - B) Develop and implement a written plan and schedule to inspect and monitor the cover, using the procedures specified in the applicable Section of this Subpart, as frequently as practicable during those times when a worker can safely access the cover.
    - 2) In the case when a tank is buried partially or entirely underground, an owner or operator is required to inspect and monitor, as required by the applicable provisions of this Section, only those portions of the tank cover and those connections to the tank (e.g., fill ports, access hatches, gauge wells, etc.) that are located on or above the ground surface.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 724.985      Standards: Surface Impoundments

- a) The provisions of this Section apply to the control of air pollutant emissions from surface impoundments for which Section 724.982(b) references the use of this Section for such air emission control.

- b) The owner or operator shall control air pollutant emissions from the surface impoundment by installing and operating either of the following:
- 1) A floating membrane cover in accordance with the provisions specified in subsection (c) of this Section; or
  - 2) A cover that is vented through a closed-vent system to a control device in accordance with the provisions specified in subsection (d) of this Section.
- c) The owner or operator that controls air pollutant emissions from a surface impoundment using a floating membrane cover must meet the requirements specified in subsections (c)(1) through (c)(3) of this Section.
- 1) The surface impoundment must be equipped with a floating membrane cover designed to meet the following specifications:
    - A) The floating membrane cover must be designed to float on the liquid surface during normal operations and form a continuous barrier over the entire surface area of the liquid.
    - B) The cover must be fabricated from a synthetic membrane material that is either:
      - i) High density polyethylene (HDPE) with a thickness no less than 2.5 millimeters (mm) (0.098 in); or
      - ii) A material or a composite of different materials determined to have both organic permeability properties that are equivalent to those of the material listed in subsection (c)(1)(B)(i) of this Section and chemical and physical properties that maintain the material integrity for the intended service life of the material.
    - C) The cover must be installed in such a manner that there are no visible cracks, holes, gaps, or other open spaces between cover section seams or between the interface of the cover edge and its foundation mountings.
    - D) Except as provided for in subsection (c)(1)(E) of this Section, each opening in the floating membrane cover must be equipped with a closure device so designed as to operate that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device.

- E) The floating membrane cover may be equipped with one or more emergency cover drains for removal of stormwater. Each emergency cover drain must be equipped with a slotted membrane fabric cover that covers at least 90% of the area of the opening or a flexible fabric sleeve seal.
  - F) The closure devices must be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the closure devices throughout their intended service life. Factors to be considered when selecting the materials of construction and designing the cover and closure devices must include the following: the organic vapor permeability; the effects of any contact with the liquid and its vapor managed in the surface impoundment; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the surface impoundment on which the floating membrane cover is installed.
- 2) Whenever a hazardous waste is in the surface impoundment, the floating membrane cover must float on the liquid and each closure device must be secured in the closed position, except as follows:
- A) Opening of closure devices or removal of the cover is allowed at the following times:
    - i) To provide access to the surface impoundment for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample the liquid in the surface impoundment, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly replace the cover and secure the closure device in the closed position, as applicable.
    - ii) To remove accumulated sludge or other residues from the bottom of surface impoundment.
  - B) Opening of a safety device, as defined in 35 Ill. Adm. Code 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.
- 3) The owner or operator shall inspect the floating membrane cover in accordance with the following procedures:

- A) The floating membrane cover and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the cover section seams or between the interface of the cover edge and its foundation mountings; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.
  - B) The owner or operator shall perform an initial inspection of the floating membrane cover and its closure devices on or before the date that the surface impoundment becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in subsection (g) of this Section.
  - C) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (f) of this Section.
  - D) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 724.989(c).
- d) The owner or operator that controls air pollutant emissions from a surface impoundment using a cover vented to a control device shall meet the requirements specified in subsections (d)(1) through (d)(3) of this Section.
- 1) The surface impoundment must be covered by a cover and vented directly through a closed-vent system to a control device in accordance with the following requirements:
    - A) The cover and its closure devices must be designed to form a continuous barrier over the entire surface area of the liquid in the surface impoundment.
    - B) Each opening in the cover not vented to the control device must be equipped with a closure device. If the pressure in the vapor headspace underneath the cover is less than atmospheric pressure when the control device is operating, the closure devices must be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the cover is equal to or greater than atmospheric pressure when the control device is operating, the closure device must be designed to operate with no detectable



organic emissions using the procedure specified in Section 724.983(d).

- C) The cover and its closure devices must be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and which will maintain the integrity of the cover and closure devices throughout their intended service life. Factors to be considered when selecting the materials ~~for~~ of construction and designing the cover and closure devices must include the following: the organic vapor permeability; the effects of any contact with the liquid or its vapors managed in the surface impoundment; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the surface impoundment on which the cover is installed.
  - D) The closed-vent system and control device must be designed and operated in accordance with the requirements of Section 724.987.
- 2) Whenever a hazardous waste is in the surface impoundment, the cover must be installed with each closure device secured in the closed position and the vapor headspace underneath the cover vented to the control device except as follows:
- A) Venting to the control device is not required, and opening of closure devices or removal of the cover is allowed at the following times:
    - i) To provide access to the surface impoundment for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample liquid in the surface impoundment, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the surface impoundment.
    - ii) To remove accumulated sludge or other residues from the bottom of the surface impoundment.
  - B) Opening of a safety device, as defined in 35 Ill. Adm. Code 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.

- 3) The owner or operator shall inspect and monitor the air emission control equipment in accordance with the following procedures:
  - A) The surface impoundment cover and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the cover section seams or between the interface of the cover edge and its foundation mountings; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.
  - B) The closed-vent system and control device must be inspected and monitored by the owner or operator in accordance with the procedures specified in Section 724.987.
  - C) The owner or operator shall perform an initial inspection of the air emission control equipment on or before the date that the surface impoundment becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in subsection (g) of this Section.
  - D) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (f) of this Section.
  - E) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 724.989(c).
- e) The owner or operator shall transfer hazardous waste to a surface impoundment subject to this Section in accordance with the following requirements:
  - 1) Transfer of hazardous waste, except as provided in subsection (e)(2) of this Section, to the surface impoundment from another surface impoundment subject to this Section or from a tank subject to Section 724.984 must be conducted using continuous hard-piping or another closed system that does not allow exposure of the waste to the atmosphere. For the purpose of complying with this provision, an individual drain system is considered to be a closed system when it meets the requirements of 40 CFR 63, Subpart RR, "National Emission Standards for Individual Drain Systems", incorporated by reference in 35 Ill. Adm. Code 720.111.

- 2) The requirements of subsection (e)(1) of this Section do not apply when transferring a hazardous waste to the surface impoundment under ~~either~~ any of the following conditions:
  - A) The hazardous waste meets the average VO concentration conditions specified in Section 724.982(c)(1) at the point of waste origination.
  - B) The hazardous waste has been treated by an organic destruction or removal process to meet the requirements in Section 724.982(c)(2).
  - C) The hazardous waste meets the requirements of Section 724.982(c)(4).
- f) The owner or operator shall repair each defect detected during an inspection performed in accordance with the requirements of subsection (c)(3) or (d)(3) of this Section as follows:
  - 1) The owner or operator shall make first efforts at repair of the defect no later than five calendar days after detection and repair must be completed as soon as possible but no later than 45 calendar days after detection except as provided in subsection (f)(2) of this Section.
  - 2) Repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the surface impoundment and no alternative capacity is available at the site to accept the hazardous waste normally managed in the surface impoundment. In this case, the owner or operator shall repair the defect the next time the process or unit that is generating the hazardous waste managed in the surface impoundment stops operation. Repair of the defect must be completed before the process or unit resumes operation.
- g) Following the initial inspection and monitoring of the cover as required by the applicable provisions of this Subpart, subsequent inspection and monitoring may be performed at intervals longer than one year in the case when inspecting or monitoring the cover would expose a worker to dangerous, hazardous, or other unsafe conditions. In this case, the owner or operator may designate the cover as an “unsafe to inspect and monitor cover” and comply with all of the following requirements:
  - 1) Prepare a written explanation for the cover stating the reasons why the cover is unsafe to visually inspect or to monitor, if required.

- 2) Develop and implement a written plan and schedule to inspect and monitor the cover using the procedures specified in the applicable Section of this Subpart as frequently as practicable during those times when a worker can safely access the cover.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 724.986 Standards: Containers

- a) The provisions of this Section apply to the control of air pollutant emissions from containers for which Section 724.982(b) references the use of this Section for such air emission control.
- b) General requirements.
  - 1) The owner or operator shall control air pollutant emissions from each container subject to this Section in accordance with the following requirements, as applicable to the container, except when the special provisions for waste stabilization processes specified in subsection (b)(2) of this Section apply to the container.
    - A) For a container having a design capacity greater than 0.1 m<sup>3</sup> (26 gal) and less than or equal to 0.46 m<sup>3</sup> (120 gal), the owner or operator shall control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in subsection (c) of this Section.
    - B) For a container having a design capacity greater than 0.46 m<sup>3</sup> (120 gal) that is not in light material service, the owner or operator shall control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in subsection (c) of this Section.
    - C) For a container having a design capacity greater than 0.46 m<sup>3</sup> (120 gal) that is in light material service, the owner or operator shall control air pollutant emissions from the container in accordance with the Container Level 2 standards specified in subsection (d) of this Section.
  - 2) When a container having a design capacity greater than 0.1 m<sup>3</sup> (26 gal) is used for treatment of a hazardous waste by a waste stabilization process, the owner or operator shall control air pollutant emissions from the container in accordance with the Container Level 3 standards specified in subsection (e) of this Section at those times during the waste stabilization process when the hazardous waste in the container is exposed to the atmosphere.

- c) Container Level 1 standards.
- 1) A container using Container Level 1 controls is one of the following:
    - A) A container that meets the applicable U.S. Department of Transportation (USDOT) regulations on packaging hazardous materials for transportation, as specified in subsection (f) of this Section.
    - B) A container equipped with a cover and closure devices that form a continuous barrier over the container openings so that when the cover and closure devices are secured in the closed position there are no visible holes, gaps, or other open spaces into the interior of the container. The cover may be a separate cover installed on the container (e.g., a lid on a drum or a suitably secured tarp on a roll-off box) or may be an integral part of the container structural design (e.g., a “portable tank” or bulk cargo container equipped with a screw-type cap).
    - C) An open-top container in which an organic-vapor suppressing barrier is placed on or over the hazardous waste in the container such that no hazardous waste is exposed to the atmosphere. One example of such a barrier is application of a suitable organic-vapor suppressing foam.
  - 2) A container used to meet the requirements of subsection (c)(1)(B) or (c)(1)(C) of this Section must be equipped with covers and closure devices, as applicable to the container, that are composed of suitable materials to minimize exposure of the hazardous waste to the atmosphere and to maintain the equipment integrity, for as long as it is in service. Factors to be considered in selecting the materials of construction and designing the cover and closure devices must include the following: the organic vapor permeability; the effects of contact with the hazardous waste or its vapor managed in the container; the effects of outdoor exposure of the closure device or cover material to wind, moisture, and sunlight; and the operating practices for which the container is intended to be used.
  - 3) Whenever a hazardous waste is in a container using Container Level 1 controls, the owner or operator shall install all covers and closure devices for the container, as applicable to the container, and secure and maintain each closure device in the closed position except as follows:

- A) Opening of a closure device or cover is allowed for the purpose of adding hazardous waste or other material to the container as follows:
- i) In the case when the container is filled to the intended final level in one continuous operation, the owner or operator shall promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.
  - ii) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container, whichever condition occurs first.
- B) Opening of a closure device or cover is allowed for the purpose of removing hazardous waste from the container as follows:
- i) For the purpose of meeting the requirements of this Section, an empty container, as defined in 35 Ill. Adm. Code 721.107(b), may be open to the atmosphere at any time (i.e., covers and closure devices are not required to be secured in the closed position on an empty container).
  - ii) In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container as defined in 35 Ill. Adm. Code 721.107(b), the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.
- C) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other

than transfer of hazardous waste. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.

- D) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the internal pressure of the container in accordance with the container design specifications. The device must be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens must be established such that the device remains in the closed position whenever the internal pressure of the container is within the internal pressure operating range determined by the owner or operator based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the internal pressure of the container exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations.
  - E) Opening of a safety device, as defined in 35 Ill. Adm. Code 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.
- 4) The owner or operator of containers using Container Level 1 controls shall inspect the containers and their covers and closure devices as follows:
- A) In the case when a hazardous waste already is in the container at the time the owner or operator first accepts possession of the container at the facility and the container is not emptied (~~i.e., does not meet the conditions for an empty container as specified in 35 Ill. Adm. Code 721.107(b)~~) within 24 hours after the container is accepted at the facility (i.e., it does not meet the conditions for an empty container as specified in 35 Ill. Adm. Code 721.107(b)), the owner or operator shall visually inspect

the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The container visual inspection must be conducted on or before the date on which the container is accepted at the facility (i.e., the date when the container becomes subject to the Subpart CC container standards). For the purposes of this requirement, the date of acceptance is the date of signature that the facility owner or operator enters on Item 20 of the Uniform Hazardous Waste Manifest incorporated by reference in 35 Ill. Adm. Code 722.Appendix (USEPA Forms 8700-22 and 8700-22A), as required under Section 724.171. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (c)(4)(C) of this Section.

- B) In the case when a container used for managing hazardous waste remains at the facility for a period of one year or more, the owner or operator shall visually inspect the container and its cover and closure devices initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (c)(4)(C) of this Section.
- C) When a defect is detected for the container, cover, or closure devices, the owner or operator shall make first efforts at repair of the defect no later than 24 hours after detection and repair must be completed as soon as possible but no later than five calendar days after detection. If repair of a defect cannot be completed within five calendar days, then the hazardous waste must be removed from the container and the container must not be used to manage hazardous waste until the defect is repaired.
- 5) The owner or operator shall maintain at the facility a copy of the procedure used to determine that containers with capacity of 0.46 m<sup>3</sup> (120 gal) or greater, which do not meet applicable DOT regulations, as specified in subsection (f) of this Section, are not managing hazardous waste in light material service.
- d) Container Level 2 standards.



- 1) A container using Container Level 2 controls is one of the following:
  - A) A container that meets the applicable U.S. Department of Transportation (USDOT) regulations on packaging hazardous materials for transportation as specified in subsection (f) of this Section.
  - B) A container that operates with no detectable organic emissions, as defined in 35 Ill. Adm. Code 725.981, and determined in accordance with the procedure specified in subsection (g) of this Section.
  - C) A container that has been demonstrated within the preceding 12 months to be vapor-tight by using 40 CFR 60, appendix A, Method 27, incorporated by reference in 35 Ill. Adm. Code 720.111, in accordance with the procedure specified in subsection (h) of this Section.
- 2) Transfer of hazardous waste in or out of a container using Container Level 2 controls must be conducted in such a manner as to minimize exposure of the hazardous waste to the atmosphere, to the extent practical, considering the physical properties of the hazardous waste and good engineering and safety practices for handling flammable, ignitable, explosive, reactive, or other hazardous materials. Examples of container loading procedures that the USEPA considers to meet the requirements of this subsection (d)(2) include using any one of the following: a submerged-fill pipe or other submerged-fill method to load liquids into the container; a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or a fitted opening in the top of a container through which the hazardous waste is filled and subsequently purging the transfer line before removing it from the container opening.
- 3) Whenever a hazardous waste is in a container using Container Level 2 controls, the owner or operator shall install all covers and closure devices for the container, and secure and maintain each closure device in the closed position, except as follows:
  - A) Opening of a closure device or cover is allowed for the purpose of adding hazardous waste or other material to the container as follows:
    - i) In the case when the container is filled to the intended final level in one continuous operation, the owner or operator shall promptly secure the closure devices in the

closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.

- ii) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container, whichever condition occurs first.

B) Opening of a closure device or cover is allowed for the purpose of removing hazardous waste from the container as follows:

- i) For the purpose of meeting the requirements of this Section, an empty container as defined in 35 Ill. Adm. Code 721.107(b) may be open to the atmosphere at any time (i.e., covers and closure devices are not required to be secured in the closed position on an empty container).
- ii) In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container as defined in 35 Ill. Adm. Code 721.107(b), the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.

C) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous waste. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the owner or operator shall promptly secure the closure

device in the closed position or reinstall the cover, as applicable to the container.

- D) Opening of a spring-loaded, pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the internal pressure of the container in accordance with the container design specifications. The device must be designed to operate with no detectable organic emission when the device is secured in the closed position. The settings at which the device opens must be established such that the device remains in the closed position whenever the internal pressure of the container is within the internal pressure operating range determined by the owner or operator based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the internal pressure of the container exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations.
- E) Opening of a safety device, as defined in 35 Ill. Adm. Code 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.
- 4) The owner or operator of containers using Container Level 2 controls shall inspect the containers and their covers and closure devices as follows:
- A) In the case when a hazardous waste already is in the container at the time the owner or operator first accepts possession of the container at the facility and the container is not emptied (~~i.e., does not meet the conditions for an empty container as specified in 35 Ill. Adm. Code 721.107(b)~~) within 24 hours after the container ~~arrives~~ is accepted at the facility (i.e., it does not meet the conditions for an empty container as specified in 35 Ill. Adm. Code 721.107(b)), the owner or operator shall visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. **The container visual inspection must be conducted on or before the date on which the container is accepted at the facility (i.e., the date when**

the container becomes subject to the Subpart CC container standards). For the purposes of this requirement, the date of acceptance is the date of signature that the facility owner or operator enters on Item 20 of the Uniform Hazardous Waste Manifest incorporated by reference in the appendix to 40 CFR part 262 (USEPA Forms 8700-22 and 8700-22A), as required under Section 724.171. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (d)(4)(C) of this Section.

- B) In the case when a container used for managing hazardous waste remains at the facility for a period of one year or more, the owner or operator shall visually inspect the container and its cover and closure devices initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (d)(4)(C) of this Section.
  - C) When a defect is detected for the container, cover, or closure devices, the owner or operator shall make first efforts at repair of the defect no later than 24 hours after detection, and repair must be completed as soon as possible but no later than five calendar days after detection. If repair of a defect cannot be completed within five calendar days, then the hazardous waste must be removed from the container and the container must not be used to manage hazardous waste until the defect is repaired.
- e) Container Level 3 standards.
- 1) A container using Container Level 3 controls is one of the following:
    - A) A container that is vented directly through a closed-vent system to a control device in accordance with the requirements of subsection (e)(2)(B) of this Section.
    - B) A container that is vented inside an enclosure which is exhausted through a closed-vent system to a control device in accordance with the requirements of subsections (e)(2)(A) and (e)(2)(B) of this Section.

- 2) The owner or operator shall meet the following requirements, as applicable to the type of air emission control equipment selected by the owner or operator:
  - A) The container enclosure must be designed and operated in accordance with the criteria for a permanent total enclosure as specified in “Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure” under 40 CFR 52.741, appendix B, incorporated by reference in 35 Ill. Adm. Code 720.111. The enclosure may have permanent or temporary openings to allow worker access; passage of containers through the enclosure by conveyor or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The owner or operator shall perform the verification procedure for the enclosure as specified in Section 5.0 to “Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure” initially when the enclosure is first installed and, thereafter, annually.
  - B) The closed-vent system and control device must be designed and operated in accordance with the requirements of Section 724.987.
- 3) Safety devices, as defined in 35 Ill. Adm. Code 725.981, may be installed and operated as necessary on any container, enclosure, closed-vent system, or control device used to comply with the requirements of subsection (e)(1) of this Section.
- 4) Owners and operators using Container Level 3 controls in accordance with the provisions of this Subpart shall inspect and monitor the closed-vent systems and control devices as specified in Section 724.987.
- 5) Owners and operators that use Container Level 3 controls in accordance with the provisions of this Subpart shall prepare and maintain the records specified in Section 724.989(d).
- f) For the purpose of compliance with subsection (c)(1)(A) or (d)(1)(A) of this Section, containers must be used that meet the applicable U.S. Department of Transportation (USDOT) regulations on packaging hazardous materials for transportation as follows:
  - 1) The container meets the applicable requirements specified in 49 CFR 178, “Specifications for Packaging”, or 49 CFR 179, “Specifications for Tank Cars”, both incorporated by reference in 35 Ill. Adm. Code 720.111.

- 2) Hazardous waste is managed in the container in accordance with the applicable requirements specified in 49 CFR 107, Subpart B, “Exemptions”; 49 CFR 172, “Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements”; 49 CFR 173, “Shippers--General Requirements for Shipments and Packages”; and 49 CFR 180, “Continuing Qualification and Maintenance of Packagings”, each incorporated by reference in 35 Ill. Adm. Code 720.111.
  - 3) For the purpose of complying with this Subpart, no exceptions to the 49 CFR 178 or 179 regulations are allowed, except as provided for in subsection (f)(4) of this Section.
  - 4) For a lab pack that is managed in accordance with the requirements of 49 CFR 178, incorporated by reference in 35 Ill. Adm. Code 720.111, for the purpose of complying with this Subpart, an owner or operator may comply with the exceptions for combination packagings specified in 49 CFR 173.12(b).
- g) ~~The owner or operator shall use the procedure specified in Section 724.983(d) for determining a container operates~~ **To determine compliance with the no detectable organic emissions for the purpose of complying with requirement of subsection (d)(1)(B) of this Section, the procedure specified in Section 724.983(d) must be used.**
- 1) Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the container, its cover, and associated closure devices, as applicable to the container, must be checked. Potential leak interfaces that are associated with containers include, but are not limited to, the following: the interface of the cover rim and the container wall; the periphery of any opening on the container or container cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure-relief valve.
  - 2) The test must be performed when the container is filled with a material having a volatile organic concentration representative of the range of volatile organic concentrations for the hazardous wastes expected to be managed in this type of container. During the test, the container cover and closure devices must be secured in the closed position.
- h) Procedure for determining a container to be vapor-tight using Method 27 of 40 CFR 60, appendix A for the purpose of complying with subsection (d)(1)(C) of this Section.

- 1) The test must be performed in accordance with Method 27 of 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.
- 2) A pressure measurement device must be used that has a precision of  $\pm 2.5$  mm (0.098 in) water and that is capable of measuring above the pressure at which the container is to be tested for vapor tightness.
- 3) If the test results determined by Method 27 indicate that the container sustains a pressure change less than or equal to 750 Pascals (0.11 psig) within five minutes after it is pressurized to a minimum of 4,500 Pascals (0.65 psig), then the container is determined to be vapor-tight.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 724.987 Standards: Closed-vent Systems and Control Devices

- a) This Section applies to each closed-vent system and control device installed and operated by the owner or operator to control air emissions in accordance with standards of this Subpart.
- b) The closed-vent system shall meet the following requirements:
  - 1) The closed-vent system shall route the gases, vapors, and fumes emitted from the hazardous waste in the waste management unit to a control device that meets the requirements specified in subsection (c) of this Section.
  - 2) The closed-vent system shall be designed and operated in accordance with the requirements specified in Section 724.933(k).
  - 3) When the closed-vent system includes bypass devices that could be used to divert the gas or vapor stream to the atmosphere before entering the control device, each bypass device must be equipped with either a flow indicator, as specified in subsection (b)(3)(A) of this Section, or a seal or locking device, as specified in subsection (b)(3)(B) of this Section. For the purpose of complying with this subsection, low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, spring-loaded pressure-relief valves, and other fittings used for safety purposes are not considered to be bypass devices.
    - A) If a flow indicator is used to comply with this subsection (b)(3), the indicator must be installed at the inlet to the bypass line used to divert gases and vapors from the closed-vent system to the atmosphere at a point upstream of the control device inlet. For the purposes of this subsection, a flow indicator means a device

that indicates the presence of either gas or vapor flow in the bypass line.

- B) If a seal or locking device is used to comply with subsection (b)(3) of this Section, the device must be placed on the mechanism by which the bypass device position is controlled (e.g., valve handle or damper lever) when the bypass device is in the closed position such that the bypass device cannot be opened without breaking the seal or removing the lock. Examples of such devices include, but are not limited to, a car-seal or a lock-and-key configuration valve. The owner or operator shall visually inspect the seal or closure mechanism at least once every month to verify that the bypass mechanism is maintained in the closed position.
- 4) The closed-vent system must be inspected and monitored by the owner or operator in accordance with the procedure specified in Section 724.933(1).
- c) The control device shall meet the following requirements:
- 1) The control device shall be one of the following devices:
    - A) A control device designed and operated to reduce the total organic content of the inlet vapor stream vented to the control device by at least 95% by weight;
    - B) An enclosed combustion device designed and operated in accordance with the requirements of Section 724.933(c); or
    - C) A flare designed and operated in accordance with the requirements of Section 724.933(d).
  - 2) The owner or operator that elects to use a closed-vent system and control device to comply with the requirements of this Section shall comply with the requirements specified in subsections (c)(2)(A) through (c)(2)(F) of this Section.
    - A) Periods of planned routine maintenance of the control device, during which the control device does not meet the specifications of subsections (c)(1)(A), (c)(1)(B), or (c)(1)(C) of this Section, as applicable, must not exceed 240 hours per year.
    - B) The specifications and requirements in subsections (c)(1)(A), (c)(1)(B), and (c)(1)(C) of this Section for control devices do not apply during periods of planned routine maintenance.



- C) The specifications and requirements in subsections (c)(1)(A), (c)(1)(B), and (c)(1)(C) of this Section for control devices do not apply during a control device system malfunction.
  - D) The owner or operator shall demonstrate compliance with the requirements of subsection (c)(2)(A) of this Section (i.e., planned routine maintenance of a control device, during which the control device does not meet the specifications of subsections (c)(1)(A), (c)(1)(B), or (c)(1)(C) of this Section, as applicable, must not exceed 240 hours per year) by recording the information specified in Section 724.989(e)(1)(E).
  - E) The owner or operator shall correct control device system malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of air pollutants.
  - F) The owner or operator shall operate the closed-vent system so that gases, vapors, or fumes are not actively vented to the control device during periods of planned maintenance or control device system malfunction (i.e., periods when the control device is not operating or not operating normally), except in cases when it is necessary to vent the gases, vapors, or fumes to avoid an unsafe condition or to implement malfunction corrective actions or planned maintenance actions.
- 3) The owner or operator using a carbon adsorption system to comply with subsection (c)(1) of this Section shall operate and maintain the control device in accordance with the following requirements:
- A) Following the initial startup of the control device, all activated carbon in the control device shall be replaced with fresh carbon on a regular basis in accordance with the requirements of Section 724.933(g) or Section 724.933(h).
  - B) All carbon **that is a hazardous waste and that is** removed from the control device ~~shall~~must be managed in accordance with the requirements of Section 724.933(n), **regardless of the average volatile organic concentration of the carbon.**
- 4) An owner or operator using a control device other than a thermal vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system to comply with subsection (c)(1) of this Section shall operate and maintain the control device in accordance with the requirements of Section 724.933(j).

- 5) The owner or operator shall demonstrate that a control device achieves the performance requirements of subsection (c)(1) of this Section, as follows:
- A) An owner or operator shall demonstrate using either a performance test, as specified in subsection (c)(5)(C) of this Section, or a design analysis, as specified in subsection (c)(5)(D) of this Section, the performance of each control device except for the following:
    - i) A flare;
    - ii) A boiler or process heater with a design heat input capacity of 44 megawatts or greater;
    - iii) A boiler or process heater into which the vent stream is introduced with the primary fuel;
    - iv) A boiler or industrial furnace burning hazardous waste for which the owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 and has designed and operates the unit in accordance with the interim status requirements of 35 Ill. Adm. Code 726.Subpart H; or
    - v) A boiler or industrial furnace burning hazardous waste that the owner or operator has designed and operates in accordance with the interim status requirements of 35 Ill. Adm. Code 726.Subpart H.
  - B) An owner or operator shall demonstrate the performance of each flare in accordance with the requirements specified in Section 724.933(e).
  - C) For a performance test conducted to meet the requirements of subsection (c)(5)(A) of this Section, the owner or operator shall use the test methods and procedures specified in Section 724.934(c)(1) through (c)(4).
  - D) For a design analysis conducted to meet the requirements of subsection (c)(5)(A) of this Section, the design analysis shall meet the requirements specified in Section 724.935(b)(4)(C).
  - E) The owner or operator shall demonstrate that a carbon adsorption system achieves the performance requirements of subsection (c)(1) of this Section based on the total quantity of organics

vented to the atmosphere from all carbon adsorption system equipment that is used for organic adsorption, organic desorption or carbon regeneration, organic recovery, and carbon disposal.

- 6) If the owner or operator and the Agency do not agree on a demonstration of control device performance using a design analysis then the disagreement shall be resolved using the results of a performance test performed by the owner or operator in accordance with the requirements of subsection (c)(5)(C) of this Section. The Agency may choose to have an authorized representative observe the performance test.
- 7) The closed-vent system and control device must be inspected and monitored by the owner or operator in accordance with the procedures specified in Section 724.933(f)(2) and (l). The readings from each monitoring device required by Section 724.933(f)(2) must be inspected at least once each operating day to check control device operation. Any necessary corrective measures must be immediately implemented to ensure the control device is operated in compliance with the requirements of this Section.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### Section 724.989 Recordkeeping Requirements

- a) Each owner or operator of a facility subject to the requirements in of this Subpart shall record and maintain the information specified in subsections (b) through ~~(i)~~ (j) of this Section, as applicable to the facility. Except for air emission control equipment design documentation and information required by ~~subsection~~ subsections (i) and (j) of this Section, records required by this Section must be maintained in the operating record for a minimum of three years. Air emission control equipment design documentation must be maintained in the operating record until the air emission control equipment is replaced or is otherwise no longer in service. Information required by ~~subsection~~ subsections (i) and (j) of this Section must be maintained in the operating record for as long as the ~~tank or container~~ waste management unit is not using air emission controls specified in Sections 724.984 through 724.987, in accordance with the conditions specified in Section 724.984(d) or (b)(7), respectively.
- b) The owner or operator of a tank using air emission controls in accordance with the requirements of Section 724.984 shall prepare and maintain records for the tank that include the following information:
  - 1) For each tank using air emission controls in accordance with the requirements of Section 724.984, the owner or operator shall record:

- A) A tank identification number (or other unique identification description as selected by the owner or operator).
  - B) A record for each inspection required by Section 724.984 that includes the following information:
    - i) Date inspection was conducted.
    - ii) For each defect detected during the inspection, ~~the following information:~~ the location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the ~~provisions~~ requirements of Section 724.984, the owner or operator shall also record the reason for the delay and the date that completion of repair of the defect is expected.
- 2) In addition to the information required by subsection (b)(1) of this Section, the owner or operator shall record the following information, as applicable to the tank:
- A) The owner or operator using a fixed roof to comply with the Tank Level 1 control requirements specified in Section 724.984(c) shall prepare and maintain records for each determination for the maximum organic vapor pressure of the hazardous waste in the tank performed in accordance with the requirements of Section 724.984(c). The records must include the date and time the samples were collected, the analysis method used, and the analysis results.
  - B) The owner or operator using an internal floating roof to comply with the Tank Level 2 control requirements specified in Section 724.984(e) shall prepare and maintain documentation describing the floating roof design.
  - C) Owners and operators using an external floating roof to comply with the Tank Level 2 control requirements specified in Section 724.984(f) shall prepare and maintain the following records:
    - i) Documentation describing the floating roof design and the dimensions of the tank.
    - ii) Records for each seal gap inspection required by Section 724.984(f)(3) describing the results of the seal gap measurements. The records must include the date that the measurements were performed, the raw data obtained for

the measurements, and the calculations of the total gap surface area. In the event that the seal gap measurements do not conform to the specifications in Section 724.984(f)(1), the records must include a description of the repairs that were made, the date the repairs were made, and the date the tank was emptied, if necessary.

- D) Each owner or operator using an enclosure to comply with the Tank Level 2 control requirements specified in Section 724.984(i) shall prepare and maintain the following records:
- i) Records for the most recent set of calculations and measurements performed by the owner or operator to verify that the enclosure meets the criteria of a permanent total enclosure as specified in “Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure” under 40 CFR 52.741, appendix B, incorporated by reference in 35 Ill. Adm. Code 720.111.
  - ii) Records required for the closed-vent system and control device in accordance with the requirements of subsection (e) of this Section.
- c) The owner or operator of a surface impoundment using air emission controls in accordance with the requirements of Section 724.985 shall prepare and maintain records for the surface impoundment that include the following information:
- 1) A surface impoundment identification number (or other unique identification description as selected by the owner or operator).
  - 2) Documentation describing the floating membrane cover or cover design, as applicable to the surface impoundment, that includes information prepared by the owner or operator or provided by the cover manufacturer or vendor describing the cover design, and certification by the owner or operator that the cover meets the specifications listed in Section 724.985(c).
  - 3) A record for each inspection required by Section 724.985 that includes the following information:
    - A) Date inspection was conducted.
    - B) For each defect detected during the inspection the following information: the location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in

accordance with the provisions of Section 724.985(f), the owner or operator shall also record the reason for the delay and the date that completion of repair of the defect is expected.

- 4) For a surface impoundment equipped with a cover and vented through a closed-vent system to a control device, the owner or operator shall prepare and maintain the records specified in subsection (e).
- d) The owner or operator of containers using Container Level 3 air emission controls in accordance with the requirements of Section 724.986 shall prepare and maintain records that include the following information:
- 1) Records for the most recent set of calculations and measurements performed by the owner or operator to verify that the enclosure meets the criteria of a permanent total enclosure as specified in “Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure” under 40 CFR 52.741, appendix B, incorporated by reference in 35 Ill. Adm. Code 720.111.
  - 2) Records required for the closed-vent system and control device in accordance with the requirements of subsection (e) of this Section.
- e) The owner or operator using a closed-vent system and control device in accordance with the requirements of Section 724.987 shall prepare and maintain records that include the following information:
- 1) Documentation for the closed-vent system and control device that includes:
    - A) Certification that is signed and dated by the owner or operator stating that the control device is designed to operate at the performance level documented by a design analysis as specified in subsection (e)(1)(B) of this Section or by performance tests as specified in subsection (e)(1)(C) of this Section when the tank, surface impoundment, or container is or would be operating at capacity or the highest level reasonably expected to occur.
    - B) If a design analysis is used, then design documentation, as specified in Section 724.935(b)(4). The documentation must include information prepared by the owner or operator or provided by the control device manufacturer or vendor that describes the control device design in accordance with Section 724.935(b)(4)(C) and certification by the owner or operator that the control equipment meets the applicable specifications.

- C) If performance tests are used, then a performance test plan as specified in Section 724.935(b)(3) and all test results.
- D) Information as required by Section 724.935(c)(1) and Section 724.935(c)(2), as applicable.
- E) An owner or operator shall record, on a semiannual basis, the information specified in subsections (e)(1)(E)(i) and (e)(1)(E)(ii) of this Section for those planned routine maintenance operations that would require the control device not to meet the requirements of Section 724.987(c)(1)(A), (c)(1)(B), or (c)(1)(C) of this Section, as applicable.
  - i) A description of the planned routine maintenance that is anticipated to be performed for the control device during the next six-month period. This description must include the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods.
  - ii) A description of the planned routine maintenance that was performed for the control device during the previous six-month period. This description must include the type of maintenance performed and the total number of hours during those six months that the control device did not meet the requirements of Section 724.987(c)(1)(A), (c)(1)(B), or (c)(1)(C), as applicable, due to planned routine maintenance.
- F) An owner or operator shall record the information specified in subsections (e)(1)(F)(i) through (e)(1)(F)(iii) of this Section for those unexpected control device system malfunctions that would require the control device not to meet the requirements of Section 724.987 (c)(1)(A), (c)(1)(B), or (c)(1)(C) of this Section, as applicable.
  - i) The occurrence and duration of each malfunction of the control device system.
  - ii) The duration of each period during a malfunction when gases, vapors, or fumes are vented from the waste management unit through the closed-vent system to the control device while the control device is not properly functioning.

- iii) Actions taken during periods of malfunction to restore a malfunctioning control device to its normal or usual manner of operation.
  - G) Records of the management of carbon removed from a carbon adsorption system conducted in accordance with Section 724.987(c)(3)(B).
- f) The owner or operator of a tank, surface impoundment, or container exempted from standards in accordance with the provisions of Section 724.982(c) shall prepare and maintain the following records, as applicable:
- 1) For tanks, surface impoundments, or containers exempted under the hazardous waste organic concentration conditions specified in Section 724.982(c)(1) or (c)(2)(A) through (c)(2)(E), the owner or operator shall record the information used for each waste determination (e.g., test results, measurements, calculations, and other documentation) in the facility operating log. If analysis results for waste samples are used for the waste determination, then the owner or operator shall record the date, time, and location that each waste sample is collected in accordance with the applicable requirements of Section 724.983.
  - 2) For tanks, surface impoundments, or containers exempted under the provisions of Section 724.982(c)(2)(G) or (c)(2)(H), the owner or operator shall record the identification number for the incinerator, boiler, or industrial furnace in which the hazardous waste is treated.
- g) An owner or operator designating a cover as “unsafe to inspect and monitor” pursuant to Section 724.984(l) or Section 724.985(g) shall record in a log that is kept in the facility operating record the following information: the identification numbers for waste management units with covers that are designated as “unsafe to inspect and monitor”, the explanation for each cover stating why the cover is unsafe to inspect and monitor, and the plan and schedule for inspecting and monitoring each cover.
- h) The owner or operator of a facility that is subject to this Subpart and to the control device standards in 40 CFR 60, Subpart VV or 40 CFR 61, Subpart V, incorporated by reference in 35 Ill. Adm. Code 720.111, may elect to demonstrate compliance with the applicable Sections of this Subpart by documentation either pursuant to this Subpart, or pursuant to the provisions of 40 CFR 60, Subpart VV or 40 CFR 61, Subpart V, to the extent that the documentation required by 40 CFR 60 or 61 duplicates the documentation required by this Section.
- i) For each tank or container not using air emission controls specified in Sections 724.984 through 724.987 in accordance with the conditions specified in Section



724.980(d), the owner or operator shall record and maintain the following information:

- 1) A list of the individual organic peroxide compounds manufactured at the facility that meet the conditions specified in Section 724.980(d)(1).
- 2) A description of how the hazardous waste containing the organic peroxide compounds identified pursuant to subsection (i)(1) of this Section are managed at the facility in tanks and containers. This description must include the following information:
  - A) For the tanks used at the facility to manage this hazardous waste, sufficient information must be provided to describe the following for each tank: a facility identification number for the tank, the purpose and placement of this tank in the management train of this hazardous waste, and the procedures used to ultimately dispose of the hazardous waste managed in the tanks.
  - B) For containers used at the facility to manage this hazardous waste, sufficient information must be provided to describe each tank: a facility identification number for the container or group of containers, the purpose and placement of this container or group of containers in the management train of this hazardous waste, and the procedures used to ultimately dispose of the hazardous waste managed in the containers.
- 3) An explanation of why managing the hazardous waste containing the organic peroxide compounds identified pursuant to subsection (i)(1) of this Section in the tanks or containers identified pursuant to subsection (i)(2) of this Section would create an undue safety hazard if the air emission controls specified in Sections 724.984 through 724.987 were installed and operated on these waste management units. This explanation must include the following information:
  - A) For tanks used at the facility to manage this hazardous waste, sufficient information must be provided to explain the following: how use of the required air emission controls on the tanks would affect the tank design features and facility operating procedures currently used to prevent an undue safety hazard during management of this hazardous waste in the tanks; and why installation of safety devices on the required air emission controls, as allowed under this Subpart, would not address those situations in which evacuation of tanks equipped with these air emission controls is necessary and consistent with good engineering and safety practices for handling organic peroxides.

- B) For containers used at the facility to manage this hazardous waste, sufficient information must be provided to explain the following: how use of the required air emission controls on the tanks would affect the container design features and handling procedures currently used to prevent an undue safety hazard during management of this hazardous waste in the containers; and why installation of safety devices on the required air emission controls, as allowed under this Subpart, would not address those situations in which evacuation of containers equipped with these air emission controls is necessary and consistent with good engineering and safety practices for handling organic peroxides.
- j) For each hazardous waste management unit not using air emission controls specified in Sections 724.984 through 724.987 in accordance with the requirements of Section 724.980(b)(7), the owner and operator shall record and maintain the following information:
- 1) The certification that the waste management unit is equipped with and operating air emission controls in accordance with the requirements of an applicable federal Clean Air Act regulation codified under 40 CFR part 60, part 61, or part 63.
  - 2) An identification of the specific federal requirements codified under 40 CFR part 60, part 61, or part 63 with which the waste management unit is in compliance.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

TITLE 35: ENVIRONMENTAL PROTECTION  
 SUBTITLE G: WASTE DISPOSAL  
 CHAPTER I: POLLUTION CONTROL BOARD  
 SUBCHAPTER c: HAZARDOUS WASTE OPERATING REQUIREMENTS

PART 725  
 INTERIM STATUS STANDARDS FOR OWNERS AND OPERATORS OF  
 HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL  
 FACILITIES

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AUTHORITY: Implementing Section 22.4 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/22.4 and 27].



SOURCE: Adopted in R81-22, 43 PCB 427, at 5 Ill. Reg. 9781, effective May 17, 1982; amended and codified in R81-22, 45 PCB 317, at 6 Ill. Reg. 4828, effective May 17, 1982; amended in R82-18, 51 PCB 831, at 7 Ill. Reg. 2518, effective February 22, 1983; amended in R82-19, 53 PCB 131, at 7 Ill. Reg. 14034, effective October 12, 1983; amended in R84-9, at 9 Ill. Reg. 11869, effective July 24, 1985; amended in R85-22 at 10 Ill. Reg. 1085, effective January 2, 1986; amended in R86-1 at 10 Ill. Reg. 14069, effective August 12, 1986; amended in R86-28 at 11 Ill. Reg. 6044, effective March 24, 1987; amended in R86-46 at 11 Ill. Reg. 13489, effective August 4, 1987; amended in R87-5 at 11 Ill. Reg. 19338, effective November 10, 1987; amended in R87-26 at 12 Ill. Reg. 2485, effective January 15, 1988; amended in R87-39 at 12 Ill. Reg. 13027, effective July 29, 1988; amended in R88-16 at 13 Ill. Reg. 437, effective December 28, 1988; amended in R89-1 at 13 Ill. Reg. 18354, effective November 13, 1989; amended in R90-2 at 14 Ill. Reg. 14447, effective August 22, 1990; amended in R90-10 at 14 Ill. Reg. 16498, effective September 25, 1990; amended in R90-11 at 15 Ill. Reg. 9398, effective June 17, 1991; amended in R91-1 at 15 Ill. Reg. 14534, effective October 1, 1991; amended in R91-13 at 16 Ill. Reg. 9578, effective June 9, 1992; amended in R92-1 at 16 Ill. Reg. 17672, effective November 6, 1992; amended in R92-10 at 17 Ill. Reg. 5681, effective March 26, 1993; amended in R93-4 at 17 Ill. Reg. 20620, effective November 22, 1993; amended in R93-16 at 18 Ill. Reg. 6771, effective April 26, 1994; amended in R94-7 at 18 Ill. Reg. 12190, effective July 29, 1994; amended in R94-17 at 18 Ill. Reg. 17548, effective November 23, 1994; amended in R95-6 at 19 Ill. Reg. 9566, effective June 27, 1995; amended in R95-20 at 20 Ill. Reg. 11078, effective August 1, 1996; amended in R96-10/R97-3/R97-5 at 22 Ill. Reg. 369, effective December 16, 1997; amended in R98-12 at 22 Ill. Reg. 7620, effective April 15, 1998; amended in R97-21/R98-3/R98-5 at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_; amended in R98-21/R99-2/R99-7 at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

## SUBPART B: GENERAL FACILITY STANDARDS

### Section 725.115 General Inspection Requirements

- a) The owner or operator shall inspect the facility for malfunctions and deterioration, operator errors and discharges that may be causing—or may lead to—the conditions listed below. The owner or operator shall conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment.
  - 1) Release of hazardous waste constituents to the environment, or
  - 2) A threat to human health.
- b) Written schedule.

- 1) The owner or operator shall develop and follow a written schedule for inspecting all monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment (such as dikes and sump pumps) that are important to preventing, detecting, or responding to environmental or human health hazards.
  - 2) The owner or operator shall keep this schedule at the facility.
  - 3) The schedule must identify the types of problems (e.g., malfunctions or deterioration) that are to be looked for during the inspection (e.g., inoperative sump pump, leaking fitting, eroding dike, etc.).
  - 4) The frequency of inspection may vary for the items on the schedule. However, ~~it~~ the frequency should be based on the rate of deterioration of the equipment and the probability of an environmental or human health incident if the deterioration, malfunction, or any operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, must be inspected daily when in use. At a minimum, the inspection schedule must include the items and frequencies called for in Sections 725.274, 725.293, 725.295, 725.326, 725.360, 725.378, 725.404, 725.447, 725.477, 725.503, 725.933, 725.952, 725.953, 725.958, ~~725.989~~, and ~~725.991(b)~~ and 725.984 through 725.990, where applicable.
- c) The owner or operator shall remedy any deterioration or malfunction of equipment or structure that the inspection reveals on a schedule which ensures that the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, remedial action must be taken immediately.
  - d) The owner or operator shall record inspections in an inspection log or summary. The owner or operator shall keep these records for at least three years from the date of inspection. At a minimum, these records must include the date and time of the inspection, the name of the inspector, a notation of the observations made and the date, and nature of any repairs or other remedial actions.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**SUBPART E: MANIFEST SYSTEM, RECORDKEEPING AND REPORTING**

Section 725.173      Operating Record

- a)      The owner or operator shall keep a written operating record at the facility.
- b)      The following information must be recorded as it becomes available and maintained in the operating record until closure of the facility.
  - 1)      A description and the quantity of each hazardous waste received and the method or methods and date or dates of its treatment, storage, or disposal at the facility as required by Section 725.Appendix A;
  - 2)      The location of each hazardous waste within the facility and the quantity at each location. For disposal facilities the location and quantity of each hazardous waste must be recorded on a map or diagram of each cell or disposal area. For all facilities this information must include cross-references to specific manifest document numbers if the waste was accompanied by a manifest;

BOARD NOTE: See Sections 725.219, 725.379, and 725.409 for related requirements.

- 3)      Records and results of waste analysis, waste determinations, and trial tests performed as specified in Sections 725.113, 725.300, 725.325, 725.352, 725.373, 725.414, 725.441, 725.475, 725.502, 725.934, 725.963, and 725.984 and 35 Ill. Adm. Code 728.104(a) and 728.107;
- 4)      Summary reports and details of all incidents that require implementing the contingency plan as specified in Section 725.156(j);
- 5)      Records and results of inspections as required by Sections 725.115(d) (except these data need be kept only three years);
- 6)      Monitoring, testing, or analytical data where required by ~~725.Subpart F of this Part~~ or Sections 725.119, 725.190, 725.194, 725.291, 725.293, 725.295, 725.322, 725.323, 725.326, 725.355, 725.359, 725.360, 725.376, 725.378, 725.380(d)(1), 725.402 through 725.404, 725.447, 725.477, 725.934(c) through (f), 725.935, 725.963(d) through (i), ~~or 725.964, and ~~725.989-725.1083~~ through ~~725.991-725.990~~~~;

BOARD NOTE: As required by Section 725.194, monitoring data at disposal facilities must be kept throughout the post-closure period.

- 7) All closure cost estimates under Section 725.242 and, for disposal facilities, all post-closure cost estimates under Section 725.244;
- 8) Records of the quantities (and date of placement) for each shipment of hazardous waste placed in land disposal units under an extension of the effective date of any land disposal restriction granted pursuant to 35 Ill. Adm. Code 728.105, a petition pursuant to 35 Ill. Adm. Code 728.106, or a certification under 35 Ill. Adm. Code 728.108 and the applicable notice required of a generator under 35 Ill. Adm. Code 728.107(a);
- 9) For an off-site treatment facility, a copy of the notice and the certification and demonstration, if applicable, required of the generator or the owner or operator under 35 Ill. Adm. Code 728.107 or 728.108;
- 10) For an on-site treatment facility, the information contained in the notice (except the manifest number) and the certification and demonstration, if applicable, required of the generator or the owner or operator under 35 Ill. Adm. Code 728.107 or 728.108;
- 11) For an off-site land disposal facility, a copy of the notice and the certification and demonstration, if applicable, required of the generator or the owner or operator of a treatment facility under 35 Ill. Adm. Code 728.107 or 728.108;
- 12) For an on-site land disposal facility, the information contained in the notice required of the generator or owner or operator of a treatment facility under 35 Ill. Adm. Code 728.107, except for the manifest number, and the certification and demonstration, if applicable, required under 35 Ill. Adm. Code 728.107 or 728.108;
- 13) For an off-site storage facility, a copy of the notice and the certification and demonstration, if applicable, required of the generator or the owner or operator under 35 Ill. Adm. Code 728.107 or 728.108; and
- 14) For an on-site storage facility, the information contained in the notice (except the manifest number) and the certification and demonstration, if applicable, required of the generator or the owner or operator under 35 Ill. Adm. Code 728.107 or 728.108.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

## SUBPART AA: AIR EMISSION STANDARDS FOR PROCESS VENTS

## Section 725.930      Applicability

- a) This Subpart applies to owners and operators of facilities that treat, store or dispose of hazardous wastes (except as provided in Section 725.101).
- b) Except for Section 725.934(d) and (e), this Subpart applies to process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations that manage hazardous wastes with organic concentrations of at least 10 ppmw (parts per million by weight), if these operations are conducted in one of the following:
  - 1) A unit that is subject to the permitting requirements of 35 Ill. Adm. Code 702, 703, and 705; or
  - 2) A unit (including a hazardous waste recycling unit) that is not exempt from permitting under the provisions of 35 Ill. Adm. Code 262.34(a) (i.e., a hazardous waste recycling unit that is not a 90-day tank or container) and that is located on a hazardous waste management facility otherwise subject to the permitting requirements of 35 Ill. Adm. Code 702, 703, and 705.
  - 3) A unit that is exempt from permitting under the provisions of 35 Ill. Adm. Code 722.134(a) (i.e., a “90-day” tank or container) and which is not a recycling unit under the requirements of 35 Ill. Adm. Code 721.106.

BOARD NOTE: The requirements of Sections 725.932 through 725.936 apply to process vents on hazardous waste recycling units previously exempt under 35 Ill. Adm. Code 721.106(c)(1). Other exemptions under 35 Ill. Adm. Code 721.104 and 725.101(c) are not affected by these requirements.

- c) Agency decisions pursuant to this Part must be made in writing, are in the nature of permit decisions pursuant to Section 39 of the Environmental Protection Act and may be appealed to the Board pursuant to 35 Ill. Adm. Code 105.
- d) The requirements of this Subpart do not apply to the process vents at a facility where the facility owner or operator certifies that all of the process vents which would otherwise be subject to this Subpart are equipped with and operating air emission controls in accordance with the process vent requirements of an applicable federal Clean Air Act regulation codified under 40 CFR part 60, part 61, or part 63. The documentation of compliance under

regulations at 40 CFR part 60, part 61, or part 63 must be kept with, or made readily available with, the facility operating record.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 725.933 Standards: Closed-Vent Systems and Control Devices

a) Compliance Required.

1) Owners or operators of closed-vent systems and control devices used to comply with provisions of this Part shall comply with the provisions of this Section.

2) Implementation Schedule.

A) \_\_\_\_\_ The owner or operator of an existing facility that cannot install a closed-vent system and control device to comply with the provisions of this Subpart on the effective date that the facility becomes subject to the provisions of this Subpart shall prepare an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The controls must be installed as soon as possible, but the implementation schedule may allow up to 30 months after the effective date that the facility becomes subject to this Subpart for installation and startup.-

B) \_\_\_\_\_ ~~All units~~ Any unit that begins operation after December 21, 1990, and which is subject to the provisions of this Subpart when operation begins, must comply with the rules immediately (i.e., must have control devices installed and operating on startup of the affected unit); the ~~2-year~~ 30-month implementation schedule does not apply ~~to these units~~.

C) \_\_\_\_\_ The owner or operator of any facility in existence on the effective date of a statutory or regulatory amendment that renders the facility subject to this Subpart shall comply with all requirements of this Subpart as soon as practicable but no later than 30 months after the effective date of the amendment. When control equipment required by this Subpart can not be installed and begin operation by the effective date of the amendment, the facility owner or operator shall prepare an implementation schedule that includes the following information: Specific calendar dates for award of contracts or issuance of purchase orders for the control equipment, initiation of on-site

installation of the control equipment, completion of the control equipment installation, and performance of any testing to demonstrate that the installed equipment meets the applicable standards of this Subpart. The owner or operator shall enter the implementation schedule in the operating record or in a permanent, readily available file located at the facility.

D) An owner or operator of a facility or unit that becomes newly subject to the requirements of this Subpart after December 8, 1997, due to an action other than those described in paragraph (a)(2)(iii) of this Section must comply with all applicable requirements immediately (i.e., the facility or unit must have control devices installed and operating on the date the facility or unit becomes subject to this Subpart; the 30-month implementation schedule does not apply).

- b) A control device involving vapor recovery (e.g., a condenser or adsorber) must be designed and operated to recover the organic vapors vented to it with an efficiency of 95 weight percent or greater unless the total organic emission limits of Section 725.932(a)(1) for all affected process vents is attained at an efficiency less than 95 weight percent.
- c) An enclosed combustion device (e.g., a vapor incinerator, boiler, or process heater) must be designed and operated to reduce the organic emissions vented to it by 95 weight percent or greater; to achieve a total organic compound concentration of 20 ppmv, expressed as the sum of the actual compounds, not carbon equivalents, on a dry basis corrected to three percent oxygen; or to provide a minimum residence time of 0.50 seconds at a minimum temperature of 760 degrees Celsius ( $^{\circ}$  C). If a boiler or process heater is used as the control device, then the vent stream must be introduced into the flame combustion zone of the boiler or process heater.
- d) Flares.
  - 1) A flare must be designed for and operated with no visible emissions as determined by the methods specified in subsection (e)(1) of this Section except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.
  - 2) A flare must be operated with a flame present at all times, as determined by the methods specified in subsection (f)(2)(c) of this Section.

- 3) A flare must be used only if the net heating value of the gas being combusted is 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted, or if the net heating value of the gas being combusted is 7.45 MJ/scm (200 Btu/scf) or greater if the flare is nonassisted. The net heating value of the gas being combusted must be determined by the methods specified in subsection (e)(2) of this Section.
  - 4) Exit Velocity.
    - A) A steam-assisted or nonassisted flare must be designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3) of this Section, less than 18.3 m/s (60 ft/s), except as provided in subsections (d)(4)(B) and (d)(4)(C) of this Section.
    - B) A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3) of this Section, equal to or greater than 18.3 m/s (60 ft/s) but less than 122 m/s (400 ft/s) is allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1000 Btu/scf).
    - C) A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3) of this Section, less than the velocity,  $V$  as determined by the method specified in subsection (e)(4) and less than 122 m/s (400 ft/s) is allowed.
  - 5) An air-assisted flare must be designed and operated with an exit velocity less than the velocity,  $V$  as determined by the method specified in subsection (e)(5) of this Section.
  - 6) A flare used to comply with this Section must be steam-assisted, air-assisted, or nonassisted.
- e) Compliance determination and equations.
- 1) Reference Method 22 in 40 CFR 60, incorporated by reference in 35 Ill. Adm. Code 720.111, must be used to determine the compliance of a flare with the visible emission provisions of this Subpart. The observation period is 2 hours and must be used according to Method 22.
  - 2) The net heating value of the gas being combusted in a flare must be calculated using the following equation:



$$H_T = K \times \sum_{i=1}^n C_i \times H_i$$

Where:

$H_T$  is the net heating value of the sample in MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25° C and 760 mm Hg, but the standard temperature for determining the volume corresponding to 1 mole is 20° C.

$K = 1.74 \times 10^{-7}$  (1/ppm)(g mol/scm)(MJ/kcal) where the standard temperature for (g mol/scm) is 20° C.

$\sum X_i$  means the sum of the values of X for each component i, from i=1 to n.

$C_i$  is the concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 in 40 CFR 60, and for carbon monoxide, by ASTM D 1946-90, incorporated by reference in 35 Ill. Adm. Code 720.111.

$H_i$  is the net heat of combustion of sample component i, kcal/gmol at 25° C and 760 mm Hg. The heats of combustion must be determined using ASTM D 2382-88, incorporated by reference in 35 Ill. Adm. Code 720.111, if published values are not available or cannot be calculated.

- 3) The actual exit velocity of a flare must be determined by dividing the volumetric flow rate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D in 40 CFR 60, incorporated by reference in 35 Ill. Adm. Code 720.111, as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.
- 4) The maximum allowed velocity in m/s, V for a flare complying with subsection (d)(4)(C) of this Section must be determined by the following equation:

$$\log_{10}(V_{\max}) = \frac{H_T + 28.8}{31.7}$$

Where:

$\log_{10}$  means logarithm to the base 10

$H_T$  is the net heating value as determined in subsection (e)(2) of this Section.

- 5) The maximum allowed velocity in m/s,  $V$  for an air-assisted flare must be determined by the following equation:

$$V = 8.706 + 0.7084 H_T$$

Where:

$H_T$  is the net heating value as determined in subsection (e)(2) of this Section.

- f) The owner or operator shall monitor and inspect each control device required to comply with this Section to ensure proper operation and maintenance of the control device by implementing the following requirements:
- 1) Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow indicator that provides a record of vent stream flow from each affected process vent to the control device at least once every hour. The flow indicator sensor must be installed in the vent stream at the nearest feasible point to the control device inlet but before being combined with other vent streams.
  - 2) Install, calibrate, maintain, and operate according to the manufacturer's specifications a device to continuously monitor control device operation as specified below:
    - A) For a thermal vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device must have accuracy of  $\pm 1$  percent of the temperature being monitored in  $^{\circ}\text{C}$  or  $\pm 0.5^{\circ}\text{C}$ , whichever is greater. The temperature sensor must be installed at a location in the combustion chamber downstream of the combustion zone.
    - B) For a catalytic vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device must be capable of monitoring temperature at two locations and have an accuracy of  $\pm 1$  percent of the temperature being monitored in  $^{\circ}\text{C}$  or  $\pm 0.5^{\circ}\text{C}$ , whichever is greater. One temperature sensor must be installed in the vent stream at the nearest feasible point to the catalyst bed inlet and a second temperature sensor must be installed in the vent stream at the nearest feasible point to the catalyst bed outlet.

- C) For a flare, a heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame.
- D) For a boiler or process heater having a design heat input capacity less than 44 MW, a temperature monitoring device equipped with a continuous recorder. The device must have an accuracy of  $\pm 1$  percent of the temperature being monitored in  $^{\circ}\text{C}$  or  $\pm 0.5^{\circ}\text{C}$ , whichever is greater. The temperature sensor must be installed at a location in the furnace downstream of the combustion zone.
- E) For a boiler or process heater having a design heat input capacity greater than or equal to 44 MW, a monitoring device equipped with a continuous recorder to measure parameters that indicate good combustion operating practices are being used.
- F) For a condenser, either:
  - i) A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the condenser; or
  - ii) A temperature monitoring device equipped with a continuous recorder. The device must be capable of monitoring temperature with an accuracy of  $\pm 1$  percent of the temperature being monitored in degrees Celsius ( $^{\circ}\text{C}$ ) or  $\pm 0.5^{\circ}\text{C}$ , whichever is greater. The temperature sensor must be installed at a location in the exhaust vent stream from the condenser exit (i.e., product side).
- G) For a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly in the control device, either:
  - i) A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the carbon bed; or
  - ii) A monitoring device equipped with a continuous recorder to measure a parameter that indicates the carbon bed is regenerated on a regular, predetermined time cycle.

- 3) Inspect the readings from each monitoring device required by subsections (f)(1) and (f)(2) of this Section at least once each operating day to check control device operation and, if necessary, immediately implement the corrective measures necessary to ensure the control device operates in compliance with the requirements of this Section.
- g) An owner or operator using a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device shall replace the existing carbon in the control device with fresh carbon at a regular, predetermined time interval that is no longer than the carbon service life established as a requirement of Section 725.935(b)(4)(C)(vi).
- h) An owner or operator using a carbon adsorption system, such as a carbon canister, that does not regenerate the carbon bed directly onsite in the control device shall replace the existing carbon in the control device with fresh carbon on a regular basis by using one of the following procedures:
  - 1) Monitor the concentration level of the organic compounds in the exhaust vent stream from the carbon adsorption system on a regular schedule, and replace the existing carbon with fresh carbon immediately when carbon breakthrough is indicated. The monitoring frequency must be daily or at an interval no greater than 20 percent of the time required to consume the total carbon working capacity established as a requirement of Section 725.935(b)(4)(C)(vii), whichever is longer.
  - 2) Replace the existing carbon with fresh carbon at a regular, predetermined time interval that is less than the design carbon replacement interval established as a requirement of Section 725.935(b)(4)(C)(vii).
- i) An owner or operator of an affected facility seeking to comply with the provisions of this Part by using a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system is required to develop documentation including sufficient information to describe the control device operation and identify the process parameter or parameters that indicate proper operation and maintenance of the control device.
- j) A closed-vent system must meet either of the following design requirements:
  - 1) A closed-vent system must be designed to operate with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background, as determined by the methods specified at Section 725.934(b), and by visual inspections; or

- 2) A closed-vent system must be designed to operate at a pressure below atmospheric pressure. The system must be equipped with at least one pressure gauge or other pressure measurement device that can be read from a readily accessible location to verify that negative pressure is being maintained in the closed-vent system when the control device is operating.
- k) The owner or operator shall monitor and inspect each closed-vent system required to comply with this Section to ensure proper operation and maintenance of the closed-vent system by implementing the following requirements:
- 1) Each closed-vent system that is used to comply with subsection (j)(1) of this Section shall be inspected and monitored in accordance with the following requirements:
    - A) An initial leak detection monitoring of the closed-vent system shall be conducted by the owner or operator on or before the date that the system becomes subject to this Section. The owner or operator shall monitor the closed-vent system components and connections using the procedures specified in Section 725.934(b) to demonstrate that the closed-vent system operates with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background.
    - B) After initial leak detection monitoring required in subsection (k)(1)(A) of this Section, the owner or operator shall inspect and monitor the closed-vent system as follows:
      - i) Closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted and gasketed ducting flange) must be visually inspected at least once per year to check for defects that could result in air pollutant emissions. The owner or operator shall monitor a component or connection using the procedures specified in Section 725.934(b) to demonstrate that it operates with no detectable emissions following any time the component is repaired or replaced (e.g., a section of damaged hard piping is replaced with new hard piping) or the connection is unsealed (e.g., a flange is unbolted).
      - ii) Closed-vent system components or connections other than those specified in subsection (k)(1)(B)(i) of this Section must be monitored annually and at other times as requested by the Regional Administrator, except as

provided for in subsection (n) of this Section, using the procedures specified in Section 725.934(b) to demonstrate that the components or connections operate with no detectable emissions.

- C) In the event that a defect or leak is detected, the owner or operator shall repair the defect or leak in accordance with the requirements of subsection (k)(3) of this Section.
  - D) The owner or operator shall maintain a record of the inspection and monitoring in accordance with the requirements specified in Section 725.935.
- 2) Each closed-vent system that is used to comply with subsection (j)(2) of this Section must be inspected and monitored in accordance with the following requirements:
- A) The closed-vent system must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in ductwork or piping or loose connections.
  - B) The owner or operator shall perform an initial inspection of the closed-vent system on or before the date that the system becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year.
  - C) In the event that a defect or leak is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (k)(3) of this Section.
  - D) The owner or operator shall maintain a record of the inspection and monitoring in accordance with the requirements specified in Section 725.935.
- 3) The owner or operator shall repair all detected defects as follows:
- A) Detectable emissions, as indicated by visual inspection or by an instrument reading greater than 500 ppmv above background, must be controlled as soon as practicable, but not later than 15 calendar days after the emission is detected, except as provided for in subsection (k)(3)(C) of this Section.
  - B) A first attempt at repair must be made no later than five calendar days after the emission is detected.

- C) Delay of repair of a closed-vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown, or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment must be completed by the end of the next process unit shutdown.
  - D) The owner or operator shall maintain a record of the defect repair in accordance with the requirements specified in Section 725.935.
- l) A closed-vent system or control device used to comply with provisions of this Subpart must be operated at all times when emissions may be vented to it.
- m) The owner or operator using a carbon adsorption system to control air pollutant emissions shall document that all carbon removed that is a hazardous waste and that is removed from the control device is managed in one of the following manners, regardless of the volatile organic concentration of the carbon:
- 1) It is regenerated or reactivated in a thermal treatment unit that meets one of the following:
    - A) The owner or operator of the unit has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of 35 Ill. Adm. Code 724.Subpart X; or
    - B) The unit is equipped with and operating air emission controls in accordance with the applicable requirements of ~~725~~.Subparts AA and CC of this Part or 35 Ill. Adm. Code 724; or
    - C) The unit is equipped with and operating air emission controls in accordance with a national emission standard for hazardous air pollutants under 40 CFR 61 or 40 CFR 63.
  - 2) It is incinerated in a hazardous waste incinerator for which the owner or operator has done either of the following:
    - A) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of 35 Ill. Adm. Code 724.Subpart O, or
    - B) The owner or operator has designed and operates the incinerator in accordance with the interim status requirements of ~~725~~.Subpart O of this Part.

- 3) It is burned in a boiler or industrial furnace for which the owner or operator has done either of the following:
  - A) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of 35 Ill. Adm. Code 726.Subpart H, or
  - B) The owner or operator has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of 35 Ill. Adm. Code 726.Subpart H.
  
- n) Any components of a closed-vent system that are designated, as described in Section 725.935(c)(9), as unsafe to monitor are exempt from the requirements of subsection (k)(1)(B)(ii) of this Section if both of the following conditions are fulfilled:
  - 1) The owner or operator of the closed-vent system has determined that the components of the closed-vent system are unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with subsection (k)(1)(B)(ii) of this Section; and
  - 2) The owner or operator of the closed-vent system adheres to a written plan that requires monitoring the closed-vent system components using the procedure specified in subsection (k)(1)(B)(ii) of this Section as frequently as practicable during safe-to-monitor times.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### SUBPART BB: AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS

##### Section 725.950      Applicability

- a) The regulations in this Subpart apply to owners and operators of facilities that treat, store, or dispose of hazardous wastes (except as provided in Section 725.101).
- b) Except as provided in Section 725.964(k), this Subpart applies to equipment that contains or contacts hazardous wastes with organic concentrations of at least 10% by weight that are managed in one of the following:
  - 1) A unit that is subject to the RCRA permitting requirements of 35 Ill. Adm. Code 702, 703, and 705;
  - 2) A unit (including a hazardous waste recycling unit) that is not exempt from permitting under the provisions of 35 Ill. Adm. Code 722.134(a)



(i.e., a hazardous waste recycling unit that is not a “90-day” tank or container) and that is located at a hazardous waste management facility otherwise subject to the permitting requirements of 35 Ill. Adm. Code 702, 703, and 705; or

- 3) A unit that is exempt from permitting under the provisions of 35 Ill. Adm. Code 722.134(a) (i.e., a “90-day” tank or container) **and which is not a recycling unit under the provisions of 35 Ill. Adm. Code 721.106.**
- c) Each piece of equipment to which this Subpart applies must be marked in such a manner that it can be distinguished readily from other pieces of equipment.
- d) Equipment that is in vacuum service is excluded from the requirements of Sections 725.952 to 725.960, if it is identified as required in Section 725.964(g)(5).
- e) Equipment that contains or contacts hazardous waste with an organic concentration of at least 10% percent by weight for ~~a period of~~ less than 300 hours per calendar year is excluded from the requirements of Sections 265.952 through 265.960 if it is identified as required in Section 725.964(g)(6).
- BOARD NOTE: The requirements of Sections 725.952 through 725.964 apply to equipment associated with hazardous waste recycling units previously exempt under 35 Ill. Adm. Code 721.106(c)(1). Other exemptions under 35 Ill. Adm. Code 721.104 and 725.101(e) are not affected by these requirements.
- f) Agency decisions pursuant to this Part must be made in writing, are in the nature of permit decisions pursuant to Section 39 of the Environmental Protection Act and may be appealed to the Board pursuant to 35 Ill. Adm. Code 105.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 725.960 Standards: Closed-vent Systems and Control Devices

- a) ~~Owners~~ An owner or operators ~~operator~~ operator of a closed-vent ~~systems and system~~ system or control ~~devices~~ device subject to this Subpart shall comply with the provisions of Section 725.933.
- b) Implementation Schedule.
- 1) The owner or operator of an existing facility that cannot install a closed-vent system and control device to comply with the provisions of this Subpart on the effective date that the facility becomes subject to the provisions of this Subpart

shall prepare an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The controls must be installed as soon as possible, but the implementation schedule may allow up to 30 months after the effective date that the facility becomes subject to this Subpart for installation and startup.

- 2) Any unit that begins operation after December 21, 1990, and which is subject to the provisions of this Subpart when operation begins, must comply with the rules immediately (i.e., the unit must have control devices installed and operating on startup of the affected unit); the 30-month implementation schedule does not apply.
- 3) The owner or operator of any facility in existence on the effective date of a statutory or regulatory amendment that renders the facility subject to this Subpart shall comply with all requirements of this Subpart as soon as practicable but no later than 30 months after the effective date of the amendment. When control equipment required by this Subpart can not be installed and begin operation by the effective date of the amendment, the facility owner or operator shall prepare an implementation schedule that includes the following information: Specific calendar dates for award of contracts or issuance of purchase orders for the control equipment, initiation of on-site installation of the control equipment, completion of the control equipment installation, and performance of any testing to demonstrate that the installed equipment meets the applicable standards of this Subpart. The owner or operator shall enter the implementation schedule in the operating record or in a permanent, readily available file located at the facility.
- 4) An owner or operator of a facility or unit that becomes newly subject to the requirements of this Subpart due to an action other than those described in subsection (b)(3) of this Section shall comply with all applicable requirements immediately (i.e., the facility or unit must have control devices installed and operating on the date the facility or unit becomes subject to this Subpart; the 30-month implementation schedule does not apply).

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

## Section 725.962 Skip Period Alternative for Valves

- a) Election
  - 1) An owner or operator subject to the requirements of Section 725.957 may elect for all valves within a hazardous waste management unit to comply with one of the alternative work practices specified in subsections (b)(2) and (3).
  - 2) An owner or operator shall notify the Agency before implementing one of the alternative work practices.
- b) Reduced Monitoring
  - 1) An owner or operator shall comply with the requirements for valves, as described in Section 725.957, except as described in subsection (b)(2) and (3).
  - 2) After two consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than ~~2~~two percent, an owner or operator may begin to skip one of the quarterly leak detection periods (i.e., the owner or operator may monitor for leaks once every six months) for the valves subject to the requirements in Section 725.957.
  - 3) After five consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than ~~2~~two percent, an owner or operator may begin to skip three of the quarterly leak detection periods (i.e., the owner or operator may monitor for leaks once every year) for the valves subject to the requirements in Section 725.957.
  - 4) If the percentage of valves leaking is greater than 2 percent, the owner or operator shall monitor monthly in compliance with the requirements in Section 725.957, but may again elect to use this Section after meeting the requirements of Section 725.957(c)(1).

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

## Section 725.964 Recordkeeping Requirements

- a) Lumping Units.
  - 1) Each owner or operator subject to the provisions of this Subpart shall comply with the recordkeeping requirements of this Section.

- 2) An owner or operator of more than one hazardous waste management unit subject to the provisions of this Subpart may comply with the recordkeeping requirements for these hazardous waste management units in one recordkeeping system if the system identifies each record by each hazardous waste management unit.
- b) Owners and operators shall record the following information in the facility operating record:
- 1) For each piece of equipment to which this Subpart applies:
    - A) Equipment identification number and hazardous waste management unit identification.
    - B) Approximate locations within the facility (e.g., identify the hazardous waste management unit on a facility plot plan).
    - C) Type of equipment (e.g., a pump or pipeline valve).
    - D) Percent-by-weight total organics in the hazardous wastestream at the equipment.
    - E) Hazardous waste state at the equipment (e.g., gas/vapor or liquid).
    - F) Method of compliance with the standard (e.g., “monthly leak detection and repair” or “equipped with dual mechanical seals”).
  - 2) For facilities that comply with the provisions of Section 725.933(a)(2), an implementation schedule as specified in that Section.
  - 3) Where an owner or operator chooses to use test data to demonstrate the organic removal efficiency or total organic compound concentration achieved by the control device, a performance test plan as specified in Section 725.935(b)(3).
  - 4) Documentation of compliance with Section 725.960, including the detailed design documentation or performance test results specified in Section 725.935(b)(4).
- c) When each leak is detected as specified in Section 725.952, 725.953, 725.957, or 725.958, the following requirements apply:
- 1) A weatherproof and readily visible identification, marked with the equipment identification number, the date evidence of a potential leak

was found in accordance with Section 725.958(a), and the date the leak was detected, must be attached to the leaking equipment.

- 2) The identification on equipment except on a valve, may be removed after it has been repaired.
  - 3) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in Section 725.957(c) and no leak has been detected during those 2 months.
- d) When each leak is detected as specified in Sections 725.952, 725.953, 725.957 or 725.958, the following information must be recorded in an inspection log and must be kept in the facility operating record:
- 1) The instrument and operator identification numbers and the equipment identification number.
  - 2) The date evidence of a potential leak was found in accordance with Section 725.958(a).
  - 3) The date the leak was detected and the dates of each attempt to repair the leak.
  - 4) Repair methods applied in each attempt to repair the leak.
  - 5) "Above 10,000", if the maximum instrument reading measured by the methods specified in Section 725.963(b) after each repair attempt is equal to or greater than 10,000 ppm.
  - 6) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
  - 7) Documentation supporting the delay of repair of a valve in compliance with Section 725.959(c).
  - 8) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a hazardous waste management unit shutdown.
  - 9) The expected date of successful repair of the leak if a leak is not repaired within 15 calendar days.
  - 10) The date of successful repair of the leak.
- e) Design documentation and monitoring, operating and inspection information for each closed-vent system and control device required to comply with the

provisions of Section 725.960 must be recorded and kept up-to-date in the facility operating record as specified in Section 725.935(c)(1) and (c)(2), and monitoring, operating and inspection information in Section 725.935(c)(3) through (c)(8).

- f) For a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system, monitoring and inspection information indicating proper operation and maintenance of the control device must be recorded in the facility operating record.
- g) The following information pertaining to all equipment subject to the requirements in Sections 725.952 through 725.960 must be recorded in a log that is kept in the facility operating record:
  - 1) A list of identification numbers for equipment (except welded fittings) subject to the requirements of this Subpart.
  - 2) List of Equipment.
    - A) A list of identification numbers for equipment that the owner or operator elects to designate for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, under the provisions of Sections 725.952(e), 725.953(i) and 725.957(f).
    - B) The designation of this equipment as subject to the requirements of Section 725.952(e), 725.953(i) or 725.957(f) must be signed by the owner or operator.
  - 3) A list of equipment identification numbers for pressure relief devices required to comply with Section 725.954(a).
  - 4) Compliance tests.
    - A) The dates of each compliance test required in Sections 725.952(e), 725.953(i), 725.954, and 725.957(f).
    - B) The background level measured during each compliance test.
    - C) The maximum instrument reading measured at the equipment during each compliance test.
  - 5) A list of identification numbers for equipment in vacuum service.

- 6) Identification, either by list or location (area or group) of equipment that contains or contacts hazardous waste with an organic concentration of at least 10 percent by weight for ~~a period of~~ less than 300 hours per year.
- h) The following information pertaining to all valves subject to the requirements of Section 725.957(g) and (h) must be recorded in a log that is kept in the facility operating record:
    - 1) A list of identification numbers for valves that are designated as unsafe to monitor, an explanation for each valve stating why the valve is unsafe to monitor, and the plan for monitoring each valve.
    - 2) A list of identification numbers for valves that are designated as difficult to monitor, an explanation for each valve stating why the valve is difficult to monitor, and the planned schedule for monitoring each valve.
  - i) The following information must be recorded in the facility operating record for valves complying with Section 725.962:
    - 1) A schedule of monitoring.
    - 2) The percent of valves found leaking during each monitoring period.
  - j) The following information must be recorded in a log that is kept in the facility operating record:
    - 1) Criteria required in Sections 725.952(d)(5)(B) and 725.953(e)(2) and an explanation of the criteria.
    - 2) Any changes to these criteria and the reasons for the changes.
  - k) The following information must be recorded in a log that is kept in the facility operating record for use in determining exemptions as provided in Section 725.950 and other specific Subparts:
    - 1) An analysis determining the design capacity of the hazardous waste management unit.
    - 2) A statement listing the hazardous waste influent to and effluent from each hazardous waste management unit subject to the requirements in Section 725.960 and an analysis determining whether these hazardous wastes are heavy liquids.
    - 3) An up-to-date analysis and the supporting information and data used to determine whether or not equipment is subject to the requirements in Sections 725.952 through 725.960. The record must include supporting

documentation as required by Section 725.963(d)(3) when application of the knowledge of the nature of the hazardous wastestream or the process by which it was produced is used. If the owner or operator takes any action (e.g., changing the process that produced the waste) that could result in an increase in the total organic content of the waste contained in or contacted by equipment determined not to be subject to the requirements in Sections 725.952 through 725.960, then a new determination is required.

- l) Records of the equipment leak information required by subsection (d) of this Section and the operating information required by subsection (e) of this Section need be kept only three years.
- m) The owner or operator of any facility with equipment that is subject to this Subpart and to regulations at 40 CFR 60, ~~Subpart VV~~, or 40 CFR 61, ~~Subpart V or 63~~, incorporated by reference in 35 Ill. Adm. Code 720.111, may elect to determine compliance with this Subpart by documentation of compliance either pursuant to Section 725.964, or by documentation of compliance with the regulations at 40 CFR 60, 61, or 63, pursuant to ~~those~~ the relevant provisions of 40 CFR 60, 61, or 63, to the extent that ~~the documentation under the regulation at 40 CFR 60 or 61 duplicates the documentation required under this Subpart~~. The documentation of compliance under the regulation at 40 CFR 60, ~~or 61, or 63~~ must be kept with or made readily available with the facility operating record.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### SUBPART CC: AIR EMISSION STANDARDS FOR TANKS, SURFACE IMPOUNDMENTS, AND CONTAINERS

##### Section 725.980 Applicability

- a) The requirements of this Subpart apply, ~~effective October 6, 1996~~, to owners and operators of all facilities that treat, store, or dispose of hazardous waste in tanks, surface impoundments, or containers that are subject to ~~725~~-Subpart I, J, or K of this Part, except as Section 725.101 and subsection (b) of this Section provide otherwise.

~~BOARD NOTE: USEPA adopted these regulations at 59 Fed. Reg. 62896 (Dec. 6, 1994), effective June 6, 1995. At 60 Fed. Reg. 26828 (May 19, 1995), 60 Fed. Reg. 56952 (Nov. 13, 1995), and 61 Fed. Reg. 28508 (June 5, 1996), USEPA delayed the effective date until October 6, 1996. If action by USEPA or a decision of a federal court changes the effectiveness of these regulations, the Board does not intend that 725.Subpart CC be enforceable to the~~



~~extent that it becomes more stringent than the federal regulations upon which they are based.~~

- b) The requirements of this Subpart do not apply to the following waste management units at the facility:
- 1) A waste management unit that holds hazardous waste placed in the unit before ~~October~~ December 6, 1996, and in which no hazardous waste is added to the unit on or after ~~this date~~ December 6, 1996.
  - 2) A container that has a design capacity less than or equal to 0.1 m<sup>3</sup> (3.5 ft<sup>3</sup> or 26.4 gal).
  - 3) A tank in which an owner or operator has stopped adding hazardous waste and the owner or operator has begun implementing or completed closure pursuant to an approved closure plan.
  - 4) A surface impoundment in which an owner or operator has stopped adding hazardous waste (except to implement an approved closure plan) and the owner or operator has begun implementing or completed closure pursuant to an approved closure plan.
  - 5) A waste management unit that is used solely for on-site treatment or storage of hazardous waste that is generated as the result of implementing remedial activities required pursuant to the Act or Board regulations or under the corrective action authorities of RCRA sections 3004(u), 3004(v) or 3008(h); CERCLA authorities; or similar federal or state authorities.
  - 6) A waste management unit that is used solely for the management of radioactive mixed waste in accordance with all applicable regulations under the authority of the Atomic Energy Act (42 U.S.C. 2011 et seq.) and the Nuclear Waste Policy Act.
  - 7) A hazardous waste management unit that the owner or operator certifies is equipped with and operating air emission controls in accordance with the requirements of an applicable federal Clean Air Act regulation codified under 40 CFR 60, 61, or 63. For the purpose of complying with this subsection (b)(7), a tank for which the air emission control includes an enclosure, as opposed to a cover, must be in compliance with the enclosure and control device requirements of Section 725.985(i), except as provided in Section 725.983(c)(5).
  - 8) A tank that has a process vent, as defined in 35 Ill. Adm. Code 725.931.

- c) For the owner and operator of a facility subject to this Subpart that has received a final RCRA permit prior to ~~October~~ December 6, 1996, the following requirements apply:
- 1) The requirements of 35 Ill. Adm. Code 724.Subpart CC must be incorporated into the permit when the permit is reissued, renewed, or modified in accordance with the requirements of 35 Ill. Adm. Code 703 and 705.
  - 2) Until the date when the permit is reissued, renewed, or modified in accordance with the requirements of 35 Ill. Adm. Code 703 and 705, the owner and operator is subject to the requirements of this Subpart.
- d) The requirements of this Subpart, except for the recordkeeping requirements specified in Section 725.990(i), are stayed for a tank or container used for the management of hazardous waste generated by organic peroxide manufacturing and its associated laboratory operations, when the owner or operator of the unit meets all of the following conditions:
- 1) The owner or operator identifies that the tank or container receives hazardous waste generated by an organic peroxide manufacturing process producing more than one functional family of organic peroxides or multiple organic peroxides within one functional family, that one or more of these organic peroxides could potentially undergo self-accelerating thermal decomposition at or below ambient temperatures, and that organic peroxides are the predominant products manufactured by the process. For the purposes of this subsection, "organic peroxide" means an organic compound that contains the bivalent -O-O- structure and which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms has been replaced by an organic radical.
  - 2) The owner or operator prepares documentation, in accordance with Section 725.990(i), explaining why an undue safety hazard would be created if air emission controls specified in Sections 725.985 through 725.988 are installed and operated on the tanks and containers used at the facility to manage the hazardous waste generated by the organic peroxide manufacturing process or processes meeting the conditions of subsection (d)(1) of this Section.
  - 3) The owner or operator notifies the Agency in writing that hazardous waste generated by an organic peroxide manufacturing process or processes meeting the conditions of subsection (d)(1) of this Section are managed at the facility in tanks or containers meeting the conditions of subsection (d)(2) of this Section. The notification must state the name

and address of the facility and be signed and dated by an authorized representative of the facility owner or operator.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### Section 725.981 Definitions

As used in this Subpart and in 35 Ill. Adm. Code 724, all terms not defined herein shall have the meanings given to them in the Act and 35 Ill. Adm. Code 720 through 726.

“Average volatile organic concentration” or “average VO concentration” means the mass-weighted average volatile organic concentration of a hazardous waste, as determined in accordance with the requirements of Section 725.984.

“Closure device” means a cap, hatch, lid, plug, seal, valve, or other type of fitting that blocks an opening in a cover so that when the device is secured in the closed position it prevents or reduces air pollutant emissions to the atmosphere. Closure devices include devices that are detachable from the cover (e.g., a sampling port cap), manually operated (e.g., a hinged access lid or hatch), or automatically operated (e.g., a spring-loaded pressure relief valve).

“Continuous seal” means a seal that forms a continuous closure that completely covers the space between the edge of the floating roof and the wall of a tank. A continuous seal may be a vapor-mounted seal, liquid-mounted seal, or metallic shoe seal. A continuous seal may be constructed of fastened segments so as to form a continuous seal.

“Cover” means a device that provides a continuous barrier over the hazardous waste managed in a unit to prevent or reduce air emissions to the atmosphere. A cover may have openings (such as access hatches, sampling ports, and gauge wells) that are necessary for operation, inspection, maintenance, or repair of the unit on which the cover is used. A cover may be a separate piece of equipment which can be detached and removed from the unit or a cover may be formed by structural features permanently integrated into the design of the unit.

“Enclosure” means a structure that surrounds a tank or container, captures organic vapors emitted from the tank or container, and vents the captured vapors through a closed-vent system to a control device.

“External floating roof” means a pontoon-type or double-deck type cover that rests on the surface of a hazardous waste being managed in a tank with no fixed roof.

“Fixed roof” means a cover that is mounted on a unit in a stationary position and does not move with fluctuations in the level of the material managed in the unit.

“Floating membrane cover” means a cover consisting of a synthetic flexible membrane material that rests upon and is supported by the hazardous waste being managed in a surface impoundment.

“Floating roof” means a cover consisting of a double-deck, pontoon single-deck, or internal floating cover that rests upon and is supported by the material being contained, and is equipped with a continuous seal.

“Hard-piping” means pipe or tubing that is manufactured and properly installed in accordance with relevant standards and good engineering practices.

“In light material service” means that the container is used to manage a material for which both of the following conditions apply: the vapor pressure of one or more of the organic constituents in the material is greater than 0.3 kilopascals (kPa) at 20°C (1.2 inches H<sub>2</sub>O at 68°F); and the total concentration of the pure organic constituents having a vapor pressure greater than 0.3 kPa at 20°C (1.2 inches H<sub>2</sub>O at 68°F) is equal to or greater than 20 percent by weight.

“Internal floating roof” means a cover that rests or floats on the material surface (but not necessarily in complete contact with it) inside a tank that has a fixed roof.

“Liquid-mounted seal” means a foam or liquid-filled primary seal mounted in contact with the hazardous waste between the tank wall and the floating roof, continuously around the circumference of the tank.

“Malfunction” means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. A failure that is caused in part by poor maintenance or careless operation is not a malfunction.

“Maximum organic vapor pressure” means the sum of the individual organic constituent partial pressures exerted by the material contained in a tank at the maximum vapor pressure-causing conditions (i.e., temperature, agitation, pH effects of combining wastes, etc.) reasonably expected to occur in the tank. For the purpose of this Subpart, maximum organic vapor pressure is determined using the procedures specified in Section 725.984(c).

“Metallic shoe seal” means a continuous seal that is constructed of metal sheets that are held vertically against the wall of the tank by springs, weighted levers, or other mechanisms and which is connected to the floating roof by braces or other means. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

“No detectable organic emissions” means no escape of organics to the atmosphere, as determined using the procedure specified in Section 725.984(d).

“Point of waste origination” means as follows:

When the facility owner or operator is the generator of the hazardous waste, the “point of waste origination” means the point where a solid waste produced by a system, process, or waste management unit is determined to be a hazardous waste, as defined in 35 Ill. Adm. Code 721.

BOARD NOTE: In this case, this term is being used in a manner similar to the use of the term “point of generation” in air standards established for waste management operations under authority of the federal Clean Air Act in 40 CFR 60, 61, and 63.

When the facility owner and operator are not the generator of the hazardous waste, “point of waste origination” means the point where the owner or operator accepts delivery or takes possession of the hazardous waste.

“Point of waste treatment” means the point where a hazardous waste to be treated in accordance with Section 725.983(c)(2) exits the treatment process. Any waste determination must be made before the waste is conveyed, handled, or otherwise managed in a manner that allows the waste to volatilize to the atmosphere.

“Safety device” means a closure device, such as a pressure relief valve, frangible disc, fusible plug, or any other type of device, which functions exclusively to prevent physical damage or permanent deformation to a unit or its air emission control equipment by venting gases or vapors directly to the atmosphere during unsafe conditions resulting from an unplanned, accidental, or emergency event. For the purpose of this Subpart, a safety device is not used for routine venting of gases or vapors from the vapor headspace underneath a cover such as during filling of the unit or to adjust the pressure in this vapor headspace in response to normal daily diurnal ambient temperature fluctuations. A safety device is designed to remain in a closed position during normal operations and open only when the internal pressure, or another relevant parameter, exceeds the device threshold setting applicable to the air emission control equipment as determined by the owner or operator based on manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials.

“Single-seal system” means a floating roof having one continuous seal. This seal may be vapor-mounted, liquid-mounted, or a metallic shoe seal.

“Vapor-mounted seal” means a continuous seal that is mounted so that there is a vapor space between the hazardous waste in the unit and the bottom of the seal.

“Volatile organic concentration” or “VO concentration” means the fraction by weight of organic compounds contained in a hazardous waste expressed in terms of parts per million (ppmw), as determined by direct measurement or by knowledge of the waste, in accordance with the requirements of Section 725.984. For the purpose of determining the VO concentration of a hazardous waste, organic compounds with a Henry’s law constant value of at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X) (which can also be expressed as  $1.8 \times 10^{-6}$  atmospheres/gram-mole/m<sup>3</sup>) at 25° C (77° F) must be included. Section 725.Appendix F presents a list of compounds known to have a Henry’s law constant value less than the cutoff level.

“Waste determination” means performing all applicable procedures in accordance with the requirements of Section 725.984 to determine whether a hazardous waste meets standards specified in this Subpart. Examples of a waste determination include performing the procedures in accordance with the requirements of Section 725.984 to determine the average VO concentration of a hazardous waste at the point of waste origination, determining the average VO concentration of a hazardous waste at the point of waste treatment and comparing the results to the exit concentration limit specified for the process used to treat the hazardous waste, the organic reduction efficiency and the organic biodegradation efficiency for a biological process used to treat a hazardous waste and comparing the results to the applicable standards, or determining the maximum volatile organic vapor pressure for a hazardous waste in a tank and comparing the results to the applicable standards.

“Waste stabilization process” means any physical or chemical process used to either reduce the mobility of hazardous constituents in a hazardous waste or eliminate free liquids as determined by Test Method 9095 (Paint Filter Liquids Test) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, incorporated by reference in Section 720.111. A waste stabilization process includes mixing the hazardous waste with binders or other materials and curing the resulting hazardous waste and binder mixture. Other synonymous terms used to refer to this process are “waste fixation” or “waste solidification”. This does not include the addition of absorbent materials to the surface of a waste to absorb free liquid without mixing, agitation, or subsequent curing.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

## Section 725.982 Schedule for Implementation of Air Emission Standards

- a) An owner or operator of a facility in existence on ~~October~~ December 6, 1996 and subject to ~~725.~~Subpart I, J, or K of this Part shall meet the following requirements:
- 1) The owner or operator shall install and begin operation of all control equipment required ~~by~~ to comply with this Subpart and complete modifications of production or treatment processes to satisfy exemption criteria in accordance with Section 725.983(c) by ~~October~~ December 6, 1996, except as provided in subsection (a)(2) ~~below~~ of this Section.
  - 2) When control equipment or waste management units required ~~by~~ to comply with this Subpart cannot be installed and in operation or modifications of production or treatment processes to satisfy exemption criteria in accordance with Section 725.083(c) cannot be completed by ~~October~~ December 6, 1996, the owner or operator shall:
    - A) Install and begin operation of the control equipment and waste management units, and complete modifications of production or treatment processes as soon as possible; but ~~in no case~~ later than December 8, 1997.
    - B) Prepare an implementation schedule that includes the following information: specific calendar dates for award of contracts or issuance of purchase orders for the control equipment, waste management units, and production or treatment process modifications; the dates of initiation of on-site installation of the control equipment, or waste management units, and modifications of production or treatment processes; the dates of completion of the control equipment or waste management unit installation, and production or treatment process modifications; and the dates of performance of ~~any~~ testing to demonstrate that the installed equipment or waste management units, and modified production or treatment processes meets the applicable standards of this Subpart.
    - C) For a ~~facilities~~ facility subject to the recordkeeping requirements of Section 725.173, the owner or operator shall enter the implementation schedule specified in subsection (a)(2)(B) ~~above~~ of this Section in the operating record no later than ~~October~~ December 6, 1996.

- D) For a ~~facilities~~ facility not subject to Section 725.173 ~~above~~ of this Section, the owner or operator shall enter the implementation schedule specified in subsection (a)(2)(B) of this section in a permanent, readily available file located at the facility no later than ~~October~~ December 6, 1996.
- b) An owner or operator of a facility or unit in existence on the effective date of statutory or regulatory amendments under the Act that render the facility subject to ~~725~~ Subpart I, J, or K of this Part shall meet the following requirements:
- 1) The owner or operator shall install and begin operation of all control equipment required ~~by~~ to comply with this Subpart **and complete modifications of production or treatment processes to satisfy exemption criteria of Section 265.1083(c) of this Subpart** by the effective date of the amendment, except as provided in subsection (b)(2) ~~below~~ of this Section.
  - 2) When control equipment or waste management units required ~~by~~ to comply with this Subpart cannot be installed and begin operation or when modifications of production or treatment processes to satisfy the exemption criteria of Section 725.983(c) cannot be completed by the effective date of the amendment, the owner or operator shall undertake the following actions:
    - A) Install and ~~operate~~ begin operation of the control equipment **or waste management unit and complete modification of production or treatment processes** as soon as possible, but ~~in no case~~ no later than 30 months after the effective date of the amendment; and
    - B) Maintenance of implementation schedule.
      - i) For facilities subject to the recordkeeping requirements of Section 725.173, enter and maintain the implementation schedule specified in subsection (a)(2)(B) ~~above~~ of this Section in the operating record no later than the effective date of the amendment, or
      - ii) For facilities not subject to Section 725.173, the owner or operator shall enter and maintain the implementation schedule specified in subsection (a)(2)(B) ~~above~~ of this Section in a permanent, readily available file, located at the facility site, no later than the effective date of the amendment.



- c) The owners or operator of a facility or unit that becomes newly subject to the requirements of this Subpart after December 8, 1997 due to an action other than those described in subsection (b) of this Section shall comply with all applicable requirements immediately (i.e., the owner or operator shall have control devices installed and operating on the date the facility or unit becomes subject to the requirements of this Subpart; the 30-month implementation schedule does not apply to the owner or operator of such a facility).
- ed) The Agency may Board elect to extend will grant an adjusted standard pursuant to Section 28.1 of the Act and 35 Ill. Adm. Code 106 that extends the implementation date for control equipment at a facility, on a case by case basis, to a date later than December 8, 1997 when the facility owner or operator proves the following:
- 1) ~~When~~ That special circumstances ~~that are~~ beyond the facility owner's or operator's control have delayed or will delay installation or operation of control equipment, and
  - 2) ~~The~~ That the owner or operator has made all reasonable and prudent attempts to comply with the requirements of this Subpart.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 725.983 Standards: General

- a) This Section applies to the management of hazardous waste in tanks, surface impoundments, and containers subject to this Subpart.
- b) The owner or operator shall control air pollutant emissions from each hazardous waste management unit in accordance with the standards specified in Sections 725.985 through Section 725.988, as applicable to the hazardous waste management unit, except as provided for in subsection (c) of this Section.
- c) A tank, surface impoundment, or container is exempted from standards specified in Sections 725.985 through 725.988, provided that all hazardous waste placed in the waste management unit is one of the following:
  - 1) A tank, surface impoundment, or container for which all hazardous waste entering the unit has an average VO concentration at the point of waste origination of less than 500 parts per million by weight (ppmw). The average VO concentration must be determined by the procedures specified in Section 725.984(a). The owner or operator shall review and update, as necessary, this determination at least once every 12 months

following the date of the initial determination for the hazardous waste streams entering the unit.

- 2) A tank, surface impoundment, or container for which the organic content of all the hazardous waste entering the waste management unit has been reduced by an organic destruction or removal process that achieves any one of the following conditions:
  - A) The process removes or destroys the organics contained in the hazardous waste to such a level that the average VO concentration of the hazardous waste at the point of waste treatment is less than the exit concentration limit ( $C_i$ ) established for the process. The average VO concentration of the hazardous waste at the point of waste treatment and the exit concentration limit for the process must be determined using the procedures specified in Section 725.984(b).
  - B) The process removes or destroys the organics contained in the hazardous waste to such a level that the organic reduction efficiency ( $R$ ) for the process is equal to or greater than 95%, and the average VO concentration of the hazardous waste at the point of waste treatment is less than 100 ppmw. The organic reduction efficiency for the process and the average VO concentration of the hazardous waste at the point of waste treatment must be determined using the procedures specified in Section 725.984(b).
  - C) The process removes or destroys the organics contained in the hazardous waste to such a level that the actual organic mass removal rate ( $MR$ ) for the process is equal to or greater than the required organic mass removal rate ( $RMR$ ) established for the process. The required organic mass removal rate and the actual organic mass removal rate for the process must be determined using the procedures specified in Section 725.984(b).
  - D) The process is a biological process that destroys or degrades the organics contained in the hazardous waste so that either of the following conditions is met:
    - i) The organic reduction efficiency ( $R$ ) for the process is equal to or greater than 95%, and the organic biodegradation efficiency ( $R_{bio}$ ) for the process is equal to or greater than 95%. The organic reduction efficiency and the organic biodegradation efficiency for the process must be determined using the procedures specified in Section 725.984(b).

- ii) The total actual organic mass biodegradation rate ( $MR_{bio}$ ) for all hazardous waste treated by the process is equal to or greater than the required organic mass removal rate (RMR). The required organic mass removal rate and the actual organic mass biodegradation rate for the process must be determined using the procedures specified in Section 725.984(b).
- E) The process is one that removes or destroys the organics contained in the hazardous waste and meets all of the following conditions:
- i) From the point of waste origination through the point where the hazardous waste enters the treatment process, the hazardous waste is continuously managed in waste management units that use air emission controls in accordance with the standards specified in Section 725.985 through Section 725.988, as applicable to the waste management unit.
  - ii) From the point of waste origination through the point where the hazardous waste enters the treatment process, any transfer of the hazardous waste is accomplished through continuous hard-piping or other closed system transfer that does not allow exposure of the waste to the atmosphere.  
  
BOARD NOTE: The USEPA considers a drain system that meets the requirements of 40 CFR 63, subpart RR, “National Emission Standards for Individual Drain Systems”, to be a closed system.
  - iii) The average VO concentration of the hazardous waste at the point of waste treatment is less than the lowest average VO concentration at the point of waste origination determined for each of the individual hazardous waste streams entering the process or 500 ppmw, whichever value is lower. The average VO concentration of each individual hazardous waste stream at the point of waste origination must be determined using the procedures specified in Section 725.984(a). The average VO concentration of the hazardous waste at the point of waste treatment must be determined using the procedures specified in Section 725.984(b).

- F) A process that removes or destroys the organics contained in the hazardous waste to a level such that the organic reduction efficiency (R) for the process is equal to or greater than 95% and the owner or operator certifies that the average VO concentration at the point of waste origination for each of the individual waste streams entering the process is less than 10,000 ppmw. The organic reduction efficiency for the process and the average VO concentration of the hazardous waste at the point of waste origination shall be determined using the procedures specified in Section 724.983(b) and Section 724.983(a), respectively.
- G) A hazardous waste incinerator for which either of the following conditions is true:
- i) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of 35 Ill. Adm. Code 724.Subpart O; or
  - ii) The owner or operator has designed and operates the incinerator in accordance with the interim status requirements of ~~725~~.Subpart O of this Part.
- H) A boiler or industrial furnace for which either of the following conditions is true:
- i) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of 35 Ill. Adm. Code 726.Subpart H; or
  - ii) The owner or operator has designed and operates the industrial furnace or incinerator in accordance with the interim status requirements of 35 Ill. Adm. Code 726.Subpart H.
- I) For the purpose of determining the performance of an organic destruction or removal process in accordance with the conditions in each of subsections (c)(2)(A) through (c)(2)(F) of this Section, the owner or operator shall account for VO concentrations determined to be below the limit of detection of the analytical method by using the following VO concentration:
- i) If Method 25D in 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111, is used for the analysis, one-half the blank value determined in the

method at Section 4.4 of Method 25D or a value of 25 ppmw, whichever is less.

- ii) If any other analytical method is used, one-half the ~~limit of detection established for the method~~ sum of the limits of detection established for each organic constituent in the waste that has a Henry's law constant value at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X) (which can also be expressed as  $1.8 \times 10^{-6}$  atmospheres/gram-mole/m<sup>3</sup>) at 25° C.
- 3) A tank or surface impoundment used for biological treatment of hazardous waste in accordance with the requirements of subsection (c)(2)(D) of this Section.
  - 4) A tank, surface impoundment, or container for which all hazardous waste placed in the unit fulfills either of the following two conditions:
    - A) It meets the numerical concentration limits for organic hazardous constituents, applicable to the hazardous waste, as specified in 35 Ill. Adm. Code 728. Table T; or
    - B) ~~It has~~ The organic hazardous constituents in the waste have been treated by the treatment technology established by USEPA for the waste, as set forth in 35 Ill. Adm. Code 728.142(a), or treated by an equivalent method of treatment approved by the Agency pursuant to 35 Ill. Adm. Code 728.142(b).
  - 5) A tank used for bulk feed of hazardous waste to a waste incinerator and all of the following conditions are met:
    - A) The tank is located inside an enclosure vented to a control device that is designed and operated in accordance with all applicable requirements specified under 40 CFR 61, subpart FF, "National Emission Standards for Benzene Waste Operations", incorporated by reference in 35 Ill. Adm. Code 720.111, for a facility at which the total annual benzene quantity from the facility waste is equal to or greater than 10 megagrams (11 tons) per year;
    - B) The enclosure and control device serving the tank were installed and began operation prior to November 25, 1996; and
    - C) The enclosure is designed and operated in accordance with the criteria for a permanent total enclosure as specified in "Procedure

T--Criteria for and Verification of a Permanent or Temporary Total Enclosure” under 40 CFR 52.741, appendix B, incorporated by reference in 35 Ill. Adm. Code 720.111. The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical or electrical equipment; or to direct air flow into the enclosure. The owner or operator shall perform the verification procedure for the enclosure as specified in Section 5.0 to “Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure” annually.

- d) The Agency may at any time perform or request that the owner or operator perform a waste determination for a hazardous waste managed in a tank, surface impoundment, or container that is exempted from using air emission controls under the provisions of this Section as follows:
- 1) The waste determination for average VO concentration of a hazardous waste at the point of waste origination must be performed using direct measurement in accordance with the applicable requirements of Section 725.984(a). The waste determination for a hazardous waste at the point of waste treatment must be performed in accordance with the applicable requirements of Section 725.984(b).
  - 2) In performing a waste determination pursuant to subsection (d)(1) of this Section, the sample preparation and analysis shall be conducted as follows:
    - A) In accordance with the method used by the owner or operator to perform the waste analysis, except in the case specified in subsection (d)(2)(B) of this Section.
    - B) If the Agency determines that the method used by the owner or operator was not appropriate for the hazardous waste managed in the tank, surface impoundment, or container, then the Agency may choose an appropriate method.
  - 3) Where the owner or operator is requested to perform the waste determination, the Agency may elect to have an authorized representative observe the collection of the hazardous waste samples used for the analysis.
  - 4) Where the results of the waste determination performed or requested by the Agency do not agree with the results of a waste determination performed by the owner or operator using knowledge of the waste, then the results of the waste determination performed in accordance with the

requirements of subsection (d)(1) of this Section must be used to establish compliance with the requirements of this Subpart.

- 5) Where the owner or operator has used an averaging period greater than one hour for determining the average VO concentration of a hazardous waste at the point of waste origination, the Agency may elect to establish compliance with this Subpart by performing or requesting that the owner or operator perform a waste determination using direct measurement, based on waste samples collected within a 1-hour period as follows:
  - A) The average VO concentration of the hazardous waste at the point of waste origination must be determined by direct measurement in accordance with the requirements of Section 725.984(a).
  - B) Results of the waste determination performed or requested by the Agency showing that the average VO concentration of the hazardous waste at the point of waste origination is equal to or greater than 500 ppmw shall constitute noncompliance with this Subpart, except in a case as provided for in subsection (d)(4)(C) of this Section.
  - C) Where the average VO concentration of the hazardous waste at the point of waste origination previously has been determined by the owner or operator using an averaging period greater than one hour to be less than 500 ppmw but because of normal operating process variations the VO concentration of the hazardous waste determined by direct measurement for any given 1-hour period may be equal to or greater than 500 ppmw, information that was used by the owner or operator to determine the average VO concentration of the hazardous waste (e.g., test results, measurements, calculations, and other documentation) and recorded in the facility records in accordance with the requirements of Sections 725.984(a) and 725.990 must be considered by the Agency together with the results of the waste determination performed or requested by the Agency in establishing compliance with this Subpart.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 725.984 Waste Determination Procedures

- a) Waste determination procedure for volatile organic (VO) concentration of a hazardous waste at the point of waste origination.
  - 1) An owner or operator shall determine the average VO concentration at the point of waste origination for each hazardous waste placed in a waste

management unit exempted under the provisions of Section 725.983(c)(1) from using air emission controls in accordance with standards specified in Section 725.985 through Section 725.988, as applicable to the waste management unit.

- 2) ~~The~~ **For a waste determination that is required by paragraph (a)(1) of this Section, the average VO concentration of a hazardous waste at the point of waste origination must be determined using either direct measurement, as specified in subsection (a)(3) of this Section, or by knowledge of the waste, as specified in subsection (a)(4) of this Section.**
- 3) Direct measurement to determine average VO concentration of a hazardous waste at the point of waste origination.
  - A) Identification. The owner or operator shall identify and record the point of waste origination for the hazardous waste.
  - B) Sampling. Samples of the hazardous waste stream must be collected at the point of waste origination in a manner such that volatilization of organics contained in the waste and in the subsequent sample is minimized and an adequately representative sample is collected and maintained for analysis by the selected method.
    - i) The averaging period to be used for determining the average VO concentration for the hazardous waste stream on a mass-weighted average basis must be designated and recorded. The averaging period can represent any time interval that the owner or operator determines is appropriate for the hazardous waste stream but must not exceed one year.
    - ii) A sufficient number of samples, but no ~~less~~ fewer than four samples, must be collected for ~~the~~ a hazardous waste determination. The average of the four or more sample results constitutes a waste determination for the waste stream. One or more waste determinations may be required to represent the complete range of waste compositions and quantities that occur during the entire averaging period due to normal variations in the operating conditions for the source or process generating the hazardous waste stream. Examples of such normal variations are seasonal variations in waste quantity or fluctuations in ambient temperature.



- iii) All samples must be collected and handled in accordance with written procedures prepared by the owner or operator and documented in a site sampling plan. This plan must describe the procedure by which representative samples of the hazardous waste stream are collected such that a minimum loss of organics occurs throughout the sample collection and handling process, and by which sample integrity is maintained. A copy of the written sampling plan must be maintained on-site in the facility operating records. An example of an acceptable sampling plan includes a plan incorporating sample collection and handling procedures in accordance with the requirements specified in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” USEPA Publication SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111, or in Method 25D in 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.
- C) Analysis. Each collected sample must be prepared and analyzed in accordance with one or more of the methods listed in subsections (a)(3)(C)(i) through (a)(3)(C)(ix) of this Section, including the appropriate quality assurance and quality control (QA/QC) checks and use of target compounds for calibration. If Method 25D in 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111, is not used, then one or more methods should be chosen that are appropriate to ensure that the waste determination accounts for and reflects all organic compounds in the waste with Henry’s law constant values at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X)  $\{$ (which can also be expressed as  $1.8 \times 10^{-6}$  atmospheres/gram-mole/ $m^3$ ) $\}$  at 25° C (77° F). Each of the analytical methods listed in subsections (a)(3)(C)(ii) through (a)(3)(C)(vii) of this Section has an associated list of approved chemical compounds, for which USEPA considers the method appropriate for measurement. If an owner or operator uses USEPA Method 624, 625, 1624, or 1625 in 40 CFR 136, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111, to analyze one or more compounds that are not on that method’s published list, the Alternative Test Procedure contained in 40 CFR 136.4 and 136.5, incorporated by reference in 35 Ill. Adm. Code 720.111, must be followed. If an owner or operator uses USEPA Method 8260(~~B~~) or 8270(~~C~~) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA Publication SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111, to analyze one or more compounds that are not on

that method's published list, the procedures in subsection (a)(3)(C)(viii) of this Section must be followed. At the owner's or operator's discretion, the concentration of each individual chemical constituent measured in the waste by a method other than Method 25D may be corrected to the concentration it would have had, had it been measured using Method 25D<sub>2</sub> by multiplying the measured concentration by the constituent-specific adjustment factor ( $f_{m25D}$ ), as specified in subsection (a)(4)(C) of this Section. Constituent-specific adjustment factors ( $f_{m25D}$ ) can be obtained by contacting the USEPA, Waste and Chemical Processes Group, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711.

- i) Method 25D in 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.
- ii) Method 624 in 40 CFR 136, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.
- iii) Method 625 in 40 CFR 136, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111. Perform corrections to the compounds for which the analysis is being conducted based on the "accuracy as recovery" using the factors in Table 7 of the method.
- iv) Method 1624 in 40 CFR 136, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.
- v) Method 1625 in 40 CFR 136, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.
- vi) Method 8260(~~B~~) in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", USEPA Publication SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111. Maintain a formal quality assurance program consistent with the requirements of Method 8260(~~B~~). The quality assurance program must include the elements set forth in subsection (a)(3)(~~EF~~) of this Section.
- vii) Method 8270(~~C~~) in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", USEPA Publication SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111. Maintain a formal quality assurance program consistent with the requirements of Method 8270(~~C~~). The quality assurance program must include the elements set forth in subsection (a)(3)(~~EF~~) of this Section.

- viii) Any other USEPA standard method that has been validated in accordance with “Alternative Validation Procedure for USEPA Waste and Wastewater Methods”, 40 CFR 63, appendix D, incorporated by reference in 35 Ill. Adm. Code 720.111. As an alternative, other USEPA standard methods may be validated by the procedure specified in subsection (a)(3)(C)(ix) of this Section.
- ix) Any other analysis method that has been validated in accordance with the procedures specified in Section 5.1 or Section 5.3, and the corresponding calculations in Section 6.1 or Section 6.3, of Method 301 in 40 CFR 63, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111. The data are acceptable if they meet the criteria specified in Section 6.1.5 or Section 6.3.3 of Method 301. If correction is required under Section 6.3.3 of Method 301, the data are acceptable if the correction factor is within the range 0.7 to 1.30. Other Sections of Method 301 are not required.

D) Calculations.-

- i) The average VO concentration ( $\bar{C}$ ) on a mass-weighted basis must be calculated by using the results for all samples analyzed waste determinations conducted in accordance with subsections (a)(3)(ii) and (a)(3)(C) of this Section and the following equation:

$$\bar{C} = \frac{1}{Q_T} \times \sum_{i=1}^n (Q_i \times C_i)$$

$$\bar{C} = \frac{1}{Q_T} \times \sum_{i=1}^n (Q_i \times C_i)$$

Where:

$\bar{C}$  = Average VO concentration of the hazardous waste at the point of waste origination on a mass-weighted basis, in ppmw.

- i = Individual sample-waste determination “i” of the hazardous waste.
- n = Total number of samples-waste determinations of the hazardous waste ~~collected (at least four)~~ conducted for the averaging period (not to exceed one year).
- $Q_i$  = Mass quantity of the hazardous waste stream represented by  $C_i$ , in kg/hr.
- $Q_T$  = Total mass quantity of the hazardous waste during the averaging period, in kg/hr.
- $C_i$  = Measured VO concentration of sample-waste determination “i”, as determined in accordance with subsection (a)(3)(C) of this Section (i.e. the average of the four or more samples specified in subsection (a)(3)(B)(ii) of this Section), in ppmw.

ii) For the purpose of determining  $C_i$ , for individual waste samples analyzed in accordance with subsection (a)(3)(C) of this Section, the owner or operator shall account for VO concentrations determined to be below the limit of detection of the analytical method by using the VO concentration determined according to subsection (a)(3)(G) of this Section.

E) Provided that the test method is appropriate for the waste as required under subsection (a)(3)(C) of this Section, the Agency must determine compliance based on the test method used by the owner or operator as recorded pursuant to Section 725.990(f)(1).

EF) The quality assurance program elements required under subsections (a)(3)(C)(vi) and (a)(3)(C)(vii) of this Section are as follows:

- i) Documentation of site-specific procedures to minimize the loss of compounds due to volatilization, biodegradation, reaction, or sorption during the sample collection, storage, preparation, introduction, and analysis steps.

- ii) Measurement of the overall accuracy and precision of the specific procedures.

BOARD NOTE: Subsections (a)(3)(~~EF~~)(i) and (a)(3)(~~EF~~)(ii) ~~correspond with~~ are derived from 40 CFR 265.984(a)(3)(iii)(F)(1), (a)(3)(iii)(F)(2), (a)(3)(iii)(G)(1), and (a)(3)(iii)(G)(2), which the Board has codified here to comport with Illinois Administrative Code format requirements.

**G) VO concentrations below the limit of detection must be considered to be as follows:**

- i) If Method 25D in 40 CFR part 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111, is used for the analysis, the VO concentration must be considered to be one-half the blank value determined in the method at Section 4.4 of Method 25D in 40 CFR part 60, appendix A.
- ii) If any other analytical method is used, the VO concentration must be considered to be one-half the sum of the limits of detection established for each organic constituent in the waste that has a Henry's law constant values at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X) (which can also be expressed as  $1.8 \times 10^{-6}$  atmospheres/gram-mole/m<sup>3</sup>) at 25° C.

BOARD NOTE: Subsections (a)(3)(G)(i) and (a)(3)(G)(ii) are derived from 40 CFR 265.984(a)(3)(iv)(A)(1) and (a)(3)(iv)(A)(2), which the Board has codified here to comport with Illinois Administrative Code format requirements.

- 4) Use of owner or operator knowledge to determine average VO concentration of a hazardous waste at the point of waste origination.
  - A) Documentation must be prepared that presents the information used as the basis for the owner's or operator's knowledge of the hazardous waste stream's average VO concentration. Examples of information that may be used as the basis for knowledge include the following: material balances for the source or process generating the hazardous waste stream; constituent-specific

chemical test data for the hazardous waste stream from previous testing that are still applicable to the current waste stream; previous test data for other locations managing the same type of waste stream; or other knowledge based on information included in manifests, shipping papers, or waste certification notices.

- B) If test data are used as the basis for knowledge, then the owner or operator shall document the test method, sampling protocol, and the means by which sampling variability and analytical variability are accounted for in the determination of the average VO concentration. For example, an owner or operator may use organic concentration test data for the hazardous waste stream that are validated in accordance with Method 301 in 40 CFR 63, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111, as the basis for knowledge of the waste.
- C) An owner or operator using chemical constituent-specific concentration test data as the basis for knowledge of the hazardous waste may adjust the test data to the corresponding average VO concentration value which would have been obtained had the waste samples been analyzed using Method 25D in 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111. To adjust these data, the measured concentration for each individual chemical constituent contained in the waste is multiplied by the appropriate constituent-specific adjustment factor ( $f_{m25D}$ ).
- D) In the event that the Agency and the owner or operator disagree on a determination of the average VO concentration for a hazardous waste stream using knowledge, then the results from a determination of average VO concentration using direct measurement, as specified in subsection (a)(3) of this Section, must be used to establish compliance with the applicable requirements of this Subpart. The Agency may perform or request that the owner or operator perform this determination using direct measurement. The owner or operator may choose one or more appropriate methods to analyze each collected sample in accordance with the requirements of subsection (a)(3)(C) of this Section.
- b) Waste determination procedures for treated hazardous waste.
- 1) An owner or operator shall perform the applicable waste determination for each treated hazardous waste placed in a waste management unit exempted under the provisions of Section 725.983(c)(2)(A) through (c)(2)(F) from using air emission controls in accordance with the

standards specified in Sections 725.985 through 725.988, as applicable to the waste management unit.

- 2) The owner or operator shall designate and record the specific provision in Section 725.983(c)(2) under which the waste determination is being performed. The waste determination for the treated hazardous waste must be performed using the applicable procedures specified in subsections (b)(3) through (b)(9) of this Section.
- 3) Procedure to determine the average VO concentration of a hazardous waste at the point of waste treatment.
  - A) Identification. The owner or operator shall identify and record the point of waste treatment for the hazardous waste.
  - B) Sampling. Samples of the hazardous waste stream must be collected at the point of waste treatment in a manner such that volatilization of organics contained in the waste and in the subsequent sample is minimized and an adequately representative sample is collected and maintained for analysis by the selected method.
    - i) The averaging period to be used for determining the average VO concentration for the hazardous waste stream on a mass-weighted average basis must be designated and recorded. The averaging period can represent any time interval that the owner or operator determines is appropriate for the hazardous waste stream but must not exceed one year.
    - ii) A sufficient number of samples, but no ~~less~~-fewer than four samples, must be collected **and analyzed for a hazardous waste determination. The average of the four or more sample results constitutes a waste determination** for the hazardous waste stream. **One or more waste determinations may be required** to represent the complete range of **waste** compositions and quantities that occur during the entire averaging period due to normal variations in the operating conditions for the **source or process treating-generating** the hazardous waste stream. Examples of such normal variations are seasonal variations in waste quantity or fluctuations in ambient temperature.
    - iii) All samples must be collected and handled in accordance with written procedures prepared by the owner or operator

and documented in a site sampling plan. This plan must describe the procedure by which representative samples of the hazardous waste stream are collected such that a minimum loss of organics occurs throughout the sample collection and handling process, and by which sample integrity is maintained. A copy of the written sampling plan must be maintained on-site in the facility operating records. An example of an acceptable sampling plan includes a plan incorporating sample collection and handling procedures in accordance with the requirements specified in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," USEPA Publication No. SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111, or in Method 25D in 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.

- C) Analysis. Each collected sample must be prepared and analyzed in accordance with one or more of the methods listed in subsections (b)(3)(C)(i) through (b)(3)(C)(ix) of this Section, including appropriate quality assurance and quality control (QA/QC) checks and use of target compounds for calibration. When the owner or operator is making a waste determination for a treated hazardous waste that is to be compared to an average VO concentration at the point of waste origination or the point of waste entry to the treatment system, to determine if the conditions of 35 Ill. Adm. Code 724.982(c)(2)(A) through (c)(2)(F) or Section 725.983(c)(2)(A) through (c)(2)(F) are met, then the waste samples shall be prepared and analyzed using the same method or methods as were used in making the initial waste determinations at the point of waste origination or at the point of entry to the treatment system. If Method 25D in 40 CFR 60, appendix A is not used, then one or more methods should be chosen that are appropriate to ensure that the waste determination accounts for and reflects all organic compounds in the waste with Henry's law constant values at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X) [which can also be expressed as  $1.8 \times 10^{-6}$  atmospheres/gram-mole/m<sup>3</sup>] at 25 degrees Celsius. Each of the analytical methods listed in subsections (b)(3)(C)(ii) through (b)(3)(C)(vii) of this Section has an associated list of approved chemical compounds, for which USEPA considers the method appropriate for measurement. If an owner or operator uses USEPA Method 624, 625, 1624, or 1625 in 40 CFR 136, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111, to analyze one or more compounds that are



not on that method's published list, the Alternative Test Procedure contained in 40 CFR 136.4 and 136.5, incorporated by reference in 35 Ill. Adm. Code 720.111, must be followed. If an owner or operator uses USEPA Method 8260(B) or 8270(C) in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", USEPA Publication SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111, to analyze one or more compounds that are not on that method's published list, the procedures in subsection (b)(3)(C)(viii) of this Section must be followed. At the owner's or operator's discretion, the concentration of each individual chemical constituent measured in the waste by a method other than Method 25D may be corrected to the concentration had it been measured using Method 25D by multiplying the measured concentration by the constituent-specific adjustment factor ( $f_{m25D}$ ) as specified in subsection (a)(4)(C) of this Section. Constituent-specific adjustment factors ( $f_{m25D}$ ) can be obtained by contacting the USEPA, Waste and Chemical Processes Group, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711.

- i) Method 25D in 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.
- ii) Method 624 in 40 CFR 136, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.
- iii) Method 625 in 40 CFR 136, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111. Perform corrections to the compounds for which the analysis is being conducted based on the "accuracy as recovery" using the factors in Table 7 of the method.
- iv) Method 1624 in 40 CFR 136, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.
- v) Method 1625 in 40 CFR 136, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.
- vi) Method 8260(B) in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", USEPA Publication SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111. Maintain a formal quality assurance program consistent with the requirements of Method 8260(B). The quality assurance program must include the elements set forth in subsection (b)(3)(E) of this Section.

- vii) Method 8270(~~C~~) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA Publication SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111. Maintain a formal quality assurance program consistent with the requirements of Method 8270(~~C~~). The quality assurance program must include the elements set forth in subsection (b)(3)(E) of this Section.
- viii) Any other USEPA standard method that has been validated in accordance with “Alternative Validation Procedure for EPA Waste and Wastewater Methods”, 40 CFR 63, appendix D, incorporated by reference in 35 Ill. Adm. Code 720.111. As an alternative, other USEPA standard methods may be validated by the procedure specified in subsection (b)(3)(C)(ix) of this Section.
- ix) Any other analysis method that has been validated in accordance with the procedures specified in Section 5.1 or Section 5.3, and the corresponding calculations in Section 6.1 or Section 6.3, of Method 301 in 40 CFR 63, appendix A. The data are acceptable if they meet the criteria specified in Section 6.1.5 or Section 6.3.3 of Method 301. If correction is required under Section 6.3.3 of Method 301, the data are acceptable if the correction factor is within the range 0.7 to 1.30. Other Sections of Method 301 are not required.
- D) Calculations. The average VO concentration ( $\bar{C}$ ) on a mass-weighted basis must be calculated by using the results for all samples analyzed in accordance with subsection (b)(3)(C) of this Section and the following equation:

$$\bar{C} = \frac{1}{Q_T} \times \sum_{i=1}^n (Q_i \times C_i)$$

$$\bar{C} = \frac{1}{Q_T} \times \sum_{i=1}^n (Q_i \times C_i)$$


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Where:

$\bar{C}$  = Average VO concentration of the hazardous waste at the point of waste treatment on a mass-weighted basis, in ppmw.

$i$  = Individual ~~sample~~ determination “ $i$ ” of the hazardous waste.

$n$  = Total number of ~~samples~~ waste determinations of the hazardous waste collected (~~at least 4~~) for the averaging period (not to exceed 1 year).

$Q_i$  = Mass quantity of the hazardous waste stream represented by  $C_i$ , in kg/hr.

$Q_T$  = Total mass quantity of hazardous waste during the averaging period, in kg/hr.

$C_i$  = Measured VO concentration of ~~sample~~ waste determinations “ $i$ ”, as determined in accordance with the requirements of subsection (b)(3)(C) of this Section (i.e. the average of the four or more samples specified in subsection (b)(3)(B)(ii) of this Section), in ppmw.

E) Provided that the test method is appropriate for the waste as required under subsection (b)(3)(C) of this Section, compliance shall be determined based on the test method used by the owner or operator as recorded pursuant to Section 725.990(f)(1).

- 4) Procedure to determine the exit concentration limit ( $C_i$ ) for a treated hazardous waste.
  - A) The point of waste origination for each hazardous waste treated by the process at the same time must be identified.
  - B) If a single hazardous waste stream is identified in subsection (b)(4)(A) of this Section, then the exit concentration limit ( $C_i$ ) must be 500 ppmw.
  - C) If more than one hazardous waste stream is identified in subsection (b)(4)(A) of this Section, then the average VO concentration of each hazardous waste stream at the point of waste origination must be determined in accordance with the

requirements of subsection (a) of this Section. The exit concentration limit ( $C_t$ ) must be calculated by using the results determined for each individual hazardous waste stream and the following equation:

$$C_t = \frac{\sum_{x=1}^m (Q_x \bar{C}_x) + \sum_{y=1}^n (Q_y \times 500 \text{ppmw})}{\sum_{x=1}^m Q_x + \sum_{y=1}^n Q_y}$$

$$C_t = \frac{\sum_{x=1}^m (Q_x \bar{C}_x) + \sum_{y=1}^n (Q_y \times 500 \text{ppmw})}{\sum_{x=1}^m Q_x + \sum_{y=1}^n Q_y}$$

Where:

$C_t$  = Exit concentration limit for treated hazardous waste, in ppmw.

$x$  = Individual hazardous waste stream “x” that has an average VO concentration less than 500 ppmw at the point of waste origination, as determined in accordance with the requirements of subsection (a) of this Section.

$y$  = Individual hazardous waste stream “y” that has an average VO concentration equal to or greater than 500 ppmw at the point of waste origination, as determined in accordance with the requirements of subsection (a) of this Section.

$m$  = Total number of “x” hazardous waste streams treated by process.

$n$  = Total number of “y” hazardous waste streams treated by process.

$Q_x$  = Annual mass quantity of hazardous waste stream “x”, in kg/yr.

$Q_y$  = Annual mass quantity of hazardous waste stream “y”, in kg/yr.

$\frac{\bar{C}_x - \bar{C}_x}{\bar{C}_x}$  = Average VO concentration of hazardous waste stream “x” at the point of waste origination, as determined in accordance with the requirements of subsection (a) of this Section, in ppmw.

- 5) Procedure to determine the organic reduction efficiency (R) for a treated hazardous waste.
- A) The organic reduction efficiency (R) for a treatment process must be determined based on results for a minimum of three consecutive runs.
  - B) All hazardous waste streams entering the process and all hazardous waste streams exiting the treatment process must be identified. The owner or operator shall prepare a sampling plan for measuring these streams that accurately reflects the retention time of the hazardous waste in the process.
  - C) For each run, information must be determined for each hazardous waste stream identified in subsection (b)(5)(B) of this Section, using the following procedures:
    - i) The mass quantity of each hazardous waste stream entering the process ( $Q_b$ ) and the mass quantity of each hazardous waste stream exiting the process ( $Q_a$ ) must be determined.
    - ii) The average VO concentration at the point of waste origination of each hazardous waste stream entering the process ( $C_b$ ) during the run must be determined in accordance with the requirements of subsections (a)(3) of this Section. The average VO concentration at the point of waste treatment of each hazardous waste stream exiting the process ( $C_a$ ) during the run must be determined in accordance with the requirements of subsection (b)(3) of this Section.
  - D) The waste volatile organic mass flow entering the process ( $E_b$ ) and the waste volatile organic mass flow exiting the process ( $E_a$ )

must be calculated by using the results determined in accordance with subsection (b)(5)(C) of this Section and the following equations:

$$E_b = \frac{1}{10^6} \sum_{j=1}^m (Q_{bj} \times \overline{C_{bj}})$$

$$E_a = \frac{1}{10^6} \sum_{j=1}^m (Q_{aj} \times \overline{C_{aj}})$$

$$E_b = \frac{1}{10^6} \sum_{j=1}^m (Q_{bj} \times \overline{C_{bj}})$$


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$$E_a = \frac{1}{10^6} \sum_{j=1}^m (Q_{aj} \times \overline{C_{aj}})$$


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Where:

$E_a$  = Waste volatile organic mass flow exiting the process, in kg/hr.

$E_b$  = Waste volatile organic mass flow entering the process, in kg/hr.

$m$  = Total number of runs (at least 3)

$j$  = Individual run "j"

$Q_{bj}$  = Mass quantity of hazardous waste entering the process during run "j", in kg/hr.

$Q_{aj}$  = Average mass quantity of waste exiting the process during run "j", in kg/hr.

$\overline{C_{aj}}$  = Average VO concentration of hazardous waste exiting the process during run "j", as determined in accordance with the requirements of subsection (b)(3) of this Section, in ppmw.

$\overline{C}_{bj}$  = Average VO concentration of hazardous waste entering the process during run "j", as determined in accordance with the requirements of subsection 725.984 (a)(3) of this Section, in ppmw.

- E) The organic reduction efficiency of the process must be calculated by using the results determined in accordance with subsection (b)(5)(D) of this Section and the following equation:

$$R = \frac{E_b - E_a}{E_b} \times 100\%$$

$$R = \frac{E_b - E_a}{E_b} \times 100\%$$

Where:

R = Organic reduction efficiency, in percent.

E<sub>b</sub> = Waste volatile organic mass flow entering the process as determined in accordance with the requirements of subsection (b)(5)(D) of this Section, in kg/hr.

E<sub>a</sub> = Waste volatile organic mass flow exiting the process as determined in accordance with the requirements of subsection (b)(5)(D) of this Section, in kg/hr.

- 6) Procedure to determine the organic biodegradation efficiency (R<sub>bio</sub>) for a treated hazardous waste.
- A) The fraction of organics biodegraded (F<sub>bio</sub>) must be determined using the procedure specified in 40 CFR 63, Appendix C, incorporated by reference in 35 Ill. Adm. Code 720.111.
- B) The organic biodegradation efficiency (R<sub>bio</sub>) must be calculated by using the following equation:

$$R_{bio} = F_{bio} \times 100\%$$

$$R_{bio} = F_{bio} \times 100\%$$

Where

$R_{\text{bio}}$  = Organic biodegradation efficiency, in percent.

$F_{\text{bio}}$  = Fraction of organic biodegraded, as determined in accordance with the requirements of subsection (b)(6)(A) of this Section.

- 7) Procedure to determine the required organic mass removal rate (RMR) for a treated hazardous waste.
- A) All of the hazardous waste streams entering the treatment process must be identified.
  - B) The average VO concentration of the hazardous waste stream at the point of waste origination must be determined in accordance with the requirements of subsection (a) of this Section.
  - C) For each individual hazardous waste stream that has an average volatile organic concentration equal to or greater than 500 ppmw at the point of waste origination, the average volumetric flow rate of hazardous waste and the density of the hazardous waste stream at the point of waste origination must be determined.
  - D) The required organic mass removal rate (RMR) for the hazardous waste must be calculated by using the average VO concentration, average volumetric flow rate, and density determined for each individual hazardous waste stream, and the following equation:

$$RMR = \sum_{y=1}^n \left[ V_{y,x} k_{y,x} \frac{(\bar{C}_y - 500 \text{ppmw})}{10^6} \right]$$

$$RMR = \sum_{y=1}^n \left[ V_{y,x} k_{y,x} \frac{(\bar{C}_y - 500 \text{ppmw})}{10^6} \right]$$

Where:

RMR = Required organic mass removal rate, in kg/hr.

y = Individual hazardous waste stream "y" that has an average volatile organic (VO) concentration equal to or greater



than 500 ppmw at the point of waste origination, as determined in accordance with the requirements of subsection (a) of this Section.

$n$  = Total number of “y” hazardous waste streams treated by process.

$V_y$  = Average volumetric flow rate of hazardous waste stream “y” at the point of waste origination, in m<sup>3</sup>/hr.

$k_y$  = Density of hazardous waste stream “y”, in kg/m<sup>3</sup>

$\bar{C}_y$  = Average VO concentration of hazardous waste stream “y” at the point of waste origination, as determined in accordance with the requirements of subsection (a) of this Section, in ppmw.

- 8) Procedure to determine the actual organic mass removal rate (MR) for a treated hazardous waste.
- A) The actual organic mass removal rate (MR) must be determined based on results for a minimum of three consecutive runs. The sampling time for each run must be one hour.
- B) The waste volatile organic mass flow entering the process ( $E_b$ ) and the waste volatile organic mass flow exiting the process ( $E_a$ ) must be determined in accordance with the requirements of subsection (b)(5)(D) of this Section.
- C) The actual organic mass removal rate (MR) must be calculated by using the mass flow rate determined in accordance with the requirements of subsection (b)(8)(B) of this Section and the following equation:

$$\cancel{MR = E_b - E_a}$$

$$\underline{MR = E_b - E_a}$$

Where:

MR = Actual organic mass removal rate, in kg/hr.

$E_b$  = Waste volatile organic mass flow entering the process, as determined in accordance with the

requirements of subsection (b)(5)(D) of this Section, in kg/hr.

$E_a$  = Waste volatile organic mass flow exiting the process, as determined in accordance with the requirements of subsection (b)(5)(D) of this Section, in kg/hr.

- 9) Procedure to determine the actual organic mass biodegradation rate ( $MR_{bio}$ ) for a treated hazardous waste.
- A) The actual organic mass biodegradation rate ( $MR_{bio}$ ) must be determined based on results for a minimum of three consecutive runs. The sampling time for each run must be one hour.
- B) The waste organic mass flow entering the process ( $E_b$ ) must be determined in accordance with the requirements of subsection (b)(5)(D) of this Section.
- C) The fraction of organic biodegraded ( $F_{bio}$ ) must be determined using the procedure specified in 40 CFR 63, Appendix C, incorporated by reference in 35 Ill. Adm. Code 720.111.
- D) The actual organic mass biodegradation rate ( $MR_{bio}$ ) must be calculated by using the mass flow rates and fraction of organic biodegraded, as determined in accordance with the requirements of subsections (b)(9)(B) and (b)(9)(C) of this Section, respectively, and the following equation:

$$\cancel{MR_{bio}} = E_b \times F_{bio}$$

$$\underline{MR_{bio}} = E_b \times F_{bio}$$

Where:

$MR_{bio}$  = Actual organic mass biodegradation rate, in kg/hr.

$E_b$  = Waste organic mass flow entering the process, as determined in accordance with the requirements of subsection (b)(5)(D) of this Section, in kg/hr.

$F_{bio}$  = Fraction of organic biodegraded, as determined in accordance with the requirements of subsection (b)(9)(C) of this Section.

- c) Procedure to determine the maximum organic vapor pressure of a hazardous waste in a tank.
- 1) An owner or operator shall determine the maximum organic vapor pressure for each hazardous waste placed in a tank using Tank Level 1 controls in accordance with standards specified in Section 725.985(c).
  - 2) An owner or operator shall use either direct measurement, as specified in subsection (c)(3) of this Section, or knowledge of the waste, as specified by subsection (c)(4) of this Section, to determine the maximum organic vapor pressure that is representative of the hazardous waste composition stored or treated in the tank.
  - 3) Direct measurement to determine the maximum organic vapor pressure of a hazardous waste.
    - A) **Sampling.** A sufficient number of samples must be collected to be representative of the waste contained in the tank. All samples must be conducted and handled in accordance with written procedures prepared by the owner or operator and documented in a site sampling plan. This plan must describe the procedure by which representative samples of the hazardous waste are collected such that a minimum loss of organics occurs throughout the sample collection and handling process and by which sample integrity is maintained. A copy of the written sampling plan must be maintained on-site in the facility operating records. An example of an acceptable sampling plan includes a plan incorporating sample collection and handling procedures in accordance with the requirements specified in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", USEPA Publication No. SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111, or in Method 25D in 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.
    - B) **Analysis.** Any appropriate one of the following methods may be used to analyze the samples and compute the maximum organic vapor pressure of the hazardous waste:
      - i) Method 25E in 40 CFR 60, Appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111;
      - ii) Methods described in American Petroleum Institute Publication 2517, incorporated by reference in 35 Ill. Adm. Code 720.111;

- iii) Methods obtained from standard reference texts;
  - iv) ASTM Method D 2879-92, incorporated by reference in 35 Ill. Adm. Code 720.111; or
  - v) Any other method approved by the Agency.
- 4) Use of knowledge to determine the maximum organic vapor pressure of the hazardous waste. Documentation must be prepared and recorded that presents the information used as the basis for the owner's or operator's knowledge that the maximum organic vapor pressure of the hazardous waste is less than the maximum vapor pressure limit listed in Section 725.985(b)(1)(A) for the applicable tank design capacity category. An example of information that may be used is documentation that the hazardous waste is generated by a process for which at other locations it previously has been determined by direct measurement that the waste maximum organic vapor pressure is less than the maximum vapor pressure limit for the appropriate tank design capacity category.
- d) Procedure for determining no detectable organic emissions for the purpose of complying with this Subpart:
- 1) The test must be conducted in accordance with the procedures specified in Method 21 of 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111. Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the cover and associated closure devices must be checked. Potential leak interfaces that are associated with covers and closure devices include, but are not limited to any of the following: the interface of the cover and its foundation mounting, the periphery of any opening on the cover and its associated closure device, and the sealing seat interface on a spring-loaded pressure relief valve.
  - 2) The test must be performed when the unit contains a hazardous waste having an organic concentration representative of the range of concentrations for the hazardous waste expected to be managed in the unit. During the test, the cover and closure devices must be secured in the closed position.
  - 3) The detection instrument must meet the performance criteria of Method 21 of 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111, except the instrument response factor criteria in Section 3.1.2(a) of Method 21 must be for the average composition of the organic constituents in the hazardous waste placed in the waste management unit, not for each individual organic constituent.

- 4) The detection instrument must be calibrated before use on each day of its use by the procedures specified in Method 21 of 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.
- 5) Calibration gases must be as follows:
  - A) Zero air (less than 10 ppmv hydrocarbon in air), and
  - B) A mixture of methane or n-hexane in air at a concentration of approximately, but less than, 10,000 ppmv methane or n-hexane.
- 6) The background level must be determined according to the procedures in Method 21 of 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.
- 7) Each potential leak interface must be checked by traversing the instrument probe around the potential leak interface as close to the interface as possible, as described in Method 21 of 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111. In the case when the configuration of the cover or closure device prevents a complete traverse of the interface, all accessible portions of the interface must be sampled. In the case when the configuration of the closure device prevents any sampling at the interface and the device is equipped with an enclosed extension or horn (e.g., some pressure relief devices), the instrument probe inlet must be placed at approximately the center of the exhaust area to the atmosphere.
- 8) The arithmetic difference between the maximum organic concentration indicated by the instrument and the background level must be compared with the value of 500 ppmv except when monitoring a seal around a rotating shaft that passes through a cover opening, in which case the comparison must be as specified in subsection (d)(9) of this Section. If the difference is less than 500 ppmv, then the potential leak interface is determined to operate with no detectable organic emissions.
- 9) For the seals around a rotating shaft that passes through a cover opening, the arithmetic difference between the maximum organic concentration indicated by the instrument and the background level must be compared with the value of 10,000 ppmw. If the difference is less than 10,000 ppmw, then the potential leak interface is determined to operate with no detectable organic emissions.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

## Section 725.985 Standards: Tanks

- a) The provisions of this Section apply to the control of air pollutant emissions from tanks for which Section 725.983(b) references the use of this Section for such air emission control.
- b) The owner or operator shall control air pollutant emissions from each tank subject to this Section in accordance with the following requirements, as applicable:
  - 1) For a tank that manages hazardous waste which meets all of the conditions specified in subsections (b)(1)(A) through (b)(1)(C) of this Section, the owner or operator shall control air pollutant emissions from the tank in accordance with the Tank Level 1 controls specified in subsection (c) of this Section or the Tank Level 2 controls specified in subsection (d) of this Section.
    - A) The hazardous waste in the tank has a maximum organic vapor pressure that is less than the maximum organic vapor pressure limit for the tank's design capacity category, as follows:
      - i) For a tank design capacity equal to or greater than 151 m<sup>3</sup> (5333 ft<sup>3</sup> or 39,887 gal), the maximum organic vapor pressure limit for the tank is 5.2 kPa (0.75 psia or 39 mm Hg);
      - ii) For a tank design capacity equal to or greater than 75 m<sup>3</sup> (2649 ft<sup>3</sup> or 19,810 gal) but less than 151 m<sup>3</sup> (5333 ft<sup>3</sup> or 39,887 gal), the maximum organic vapor pressure limit for the tank is 27.6 kPa (4.0 psia or 207 mm Hg); or
      - iii) For a tank design capacity less than 75 m<sup>3</sup> (2649 ft<sup>3</sup> or 19,810 gal), the maximum organic vapor pressure limit for the tank is 76.6 kPa (11.1 psia or 574 mm Hg).
    - B) The hazardous waste in the tank is not heated by the owner or operator to a temperature that is greater than the temperature at which the maximum organic vapor pressure of the hazardous waste is determined for the purpose of complying with subsection (b)(1)(A) of this Section.
    - C) The hazardous waste in the tank is not treated by the owner or operator using a waste stabilization process, as defined in Section 725.981.

- 2) For a tank that manages hazardous waste that does not meet all of the conditions specified in subsections (b)(1)(A) through (b)(1)(C) of this Section, the owner or operator shall control air pollutant emissions from the tank by using Tank Level 2 controls in accordance with the requirements of subsection (d) of this Section. Examples of tanks required to use Tank Level 2 controls include the following: a tank used for a waste stabilization process and a tank for which the hazardous waste in the tank has a maximum organic vapor pressure that is equal to or greater than the maximum organic vapor pressure limit for the tank's design capacity category, as specified in subsection (b)(1)(A) of this Section.
- c) Owners and operators controlling air pollutant emissions from a tank using Tank Level 1 controls shall meet the requirements specified in subsections (c)(1) through (c)(4) of this Section:
- 1) The owner or operator shall determine the maximum organic vapor pressure for a hazardous waste to be managed in the tank using Tank Level 1 controls before the first time the hazardous waste is placed in the tank. The maximum organic vapor pressure must be determined using the procedures specified in Section 725.984(c). Thereafter, the owner or operator shall perform a new determination whenever changes to the hazardous waste managed in the tank could potentially cause the maximum organic vapor pressure to increase to a level that is equal to or greater than the maximum organic vapor pressure limit for the tank design capacity category specified in subsection (b)(1)(A) of this Section, as applicable to the tank.
  - 2) The tank must be equipped with a fixed roof designed to meet the following specifications:
    - A) The fixed roof and its closure devices must be designed to form a continuous barrier over the entire surface area of the hazardous waste in the tank. The fixed roof may be a separate cover installed on the tank (e.g., a removable cover mounted on an open-top tank) or may be an integral part of the tank structural design (e.g., a horizontal cylindrical tank equipped with a hatch).
    - B) The fixed roof must be installed in a manner such that there are no visible cracks, holes, gaps, or other open spaces between roof section joints or between the interface of the roof edge and the tank wall.
    - C) ~~Each~~ Either of the following must be true of each opening in the fixed roof and of any manifold system associated with the fixed roof must be either:

- i) ~~Equipped~~ The opening or manifold system is equipped with a closure device designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the opening and the closure device; or
  - ii) ~~Connected~~ The opening or manifold system is connected by a closed-vent system that is vented to a control device. The control device must remove or destroy organics in the vent stream, and it must be operating whenever hazardous waste is managed in the tank, except as provided for in subsection (c)(2)(E).
- D) The fixed roof and its closure devices must be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and which will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices must include the following: organic vapor permeability; the effects of any contact with the hazardous waste or its vapors managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.
- E) The control device operated pursuant to subsection (c)(2)(C) of this Section needs not remove or destroy organics in the vent stream under the following conditions:
- i) During periods when it is necessary to provide access to the tank for performing the activities of subsection (c)(2)(E)(ii) of this Section, venting of the vapor headspace underneath the fixed roof to the control device is not required, opening of closure devices is allowed, and removal of the fixed roof is allowed. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, and resume operation of the control device; and
  - ii) During periods of routine inspection, maintenance, or other activities needed for normal operations, and for the removal of



accumulated sludge or other residues from the bottom of the tank.

BOARD NOTE: Subsections (c)(2)(E)(i) and (c)(2)(E)(ii) are derived from 40 CFR 265.985(c)(2)(iii)(B)(1) and (c)(2)(iii)(B)(2), which the Board has codified here to comport with Illinois Administrative Code format requirements.

- 3) Whenever a hazardous waste is in the tank, the fixed roof must be installed with each closure device secured in the closed position, except as follows:
- A) Opening of closure devices or removal of the fixed roof is allowed at the following times:
    - i) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample the liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.
    - ii) To remove accumulated sludge or other residues from the bottom of tank.
  - B) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the tank internal pressure in accordance with the tank design specifications. The device must be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens must be established such that the device remains in the closed position whenever the tank internal pressure is within the internal pressure operating range determined by the owner or operator based on the tank manufacturer recommendations; applicable regulations; fire protection and prevention codes; standard engineering codes and practices; or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the tank internal pressure exceeds the

internal pressure operating range for the tank as a result of loading operations or diurnal ambient temperature fluctuations.

- C) Opening of a safety device, as defined in Section 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.
- 4) The owner or operator shall inspect the air emission control equipment in accordance with the following requirements.
- A) The fixed roof and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.
  - B) The owner or operator shall perform an initial inspection of the fixed roof and its closure devices on or before the date that the tank becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year, except under the special conditions provided for in subsection (l) of this Section.
  - C) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (k) of this Section.
  - D) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 725.990(b).
- d) Owners and operators controlling air pollutant emissions from a tank using Tank Level 2 controls shall use one of the following tanks:
- 1) A fixed-roof tank equipped with an internal floating roof in accordance with the requirements specified in subsection (e) of this Section;
  - 2) A tank equipped with an external floating roof in accordance with the requirements specified in subsection (f) of this Section;
  - 3) A tank vented through a closed-vent system to a control device in accordance with the requirements specified in subsection (g) of this Section;

- 4) A pressure tank designed and operated in accordance with the requirements specified in subsection (h) of this Section; or
  - 5) A tank located inside an enclosure that is vented through a closed-vent system to an enclosed combustion control device in accordance with the requirements specified in subsection (i) of this Section.
- e) The owner or operator that controls air pollutant emissions from a tank using a fixed roof with an internal floating roof shall meet the requirements specified in subsections (e)(1) through (e)(3) of this Section.
- 1) The tank must be equipped with a fixed roof and an internal floating roof in accordance with the following requirements:
    - A) The internal floating roof must be designed to float on the liquid surface except when the floating roof must be supported by the leg supports.
    - B) The internal floating roof must be equipped with a continuous seal between the wall of the tank and the floating roof edge that meets either of the following requirements:
      - i) A single continuous seal that is either a liquid-mounted seal or a metallic shoe seal, as defined in Section 725.981; or
      - ii) Two continuous seals mounted one above the other. The lower seal may be a vapor-mounted seal.
    - C) The internal floating roof must meet the following specifications:
      - i) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.
      - ii) Each opening in the internal floating roof must be equipped with a gasketed cover or a gasketed lid except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains.
      - iii) Each penetration of the internal floating roof for the purpose of sampling must have a slit fabric cover that covers at least 90 percent of the opening.

- iv) Each automatic bleeder vent and rim space vent must be gasketed.
  - v) Each penetration of the internal floating roof that allows for passage of a ladder must have a gasketed sliding cover.
  - vi) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof must have a flexible fabric sleeve seal or a gasketed sliding cover.
- 2) The owner or operator shall operate the tank in accordance with the following requirements:
- A) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling must be continuous and must be completed as soon as practical.
  - B) Automatic bleeder vents are to be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports.
  - C) Prior to filling the tank, each cover, access hatch, gauge float well or lid on any opening in the internal floating roof must be bolted or fastened closed (i.e., no visible gaps). Rim space vents are to be set to open only when the internal floating roof is not floating or when the pressure beneath the rim exceeds the manufacturer's recommended setting.
- 3) The owner or operator shall inspect the internal floating roof in accordance with the procedures specified as follows:
- A) The floating roof and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, the following: when the internal floating roof is not floating on the surface of the liquid inside the tank; when liquid has accumulated on top of the internal floating roof; when any portion of the roof seals have detached from the roof rim; when holes, tears, or other openings are visible in the seal fabric; when the gaskets no longer close off the hazardous waste surface from the atmosphere; or when the slotted membrane has more than 10 percent open area.

- B) The owner or operator shall inspect the internal floating roof components as follows, except as provided in subsection (e)(3)(C) of this Section:
- i) Visually inspect the internal floating roof components through openings on the fixed roof (e.g., manholes and roof hatches) at least once every 12 months after initial fill, and
  - ii) Visually inspect the internal floating roof, primary seal, secondary seal (if one is in service), gaskets, slotted membranes, and sleeve seals (if any) each time the tank is emptied and degassed and at least once every 10 years.
- C) As an alternative to performing the inspections specified in subsection (e)(3)(B) of this Section for an internal floating roof equipped with two continuous seals mounted one above the other, the owner or operator may visually inspect the internal floating roof, primary and secondary seals, gaskets, slotted membranes, and sleeve seals (if any) each time the tank is emptied and degassed and at least every five years.
- D) Prior to each inspection required by subsection (e)(3)(B) or (e)(3)(C) of this Section, the owner or operator shall notify the Agency in advance of each inspection to provide the Agency with the opportunity to have an observer present during the inspection. The owner or operator shall notify the Agency of the date and location of the inspection as follows:
- i) Prior to each visual inspection of an internal floating roof in a tank that has been emptied and degassed, written notification must be prepared and sent by the owner or operator so that it is received by the Agency at least 30 calendar days before refilling the tank, except when an inspection is not planned, as provided for in subsection (e)(3)(D)(ii) of this Section.
  - ii) When a visual inspection is not planned and the owner or operator could not have known about the inspection 30 calendar days before refilling the tank, the owner or operator shall notify the Agency as soon as possible, but no later than seven calendar days before refilling of the tank. This notification may be made by telephone and immediately followed by a written explanation for why the inspection is unplanned. Alternatively, written notification, including the explanation for the unplanned

inspection, may be sent so that it is received by the Regional Administrator at least seven calendar days before refilling the tank.

- E) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (k) of this Section.
- F) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 725.990(b).

**4) Safety devices, as defined in Section 725.981, may be installed and operated as necessary on any tank complying with the requirements of this subsection (e).**

- f) The owner or operator that controls air pollutant emissions from a tank using an external floating roof shall meet the requirements specified in subsections (f)(1) through (f)(3) of this Section.
  - 1) The owner or operator shall design the external floating roof in accordance with the following requirements:
    - A) The external floating roof must be designed to float on the liquid surface except when the floating roof must be supported by the leg supports.
    - B) The floating roof must be equipped with two continuous seals, one above the other, between the wall of the tank and the roof edge. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.
      - i) The primary seal must be a liquid-mounted seal or a metallic shoe seal, as defined in Section 725.981. The total area of the gaps between the tank wall and the primary seal must not exceed 212 square centimeters (cm<sup>2</sup>) per meter (10.0 in<sup>2</sup> per foot) of tank diameter, and the width of any portion of these gaps must not exceed 3.8 centimeters (cm) (1.5 inches). If a metallic shoe seal is used for the primary seal, the metallic shoe seal must be designed so that one end extends into the liquid in the tank and the other end extends a vertical distance of at least 61 centimeters above the liquid surface.
      - ii) The secondary seal must be mounted above the primary seal and cover the annular space between the floating roof and the wall of the tank. The total area of the gaps

between the tank wall and the secondary seal must not exceed 21.2 cm<sup>2</sup> per meter (1.0 in<sup>2</sup> per foot) of tank diameter, and the width of any portion of these gaps must not exceed 1.3 cm (0.5 inch).

- C) The external floating roof must meet the following specifications:
- i) Except for automatic bleeder vents (vacuum breaker vents) and rim space vents, each opening in a noncontact external floating roof must provide a projection below the liquid surface.
  - ii) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof must be equipped with a gasketed cover, seal, or lid.
  - iii) Each access hatch and each gauge float well must be equipped with a cover designed to be bolted or fastened when the cover is secured in the closed position.
  - iv) Each automatic bleeder vent and each rim space vent must be equipped with a gasket.
  - v) Each roof drain that empties into the liquid managed in the tank must be equipped with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.
  - vi) Each unslotted and slotted guide pole well must be equipped with a gasketed sliding cover or a flexible fabric sleeve seal.
  - vii) Each unslotted guide pole must be equipped with a gasketed cap on the end of the pole.
  - viii) Each slotted guide pole must be equipped with a gasketed float or other device which closes off the liquid surface from the atmosphere.
  - ix) Each gauge hatch and each sample well must be equipped with a gasketed cover.
- 2) The owner or operator shall operate the tank in accordance with the following requirements:

- A) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling must be continuous and must be completed as soon as practical.
  - B) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof must be secured and maintained in a closed position at all times except when the closure device must be open for access.
  - C) Covers on each access hatch and each gauge float well must be bolted or fastened when secured in the closed position.
  - D) Automatic bleeder vents must be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports.
  - E) Rim space vents must be set to open only at those times that the roof is being floated off the roof leg supports or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.
  - F) The cap on the end of each unslotted guide pole must be secured in the closed position at all times except when measuring the level or collecting samples of the liquid in the tank.
  - G) The cover on each gauge hatch or sample well must be secured in the closed position at all times except when the hatch or well must be opened for access.
  - H) Both the primary seal and the secondary seal must completely cover the annular space between the external floating roof and the wall of the tank in a continuous fashion except during inspections.
- 3) The owner or operator shall inspect the external floating roof in accordance with the procedures specified as follows:
- A) The owner or operator shall measure the external floating roof seal gaps in accordance with the following requirements:
    - i) The owner or operator shall perform measurements of gaps between the tank wall and the primary seal within 60 calendar days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every five years.



- ii) The owner or operator shall perform measurements of gaps between the tank wall and the secondary seal within 60 calendar days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every year.
  - iii) If a tank ceases to hold hazardous waste for a period of one year or more, subsequent introduction of hazardous waste into the tank must be considered an initial operation for the purposes of subsections (f)(3)(A)(i) and (f)(3)(A)(ii) of this Section.
  - iv) The owner or operator shall determine the total surface area of gaps in the primary seal and in the secondary seal individually using the procedure set forth in subsection (f)(4)(D) of this Section.
  - v) In the event that the seal gap measurements do not conform to the specifications in subsection (f)(1)(B) of this Section, the owner or operator must repair the defect in accordance with the requirements of subsection (k) of this Section.
  - vi) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 725.990(b).
- B) The owner or operator shall visually inspect the external floating roof in accordance with the following requirements:
- i) The floating roof and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to any of the following: holes, tears, or other openings in the rim seal or seal fabric of the floating roof; a rim seal detached from the floating roof; all or a portion of the floating roof deck being submerged below the surface of the liquid in the tank; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.
  - ii) The owner or operator shall perform an initial inspection of the external floating roof and its closure devices on or before the date that the tank becomes subject to this Section. Thereafter, the owner or operator shall perform

the inspections at least once every year except for the special conditions provided for in subsection (l) of this Section.

- iii) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (k) of this Section.
  - iv) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 725.990(b).
- C) Prior to each inspection required by subsection (f)(3)(A) or (f)(3)(B) of this Section, the owner or operator shall notify the Agency in advance of each inspection to provide the Agency with the opportunity to have an observer present during the inspection. The owner or operator shall notify the Agency of the date and location of the inspection as follows:
- i) Prior to each inspection to measure external floating roof seal gaps as required under subsection (f)(3)(A) of this Section, written notification must be prepared and sent by the owner or operator so that it is received by the Agency at least 30 calendar days before the date the measurements are scheduled to be performed.
  - ii) Prior to each visual inspection of an external floating roof in a tank that has been emptied and degassed, written notification must be prepared and sent by the owner or operator so that it is received by the Agency at least 30 calendar days before refilling the tank except when an inspection is not planned, as provided for in subsection (f)(3)(C)(iii) of this Section.
  - iii) When a visual inspection is not planned and the owner or operator could not have known about the inspection 30 calendar days before refilling the tank, the owner or operator shall notify the Agency as soon as possible, but no later than seven calendar days before refilling of the tank. This notification may be made by telephone and immediately followed by a written explanation for why the inspection is unplanned. Alternatively, written notification, including the explanation for the unplanned inspection, may be sent so that it is received by the Regional Administrator at least seven calendar days before refilling the tank.

- D) Procedure for determining gaps in the primary seal and in the secondary seal for the purposes of subsection (f)(3)(A)(iv) of this Section:
- i) The seal gap measurements must be performed at one or more floating roof levels when the roof is floating off the roof supports.
  - ii) Seal gaps, if any, must be measured around the entire perimeter of the floating roof in each place where a 0.32-cm (1/4-inch) diameter uniform probe passes freely (without forcing or binding against the seal) between the seal and the wall of the tank and measure the circumferential distance of each such location.
  - iii) For a seal gap measured under this subsection (f)(3), the gap surface area must be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.
  - iv) The total gap area must be calculated by adding the gap surface areas determined for each identified gap location for the primary seal and the secondary seal individually, and then dividing the sum for each seal type by the nominal ~~perimeter~~ **diameter** of the tank. These total gap areas for the primary seal and secondary seal are then compared to the respective standards for the seal type, as specified in subsection (f)(1)(B) of this Section.

BOARD NOTE: Subsections (f)(3)(D)(i) through (f)(3)(D)(iv) ~~correspond with~~ are derived from 40 CFR 265.1085(f)(3)(i)(D)(1) through (f)(3)(i)(D)(4), which the Board has codified here to comport with Illinois Administrative Code format requirements.

**4) Safety devices, as defined in Section 725.981, may be installed and operated as necessary on any tank complying with the requirements of this subsection (f).**

- g) The owner or operator that controls air pollutant emissions from a tank by venting the tank to a control device shall meet the requirements specified in subsections (g)(1) through (g)(3) of this Section.

- 1) The tank must be covered by a fixed roof and vented directly through a closed-vent system to a control device in accordance with the following requirements:
  - A) The fixed roof and its closure devices must be designed to form a continuous barrier over the entire surface area of the liquid in the tank.
  - B) Each opening in the fixed roof not vented to the control device must be equipped with a closure device. If the pressure in the vapor headspace underneath the fixed roof is less than atmospheric pressure when the control device is operating, the closure devices must be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the fixed roof is equal to or greater than atmospheric pressure when the control device is operating, the closure device must be designed to operate with no detectable organic emissions.
  - C) The fixed roof and its closure devices must be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices must include the following: organic vapor permeability; the effects of any contact with the liquid and its vapor managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.
  - D) The closed-vent system and control device must be designed and operated in accordance with the requirements of Section 725.988.
- 2) Whenever a hazardous waste is in the tank, the fixed roof must be installed with each closure device secured in the closed position and the vapor headspace underneath the fixed roof vented to the control device except as follows:
  - A) Venting to the control device is not required, and opening of closure devices or removal of the fixed roof is allowed at the following times:

- i) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.
    - ii) To remove accumulated sludge or other residues from the bottom of a tank.
  - B) Opening of a safety device, as defined in Section 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.
- 3) The owner or operator shall inspect and monitor the air emission control equipment in accordance with the following procedures:
- A) The fixed roof and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to any of the following: visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.
  - B) The closed-vent system and control device must be inspected and monitored by the owner or operator in accordance with the procedures specified in Section 725.988.
  - C) The owner or operator shall perform an initial inspection of the air emission control equipment on or before the date that the tank becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in subsection (l) of this Section.
  - D) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (k) of this Section.
  - E) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 725.990(b).

- h) The owner or operator that controls air pollutant emissions by using a pressure tank must meet the following requirements.
  - 1) The tank shall be designed not to vent to the atmosphere as a result of compression of the vapor headspace in the tank during filling of the tank to its design capacity.
  - 2) All tank openings must be equipped with closure devices designed to operate with no detectable organic emissions as determined using the procedure specified in Section 725.984(d).
  - 3) Whenever a hazardous waste is in the tank, the tank must be operated as a closed system that does not vent to the atmosphere except in the event that a safety device, as defined in Section 725.981, is required to open to avoid an unsafe condition.
  
- i) The owner or operator that controls air pollutant emissions by using an enclosure vented through a closed-vent system to an enclosed combustion control device shall meet the requirements specified in subsections (i)(1) through (i)(4) of this Section.
  - 1) The tank must be located inside an enclosure. The enclosure must be designed and operated in accordance with the criteria for a permanent total enclosure, as specified in “Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure” under 40 CFR 52.741, appendix B, incorporated by reference in 35 Ill. Adm. Code 720.111. The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The owner or operator shall perform the verification procedure for the enclosure as specified in Section 5.0 to “Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure” initially when the enclosure is first installed and, thereafter, annually.
  - 2) The enclosure must be vented through a closed-vent system to an enclosed combustion control device that is designed and operated in accordance with the standards for either a vapor incinerator, boiler, or process heater specified in Section 725.988.
  - 3) Safety devices, as defined in Section 725.981, may be installed and operated as necessary on any enclosure, closed-vent system, or control device used to comply with the requirements of subsections (i)(1) and (i)(2) of this Section.

- 4) The owner or operator shall inspect and monitor the closed-vent system and control device, as specified in Section 725.988.
- j) The owner or operator shall transfer hazardous waste to a tank subject to this Section in accordance with the following requirements:
- 1) Transfer of hazardous waste, except as provided in subsection (j)(2) of this Section, to the tank from another tank subject to this Section or from a surface impoundment subject to Section 725.986 must be conducted using continuous hard-piping or another closed system that does not allow exposure of the hazardous waste to the atmosphere. For the purpose of complying with this provision, an individual drain system is considered to be a closed system when it meets the requirements of 40 CFR 63, subpart RR, "National Emission Standards for Individual Drain Systems", incorporated by reference in 35 Ill. Adm. Code 720.111.
  - 2) The requirements of subsection (j)(1) of this Section do not apply when transferring a hazardous waste to the tank under any of the following conditions:
    - A) The hazardous waste meets the average VO concentration conditions specified in Section 725.983(c)(1) at the point of waste origination.
    - B) The hazardous waste has been treated by an organic destruction or removal process to meet the requirements in Section 725.983(c)(2).
    - C) The hazardous waste meets the requirements of Section 725.983(c)(4).**
- k) The owner or operator shall repair each defect detected during an inspection performed in accordance with the requirements of subsection (c)(4), (e)(3), (f)(3), or (g)(3) of this Section as follows:
- 1) The owner or operator shall make first efforts at repair of the defect no later than five calendar days after detection, and repair shall be completed as soon as possible but no later than 45 calendar days after detection except as provided in subsection (k)(2) of this Section.
  - 2) Repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the tank and no alternative tank capacity is available at the site to accept the hazardous waste normally managed in the tank. In this case, the owner or operator shall repair the

defect the next time the process or unit that is generating the hazardous waste managed in the tank stops operation. Repair of the defect must be completed before the process or unit resumes operation.

- 1) Following the initial inspection and monitoring of the cover as required by the applicable provisions of this Subpart, subsequent inspection and monitoring may be performed at intervals longer than one year under the following special conditions:
  - 1) Where inspecting or monitoring the cover would expose a worker to dangerous, hazardous, or other unsafe conditions, then the owner or operator may designate a cover as an “unsafe to inspect and monitor cover” and comply with all of the following requirements:
    - A) Prepare a written explanation for the cover stating the reasons why the cover is unsafe to visually inspect or to monitor, if required.
    - B) Develop and implement a written plan and schedule to inspect and monitor the cover, using the procedures specified in the applicable Section of this Subpart, as frequently as practicable during those times when a worker can safely access the cover.
  - 2) In the case when a tank is buried partially or entirely underground, an owner or operator is required to inspect and monitor, as required by the applicable provisions of this Section, only those portions of the tank cover and those connections to the tank (e.g., fill ports, access hatches, gauge wells, etc.) that are located on or above the ground surface.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 725.986 Standards: Surface Impoundments

- a) The provisions of this Section apply to the control of air pollutant emissions from surface impoundments for which Section 725.983(b) of this Subpart references the use of this Section for such air emission control.
- b) The owner or operator shall control air pollutant emissions from the surface impoundment by installing and operating either of the following:
  - 1) A floating membrane cover in accordance with the provisions specified in subsection (c) of this Section; or
  - 2) A cover that is vented through a closed-vent system to a control device in accordance with the ~~provisions~~ requirements specified in subsection (d) of this Section.



- c) The owner or operator that controls air pollutant emissions from a surface impoundment using a floating membrane cover must meet the requirements specified in subsections (c)(1) through (c)(3) of this Section.
- 1) The surface impoundment must be equipped with a floating membrane cover designed to meet the following specifications:
- A) The floating membrane cover must be designed to float on the liquid surface during normal operations and form a continuous barrier over the entire surface area of the liquid.
  - B) The cover must be fabricated from a synthetic membrane material that is either:
    - i) High density polyethylene (HDPE) with a thickness no less than 2.5 millimeters (mm) (0.10 inch); or
    - ii) A material or a composite of different materials determined to have both organic permeability properties that are equivalent to those of the material listed in subsection (c)(1)(B)(i) of this Section and chemical and physical properties that maintain the material integrity for the intended service life of the material.
  - C) The cover must be installed in a manner such that there are no visible cracks, holes, gaps, or other open spaces between cover section seams or between the interface of the cover edge and its foundation mountings.
  - D) Except as provided for in subsection (c)(1)(E) of this Section, each opening in the floating membrane cover must be equipped with a closure device so designed as to operate that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device.
  - E) The floating membrane cover may be equipped with one or more emergency cover drains for removal of stormwater. Each emergency cover drain must be equipped with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening or a flexible fabric sleeve seal.
  - F) The closure devices must be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to

the extent practical, and will maintain the integrity of the closure devices throughout their intended service life. Factors to be considered when selecting the materials of construction and designing the cover and closure devices must include the following: the organic vapor permeability; the effects of any contact with the liquid and its vapor managed in the surface impoundment; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the surface impoundment on which the floating membrane cover is installed.

- 2) Whenever a hazardous waste is in the surface impoundment, the floating membrane cover must float on the liquid and each closure device must be secured in the closed position except as follows:
  - A) Opening of closure devices or removal of the cover is allowed at the following times:
    - i) To provide access to the surface impoundment for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample the liquid in the surface impoundment, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly replace the cover and secure the closure device in the closed position, as applicable.
    - ii) To remove accumulated sludge or other residues from the bottom of surface impoundment.
  - B) Opening of a safety device, as defined in Section 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.
- 3) The owner or operator shall inspect the floating membrane cover in accordance with the following procedures:
  - A) The floating membrane cover and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the cover section seams or between the interface of the cover edge and its foundation mountings; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

- B) The owner or operator shall perform an initial inspection of the floating membrane cover and its closure devices on or before the date that the surface impoundment becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in subsection (g) of this Section.
  - C) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (f) of this Section.
  - D) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 725.990(c).
- d) The owner or operator that controls air pollutant emissions from a surface impoundment using a cover vented to a control device shall meet the requirements specified in subsections (d)(1) through (d)(3) of this Section.
- 1) The surface impoundment must be covered by a cover and vented directly through a closed-vent system to a control device in accordance with the following requirements:
    - A) The cover and its closure devices must be designed to form a continuous barrier over the entire surface area of the liquid in the surface impoundment.
    - B) Each opening in the cover not vented to the control device must be equipped with a closure device. If the pressure in the vapor headspace underneath the cover is less than atmospheric pressure when the control device is operating, the closure devices must be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the cover is equal to or greater than atmospheric pressure when the control device is operating, the closure device must be designed to operate with no detectable organic emissions using the procedure specified in Section 725.984(d).
    - C) The cover and its closure devices must be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and which will maintain the integrity of the cover and closure devices throughout their intended service life. Factors to be considered when selecting the

materials ~~for~~ of construction and designing the cover and closure devices must include the following: the organic vapor permeability; the effects of any contact with the liquid or its vapors managed in the surface impoundment; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the surface impoundment on which the cover is installed.

- D) The closed-vent system and control device must be designed and operated in accordance with the requirements of Section 725.988.
- 2) Whenever a hazardous waste is in the surface impoundment, the cover must be installed with each closure device secured in the closed position and the vapor headspace underneath the cover vented to the control device except as follows:
- A) Venting to the control device is not required, and opening of closure devices or removal of the cover is allowed at the following times:
    - i) To provide access to the surface impoundment for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample liquid in the surface impoundment, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the surface impoundment.
    - ii) To remove accumulated sludge or other residues from the bottom of the surface impoundment.
  - B) Opening of a safety device, as defined in Section 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.
- 3) The owner or operator shall inspect and monitor the air emission control equipment in accordance with the following procedures:
- A) The surface impoundment cover and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the cover section seams or between the interface of the cover edge and its

foundation mountings; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

- B) The closed-vent system and control device must be inspected and monitored by the owner or operator in accordance with the procedures specified in Section 725.988.
  - C) The owner or operator shall perform an initial inspection of the air emission control equipment on or before the date that the surface impoundment becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in subsection (g) of this Section.
  - D) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (f) of this Section.
  - E) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 725.990(c).
- e) The owner or operator shall transfer hazardous waste to a surface impoundment subject to this Section in accordance with the following requirements:
- 1) Transfer of hazardous waste, except as provided in subsection (e)(2) of this Section, to the surface impoundment from another surface impoundment subject to this Section or from a tank subject to Section 725.985 must be conducted using continuous hard-piping or another closed system that does not allow exposure of the waste to the atmosphere. For the purpose of complying with this provision, an individual drain system is considered to be a closed system when it meets the requirements of 40 CFR 63, Subpart RR, "National Emission Standards for Individual Drain Systems", incorporated by reference in 35 Ill. Adm. Code 720.111.
  - 2) The requirements of subsection (e)(1) of this Section do not apply when transferring a hazardous waste to the surface impoundment under either any of the following conditions:
    - A) The hazardous waste meets the average VO concentration conditions specified in Section 725.983(c)(1) at the point of waste origination.

B) The hazardous waste has been treated by an organic destruction or removal process to meet the requirements in Section 725.983(c)(2).

**C) The hazardous waste meets the requirements of Section 725.983(c)(4).**

- f) The owner or operator shall repair each defect detected during an inspection performed in accordance with the requirements of subsection (c)(3) or (d)(3) of this Section as follows:
- 1) The owner or operator shall make first efforts at repair of the defect no later than five calendar days after detection, and repair must be completed as soon as possible but no later than 45 calendar days after detection except as provided in subsection (f)(2) of this Section.
  - 2) Repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the surface impoundment and no alternative capacity is available at the site to accept the hazardous waste normally managed in the surface impoundment. In this case, the owner or operator shall repair the defect the next time the process or unit that is generating the hazardous waste managed in the tank stops operation. Repair of the defect must be completed before the process or unit resumes operation.
- g) Following the initial inspection and monitoring of the cover as required by the applicable provisions of this Subpart, subsequent inspection and monitoring may be performed at intervals longer than one year in the case when inspecting or monitoring the cover would expose a worker to dangerous, hazardous, or other unsafe conditions. In this case, the owner or operator may designate the cover as an “unsafe to inspect and monitor cover” and comply with all of the following requirements:
- 1) Prepare a written explanation for the cover stating the reasons why the cover is unsafe to visually inspect or to monitor, if required.
  - 2) Develop and implement a written plan and schedule to inspect and monitor the cover using the procedures specified in the applicable Section of this Subpart as frequently as practicable during those times when a worker can safely access the cover.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

## Section 725.987 Standards: Containers

- a) The provisions of this Section apply to the control of air pollutant emissions from containers for which Section 725.983(b) references the use of this Section for such air emission control.
- b) General requirements.
  - 1) The owner or operator shall control air pollutant emissions from each container subject to this Section in accordance with the following requirements, as applicable to the container, except when the special provisions for waste stabilization processes specified in subsection (b)(2) of this Section apply to the container.
    - A) For a container having a design capacity greater than 0.1 m<sup>3</sup> (26 gal) and less than or equal to 0.46 m<sup>3</sup> (120 gal), the owner or operator shall control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in subsection (c) of this Section.
    - B) For a container having a design capacity greater than 0.46 m<sup>3</sup> (120 gal) that is not in light material service, the owner or operator shall control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in subsection (c) of this Section.
    - C) For a container having a design capacity greater than 0.46 m<sup>3</sup> (120 gal) that is in light material service, the owner or operator shall control air pollutant emissions from the container in accordance with the Container Level 2 standards specified in subsection (d) of this Section.
  - 2) When a container having a design capacity greater than 0.1 m<sup>3</sup> (26 gal) is used for treatment of a hazardous waste by a waste stabilization process, the owner or operator shall control air pollutant emissions from the container in accordance with the Container Level 3 standards specified in subsection (e) of this Section at those times during the waste stabilization process when the hazardous waste in the container is exposed to the atmosphere.
- c) Container Level 1 standards.
  - 1) A container using Container Level 1 controls is one of the following:
    - A) A container that meets the applicable U.S. Department of Transportation (DOT) regulations on packaging hazardous

materials for transportation, as specified in subsection (f) of this Section.

- B) A container equipped with a cover and closure devices that form a continuous barrier over the container openings so that when the cover and closure devices are secured in the closed position there are no visible holes, gaps, or other open spaces into the interior of the container. The cover may be a separate cover installed on the container (e.g., a lid on a drum or a suitably secured tarp on a roll-off box) or may be an integral part of the container structural design (e.g., a “portable tank” or bulk cargo container equipped with a screw-type cap).
  - C) An open-top container in which an organic-vapor suppressing barrier is placed on or over the hazardous waste in the container such that no hazardous waste is exposed to the atmosphere. One example of such a barrier is application of a suitable organic-vapor suppressing foam.
- 2) A container used to meet the requirements of subsection (c)(1)(B) or (c)(1)(C) of this Section must be equipped with covers and closure devices, as applicable to the container, that are composed of suitable materials to minimize exposure of the hazardous waste to the atmosphere and to maintain the equipment integrity for as long as it is in service. Factors to be considered in selecting the materials of construction and designing the cover and closure devices must include the following: the organic vapor permeability, the effects of contact with the hazardous waste or its vapor managed in the container; the effects of outdoor exposure of the closure device or cover material to wind, moisture, and sunlight; and the operating practices for which the container is intended to be used.
- 3) Whenever a hazardous waste is in a container using Container Level 1 controls, the owner or operator shall install all covers and closure devices for the container, as applicable to the container, and secure and maintain each closure device in the closed position except as follows:
- A) Opening of a closure device or cover is allowed for the purpose of adding hazardous waste or other material to the container as follows:
    - i) In the case when the container is filled to the intended final level in one continuous operation, the owner or operator shall promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.



- ii) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container, whichever condition occurs first.
- B) Opening of a closure device or cover is allowed for the purpose of removing hazardous waste from the container as follows:
- i) For the purpose of meeting the requirements of this Section, an empty container, as defined in 35 Ill. Adm. Code 721.107(b), may be open to the atmosphere at any time (i.e., covers and closure devices are not required to be secured in the closed position on an empty container).
  - ii) In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container, as defined in 35 Ill. Adm. Code 721.107(b), the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.
- C) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous waste. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.

- D) Opening of a spring-loaded, pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the container internal pressure in accordance with the design specifications of the container. The device must be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens must be established such that the device remains in the closed position whenever the internal pressure of the container is within the internal pressure operating range determined by the owner or operator based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the internal pressure of the container exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations.
- E) Opening of a safety device, as defined in Section 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.
- 4) The owner or operator of containers using Container Level 1 controls must inspect the containers and their covers and closure devices as follows:
- A) In the case when a hazardous waste already is in the container at the time the owner or operator first accepts possession of the container at the facility and the container is not emptied (~~i.e., does not meet the conditions for an empty container as specified in 35 Ill. Adm. Code 721.107(b)~~) within 24 hours after the container is accepted at the facility (i.e., it does not meet the conditions for an empty container as specified in 35 Ill. Adm. Code 721.107(b)), the owner or operator shall visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. **The container visual inspection must be conducted on or before the date on which the container is accepted at the facility (i.e., the date when the container becomes subject to the Subpart CC container standards). For the purposes of this requirement, the date of acceptance is the date of**

signature that the facility owner or operator enters on Item 20 of the Uniform Hazardous Waste Manifest incorporated by reference in 35 Ill. Adm. Code 722.Appendix (USEPA Forms 8700-22 and 8700-22A), as required under Section 725.171. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (c)(4)(C) of this Section.

- B) In the case when a container used for managing hazardous waste remains at the facility for a period of one year or more, the owner or operator shall visually inspect the container and its cover and closure devices initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (c)(4)(C) of this Section.
  - C) When a defect is detected for the container, cover, or closure devices, the owner or operator shall make first efforts at repair of the defect no later than 24 hours after detection, and repair must be completed as soon as possible but no later than five calendar days after detection. If repair of a defect cannot be completed within five calendar days, then the hazardous waste must be removed from the container and the container must not be used to manage hazardous waste until the defect is repaired.
- 5) The owner or operator shall maintain at the facility a copy of the procedure used to determine that containers with capacity of 0.46 m<sup>3</sup> (120 gal) or greater, which do not meet applicable USDOT regulations as specified in subsection (f) of this Section, are not managing hazardous waste in light material service.
- d) Container Level 2 standards.
- 1) A container using Container Level 2 controls is one of the following:
    - A) A container that meets the applicable U.S. Department of Transportation (USDOT) regulations on packaging hazardous materials for transportation as specified in subsection (f) of this Section.

- B) A container that operates with no detectable organic emissions, as defined in Section 725.981, and determined in accordance with the procedure specified in subsection (g) of this Section.
  - C) A container that has been demonstrated within the preceding 12 months to be vapor-tight by using 40 CFR 60, appendix A, Method 27, incorporated by reference in 35 Ill. Adm. Code 720.111, in accordance with the procedure specified in subsection (h) of this Section.
- 2) Transfer of hazardous waste in or out of a container using Container Level 2 controls must be conducted in such a manner as to minimize exposure of the hazardous waste to the atmosphere, to the extent practical, considering the physical properties of the hazardous waste and good engineering and safety practices for handling flammable, ignitable, explosive, reactive or other hazardous materials. Examples of container loading procedures that the USEPA considers to meet the requirements of this subsection (d)(2) include using any one of the following: a submerged-fill pipe or other submerged-fill method to load liquids into the container; a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or a fitted opening in the top of a container through which the hazardous waste is filled and subsequently purging the transfer line before removing it from the container opening.
- 3) Whenever a hazardous waste is in a container using Container Level 2 controls, the owner or operator shall install all covers and closure devices for the container, and secure and maintain each closure device in the closed position except as follows:
- A) Opening of a closure device or cover is allowed for the purpose of adding hazardous waste or other material to the container as follows:
    - i) In the case when the container is filled to the intended final level in one continuous operation, the owner or operator shall promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.
    - ii) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level; the completion of a batch

loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container, whichever condition occurs first.

- B) Opening of a closure device or cover is allowed for the purpose of removing hazardous waste from the container as follows:
- i) For the purpose of meeting the requirements of this Section, an empty container as defined in 35 Ill. Adm. Code 721.107(b) may be open to the atmosphere at any time (i.e., covers and closure devices are not required to be secured in the closed position on an empty container).
  - ii) In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container as defined in 35 Ill. Adm. Code 721.107(b), the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.
- C) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous waste. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.
- D) Opening of a spring-loaded, pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the internal pressure of the container in accordance with the container design specifications. The device must be designed to operate with no detectable organic emission when the device is secured in the closed position. The

settings at which the device opens must be established such that the device remains in the closed position whenever the internal pressure of the container is within the internal pressure operating range determined by the owner or operator based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the internal pressure of the container exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations.

- E) Opening of a safety device, as defined in Section 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.
- 4) The owner or operator of containers using Container Level 2 controls shall inspect the containers and their covers and closure devices as follows:
- A) In the case when a hazardous waste already is in the container at the time the owner or operator first accepts possession of the container at the facility and the container is not emptied (~~i.e., does not meet the conditions for an empty container as specified in 35 Ill. Adm. Code 721.107(b)~~) within 24 hours after the container is accepted at the facility (i.e., it does not meet the conditions for an empty container as specified in 35 Ill. Adm. Code 721.107(b)), the owner or operator shall visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The container visual inspection must be conducted on or before the date on which the container is accepted at the facility (i.e., the date when the container becomes subject to the Subpart CC container standards). For the purposes of this requirement, the date of acceptance is the date of signature that the facility owner or operator enters on Item 20 of the Uniform Hazardous Waste Manifest incorporated by reference in 35 Ill. Adm. Code 722.Appendix (USEPA Forms 8700-22 and 8700-22A), as required under Section 725.171. If a defect is detected, the owner or operator shall repair the defect in

accordance with the requirements of subsection (d)(4)(C) of this Section.

- B) In the case when a container used for managing hazardous waste remains at the facility for a period of one year or more, the owner or operator shall visually inspect the container and its cover and closure devices initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (d)(4)(C) of this Section.
  - C) When a defect is detected for the container, cover, or closure devices, the owner or operator shall make first efforts at repair of the defect no later than 24 hours after detection, and repair must be completed as soon as possible but no later than five calendar days after detection. If repair of a defect cannot be completed within five calendar days, then the hazardous waste must be removed from the container and the container must not be used to manage hazardous waste until the defect is repaired.
- e) Container Level 3 standards.
- 1) A container using Container Level 3 controls is one of the following:
    - A) A container that is vented directly through a closed-vent system to a control device in accordance with the requirements of subsection (e)(2)(B) of this Section.
    - B) A container that is vented inside an enclosure which is exhausted through a closed-vent system to a control device in accordance with the requirements of subsections (e)(2)(A) and (e)(2)(B) of this Section.
  - 2) The owner or operator shall meet the following requirements, as applicable to the type of air emission control equipment selected by the owner or operator:
    - A) The container enclosure must be designed and operated in accordance with the criteria for a permanent total enclosure as specified in "Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B, incorporated by reference in 35 Ill. Adm. Code 720.111. The enclosure may have permanent or temporary

openings to allow worker access; passage of containers through the enclosure by conveyor or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The owner or operator shall perform the verification procedure for the enclosure as specified in Section 5.0 to “Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure” initially when the enclosure is first installed and, thereafter, annually.

- B) The closed-vent system and control device must be designed and operated in accordance with the requirements of Section 725.988.
- 3) Safety devices, as defined in Section 725.981, may be installed and operated as necessary on any container, enclosure, closed-vent system, or control device used to comply with the requirements of subsection (e)(1) of this Section.
  - 4) Owners and operators using Container Level 3 controls in accordance with the provisions of this Subpart shall inspect and monitor the closed-vent systems and control devices, as specified in Section 725.988.
  - 5) Owners and operators that use Container Level 3 controls in accordance with the provisions of this Subpart shall prepare and maintain the records specified in Section 725.990(d).
- f) For the purpose of compliance with subsection (c)(1)(A) or (d)(1)(A) of this Section, containers must be used that meet the applicable U.S. Department of Transportation (USDOT) regulations on packaging hazardous materials for transportation as follows:
- 1) The container meets the applicable requirements specified in 49 CFR 178, “Specifications for Packaging”, or 49 CFR 179, “Specifications for Tank Cars”, both incorporated by reference in 35 Ill. Adm. Code 720.111.
  - 2) Hazardous waste is managed in the container in accordance with the applicable requirements specified in 49 CFR 107, subpart B, “Exemptions”; 49 CFR 172, “Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements”; 49 CFR 173, “Shippers--General Requirements for Shipments and Packages”; and 49 CFR 180, “Continuing Qualification and Maintenance of Packagings”, each incorporated by reference in 35 Ill. Adm. Code 720.111.



- 3) For the purpose of complying with this Subpart, no exceptions to the 49 CFR 178 or 179 regulations are allowed, except as provided for in subsection (f)(4) of this Section.
- 4) For a lab pack that is managed in accordance with the requirements of 49 CFR 178 for the purpose of complying with this Subpart, an owner or operator may comply with the exceptions for combination packagings specified in 49 CFR 173.12(b), incorporated by reference in 35 Ill. Adm. Code 720.111.
- g) ~~The owner or operator shall use the procedure specified in Section 725.984(d) for determining a container operates~~ **To determine compliance with the no detectable organic emissions for the purpose of complying with requirements of subsection (d)(1)(B) of this Section, the procedure specified in Section 725.984(d) must be used.**
  - 1) Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the container, its cover, and associated closure devices, as applicable to the container, must be checked. Potential leak interfaces that are associated with containers include, but are not limited to: the interface of the cover rim and the container wall; the periphery of any opening on the container or container cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure-relief valve.
  - 2) The test must be performed when the container is filled with a material having a volatile organic concentration representative of the range of volatile organic concentrations for the hazardous wastes expected to be managed in this type of container. During the test, the container cover and closure devices must be secured in the closed position.
- h) Procedure for determining a container to be vapor-tight using Method 27 of 40 CFR 60, appendix A for the purpose of complying with subsection (d)(1)(C) of this Section.
  - 1) The test must be performed in accordance with Method 27 of 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.
  - 2) A pressure measurement device must be used that has a precision of  $\pm 2.5$  mm (0.10 inch) water and that is capable of measuring above the pressure at which the container is to be tested for vapor tightness.
  - 3) If the test results determined by Method 27 indicate that the container sustains a pressure change less than or equal to 750 Pascals (0.11 psig)

within five minutes after it is pressurized to a minimum of 4,500 Pascals (0.65 psig), then the container is determined to be vapor-tight.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 725.988 Standards: Closed-Vent Systems and Control Devices

- a) This Section applies to each closed-vent system and control device installed and operated by the owner or operator to control air emissions in accordance with standards of this Subpart.
- b) The closed-vent system must meet the following requirements:
  - 1) The closed-vent system must route the gases, vapors, and fumes emitted from the hazardous waste in the waste management unit to a control device that meets the requirements specified in subsection (c) of this Section.
  - 2) The closed-vent system must be designed and operated in accordance with the requirements specified in Section 725.933(j).
  - 3) When the closed-vent system includes bypass devices that could be used to divert the gas or vapor stream to the atmosphere before entering the control device, each bypass device must be equipped with either a flow indicator as specified in subsection (b)(3)(A) of this Section or a seal or locking device as specified in subsection (b)(3)(B) of this Section. For the purpose of complying with this subsection, low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, spring-loaded pressure relief valves, and other fittings used for safety purposes are not considered to be bypass devices.
    - A) If a flow indicator is used to comply with this subsection (b)(3), the indicator must be installed at the inlet to the bypass line used to divert gases and vapors from the closed-vent system to the atmosphere at a point upstream of the control device inlet. For the purposes of this subsection, a flow indicator means a device which indicates the presence of either gas or vapor flow in the bypass line.
    - B) If a seal or locking device is used to comply with this subsection (b)(3), the device must be placed on the mechanism by which the bypass device position is controlled (e.g., valve handle or damper lever) when the bypass device is in the closed position such that the bypass device cannot be opened without breaking the seal or removing the lock. Examples of such devices include, but are not limited to, a car-seal or a lock-and-key configuration valve. The

owner or operator shall visually inspect the seal or closure mechanism at least once every month to verify that the bypass mechanism is maintained in the closed position.

- 4) The closed-vent system must be inspected and monitored by the owner or operator in accordance with the procedure specified in Section 725.933(k).
- c) The control device must meet the following requirements:
- 1) The control device must be one of the following devices:
    - A) A control device designed and operated to reduce the total organic content of the inlet vapor stream vented to the control device by at least 95 percent by weight;
    - B) An enclosed combustion device designed and operated in accordance with the requirements of Section 725.933(c); or
    - C) A flare designed and operated in accordance with the requirements of Section 725.933(d).
  - 2) The owner or operator that elects to use a closed-vent system and control device to comply with the requirements of this Section shall comply with the requirements specified in subsections (c)(2)(A) through (c)(2)(G) of this Section.
    - A) Periods of planned routine maintenance of the control device, during which the control device does not meet the specifications of subsections (c)(1)(A), (c)(1)(B), or (c)(1)(C) of this Section, as applicable, must not exceed 240 hours per year.
    - B) The specifications and requirements in subsections (c)(1)(A), (c)(1)(B), and (c)(1)(C) of this Section for control devices do not apply during periods of planned routine maintenance.
    - C) The specifications and requirements in subsections (c)(1)(A), (c)(1)(B), and (c)(1)(C) of this Section for control devices do not apply during a control device system malfunction.
    - D) The owner or operator shall demonstrate compliance with the requirements of subsection (c)(2)(A) of this Section (i.e., planned routine maintenance of a control device, during which the control device does not meet the specifications of subsections (c)(1)(A), (c)(1)(B), or (c)(1)(C) of this Section, as applicable, must not

exceed 240 hours per year) by recording the information specified in Section 725.990(e)(1)(E).

- E) The owner or operator shall correct control device system malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of air pollutants.
  - F) The owner or operator shall operate the closed-vent system so that gases, vapors, or fumes are not actively vented to the control device during periods of planned maintenance or control device system malfunction (i.e., periods when the control device is not operating or not operating normally), except in cases when it is necessary to vent the gases, vapors, or fumes to avoid an unsafe condition or to implement malfunction corrective actions or planned maintenance actions.
- 3) The owner or operator using a carbon adsorption system to comply with subsection (c)(1) of this Section shall operate and maintain the control device in accordance with the following requirements:
- A) Following the initial startup of the control device, all activated carbon in the control device must be replaced with fresh carbon on a regular basis in accordance with the requirements of Section 725.933(g) or 725.933(h).
  - B) All carbon that is a hazardous waste and that is removed from the control device must be managed in accordance with the requirements of Section 725.933(m), regardless of the average volatile organic concentration of the carbon.
- 4) An owner or operator using a control device other than a thermal vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system to comply with subsection (c)(1) of this Section shall operate and maintain the control device in accordance with the requirements of Section 725.933(i).
- 5) The owner or operator shall demonstrate that a control device achieves the performance requirements of subsection (c)(1) of this Section as follows:
- A) An owner or operator shall demonstrate using either a performance test, as specified in subsection (c)(5)(C) of this Section, or a design analysis, as specified in subsection (c)(5)(D) of this Section, the performance of each control device except for the following:

- i) A flare;
  - ii) A boiler or process heater with a design heat input capacity of 44 megawatts or greater;
  - iii) A boiler or process heater into which the vent stream is introduced with the primary fuel;
  - iv) A boiler or industrial furnace burning hazardous waste for which the owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 and has designed and operates in accordance with the requirements of 35 Ill. Adm. Code 726.Subpart H; or
  - v) A boiler or industrial furnace burning hazardous waste for which the owner or operator has designed and operates in accordance with the interim status requirements of 35 Ill. Adm. Code 726.Subpart H.
- B) An owner or operator shall demonstrate the performance of each flare in accordance with the requirements specified in Section 725.933(e).
- C) For a performance test conducted to meet the requirements of subsection (c)(5)(A) of this Section, the owner or operator shall use the test methods and procedures specified in Section 725.934(c)(1) through (c)(4).
- D) For a design analysis conducted to meet the requirements of subsection (c)(5)(A) of this Section, the design analysis must meet the requirements specified in Section 725.935(b)(4)(C).
- E) The owner or operator shall demonstrate that a carbon adsorption system achieves the performance requirements of subsection (c)(1) of this Section based on the total quantity of organics vented to the atmosphere from all carbon adsorption system equipment that is used for organic adsorption, organic desorption or carbon regeneration, organic recovery, and carbon disposal.
- 6) If the owner or operator and the Agency do not agree on a demonstration of control device performance using a design analysis, then the disagreement must be resolved using the results of a performance test performed by the owner or operator in accordance with the requirements of subsection (c)(5)(C) of this Section. The Agency may choose to have an authorized representative observe the performance test.

- 7) The closed-vent system and control device must be inspected and monitored by the owner or operator in accordance with the procedures specified in Section 725.933(f)(2) and (k). The readings from each monitoring device required by Section 725.933(f)(2) must be inspected at least once each operating day to check control device operation. Any necessary corrective measures must be immediately implemented to ensure the control device is operated in compliance with the requirements of this Section.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 725.989 Inspection and Monitoring Requirements

- a) The owner or operator shall inspect and monitor air emission control equipment used to comply with this Subpart in accordance with the requirements specified in Sections 725.985 through 725.988.
- b) The owner or operator shall develop and implement a written plan and schedule to perform the inspections and monitoring required by subsection (a) of this Section. The owner or operator shall incorporate this plan and schedule into the facility inspection plan required under Section 725.115.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 725.990 Recordkeeping Requirements

- a) Each owner or operator of a facility subject to the requirements in this Subpart shall record and maintain the information specified in subsections (b) through (ij) of this Section, as applicable to the facility. Except for air emission control equipment design documentation and information required by subsection (ij) of this Section, records required by this Section must be maintained in the operating record for a minimum of three years. Air emission control equipment design documentation must be maintained in the operating record until the air emission control equipment is replaced or is otherwise no longer in service. Information required by ~~subsection~~ subsections (i) and (j) of this Section must be maintained in the operating record for as long as the tank or container waste management unit is not using air emission controls specified in Sections ~~724.984 through 724.987~~ 725.985 through 725.988, in accordance with the conditions specified in Section ~~724.984(d)~~ 725.980(d) or (b)(7), respectively.
- b) The owner or operator of a tank using air emission controls in accordance with the requirements of Section 725.985 shall prepare and maintain records for the tank that include the following information:

- 1) For each tank using air emission controls in accordance with the requirements of Section 725.985 of this Subpart, the owner or operator shall record:
  - A) A tank identification number (or other unique identification description as selected by the owner or operator).
  - B) A record for each inspection required by Section 725.985 that includes the following information:
    - i) Date inspection was conducted.
    - ii) For each defect detected during the inspection, ~~the following information:~~ the location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the provisions of Section 725.985, the owner or operator shall also record the reason for the delay and the date that completion of repair of the defect is expected.
- 2) In addition to the information required by subsection (b)(1) of this Section, the owner or operator shall record the following information, as applicable to the tank:
  - A) The owner or operator using a fixed roof to comply with the Tank Level 1 control requirements specified in Section 725.985(c) shall prepare and maintain records for each determination for the maximum organic vapor pressure of the hazardous waste in the tank performed in accordance with the requirements of Section 725.985(c). The records must include the date and time the samples were collected, the analysis method used, and the analysis results.
  - B) The owner or operator using an internal floating roof to comply with the Tank Level 2 control requirements specified in Section 725.985(e) shall prepare and maintain documentation describing the floating roof design.
  - C) Owners and operators using an external floating roof to comply with the Tank Level 2 control requirements specified in Section 725.985(f) shall prepare and maintain the following records:
    - i) Documentation describing the floating roof design and the dimensions of the tank.

- ii) Records for each seal gap inspection required by Section 725.985(f)(3) describing the results of the seal gap measurements. The records must include the date that the measurements were performed, the raw data obtained for the measurements, and the calculations of the total gap surface area. In the event that the seal gap measurements do not conform to the specifications in Section 725.985(f)(1), the records must include a description of the repairs that were made, the date the repairs were made, and the date the tank was emptied, if necessary.
- D) Each owner or operator using an enclosure to comply with the Tank Level 2 control requirements specified in Section 725.985(i) shall prepare and maintain the following records:
- i) Records for the most recent set of calculations and measurements performed by the owner or operator to verify that the enclosure meets the criteria of a permanent total enclosure as specified in “Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure” under 40 CFR 52.741, appendix B, incorporated by reference in 35 Ill. Adm. Code 720.111.
  - ii) Records required for the closed-vent system and control device in accordance with the requirements of subsection (e) of this Section.
- c) The owner or operator of a surface impoundment using air emission controls in accordance with the requirements of Section 725.986 shall prepare and maintain records for the surface impoundment that include the following information:
- 1) A surface impoundment identification number (or other unique identification description as selected by the owner or operator).
  - 2) Documentation describing the floating membrane cover or cover design, as applicable to the surface impoundment, that includes information prepared by the owner or operator or provided by the cover manufacturer or vendor describing the cover design, and certification by the owner or operator that the cover meets the specifications listed in Section 725.986(c).
  - 3) A record for each inspection required by Section 725.986 that includes the following information:
    - A) Date inspection was conducted.



- B) For each defect detected during the inspection the following information: the location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the provisions of Section 725.986(f), the owner or operator shall also record the reason for the delay and the date that completion of repair of the defect is expected.
- 4) For a surface impoundment equipped with a cover and vented through a closed-vent system to a control device, the owner or operator shall prepare and maintain the records specified in subsection (e) of this Section.
- d) The owner or operator of containers using Container Level 3 air emission controls in accordance with the requirements of Section 725.987 shall prepare and maintain records that include the following information:
    - 1) Records for the most recent set of calculations and measurements performed by the owner or operator to verify that the enclosure meets the criteria of a permanent total enclosure as specified in “Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure” under 40 CFR 52.741, appendix B, incorporated by reference in 35 Ill. Adm. Code 720.111.
    - 2) Records required for the closed-vent system and control device in accordance with the requirements of subsection (e) of this Section.
- e) The owner or operator using a closed-vent system and control device in accordance with the requirements of Section 725.988 shall prepare and maintain records that include the following information:
    - 1) Documentation for the closed-vent system and control device that includes:
      - A) Certification that is signed and dated by the owner or operator stating that the control device is designed to operate at the performance level documented by a design analysis as specified in subsection (e)(1)(B) of this Section or by performance tests as specified in subsection (e)(1)(C) of this Section when the tank, surface impoundment, or container is or would be operating at capacity or the highest level reasonably expected to occur.
      - B) If a design analysis is used, then design documentation, as specified in Section 725.935(b)(4). The documentation must include information prepared by the owner or operator or provided by the control device manufacturer or vendor that

describes the control device design in accordance with Section 725.935(b)(4)(C) and certification by the owner or operator that the control equipment meets the applicable specifications.

- C) If performance tests are used, then a performance test plan as specified in Section 725.935(b)(3) and all test results.
- D) Information as required by Section 725.935(c)(1) and (c)(2), as applicable.
- E) An owner or operator shall record, on a semiannual basis, the information specified in subsections (e)(1)(E)(i) and (e)(1)(E)(ii) of this Section for those planned routine maintenance operations that would require the control device not to meet the requirements of Section 725.988(c)(1)(A), (c)(1)(B), or (c)(1)(C), as applicable.
  - i) A description of the planned routine maintenance that is anticipated to be performed for the control device during the next six-month period. This description must include the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods.
  - ii) A description of the planned routine maintenance that was performed for the control device during the previous six-month period. This description must include the type of maintenance performed and the total number of hours during those six months that the control device did not meet the requirements of Section 725.988(c)(1)(A), (c)(1)(B), or (c)(1)(C), as applicable, due to planned routine maintenance.
- F) An owner or operator shall record the information specified in subsections (e)(1)(F)(i) through (e)(1)(F)(iii) of this Section for those unexpected control device system malfunctions that would require the control device not to meet the requirements of Section 725.988(c)(1)(A), (c)(1)(B), or (c)(1)(C), as applicable.
  - i) The occurrence and duration of each malfunction of the control device system.
  - ii) The duration of each period during a malfunction when gases, vapors, or fumes are vented from the waste management unit through the closed-vent system to the control device while the control device is not properly functioning.

- iii) Actions taken during periods of malfunction to restore a malfunctioning control device to its normal or usual manner of operation.
  - G) Records of the management of carbon removed from a carbon adsorption system conducted in accordance with Section 725.988(c)(3)(B).
- f) The owner or operator of a tank, surface impoundment, or container exempted from standards in accordance with the provisions of Section 725.983(c) of this Subpart shall prepare and maintain the following records, as applicable:
  - 1) For tanks, surface impoundments, or containers exempted under the hazardous waste organic concentration conditions specified in Section 725.983 (c)(1) or ~~(c)(2)~~ of this Subpart 725.984(c)(2)(A) through (c)(2)(F), the owner or operator shall record the information used for each waste determination (e.g., test results, measurements, calculations, and other documentation) in the facility operating log. If analysis results for waste samples are used for the waste determination, then the owner or operator shall record the date, time, and location that each waste sample is collected in accordance with the applicable requirements of Section 725.984 of this Subpart.
  - 2) For tanks, surface impoundments, or containers exempted under the provisions of Section 725.983(c)(2)(G) or (c)(2)(H) ~~of this Subpart~~, the owner or operator shall record the identification number for the incinerator, boiler, or industrial furnace in which the hazardous waste is treated.
- g) An owner or operator designating a cover as “unsafe to inspect and monitor” pursuant to Section 725.985(l) shall record in a log that is kept in the facility operating record the following information: the identification numbers for waste management units with covers that are designated as “unsafe to inspect and monitor”, the explanation for each cover stating why the cover is unsafe to inspect and monitor, and the plan and schedule for inspecting and monitoring each cover.
- h) The owner or operator of a facility that is subject to this Subpart and to the control device standards in 40 CFR 60, Subpart VV, or 40 CFR 61, Subpart V, incorporated by reference in 35 Ill. Adm. Code 270.111, may elect to demonstrate compliance with the applicable Sections of this Subpart by documentation either pursuant to this Subpart, or pursuant to the provisions of 40 CFR 60, Subpart VV or 40 CFR 61, Subpart V, to the extent that the documentation required by 40 CFR 60 or 61 duplicates the documentation required by this Section.

- i) For each tank or container not using air emission controls specified in Sections 725.985 through 725.988 in accordance with the conditions specified in Section 725.980(d), the owner or operator shall record and maintain the following information:
  - 1) A list of the individual organic peroxide compounds manufactured at the facility that meet the conditions specified in Section 725.980(d)(1).
  - 2) A description of how the hazardous waste containing the organic peroxide compounds identified pursuant to subsection (i)(1) are managed at the facility in tanks and containers. This description must include the following information:
    - A) For the tanks used at the facility to manage this hazardous waste, sufficient information must be provided to describe each tank: a facility identification number for the tank, the purpose and placement of this tank in the management train of this hazardous waste, and the procedures used to ultimately dispose of the hazardous waste managed in the tanks.
    - B) For containers used at the facility to manage this hazardous waste, sufficient information must be provided to describe the following for each container: a facility identification number for the container or group of containers; the purpose and placement of this container or group of containers in the management train of this hazardous waste; and the procedures used to ultimately dispose of the hazardous waste handled in the containers.
  - 3) An explanation of why managing the hazardous waste containing the organic peroxide compounds identified pursuant to subsection (i)(1) of this Section in the tanks or containers identified pursuant to subsection (i)(2) of this Section would create an undue safety hazard if the air emission controls specified in Sections 725.985 through 725.988 were installed and operated on these waste management units. This explanation must include the following information:
    - A) For tanks used at the facility to manage this hazardous waste, sufficient information must be provided to explain: how use of the required air emission controls on the tanks would affect the tank design features and facility operating procedures currently used to prevent an undue safety hazard during the management of this hazardous waste in the tanks; and why installation of safety devices on the required air emission controls, as allowed under this Subpart, would not address those situations in which evacuation of tanks equipped with these air emission controls is

necessary and consistent with good engineering and safety practices for handling organic peroxides.

- B) For containers used at the facility to manage this hazardous waste, sufficient information must be provided to explain: how use of the required air emission controls on the containers would affect the container design features and handling procedures currently used to prevent an undue safety hazard during management of this hazardous waste in the containers; and why installation of safety devices on the required air emission controls, as allowed under this Subpart, would not address those situations in which evacuation of containers equipped with these air emission controls is necessary and consistent with good engineering and safety practices for handling organic peroxides.

j) For each hazardous waste management unit not using air emission controls specified in Sections 265.985 through 265.988 in accordance with the provisions of Section 265.980(b)(7), the owner and operator shall record and maintain the following information:

- 1) The certification that the waste management unit is equipped with and operating air emission controls in accordance with the requirements of an applicable federal Clean Air Act regulation codified under 40 CFR part 60, part 61, or part 63.
- 2) An identification of the specific federal requirements codified under 40 CFR part 60, part 61, or part 63 with which the waste management unit is in compliance.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 725.Appendix F      Compounds With Henry's Law Constant Less Than 0.1 Y/X (at 25° C)

Compound name	CAS No.
Acetaldol	107-89-1
Acetamide	60-35-5
2-Acetylaminofluorene	53-96-3
3-Acetyl-5-hydroxypiperidine	
3-Acetylpiperidine	618-42-8
1-Acetyl-2-thiourea	591-08-2
Acrylamide	79-06-1
Acrylic acid	79-10-7

Adenine	73-24-5
Adipic acid	124-04-9
Adiponitrile	111-69-3
Alachlor	15972-60-8
Aldicarb	116-06-3
Ametryn	834-12-8
4-Aminobiphenyl	92-67-1
4-Aminopyridine	504-24-5
Aniline	62-53-3
o-Anisidine	90-04-0
Anthraquinone	84-65-1
Atrazine	1912-24-9
Benzenearsonic acid	98-05-5
Benzenesulfonic acid	98-11-3
Benzidine	92-87-5
Benzo(a)anthracene	56-55-3
Benzo(k)fluoranthene	207-08-9
Benzoic acid	65-85-0
Benzo(g,h,i)perylene	191-24-2
Benzo(a)pyrene	50-32-8
Benzyl alcohol	100-51-6
$\gamma$ -BHC	58-89-9
Bis(2-ethylhexyl)phthalate	117-81-7
Bromochloromethyl acetate	
<u>Bromoxynil (3,5-Dibromo-4-hydroxybenzonitrile)</u>	1689-84-5
Butyric acid	107-92-6
Caprolactam (hexahydro-2H-azepin-2-one)	105-60-2
Catechol (o-dihydroxybenzene)	120-80-9
Cellulose	9004-34-6
Cell wall	
Chlorhydrin (3-Chloro-1,2-propanediol)	96-24-2
Chloroacetic acid	79-11-8
2-Chloroacetophenone	93-76-5
p-Chloroaniline	106-47-8
p-Chlorobenzophenone	134-85-0
<del>Chlorobenzilate</del> <u>Chlorobenzilate</u>	510-15-6
p-Chloro-m-cresol (6-chloro-m-cresol)	59-50-7
3-Chloro-2,5-diketopyrrolidine	
Chloro-1,2-ethane diol	
4-Chlorophenol	106-48-9
Chlorophenol polymers (2-chlorophenol & 4-chlorophenol)	95-57-8 & 106-48-9
1-(o-Chlorophenyl)thiourea	5344-82-1
Chrysene	218-01-9
Citric acid	77-92-9
Creosote	8001-58-9

m-Cresol	108-39-4
o-Cresol	95-48-7
p-Cresol	106-44-5
Cresol (mixed isomers)	1319-77-3
4-Cumylphenol	27576-86
Cyanide	57-12-5
4-Cyanomethyl benzoate	
Diazinon	333-41-5
Dibenzo(a,h)anthracene	53-70-3
<del>3,5-Dibromo-4-hydroxybenzotrile</del>	<del>1689-84-5</del>
Dibutylphthalate	84-74-2
2,5-Dichloroaniline (N,N'-dichloroaniline)	95-82-9
2,6-Dichlorobenzotrile	1194-65-6
2,6-Dichloro-4-nitroaniline	99-30-9
2,5-Dichlorophenol	<u>333-41-5</u>
3,4-Dichlorotetrahydrofuran	3511-19
Dichlorvos ( <u>DDVP</u> )	106-47-8
	<u>62-73-7</u>
Diethanolamine	111-42-2
N,N-Diethylaniline	91-66-7
Diethylene glycol	111-46-6
Diethylene glycol dimethyl ether (dimethyl Carbitol)	111-96-6
Diethylene glycol monobutyl ether (butyl Carbitol)	112-34-5
Diethylene glycol monoethyl ether acetate (Carbitol acetate)	112-15-2
Diethylene glycol monoethyl ether (Carbitol Cellosolve)	111-90-0
Diethylene glycol monomethyl ether (methyl Carbitol)	111-77-3
N,N'-Diethylhydrazine	1615-80-1
Diethyl(4-methylumbelliferyl)thionophosphate	299-45-6
Diethylphosphorothioate	126-75-0
N,N'-Diethylpropionamide	15299-99-7
Dimethoate	60-51-5
<u>2,3-Dimethoxystrychnidin-10-one</u>	<u>357-57-3</u>
4-Dimethylaminoazobenzene	60-11-7
7,12-Dimethylbenz(a)anthracene	57-97-6
3,3-Dimethylbenzidine	119-93-7
Dimethylcarbamoil chloride	79-44-7
Dimethyldisulfide	624-92-0
Dimethylformamide	68-12-2
1,1-Dimethylhydrazine	57-14-7
Dimethylphthalate	131-11-3
Dimethylsulfone	67-71-0
Dimethylsulfoxide	67-68-5
<del>2,3-Dimethoxystrychnidin-10-one</del>	<del>357-57-3</del>
4,6-Dinitro-o-cresol	534-52-1
1,2-Diphenylhydrazine	122-66-7
Dipropylene glycol (1,1'-oxydi-2-propanol)	110-98-5

Endrin	72-20-8
Epinephrine	51-43-4
<u>mono-Ethanolamine</u>	<u>141-43-5</u>
Ethyl carbamate (urethane)	51-79-6
Ethylene glycol	107-21-1
Ethylene glycol monobutyl ether (butyl Cellosolve)	111-76-2
Ethylene glycol monoethyl ether (Cellosolve)	110-80-5
Ethylene glycol monoethyl ether acetate (Cellosolve acetate)	111-15-9
Ethylene glycol monomethyl ether (methyl Cellosolve)	109-86-4
Ethylene glycol monophenyl ether (phenyl Cellosolve)	122-99-6
Ethylene glycol monopropyl ether (propyl Cellosolve)	2807-30-9
Ethylene thiourea (2-imidazolidinethione)	9-64-57
4-Ethylmorpholine	100-74-3
3-Ethylphenol	620-17-7
Fluoroacetic acid, sodium salt	62-74-8
Formaldehyde	50-00-0
Formamide	75-12-7
Formic acid	64-18-6
Fumaric acid	110-17-8
Glutaric acid	110-94-1
Glycerin (Glycerol)	56-81-5
Glycidol	556-52-5
Glycinamide	598-41-4
Glyphosate	1071-83-6
Guthion	86-50-0
Hexamethylene-1,6-diisocyanate (1,6-diisocyanatohexane)	822-06-0
Hexamethyl phosphoramidate	680-31-9
Hexanoic acid	142-62-1
Hydrazine	302-01-2
Hydrocyanic acid	74-90-8
Hydroquinone	123-31-9
Hydroxy-2-propionitrile (hydracrylonitrile)	109-78-4
Indeno(1,2,3-cd)pyrene	193-39-5
Lead acetate	301-04-2
Lead subacetate (lead acetate, monobasic)	1335-32-6
Leucine	61-90-5
Malathion	121-75-5
Maleic acid	110-16-7
Maleic anhydride	108-31-6
Mesityl oxide	141-79-7
Methane sulfonic acid	75-75-2
Methomyl	16752-77-5
p-Methoxyphenol	150-76-5
Methylacrylate	96-33-3
4,4'-Methylene-bis-(2-chloroaniline)	101-14-4
4,4'-Methylenediphenyl diisocyanate (diphenyl methane diisocyanate)	101-68-8



4,4'-Methylenedianiline	101-77-9
Methylene diphenylamine (MDA)	
5-Methylfurfural	620-02-0
Methylhydrazine	60-34-4
Methyliminoacetic acid	
Methyl methane sulfonate	66-27-3
1-Methyl-2-methoxyaziridine	
Methylparathion	298-00-0
Methyl sulfuric acid (sulfuric acid, dimethyl ester)	77-78-1
4-Methylthiophenol	106-45-6
Monoethanolamine	141-43-5
Monomethylformamide (N-methylformamide)	123-39-7
Nabam	142-59-6
$\alpha$ -Naphthol	90-15-3
$\beta$ -Naphthol	135-19-3
$\alpha$ -Naphthylamine	134-32-7
$\beta$ -Naphthylamine	91-59-8
Neopentyl glycol	126-30-7
Niacinamide	98-92-0
o-Nitroaniline	88-74-4
Nitroglycerin	55-63-0
2-Nitrophenol	88-75-5
4-Nitrophenol	100-02-7
N-Nitrosodimethylamine	62-75-9
Nitrosoguanidine	674-81-7
N-Nitroso-n-methylurea	684-93-5
N-Nitrosomorpholine (4-nitrosomorpholine)	59-89-2
Oxalic acid	144-62-7
Parathion	56-38-2
Pentaerythritol	115-77-5
Phenacetin	62-44-2
Phenol	108-95-2
Phenylacetic acid	103-82-2
m-Phenylene diamine	108-45-2
o-Phenylene diamine	95-54-5
p-Phenylene diamine	106-50-3
Phenyl mercuric acetate	62-38-4
Phorate	298-02-2
Phthalic anhydride	85-44-9
$\alpha$ -Picoline (2-methyl pyridine)	109-06-8
1,3-Propane sulfone	1120-71-4
$\beta$ -Propiolactone	57-57-8
Proporur (Baygon)	
Propylene glycol	57-55-6
Pyrene	129-00-0

Pyridinium bromide	39416-48-3
Quinoline	91-22-5
Quinone (p-benzoquinone)	106-51-4
Resorcinol	108-46-3
Simazine	122-34-9
Sodium acetate	127-09-3
Sodium formate	141-53-7
Strychnine	57-24-9
Succinic acid	110-15-6
Succinimide	123-56-8
Sulfanilic acid	121-47-1
Terephthalic acid	100-21-0
Tetraethyldithiopyrophosphate	3689-24-5
Tetraethylenepentamine	112-57-2
Thiofanox	39196-18-4
Thiosemicarbazide	79-19-6
2,4-Toluenediamine	95-80-7
2,6-Toluenediamine	823-40-5
3,4-Toluenediamine	496-72-0
2,4-Toluene diisocyanate	584-84-9
p-Toluic acid	99-94-5
m-Toluidine	108-44-1
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1
Triethanolamine	102-71-6
Triethylene glycol dimethyl ether	
Tripropylene glycol	24800-44-0
Warfarin	81-81-2
3,4-Xylenol (3,4-dimethylphenol)	95-65-8

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

TITLE 35: ENVIRONMENTAL PROTECTION  
 SUBTITLE G: WASTE DISPOSAL  
 CHAPTER I: POLLUTION CONTROL BOARD  
 SUBCHAPTER c: HAZARDOUS WASTE OPERATING REQUIREMENTS

PART 728  
 LAND DISPOSAL RESTRICTIONS

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**AUTHORITY:** Implementing Section 22.4 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/22.4 and 27].

**SOURCE:** Adopted in R87-5 at 11 Ill. Reg. 19354, effective November 12, 1987; amended in R87-39 at 12 Ill. Reg. 13046, effective July 29, 1988; amended in R89-1 at 13 Ill. Reg. 18403, effective November 13, 1989; amended in R89-9 at 14 Ill. Reg. 6232, effective April 16, 1990; amended in R90-2 at 14 Ill. Reg. 14470, effective August 22, 1990; amended in R90-10 at 14 Ill. Reg. 16508, effective September 25, 1990; amended in R90-11 at 15 Ill. Reg. 9462, effective June 17, 1991; amendment withdrawn at 15 Ill. Reg. 14716, October 11, 1991; amended in R91-13 at 16 Ill. Reg. 9619, effective June 9, 1992; amended in R92-10 at 17 Ill. Reg. 5727, effective March 26, 1993; amended in R93-4 at 17 Ill. Reg. 20692, effective November 22, 1993; amended in R93-16 at 18 Ill. Reg. 6799, effective April 26, 1994; amended in R94-7 at 18 Ill. Reg. 12203, effective July 29, 1994; amended in R94-17 at 18 Ill. Reg. 17563, effective November 23, 1994; amended in R95-6 at 19 Ill. Reg. 9660, effective

June 27, 1995; amended in R95-20 at 20 Ill. Reg. 11100, August 1, 1996; amended in R96-10/R97-3/R97-5 at 22 Ill. Reg. 783, effective December 16, 1997; amended in R98-12 at 22 Ill. Reg. 7685, effective April 15, 1998; amended in R97-21/R98-3/R98-5 at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_; amended in R98-21/R99-2/R99-7 at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

## SUBPART A: GENERAL

### Section 728.102 Definitions

When used in this Part, the following terms have the meanings given below. All other terms have the meanings given under 35 Ill. Adm. Code 702.110, 720.110, or 721.102 through 721.104.

“Agency” means the Illinois Environmental Protection Agency.

“Board” means the Illinois Pollution Control Board.

“CERCLA” means the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 et seq.)

“Debris” means solid material exceeding a 60 mm particle size that is intended for disposal and that is: a manufactured object; plant or animal matter; or natural geologic material. However, the following materials are not debris: any material for which a specific treatment standard is provided in Subpart D of this Part, namely lead acid batteries, cadmium batteries, and radioactive lead solids; process residuals, such as smelter slag and residues from the treatment of waste, wastewater, sludges, or air emission residues; and intact containers of hazardous waste that are not ruptured and that retain at least 75% of their original volume. A mixture of debris that has not been treated to the standards provided by Section 728.145 of this Part and other material is subject to regulation as debris if the mixture is comprised primarily of debris, by volume, based on visual inspection.

“End-of-pipe” refers to the point where effluent is discharged to the environment.

“Halogenated organic compounds” or “HOCs” means those compounds having a carbon-halogen bond that are listed under Section 728.Appendix C.

“Hazardous constituent or constituents” means those constituents listed in 35 Ill. Adm. Code 721.Appendix H.

“Hazardous debris” means debris that contains a hazardous waste listed in 35 Ill. Adm. Code 721.Subpart D or that exhibits a characteristic of hazardous waste identified in 35 Ill. Adm. Code 721.Subpart C.

“Inorganic metal-bearing waste” is one for which USEPA has established treatment standards for metal hazardous constituents that does not otherwise contain significant organic or cyanide content, as described in Section 728.103(b)(1), and which is specifically listed in Section 728.Appendix K.

“Inorganic solid debris” are nonfriable inorganic solids that are incapable of passing through a 9.5 mm standard sieve and that require cutting or crushing and grinding in mechanical sizing equipment prior to stabilization, limited to the following inorganic or metal materials:

Metal slags (either dross or scoria).

Glassified slag.

Glass.

Concrete (excluding cementitious or pozzolanic stabilized hazardous wastes).

Masonry and refractory bricks.

Metal cans, containers, drums, or tanks.

Metal nuts, bolts, pipes, pumps, valves, appliances, or industrial equipment.

Scrap metal, as defined in 35 Ill. Adm. Code 721.101(c)(6).

“Land disposal” means placement in or on the land, except in a corrective action management unit, and includes, but is not limited to, placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, salt bed formation, underground mine, or cave or placement in a concrete vault or bunker intended for disposal purposes.

“Nonwastewaters” are wastes that do not meet the criteria for “wastewaters” in this Section.

“Polychlorinated biphenyls” or “PCBs” are halogenated organic compounds defined in accordance with 40 CFR 761.3, incorporated by reference in 35 Ill. Adm. Code 720.111.

“ppm” means parts per million.

“RCRA corrective action” means corrective action taken under 35 Ill. Adm. Code 724.200 or 725.193, 40 CFR 264.100 or 265.93 (1996), or similar regulations in other States with RCRA programs authorized by USEPA pursuant to 40 CFR 271 (1996).

“Soil” means unconsolidated earth material composing the superficial geologic strata (material overlying bedrock), consisting of clay, silt, sand, or gravel size particles, as classified by the U.S. Soil Conservation Service, or a mixture of such materials with liquids, sludges, or solids that is inseparable by simple mechanical removal processes and which is made up primarily of soil by volume based on visual inspection.

“Stormwater impoundments” are surface impoundments that receive wet weather flow and which receive process waste only during wet weather events.

“Underlying hazardous constituent” means any constituent listed in Section 728.Table U, “Universal Treatment Standards (UTS)”, except fluoride, selenium, sulfides, vanadium, and zinc, that can reasonably be expected to be present at the point of generation of the hazardous waste at a concentration above the constituent-specific UTS treatment standard.

“U.S. EPA” or “USEPA” means the United States Environmental Protection Agency.

“Wastewaters” are wastes that contain less than 1% by weight total organic carbon (TOC) and less than 1% by weight total suspended solids (TSS).

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### Section 728.103 Dilution Prohibited as a Substitute for Treatment

- a) Except as provided in subsection (b) of this Section, no generator, transporter, handler, or owner or operator of a treatment, storage, or disposal facility shall in any way dilute a restricted waste or the residual from treatment of a restricted waste as a substitute for adequate treatment to achieve compliance with Subpart D of this Part, to circumvent the effective date of a prohibition in Subpart C of this Part, to otherwise avoid a prohibition in Subpart C of this Part, or to circumvent a land disposal restriction imposed by RCRA section 3004.
- b) Dilution of waste that is hazardous only because it exhibits a characteristic of hazardous waste in a treatment system that treats wastes subsequently discharged to a water of the State pursuant to an NPDES permit issued under 35 Ill. Adm. Code 309, that treats wastes in a CWA-equivalent treatment system, that treats wastes for purposes of pretreatment requirements under 35 Ill. Adm. Code 310 is not impermissible dilution for purposes of this Section unless a method other

than DEACT has been specified in Section 728.140 as the treatment standard or unless the waste is a D003 reactive cyanide wastewater or nonwastewater.

- c) Combustion of waste designated by any of the USEPA hazardous waste codes listed in Section 728. Appendix J is prohibited, unless the waste can be demonstrated to comply with one or more of the following criteria at the point of generation or after any bona fide treatment, such as cyanide destruction prior to combustion (unless otherwise specifically prohibited from combustion):
- 1) The waste contains hazardous organic constituents or cyanide at levels exceeding the constituent-specific treatment standard found in Section 728.148;
  - 2) The waste consists of organic, debris-like materials (e.g., wood, paper, plastic, or cloth) contaminated with an inorganic metal-bearing hazardous waste;
  - 3) The waste has reasonable heating value, such as greater than or equal to 5000 BTU per pound, at the point of generation;
  - 4) The waste is co-generated with wastes for which combustion is a required method of treatment;
  - 5) The waste is subject to any federal or state requirements necessitating reduction of organics (including biological agents); or
  - 6) The waste contains greater than one percent Total Organic Carbon (TOC).
- d) It is a form of impermissible dilution, and therefore prohibited, to add iron filings or other metallic forms of iron to lead-containing hazardous wastes in order to achieve any land disposal restriction treatment standard for lead. Lead-containing wastes include D008 wastes (wastes exhibiting a characteristic due to the presence of lead), all characteristic wastes containing lead as an underlying hazardous constituent, listed wastes containing lead as a regulated constituent, and hazardous media containing any of the aforementioned lead-containing wastes.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### Section 728.104 Treatment Surface Impoundment Exemption

- a) Wastes which are otherwise prohibited from land disposal under this Part may be treated in a surface impoundment or series of impoundments provided that all of the following conditions are fulfilled:



- 1) Treatment of such wastes occurs in the impoundments;
- 2) The following conditions are met:
  - A) Sampling and testing. For wastes with treatment standards in Subpart D or prohibition levels in Subpart C, the residues from treatment are analyzed, as specified in Section 728.107 or 728.132, to determine if they meet the applicable treatment standards or, where no treatment standards have been established for the waste, the applicable prohibition levels. The sampling method, specified in the waste analysis plan under 35 Ill. Adm. Code 724.113 or 725.113, must be designed such that representative samples of the sludge and the supernatant are tested separately rather than mixed to form homogeneous samples.
  - B) Removal. The following treatment residues (including any liquid waste) must be removed at least annually: residues which do not meet the treatment standards promulgated under Subpart D of this Part; residues which do not meet the prohibition levels established under Subpart C of this Part or Section 728.139 or imposed by federal statute (where no treatment standards have been established); residues ~~which that~~ are from the treatment of wastes prohibited from land disposal under Subpart C of this Part (where no treatment standards have been established and no prohibition levels apply); or residues from managing listed wastes ~~which that~~ are not delisted under 35 Ill. Adm. Code 720.122. ~~However, residues which are the subject of a valid certification under Section 728.108 made no later than a year after placement of the wastes in an impoundment are not required to be removed annually.~~ If the volume of liquid flowing through the impoundment or series of impoundments annually is greater than the volume of the impoundment or impoundments, this flow-through constitutes removal of the supernatant for the purpose of this requirement.
  - C) Subsequent management. Treatment residues must not be placed in any other surface impoundment for subsequent management ~~unless the residues are the subject of a valid certification under Section 728.108 which allows disposal in surface impoundments meeting the requirements of Section 728.108(a).~~
  - D) Recordkeeping. Sampling, testing, and recordkeeping provisions of 35 Ill. Adm. Code 724.113 or 725.113 apply;

- 3) The impoundment meets the design requirements of 35 Ill. Adm. Code 724.321(c) or 725.321(a) even though the unit may not be new, expanded or a replacement, and must be in compliance with applicable groundwater monitoring requirements of 35 Ill. Adm. Code 724.Subpart F or ~~725~~.Subpart F of this Part, unless any of the following conditions is fulfilled:
- A) The impoundment is exempted pursuant to 35 Ill. Adm. Code 724.321(d) or (e), or to 35 Ill. Adm. Code 725.321(c) or (d);
  - B) Upon application by the owner or operator, the Agency has by permit provided that the requirements of this Part do not apply on the basis that the surface impoundment fulfills all of the following conditions:
    - i) The impoundment has at least one liner, for which there is no evidence that such liner is leaking;
    - ii) The impoundment is located more than one-quarter mile from an underground source of drinking water; and
    - iii) The impoundment is in compliance with generally applicable groundwater monitoring requirements for facilities with permits; or
  - C) Upon application by the owner or operator, the Board has, pursuant to 35 Ill. Adm. Code 106, granted an adjusted standard from the requirements of this Part. The justification for such an adjusted standard shall be a demonstration that the surface impoundment is located, designed and operated so as to assure that there will be no migration of any hazardous constituent into groundwater or surface water at any future time; and
- 4) The owner or operator submits to the Agency a written certification that the requirements of subsection (a)(3) of this Section have been met. The following certification is required:
- I certify under penalty of law that the requirements of 35 Ill. Adm. Code 728.104(a)(3) have been met for all surface impoundments being used to treat restricted wastes. I believe that the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.
- b) Evaporation of hazardous constituents as the principal means of treatment is not considered to be a treatment for purposes of an exemption under this Section.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 728.107 Testing, Tracking, and Recordkeeping Requirements for Generators, Treaters, and Disposal Facilities

a) Requirements for generators:

- 1) A generator of a hazardous waste shall determine if the waste has to be treated before it can be land disposed. This is done by determining if the hazardous waste meets the treatment standards in Section 728.140, ~~or Section 728.145, or 728.149.~~ This determination can be made in either of two ways: testing the waste or using knowledge of the waste. ~~Testing-~~If the generator tests the waste, testing determines the total concentration of hazardous constituents, or the concentration of hazardous constituents in an extract of the waste obtained using SW-846 Method 1311 (the Toxicity Characteristic Leaching Procedure), incorporated by reference in 35 Ill. Adm. Code 720.111, depending on whether the treatment standard for the waste is expressed as a total concentration or concentration of hazardous constituent in the waste's extract. In addition, some hazardous wastes must be treated by particular treatment methods before they can be land disposed and some soils are contaminated by such hazardous wastes. These treatment standards are also found in Sections 728.140 and 728.Table T, and are described in detail in Section 728.Table C. These wastes and soils contaminated with such wastes do not need to be tested (however, if they are in a waste mixture, other wastes with concentration level treatment standards shall must be tested). If a generator determines that it is managing a waste or soil contaminated with a waste that displays a hazardous characteristic of ignitability, corrosivity, reactivity, or toxicity, the generator shall comply with the special requirements of Section 728.109 in addition to any applicable requirements in this Section.
  
- 2) If the waste or contaminated soil does not meet the treatment standard: ~~With the initial shipment of waste to each treatment or storage facility,~~ the generator shall send a one-time written notice to each treatment or storage facility receiving the waste with the initial shipment of waste to each treatment or storage facility, and the generator shall place a copy of the one-time notice in the file. The notice must include the information in column "728.107(a)(2)" of the Generator Paperwork Requirements Table in Section 728.Table I. No further notification is necessary until such time that the waste or facility changes, in which case a new notification must be sent and a copy placed in the generator's file.

- A) For contaminated soil, the following certification statement should be included, signed by an authorized representative:

I certify under penalty of law that I personally have examined this contaminated soil and it [does/does not] contain listed hazardous waste and [does/does not] exhibit a characteristic of hazardous waste and requires treatment to meet the soil treatment standards as provided by 35 Ill. Adm. Code 728.149(c).

- B) This subsection (a)(2)(B) corresponds with 40 CFR 268.7(a)(2)(ii), which is marked “reserved” by USEPA. This statement maintains structural consistency with USEPA rules.

- 3) If the waste or contaminated soil meets the treatment standard at the original point of generation:

- A) With the initial shipment of waste to each treatment, storage, or disposal facility, the generator shall send a one-time written notice to each treatment, storage, or disposal facility receiving the waste, and place a copy in its own file. The notice must include the information indicated in column “728.107(a)(3)” of the Generator Paperwork Requirements Table in Section 728. Table I and the following certification statement, signed by an authorized representative:

I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 35 Ill. Adm. Code 728. Subpart D. I believe that the information I submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

- ~~B) If the waste changes, the generator shall send a new notice and certification to the receiving facility, and place a copy in its file. Generators of hazardous debris excluded from the definition of hazardous waste under 35 Ill. Adm. Code 721.103(f) are not subject to these requirements.~~

- B) For contaminated soil, with the initial shipment of wastes to each treatment, storage, or disposal facility, the generator must send a one-time written notice to each facility receiving the waste and

place a copy in the file. The notice must include the information in the column headed “(a)(3)” in Section 728.Table I.

- 4) For reporting, tracking and recordkeeping when exceptions allow certain wastes or contaminated soil that do not meet the treatment standards to be land disposed, ~~There~~ there are certain exemptions from the requirement that hazardous wastes or contaminated soil meet treatment standards before they can be land disposed. These include, but are not limited to, case-by-case extensions under Section 728.105, disposal in a no-migration unit under Section 728.106, or a national capacity variance or case-by-case capacity variance under Subpart C of this Part. If a generator’s waste is so exempt, then with the initial shipment of waste, the generator shall send a one-time written notice to each land disposal facility receiving the waste. The notice must include the information indicated in column “728.107(a)(4)” of the Generator Paperwork Requirements Table in Section 728.Table I. If the waste changes, the generator shall send a new notice to the receiving facility, and place a copy in its file.
  
- 5) If a generator is managing and treating prohibited waste or contaminated soil in tanks, containers, or containment buildings regulated under 35 Ill. Adm. Code 722.134 to meet applicable LDR treatment standards found at Section 728.140, the generator shall develop and follow a written waste analysis plan that describes the procedures it will carry out to comply with the treatment standards. (Generators treating hazardous debris under the alternative treatment standards of Section 728.Table F, however, are not subject to these waste analysis requirements.) The plan must be kept on site in the generator’s records, and the following requirements must be met:
  - A) The waste analysis plan must be based on a detailed chemical and physical analysis of a representative sample of the prohibited wastes being treated, and contain all information necessary to treat the wastes in accordance with the requirements of this Part, including the selected testing frequency;
  - B) Such plan must be kept in the facility’s on-site files and made available to inspectors; and
  - C) Wastes shipped off-site pursuant to this subsection (a)(5) of this Section must comply with the notification requirements of subsection (a)(3) of this Section.
  
- 6) If a generator determines that the waste or contaminated soil is restricted based solely on its knowledge of the waste, all supporting data used to make this determination must be retained on-site in the generator’s files.

If a generator determines that the waste is restricted based on testing this waste or an extract developed using SW-846 Method 1311 (the Toxicity Characteristic Leaching Procedure), incorporated by reference in 35 Ill. Adm. Code 720.111, and all waste analysis data must be retained on-site in the generator's files.

- 7) If a generator determines that it is managing a ~~restricted-prohibited~~ waste which is excluded from the definition of hazardous or solid waste or which is exempt from Subtitle C regulation under 35 Ill. Adm. Code 721.102 through 721.106 subsequent to the point of generation (including deactivated characteristic hazardous wastes that are managed in wastewater treatment systems subject to the CWA, as specified at 35 Ill. Adm. Code 721.104(a)(2); ~~or which that~~ are CWA-equivalent, or that are managed in an underground injection well regulated under 35 Ill. Adm. Code 730), the generator shall place a one-time notice stating such generation, subsequent exclusion from the definition of hazardous or solid waste or exemption from RCRA Subtitle C regulation, and the disposition of the waste in the generating facility's on-site file.
- 8) A generator shall retain a copy of all notices, certifications, waste analysis data, and other documentation produced pursuant to this Section on-site for at least three years from the date that the waste that is the subject of such documentation was last sent to on-site or off-site treatment, storage, or disposal. The three year record retention period is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Agency. The requirements of this subsection (a)(8) apply to solid wastes even when the hazardous characteristic is removed prior to disposal, or when the waste is excluded from the definition of hazardous or solid waste under 35 Ill. Adm. Code 721.102 through 721.106, or exempted from RCRA Subtitle C regulation, subsequent to the point of generation.
- 9) If a generator is managing a lab pack containing hazardous wastes and wishes to use the alternative treatment standard for lab packs found at Section 728.142(c), the generator shall fulfill the following conditions:
- A) With the initial shipment of waste to a treatment facility, the generator shall submit a notice that provides the information in column "Section 728.107(a)(9)" in the Generator Paperwork Requirements Table of Section 728. Table I and the following certification. The certification, which must be signed by an authorized representative and must be placed in the generator's files, must say the following:

I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab

pack contains only wastes that have not been excluded under 35 Ill. Adm. Code 728. Appendix D and that this lab pack will be sent to a combustion facility in compliance with the alternative treatment standards for lab packs at 35 Ill. Adm. Code 728.142(c). I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment.

- B) No further notification is necessary until such time as the wastes in the lab pack change, or the receiving facility changes, in which case a new notice and certification must be sent and a copy placed in the generator's file.
  - C) If the lab pack contains characteristic hazardous wastes (D001-D043), underlying hazardous constituents (as defined in Section 728.102(i)) need not be determined.
  - D) The generator shall also comply with the requirements in subsections (a)(6) and (a)(7) of this Section.
- 10) Small quantity generators with tolling agreements pursuant to 35 Ill. Adm. Code 722.120(e) shall comply with the applicable notification and certification requirements of subsection (a) of this Section for the initial shipment of the waste subject to the agreement. Such generators shall retain on-site a copy of the notification and certification, together with the tolling agreement, for at least three years after termination or expiration of the agreement. The three-year record retention period is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Agency.
- b) The owner or operator of a treatment facility shall test its wastes according to the frequency specified in its waste analysis plan, as required by 35 Ill. Adm. Code 724.113 (for permitted TSDs) or 725.113 (for interim status facilities). Such testing must be performed as provided in subsections (b)(1), (b)(2), and (b)(3) of this Section.
    - 1) For wastes or contaminated soil with treatment standards expressed as ~~concentrations~~ in the waste extract (TCLP), the owner or operator of the treatment facility shall test an extract of the treatment residues using SW-846 Method 1311 (the Toxicity Characteristic Leaching Procedure), incorporated by reference in 35 Ill. Adm. Code 720.111, to assure that the treatment residues extract meets the applicable treatment standards.
    - 2) For wastes or contaminated soil with treatment standards expressed as concentrations in the waste, the owner or operator of the treatment facility shall test the treatment residues (not an extract of such residues)

to assure that the treatment residues meet the applicable treatment standards.

- 3) A one-time notice must be sent with the initial shipment of waste or contaminated soil to the land disposal facility. A copy of the notice must be placed in the treatment facility's file.
- A) No further notification is necessary until such time that the waste or receiving facility changes, in which case a new notice must be sent and a copy placed in the treatment facility's file.
- B) The one-time notice must include the requirements indicated in the following table:

Treatment Facility Paperwork Requirements Table

Required information	Section 728.107(b)
1. USEPA <del>Hazardous Waste</del> <u>hazardous waste number and <del>Manifest numbers</del> manifest number of first shipment</u>	✓
2. The waste is subject to the LDRs. The constituents of concern for F001- <u>through F005 and F039 waste</u> and underlying <u>hazardous constituents in characteristic wastes</u> <del>(for wastes that are not managed in a Clean Water Act (CWA) or CWA equivalent facility)</del> , unless the waste will be treated and monitored for all constituents. If all constituents will be treated and monitored, there is no need to put them all on the LDR notice	✓
3. The notice must include the applicable wastewater/ nonwastewater category (see Section Section 728.102(d) and (f)) and subdivisions made within a waste code based on waste-specific criteria (such as D003 reactive cyanide)	✓
4. Waste analysis data (when available)	✓
5. <u>For contaminated soil subject to LDRs as provided in Section 728.149(a), the constituents subject to treatment as described in Section 728.149(d) and the following statement, "this contaminated soil [does/does not] contain listed hazardous waste and [does/does not] exhibit a</u>	✓



characteristic of hazardous waste and [is subject to/complies with] the soil treatment standards as provided by Section 728.149(c) 56. A certification statement is needed (see applicable section for exact wording) ✓

- 4) The owner or operator of a treatment facility shall submit a certification signed by an authorized representative with the initial shipment of waste or treatment residue of a restricted waste to the land disposal facility. The certification must state as follows:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the treatment standards specified in 35 Ill. Adm. Code 728.140 without impermissible dilution of the prohibited waste. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

A certification is also necessary for contaminated soil and it must state:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and believe that it has been maintained and operated properly so as to comply with treatment standards specified in 40 CFR 268.49 without impermissible dilution of the prohibited wastes. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

- A) A copy of the certification must be placed in the treatment facility's on-site files. If the waste or treatment residue changes, or the receiving facility changes, a new certification must be sent to the receiving facility, and a copy placed in the treatment facility's file.
- B) Debris excluded from the definition of hazardous waste under 35 Ill. Adm. Code 721.103(e) (i.e., debris treated by an extraction or destruction technology listed in Section 728. Table F and debris that the Agency has determined does not contain hazardous waste) is subject to the notification and certification requirements of subsection (d) of this Section rather than the certification requirements of this subsection (b)(4).

- C) For wastes with organic constituents having treatment standards expressed as concentration levels, if compliance with the treatment standards is based in part or in whole on the analytical detection limit alternative specified in Section 728.140(d), the certification must be signed by an authorized representative and must state the following:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the nonwastewater organic constituents have been treated by combustion units as specified in 35 Ill. Adm. Code 728. Table C. I have been unable to detect the nonwastewater organic constituents, despite having used best good faith efforts to analyze for such constituents. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

- D) For characteristic wastes that are subject to the treatment standards in Sections 728.140 and 728. Table T (other than those expressed as a required method of treatment) that are reasonably expected to contain underlying hazardous constituents as defined in 35 Ill. Adm. Code 728.102(i); that are treated on-site to remove the hazardous characteristic; and that are then sent off-site for treatment of underlying hazardous constituents, the certification must state the following:

I certify under penalty of law that the waste has been treated in accordance with the requirements of 35 Ill. Adm. Code 728.140 and 728. Table T to remove the hazardous characteristic. This decharacterized waste contains underlying hazardous constituents that require further treatment to meet universal treatment standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

- E) For characteristic wastes that contain underlying hazardous constituents as defined Section 728.102(i) that are treated on-site to remove the hazardous characteristic to treat underlying hazardous constituents to levels in Sections 728.148 and

728. Table U universal treatment standards, the certification must state the following:

I certify under penalty of law that the waste has been treated in accordance with the requirements of 35 Ill. Adm. Code 728.140 and 728. Table T to remove the hazardous characteristic and that underlying hazardous constituents, as defined in 35 Ill. Adm. Code 728.102(i) have been treated on-site to meet the 35 Ill. Adm. Code 268.148 and 728. Table U universal treatment standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

- 5) If the waste or treatment residue will be further managed at a different treatment, ~~or storage,~~ or disposal facility, the treatment, storage, or disposal facility sending the waste or treatment residue off-site must comply with the notice and certification requirements applicable to generators under this Section.
  - 6) Where the wastes are recyclable materials used in a manner constituting disposal subject to the provisions of 35 Ill. Adm. Code 726.120(b), regarding treatment standards and prohibition levels, the owner or operator of a treatment facility (i.e., the recycler) is not required to notify the receiving facility pursuant to subsection (b)(4)(3) of this Section. With each shipment of such wastes the owner or operator of the recycling facility shall submit a certification described in subsection (b)(~~5~~)(4) of this Section and a notice that includes the information listed in subsection (b)(4)(3) of this Section (except the manifest number) to the Agency. The recycling facility also shall keep records of the name and location of each entity receiving the hazardous waste-derived product.
- c) Except where the owner or operator is disposing of any waste that is a recyclable material used in a manner constituting disposal pursuant to 35 Ill. Adm. Code 726.120(b), the owner or operator of any land disposal facility disposing any waste subject to restrictions under this Part shall:
- 1) Maintain in its files copies of the notice and certifications specified in subsection (a) or (b) of this Section.
  - 2) Test the waste or an extract of the waste or treatment residue developed using SW-846 Method 1311 (the Toxicity Characteristic Leaching Procedure), incorporated by reference in 35 Ill. Adm. Code 720.111), to assure that the waste or treatment residue is in compliance with the applicable treatment standards set forth in Subpart D of this Part. Such testing must be performed according to the frequency specified in the

facility's waste analysis plan as required by 35 Ill. Adm. Code 724.113 or 725.113.

- 3) Where the owner or operator is disposing of any waste that is subject to the prohibitions under Section 728.133(f) but not subject to the prohibitions set forth in Section 728.132, the owner or operator shall ensure that such waste is the subject of a certification according to the requirements of Section 728.108 prior to disposal in a landfill or surface impoundment unit, and that such disposal is in accordance with the requirements of Section 728.105(h)(2). The same requirement applies to any waste that is subject to the prohibitions under Section 728.133(f) and also is subject to the statutory prohibitions in the codified prohibitions in Section 728.139 or Section 728.132.
  - 4) Where the owner or operator is disposing of any waste that is a recyclable material used in a manner constituting disposal subject to the provisions of 35 Ill. Adm. Code 726.120(b), the owner or operator is not subject to subsections (c)(1) through (c)(3) of this Section with respect to such waste.
- d) A generator or treater that first claims that hazardous debris is excluded from the definition of hazardous waste under 35 Ill. Adm. Code 721.103(e) (i.e., debris treated by an extraction or destruction technology provided by Section 728.Table F, and debris that has been delisted) is subject to the following notification and certification requirements:
- 1) A one-time notification must be submitted to the Agency including the following information:
    - A) The name and address of the RCRA Subtitle D (municipal solid waste landfill) facility receiving the treated debris;
    - B) A description of the hazardous debris as initially generated, including the applicable USEPA hazardous waste numbers; and
    - C) For debris excluded under 35 Ill. Adm. Code 721.103(e)(1), the technology from Section 728.Table F used to treat the debris.
  - 2) The notification must be updated if the debris is shipped to a different facility and, for debris excluded under 35 Ill. Adm. Code 721.102(e)(1), if a different type of debris is treated or if a different technology is used to treat the debris.
  - 3) For debris excluded under 35 Ill. Adm. Code 721.103(e)(1), the owner or operator of the treatment facility shall document and certify

compliance with the treatment standards of Section 728. Table F, as follows:

- A) Records must be kept of all inspections, evaluations, and analyses of treated debris that are made to determine compliance with the treatment standards;
- B) Records must be kept of any data or information the treater obtains during treatment of the debris that identifies key operating parameters of the treatment unit; and
- C) For each shipment of treated debris, a certification of compliance with the treatment standards must be signed by an authorized representative and placed in the facility's files. The certification must state the following:

I certify under penalty of law that the debris has been treated in accordance with the requirements of 35 Ill. Adm. Code 728.145. I am aware that there are significant penalties for making a false certification, including the possibility of fine and imprisonment.

e) A generator or treater that first receives a determination from USEPA or the Agency that a given contaminated soil subject to LDRs, as provided in Section 728.149(a), no longer contains a listed hazardous waste and generators and treaters that first determine that a contaminated soil subject to LDRs, as provided in Section 728.149(a), no longer exhibits a characteristic of hazardous waste shall do the following:

- 1) Prepare a one-time only documentation of these determinations including all supporting information; and
- 2) Maintain that information in the facility files and other records for a minimum of three years.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### SUBPART C: PROHIBITION ON LAND DISPOSAL

~~Section 728.133 Waste-Specific Prohibitions -- First Third Wastes (Repealed)~~  
Section 728.133 Waste-Specific Prohibitions -- Organobromine Wastes

- a) The waste specified in 35 Ill. Adm. Code 721.132 as USEPA hazardous waste number K140 and in 35 Ill. Adm. Code 721.133 as USEPA hazardous waste number U408 are prohibited from land disposal. In addition, soils and debris

contaminated with these wastes, radioactive wastes mixed with these hazardous wastes, and soils and debris contaminated with these radioactive mixed wastes, are prohibited from land disposal.

- b) The requirements of subsection (a) of this Section does not apply if:
- 1) The wastes meet the applicable treatment standards specified in Subpart D of this Part;
  - 2) The Board has granted an exemption from a prohibition pursuant to a petition under Section 728.106, with respect to the wastes and units covered by the petition;
  - 3) The wastes meet the applicable treatment standards established pursuant to a petition granted under Section 728.144;
  - 4) Hazardous debris that has met treatment standards in Sections 728.140 and 728.Table T or, in the alternative, the treatment standards in Section 728.145; or
  - 5) USEPA has granted an extension to the effective date of a prohibition, as described in Section 268.5, with respect to these wastes covered by the extension.
- c) To determine whether a hazardous waste identified in this Section exceeds the applicable treatment standards specified in Sections 728.140 and 728.Table T, the initial generator shall test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or in the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable **universal treatment standard** levels of Sections 728.148 and 728.Table U, the waste is prohibited from land disposal, and all requirements of this Part are applicable, except as otherwise specified.

(Source: Added at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

~~Section 728.134 Waste Specific Prohibitions -- Second Third Wastes (Repealed)~~

Section 728.134 Waste-Specific Prohibitions -- Toxicity Characteristic Metal Wastes

- a) The following wastes are prohibited from land disposal: the wastes specified in 35 Ill. Adm. Code 721 as USEPA hazardous waste numbers D004 through D011 that are newly identified (i.e., wastes, soil, or debris identified as hazardous by the Toxic Characteristic Leaching Procedure but not the Extraction Procedure), and waste, soil, or debris from mineral processing operations that is identified as hazardous by the specifications at 35 Ill. Adm. Code 721.

- b) The following waste is prohibited from land disposal: slag from secondary lead smelting that exhibits the characteristic of toxicity due to the presence of one or more metals.
- c) Effective May 26, 2000, the following wastes are prohibited from land disposal: newly identified characteristic wastes from elemental phosphorus processing; radioactive wastes mixed with USEPA hazardous waste numbers D004 through D011 wastes that are newly identified (i.e., wastes, soil, or debris identified as hazardous by the Toxic Characteristic Leaching Procedure but not the Extraction Procedure); or mixed with newly identified characteristic mineral processing wastes, soil, or debris.
- d) Until May 26, 2000, newly identified characteristic wastes from elemental phosphorus processing, radioactive waste mixed with USEPA hazardous waste numbers D004 through D011 wastes that are newly identified (i.e., wastes, soil, or debris identified as hazardous by the Toxic Characteristic Leaching Procedure but not the Extraction Procedure), or mixed with newly identified characteristic mineral processing wastes, soil, or debris may be disposed in a landfill or surface impoundment only if such unit is in compliance with the requirements specified in Section 728.105(h)(2).
- e) The requirements of subsections (a) and (b) of this Section do not apply if any of the following applies to the waste:
  - 1) The wastes meet the applicable treatment standards specified in Subpart D of this Part;
  - 2) The Board has granted an exemption from a prohibition pursuant to a petition under Section 728.106, with respect to those wastes and units covered by the petition;
  - 3) The wastes meet the applicable alternate treatment standards established pursuant to a petition granted under Section 728.144; or
  - 4) USEPA has granted an extension to the effective date of a prohibition pursuant to 40 CFR 268.5, with respect to those wastes covered by the extension.
- f) To determine whether a hazardous waste identified in this Section exceeds the applicable treatment standards specified in Sections 728.140 and 728.Table T, the initial generator must test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents (including underlying hazardous constituents in characteristic wastes) in excess of the applicable universal

treatment standard levels of Sections 728.148 and 728.Table U, the waste is prohibited from land disposal, and all requirements of this Part are applicable, except as otherwise specified.

(Source: Added at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### SUBPART D: TREATMENT STANDARDS

##### Section 728.140 Applicability of Treatment Standards

- a) A prohibited waste identified in Section 728.Table T, “Treatment Standards for Hazardous Wastes”, may be land disposed only if it meets the requirements found in that Section. For each waste, Section 728.Table T identifies one of three types of treatment standard requirements:
  - 1) All hazardous constituents in the waste or in the treatment residue must be at or below the values found in that Section for that waste (“total waste standards”);
  - 2) The hazardous constituents in the extract of the waste or in the extract of the treatment residue must be at or below the values found in that Section (“waste extract standards”); or
  - 3) The waste must be treated using the technology specified in that Section (“technology standard”), which is described in detail in Section 728.Table C, “Technology Codes and Description of Technology-Based Standards”.
  
- b) For wastewaters, compliance with concentration level standards is based on maximums for any one day, except for D004 through D011 wastes for which the previously promulgated treatment standards based on grab samples remain in effect. For all nonwastewaters, compliance with concentration level standards is based on grab sampling. For wastes covered by the waste extract standards, the test Method 1311, the Toxicity Characteristic Leaching Procedure, found in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA Publication SW-846, incorporated by reference in Section 720.111, must be used to measure compliance. An exception is made for D004 and D008, for which either of two test methods may be used: Method 1311 or Method 1310, the Extraction Procedure Toxicity Test, found in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA Publication SW-846, incorporated by reference in Section 720.111. For wastes covered by a technology standard, the wastes may be land disposed after being treated using that specified technology or an equivalent treatment technology approved by the Agency pursuant to Section 728.142(b).



- c) When wastes with differing treatment standards for a constituent of concern are combined for purposes of treatment, the treatment residue must meet the lowest treatment standard for the constituent of concern.
- d) Notwithstanding the prohibitions specified in subsection (a) of this Section, treatment and disposal facilities may demonstrate (and certify pursuant to 35 Ill. Adm. Code 728.107(b)(5)) compliance with the treatment standards for organic constituents specified by a footnote in Section 728. Table T, provided the following conditions are satisfied:
- 1) The treatment standards for the organic constituents were established based on incineration in units operated in accordance with the technical requirements of 35 Ill. Adm. Code 724. Subpart O, or based on combustion in fuel substitution units operating in accordance with applicable technical requirements;
  - 2) The treatment or disposal facility has used the methods referenced in subsection (d)(1) of this Section to treat the organic constituents; and
  - 3) The treatment or disposal facility may demonstrate compliance with organic constituents if good-faith analytical efforts achieve detection limits for the regulated organic constituents that do not exceed the treatment standards specified in this Section and Section 728. Table T by an order of magnitude.
- e) For ~~a characteristic wastes~~ waste (USEPA hazardous waste ~~numbers~~ number D001 through ~~D003 and D018 through~~ D043) that ~~are~~ is subject to treatment standards set forth in Section 728. Table T, “Treatment Standards for Hazardous Wastes”, and the waste is not managed in a wastewater treatment system that is either regulated under the Clean Water Act (CWA) or one that is CWA-equivalent or the waste is injected into a Class I nonhazardous deep injection well, all underlying hazardous constituents (as defined in Section 728.102(i)) must meet the universal treatment standards, set forth in Section 728. Table U prior to land disposal, as defined in Section 728.102(c).
- f) The treatment standards for USEPA hazardous waste numbers F001 through F005 nonwastewater constituents carbon disulfide, cyclohexanone, or methanol apply to wastes that contain only one, two, or three of these constituents. Compliance is measured for these constituents in the waste extract from test Method 1311, the Toxicity Characteristic Leaching Procedure found in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA Publication SW-846, incorporated by reference in Section 720.111. If the waste contains any of these three constituents along with any of the other 25 constituents found in USEPA hazardous waste numbers F001 through F005, then compliance with treatment standards for carbon disulfide, cyclohexanone, or methanol are not required.

- g) This subsection corresponds with 40 CFR 268.40(g), added at 61 Fed. Reg. 43927 (Aug. 26, 1996), which has expired. This statement maintains structural consistency with the federal rules.
- h) Prohibited USEPA hazardous waste numbers D004 through D011 mixed radioactive wastes and mixed radioactive listed wastes containing metal constituents that were previously treated by stabilization to the treatment standards in effect at that time and then put into storage do not have to be re-treated to meet treatment standards in this Section prior to land disposal.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 728.142 Treatment Standards Expressed as Specified Technologies

- a) The following wastes listed in subsections (a)(1) and (b)(2) below and Section 728. Table T, "Treatment Standards for Hazardous Wastes," for which standards are expressed as a treatment method rather than a concentration level, must be treated using the technology or technologies specified in subsections (a)(1) and (a)(2) below and Section 728. Table T C.
- 1) Liquid hazardous wastes containing PCBs at concentrations greater than or equal to 50 ppm but less than 500 ppm must be incinerated in accordance with the technical requirements of 40 CFR 761.70, incorporated by reference in 35 Ill. Adm. Code 720.111, or burned in high efficiency boilers in accordance with the technical requirements of 40 CFR 761.60. Liquid hazardous wastes containing PCBs at concentrations greater than or equal to 500 ppm must be incinerated in accordance with the technical requirements of 40 CFR 761.70. Thermal treatment in accordance with this Section must be in compliance with applicable regulations in 35 Ill. Adm. Code 724, 725, and 726.
  - 2) Nonliquid hazardous wastes containing halogenated organic compounds (HOCs) in total concentrations greater than or equal to 1000 mg/kg and liquid HOC-containing wastes that are prohibited under Section 728.132(e)(1) must be incinerated in accordance with the requirements of 35 Ill. Adm. Code 724.Subpart O or 35 Ill. Adm. Code 725.Subpart O. These treatment standards do not apply where the waste is subject to a treatment standard codified in 728.Subpart C of this Part for a specific HOC (such as a hazardous waste chlorinated solvent for which a treatment standard is established under Section 728.141(a)).
  - 3) A mixture consisting of wastewater, the discharge of which is subject to regulation under 35 Ill. Adm. Code 309 or 310, and de minimis losses of materials from manufacturing operations in which these materials are used as raw materials or are produced as products in the manufacturing process

that meet the criteria of the D001 ignitable liquids containing greater than 10% total organic constituents (TOC) subcategory are subject to the DEACT treatment standard described in Section 728. Table C. For purposes of this subsection, “de minimis losses” include:

- A) Those from normal material handling operations (e.g., spills from the unloading or transfer of materials from bins or other containers, or leaks from pipes, valves, or other devices used to transfer materials);
  - B) Minor leaks from process equipment, storage tanks, or containers;
  - C) Leaks from well-maintained pump packings and seals;
  - D) Sample purgings; and
  - E) Relief device discharges.
- b) Any person may submit an application to the Agency demonstrating that an alternative treatment method can achieve a level of performance equivalent to that achievable by methods specified in subsections (a) ~~above~~ and (c) ~~and (d) below~~ of this Section for wastes or ~~specified~~ specified in Section 728. Table F for hazardous debris. The applicant shall submit information demonstrating that the applicant’s treatment method is in compliance with federal and state requirements, including this Part; 35 Ill. Adm. Code 709, 724, 725, 726, and 729; and Sections 22.6 and 39(h) of the Environmental Protection Act [415 ILCS 5/22.6 and 39(h)] and that the treatment method is protective of human health and the environment. On the basis of such information and any other available information, the Agency shall approve the use of the alternative treatment method if the Agency finds that the alternative treatment method provides a measure of performance equivalent to that achieved by methods specified in subsections (a) ~~above~~ of this Section and (c) and (d) ~~below~~ of this Section and in Section 728. Table F, for hazardous debris. Any approval must be stated in writing and may contain such provisions and conditions as the Agency determines to be appropriate. The person to whom such approval is issued shall comply with all limitations contained in such determination.
- c) As an alternative to the otherwise applicable treatment standards of ~~728~~. Subpart D of this Part, lab packs are eligible for land disposal provided the following requirements are met:
- 1) The lab packs comply with the applicable provisions of 35 Ill. Adm. Code 724.416 and 725.416;

BOARD NOTE: 35 Ill. Adm. Code 729.301 and 729.312 include additional restrictions on the use of lab packs.

- 2) The lab pack does not contain any of the wastes listed in Section 728.Appendix D;
  - 3) The lab packs are incinerated in accordance with the requirements of 35 Ill. Adm. Code 724.Subpart O or 35 Ill. Adm. Code 725.Subpart O; and
  - 4) Any incinerator residues from lab packs containing D004, D005, D006, D007, D008, D010, and D011 are treated in compliance with the applicable treatment standards specified for such wastes in 728.Subpart D of this Part.
- d) Radioactive hazardous mixed wastes are subject to the treatment standards in Sections 728.140 and 728.Table T. Where treatment standards are specified for radioactive mixed wastes in Section 728.Table T, “Table of Treatment Standards”, those treatment standards will govern. Where there is no specific treatment standard for radioactive mixed waste, the treatment standard for the hazardous waste (as designated by EPA waste code) applies. Hazardous debris containing radioactive waste is subject to the treatment standards specified in Section 728.145.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### Section 728.144 Adjustment of Treatment Standard

- a) ~~Where the treatment standard is expressed as a concentration in a waste or waste extract and a waste cannot be treated to the specified level, or where the treatment technology is not appropriate to the waste, the generator or treatment facility may petition to the Board for an adjusted treatment standard. As justification, the petitioner shall demonstrate that, because the physical or chemical properties of the waste differ significantly from wastes analyzed in developing the treatment standard, the waste cannot be treated to specified levels or by the specified methods.~~
- a) Based on a petition filed by a generator or treater of hazardous waste, the Board will grant an adjusted standard from an applicable treatment standard if the petitioner can demonstrate that either of the following applies to treatment of the waste:
- 1) It is not physically possible to treat the waste to the level specified in the treatment standard, or by the method specified as the treatment standard. To show that this is the case, the petitioner must demonstrate that because the physical or chemical properties of the waste differ significantly from waste analyzed in developing the treatment standard, the waste cannot be treated to the specified level or by the specified method; or

2) It is inappropriate to require the waste to be treated to the level specified in the treatment standard or by the method specified as the treatment standard, even though such treatment is technically possible. To show that this is the case, the petitioner must either demonstrate that either of the following applies to treatment of the waste:

A) Treatment to the specified level or by the specified method is technically inappropriate (for example, resulting in combustion of large amounts of mildly contaminated environmental media); or

B) For remediation waste only, treatment to the specified level or by the specified method is environmentally inappropriate because it would likely discourage aggressive remediation.

BOARD NOTE: 40 CFR 268.44 refers to these as “treatability variances”. The Board has not used this term in its rules to avoid confusion with the Board variances under Title IX of the Environmental Protection Act. The equivalent Board procedures are an “adjusted ~~treatment~~ standard from a treatment standard” pursuant to subsections (a) through (l) of this Section, or a “treatability exception” adopted pursuant to subsections (m) et seq of this Section. While the latter is adopted by “identical in substance” rulemaking following a USEPA action, the former is an original Board action which will be the only mechanism following authorization to the State of this component of the RCRA program.

- b) Each petition must be submitted in accordance with the procedures in 35 Ill. Adm. Code 106.Subpart G.
- c) Each petition must include the following statement signed by the petitioner or an authorized representative:

“I certify under penalty of law that I have personally examined and am familiar with the information submitted in this petition and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.”

- d) After receiving a petition for an adjusted treatment standard, the Board may request any additional information or samples which are necessary to evaluate the petition.

- e) The Board will give public notice and provide an opportunity for public comment, as provided in 35 Ill. Adm. Code 106. In conjunction with any updating of the RCRA regulations, the Board will maintain, in this Part, a listing of all adjusted treatment standards granted by the Board pursuant to this Section. A LISTING OF ALL ADJUSTED STANDARDS GRANTED PURSUANT TO THIS SECTION WILL BE PUBLISHED IN THE ILLINOIS REGISTER AND ENVIRONMENTAL REGISTER AT THE END OF EACH FISCAL YEAR. (Section 28.1(d)(3) of the Environmental Protection Act [415 ILCS 5/28.1(d)(3)].)
- f) A generator, treatment facility or disposal facility that is managing a waste covered by an adjusted treatment standard shall comply with the waste analysis requirements for restricted wastes found under Section 728.107.
- g) During the petition review process, the applicant is required to comply with all restrictions on land disposal under this Part once the effective date for the waste has been reached.
- ~~h) Where the treatment standard is expressed as a concentration in a waste or waste extract and a waste generated under conditions specific to only one site cannot be treated to the specified level, or where treatment technology is not appropriate to the waste, the generator or treatment facility may petition the Board for a site specific adjusted treatment standard. The petitioner shall demonstrate that, because the physical or chemical properties of the waste differs significantly from the waste analyzed in developing the treatment standard, the waste cannot be treated to specified levels or by the specified methods.~~
- h) Based on a petition filed by a generator or treater of hazardous waste, the Board will grant an andjusted standard from an applicable treatment standard if the petitioner can demonstrate that either of the following applies to treatment of the waste:
- 1) It is not physically possible to treat the waste to the level specified in the treatment standard, or by the method specified as the treatment standard. To show that this is the case, the petitioner must demonstrate that because the physical or chemical properties of the waste differ significantly from waste analyzed in developing the treatment standard, the waste cannot be treated to the specified level or by the specified method; or
  - 2) It is inappropriate to require the waste to be treated to the level specified in the treatment standard or by the method specified as the treatment standard, even though such treatment is technically possible. To show that this is the case, the petitioner must either demonstrate that either of the following applies to treatment of the waste:

- A) Treatment to the specified level or by the specified method is technically inappropriate (for example, resulting in combustion of large amounts of mildly contaminated environmental media where the treatment standard is not based on combustion of such media);  
or
- B) For remediation waste only, treatment to the specified level or by the specified method is environmentally inappropriate because it would likely discourage aggressive remediation.
- 3) For contaminated soil only, treatment to the level or by the method specified in the soil treatment standards would result in concentrations of hazardous constituents that are below (i.e., lower than) the concentrations necessary to minimize short- and long-term threats to human health and the environment. An adjusted standard from a treatment standard granted under this subsection (h)(3) will include the following features:
- A) At a minimum, the adjusted standard from the treatment standard will impose an alternative land disposal restriction treatment standard that will achieve the following, using a reasonable maximum exposure scenario:
- i) For carcinogens, it will achieve constituent concentrations that result in the total excess risk to an individual exposed over a lifetime generally falling within a range from  $10^{-4}$  to  $10^{-6}$ ;  
and
- ii) For constituents with non-carcinogenic effects, it will achieve constituent concentrations that an individual could be exposed to on a daily basis without appreciable risk of deleterious effect during a lifetime.
- B) The treatment adjusted standard will not consider post-land-disposal controls.
- 4) For contaminated soil only, treatment to the level or by the method specified in the soil treatment standards would result in concentrations of hazardous constituents that are below (i.e., lower than) natural background concentrations at the site where the contaminated soil will land disposed.

- 5) The Board will follow the procedures of Section 28.1 of the Act and 35 Ill. Adm. Code 106 pertaining to public notice and a reasonable opportunity for public comment before granting or denying a petition.
- i) Each petition for a site-specific adjusted treatment standard must include the information in 35 Ill. Adm. Code 720.120(b)(1) through (b)(4).
- j) After receiving a petition for a site-specific adjusted treatment standard, the Board may request any additional information or samples which the Board determines are necessary to evaluate the petition.
- k) A generator, treatment facility or disposal facility which is managing a waste covered by a site-specific adjusted treatment standard shall comply with the waste analysis requirements for restricted wastes in Section 728.107.
- l) During the petition review process, the petitioner for a site-specific adjusted treatment standard shall comply with all restrictions on land disposal under this Part once the effective date for the waste has been reached.
- ~~m) If USEPA grants a treatability exception by regulatory action pursuant to 40 CFR 268.44 (1996) and a person demonstrates that the treatability exception needs to be adopted as part of the Illinois RCRA program because the waste is generated or managed in Illinois, the Board will adopt the treatability exception by identical in substance rulemaking pursuant to Section 22.4(a) of the Environmental Protection Act.~~
- ~~BOARD NOTE: The Board will adopt the treatability exception during a RCRA update Docket if a timely demonstration is made. Otherwise, the Board will assign the matter to a separate Docket. This subsection (m) is not derived directly from a federal regulation. Corresponding 40 CFR 264.1030(m) is marked "reserved" by USEPA.~~
- m) For any adjusted standard from a treatment standard, the petitioner must also demonstrate that compliance with the requested adjusted standard is sufficient to minimize threats to human health and the environment posed by land disposal of the waste. In evaluating this demonstration, the Board will take into account whether the adjusted standard should be granted if the subject waste is to be used in a manner constituting disposal pursuant to Sections 728.120 through 728.123.
- n) This subsection (n) corresponds with 40 CFR 264.1030(n), marked "reserved" by USEPA. This statement maintains structural consistency with USEPA rules.



- o) The facilities listed in Section 728. Table H are excluded from the treatment standards under Sections 728.143(a) and 728. Table B, and are subject to the constituent concentrations listed in Section 728. Table H.
- ~~p) This subsection (p) corresponds with 40 CFR 264.1030(p), which is a site-specific regulation that applies to a facility outside Illinois. This statement maintains structural consistency with USEPA rules.~~
- p) If USEPA grants a treatability exception by regulatory action pursuant to 40 CFR 268.44 (1996) and a person demonstrates that the treatability exception needs to be adopted as part of the Illinois RCRA program because the waste is generated or managed in Illinois, the Board will adopt the treatability exception by identical in substance rulemaking pursuant to Section 22.4(a) of the Environmental Protection Act.

BOARD NOTE: The Board will adopt the treatability exception during a RCRA update Docket if a timely demonstration is made. Otherwise, the Board will assign the matter to a separate Docket.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 728.145 Treatment Standards for Hazardous Debris

- a) Treatment standards. Hazardous debris must be treated prior to land disposal as follows, unless the Board has determined, under 35 Ill. Adm. Code 721.103~~(d)~~(f)(2), that the debris is no longer contaminated with hazardous waste or the debris is treated to the waste-specific treatment standard provided in this Subpart for the waste contaminating the debris:
- 1) General. Hazardous debris must be treated for each “contaminant subject to treatment”, defined by subsection (b)~~below~~ of this Section, using the technology or technologies identified in Section 728. Table F.
  - 2) Characteristic debris. Hazardous debris that exhibits the characteristic of ignitability, corrosivity, or reactivity identified under 35 Ill. Adm. Code 721.121, 721.122, or 721.123, respectively, must be deactivated by treatment using one of the technologies identified in Section 728. Table F.
  - 3) Mixtures of debris types. The treatment standards of Section 728. Table F must be achieved for each type of debris contained in a mixture of debris types. If an immobilization technology is used in a treatment train, it must be the last treatment technology used.
  - 4) Mixtures of contaminant types. Debris that is contaminated with two or more contaminants subject to treatment identified under subsection (b) ~~below~~ of this Section must be treated for each contaminant using one or

more treatment technologies identified in Section 728. Table F. If an immobilization technology is used in a treatment train, it must be the last treatment technology used.

- 5) Waste PCBs. Hazardous debris that is also a waste PCB under 40 CFR 761 is subject to the requirements of either 40 CFR 761 or the requirements of this Section, whichever are more stringent.
- b) Contaminants subject to treatment. Hazardous debris must be treated for each “contaminant subject to treatment”. The contaminants subject to treatment must be determined as follows:
    - 1) Toxicity characteristic debris. The contaminants subject to treatment for debris that exhibits the Toxicity Characteristic (TC) by 35 Ill. Adm. Code 721.124 are those EP constituents for which the debris exhibits the TC toxicity characteristic.
    - 2) Debris contaminated with listed waste. The contaminants subject to treatment for debris that is contaminated with a prohibited listed hazardous waste are those constituents or wastes for which treatment standards are established for the waste under Sections 728.140 and 728. Table T.
    - 3) Cyanide reactive debris. Hazardous debris that is reactive because of cyanide must be treated for cyanide.
  - c) Conditioned exclusion of treated debris. Hazardous debris that has been treated using one of the specified extraction or destruction technologies in Section 728. Table F and that does not exhibit a characteristic of hazardous waste identified under 35 Ill. Adm. Code 721. Subpart C after treatment is not a hazardous waste and need not be managed in a subtitle C facility. Hazardous debris contaminated with a listed waste that is treated by an immobilization technology specified in Section 728. Table F is a hazardous waste and must be managed in a RCRA Subtitle C treatment, storage, or disposal facility.
  - d) Treatment residuals
    - 1) General requirements. Except as provided by subsections (d)(2) and (d)(4) below of this Section:
      - A) Residue from the treatment of hazardous debris must be separated from the treated debris using simple physical or mechanical means; and
      - B) Residue from the treatment of hazardous debris is subject to the waste-specific treatment standards provided by ~~728. Subpart D~~ of this Part for the waste contaminating the debris.

- 2) Nontoxic debris. Residue from the deactivation of ignitable, corrosive, or reactive characteristic hazardous debris (other than cyanide-reactive) that is not contaminated with a contaminant subject to treatment defined by subsection (b) ~~above~~ of this Section, must be deactivated prior to land disposal and is not subject to the waste-specific treatment standards of ~~728.Subpart D~~ of this Part.
- 3) Cyanide-reactive debris. Residue from the treatment of debris that is reactive because of cyanide must meet the standards for ~~U.S. EPA USEPA~~ hazardous waste number D003 under Sections ~~728.143~~ 728.140 and 728.Table T.
- 4) Ignitable nonwastewater residue. Ignitable nonwastewater residue containing equal to or greater than ~~10%~~ percent total organic carbon is subject to the technology-based ~~specified in the treatment standards for U.S. EPA USEPA~~ hazardous waste number D001: “Ignitable Liquids based on ~~35 Ill. Adm. Code 721.121(a)(1)~~”, under Section ~~728.142~~.
- 5) Residue from spalling. Layers of debris removed by spalling are hazardous debris that remain subject to the treatment standards of this Section.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### Section 728.149 Alternative LDR Treatment Standards for Contaminated Soil

- a) Applicability. An owner or operator shall comply with LDRs prior to placing soil that exhibits a characteristic of hazardous waste or which exhibited a characteristic of hazardous waste at the time it was generated into a land disposal unit. The following chart describes whether an owner or operator must comply with LDRs prior to placing soil contaminated by listed hazardous waste into a land disposal unit:

<u>If the LDRs</u>	<u>And if the LDRs</u>	<u>And if</u>	<u>Then the owner or operator</u>
<u>Applied to the listed waste when it contaminated the soil*</u>	<u>Apply to the listed waste now.</u>	—	<u>Must comply with LDRs</u>
<u>Did not apply to the listed</u>	<u>Apply to the listed waste</u>	<u>The soil is determined to</u>	<u>Must comply with LDRs.</u>

<u>waste when it contaminated the soil*.</u>	<u>now.</u>	<u>contain the listed waste when the soil is first generated.</u>	
<u>Did not apply to the listed waste when it contaminated the soil*.</u>	<u>Apply to the listed waste now.</u>	<u>The soil is determined to contain the listed waste when the soil is first generated.</u>	<u>Needs not comply with LDRs.</u>
<u>Did not apply to the listed waste when it contaminated the soil*.</u>	<u>Do not apply to the listed waste now.</u>	—	<u>Needs not comply with LDRs.</u>

\* For dates of LDR applicability, see 35 Ill. Adm. Code 728.Appendix G. To determine the date any given listed hazardous waste contaminated any given volume of soil, use the last date any given listed hazardous waste was placed into any given land disposal unit or, in the case of an accidental spill, the date of the spill.

- b) Prior to land disposal, contaminated soil identified by subsection (a) of this Section as needing to comply with LDRs must be treated according to the applicable treatment standards specified in subsection (c) of this Section or according to the universal treatment standards specified in Sections 728.148 and 728.Table U applicable to the contaminating listed hazardous waste or the applicable characteristic of hazardous waste if the soil is characteristic. The treatment standards specified in subsection (c) of this Section and the universal treatment standards may be modified through a treatment variance approved in accordance with Section 728.144.
- c) Treatment standards for contaminated soils. Prior to land disposal, contaminated soil identified by subsection (a) of this Section as needing to comply with LDRs must be treated according to all the standards specified in this paragraph or according to the universal treatment standards specified in Sections 728.148 and 728.Table U.

- 1) All soils. Prior to land disposal, all constituents subject to treatment must be treated as follows:
  - A) For non-metals, treatment must achieve 90 percent reduction in total constituent concentrations, except as provided by subsection (c)(1)(C) of this Section.
  - B) For metals, treatment must achieve 90 percent reduction in constituent concentrations as measured in leachate from the treated media (tested according to the TCLP) or 90 percent reduction in total constituent concentrations (when a metal removal treatment technology is used), except as provided by subsection (c)(1)(C) of this Section.
  - C) When treatment of any constituent subject to treatment to a 90 percent reduction standard would result in a concentration less than 10 times the universal treatment standard for that constituent, treatment to achieve constituent concentrations less than 10 times the universal treatment standard is not required. universal treatment standards are identified in Section 728. Table U.
- 2) Soils that exhibit the characteristic of ignitability, corrosivity or reactivity. In addition to the treatment required by subsection (c)(1) of this Section, prior to land disposal, soils that exhibit the characteristic of ignitability, corrosivity, or reactivity must be treated to eliminate these characteristics.
- 3) Soils that contain nonanalyzable constituents. In addition to the treatment requirements of subsections (c)(1) and (c)(2) of this Section, prior to land disposal, the following treatment is required for soils that contain nonanalyzable constituents:
  - i) For soil that also contains analyzable constituents, treatment of those analyzable constituents to the levels specified in subsections (c)(1) and (c)(2) of this Section; or,
  - ii) For soil that contains only nonanalyzable constituents, treatment by the method specified in Section 728.142 for the waste contained in the soil.

- d) Constituents subject to treatment. When applying the soil treatment standards in subsection (c) of this Section, constituents subject to treatment are any constituents listed in Section 728.148. Table U universal treatment standards that are reasonably expected to be present in any given volume of contaminated soil, except fluoride, selenium, sulfides, vanadium and zinc, and are present at concentrations greater than ten times the universal treatment standard.
- e) Management of treatment residuals. Treatment residuals from treating contaminated soil identified by subsection (a) of this Section as needing to comply with LDRs must be managed as follows:
- 1) Soil residuals are subject to the treatment standards of this Section;
  - 2) Non-soil residuals are subject to the following requirements:
    - i) For soils contaminated by listed hazardous waste, the RCRA Subtitle C standards applicable to the listed hazardous waste; and
    - ii) For soils that exhibit a characteristic of hazardous waste, if the non-soil residual also exhibits a characteristic of hazardous waste, the treatment standards applicable to the characteristic hazardous waste.

(Source: Added at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### Section 728. Appendix G Federal Effective Dates

The following are the effective dates for the USEPA rules in 40 CFR 268. These generally became effective as Illinois rules at a later date.

TABLE 1  
EFFECTIVE DATES OF SURFACE DISPOSED WASTES (NON-SOIL AND DEBRIS) REGULATED IN THE LDRS<sup>a</sup>—COMPREHENSIVE LIST

Waste code	Waste category	Effective date
D001 <sup>c</sup>	All (except High TOC Ignitable Liquids)	Aug. 9, 1993.
D001	High TOC Ignitable Liquids	Aug. 8, 1990.
D002 <sup>c</sup>	All	Aug. 9, 1993.
D003 <sup>e</sup>	All	July 8, 1996.

<u>D003<sup>c</sup></u>	<u>Newly identified surface-disposed elemental phosphorus processing wastes</u>	<u>May 26, 2000.</u>
<u>D004</u>	Nonwastewater	<del>May 8, 1992.</del>
<u>D004</u>	<u>Newly identified D004 and mineral processing wastes</u>	<u>Aug. 24, 1998.</u>
<u>D004</u>	Wastewater	<del>Aug. 8, 1992.</del>
<u>D004</u>	<u>Mixed radioactive/newly identified D004 or mineral processing wastes</u>	<u>May 26, 2000.</u>
<u>D005</u>	All	<del>Aug. 8, 1990.</del>
<u>D005</u>	<u>Newly identified D005 and mineral processing wastes</u>	<u>Aug. 24, 1998.</u>
<u>D005</u>	<u>Mixed radioactive/newly identified D005 or mineral processing wastes</u>	<u>May 26, 2000.</u>
<u>D006</u>	All	<del>Aug. 8, 1990.</del>
<u>D006</u>	<u>Newly identified D006 and mineral processing wastes</u>	<u>Aug. 24, 1998.</u>
<u>D006</u>	<u>Mixed radioactive/newly identified D006 or mineral processing wastes</u>	<u>May 26, 2000.</u>
<u>D007</u>	All	<del>Aug. 8, 1990.</del>
<u>D007</u>	<u>Newly identified D007 and mineral processing wastes</u>	<u>Aug. 24, 1998.</u>
<u>D007</u>	<u>Mixed radioactive/newly identified D007 or mineral processing wastes</u>	<u>May 26, 2000.</u>
<u>D008</u>	Lead materials before secondary smelting	<del>May 8, 1992.</del>
<u>D008</u>	<u>Newly identified D008 and mineral processing waste</u>	<u>Aug. 24, 1998.</u>
<u>D008</u>	All others	<del>Aug. 8, 1990.</del>
<u>D008</u>	<u>Mixed radioactive/newly identified D008 or mineral processing wastes</u>	<u>May 26, 2000.</u>
<u>D009</u>	Nonwastewater	<del>May 8, 1992.</del>
<u>D009</u>	<u>Newly identified D009 and mineral processing waste</u>	<u>Aug. 24, 1998.</u>
<u>D009</u>	All others	<del>Aug. 8, 1990.</del>
<u>D009</u>	<u>Mixed radioactive/newly identified D009 or mineral processing wastes</u>	<u>May 26, 2000.</u>
<u>D010</u>	All	<del>Aug. 8, 1990.</del>
<u>D010</u>	<u>Newly identified D010 and mineral processing wastes</u>	<u>Aug. 24, 1998.</u>
<u>D010</u>	<u>Mixed radioactive/newly identified D010 or mineral processing wastes</u>	<u>May 26, 2000.</u>
<u>D011</u>	All	<del>Aug. 8, 1990.</del>
<u>D011</u>	<u>Newly identified D011 and mineral processing wastes.</u>	<u>Aug. 24, 1998.</u>
<u>D011</u>	<u>Mixed radioactive/newly identified D011 or mineral processing wastes</u>	<u>May 26, 2000.</u>

D012 (that exhibit the toxicity characteristic based on the TCLP) <sup>d</sup>	All	Dec. 14, 1994.
D013 (that exhibit the toxicity characteristic based on the TCLP) <sup>d</sup>	All	Dec. 14, 1994.
D014 (that exhibit the toxicity characteristic based on the TCLP) <sup>d</sup>	All	Dec. 14, 1994.
D015 (that exhibit the toxicity characteristic based on the TCLP) <sup>d</sup>	All	Dec. 14, 1994.
D016 (that exhibit the toxicity characteristic based on the TCLP) <sup>d</sup>	All	Dec. 14, 1994.
D017 (that exhibit the toxicity characteristic based on the TCLP) <sup>d</sup>	All	Dec. 14, 1994.
D018	Mixed with radioactive wastes	Sep. 19, 1996.
D018	All others	Dec. 19, 1994.
D019	Mixed with radioactive wastes	Sep. 19, 1996.
D019	All others	Dec. 19, 1994.
D020	Mixed with radioactive wastes	Sep. 19, 1996.
D020	All others	Dec. 19, 1994.
D021	Mixed with radioactive wastes	Sep. 19, 1996.
D021	All others	Dec. 19, 1994.
D022	Mixed with radioactive wastes	Sep. 19, 1996.
D022	All others	Dec. 19, 1994.
D023	Mixed with radioactive wastes	Sep. 19, 1996.
D023	All others	Dec. 19, 1994.
D024	Mixed with radioactive wastes	Sep. 19, 1996.
D024	All others	Dec. 19, 1994.
D025	Mixed with radioactive wastes	Sep. 19, 1996.
D025	All others	Dec. 19, 1994.
D026	Mixed with radioactive wastes	Sep. 19, 1996.
D026	All others	Dec. 19, 1994.
D027	Mixed with radioactive wastes	Sep. 19, 1996.
D027	All others	Dec. 19, 1994.
D028	Mixed with radioactive wastes	Sep. 19, 1996.
D028	All others	Dec. 19, 1994.
D029	Mixed with radioactive wastes	Sep. 19, 1996.
D029	All others	Dec. 19, 1994.
D030	Mixed with radioactive wastes	Sep. 19, 1996.
D030	All others	Dec. 19, 1994.
D031	Mixed with radioactive wastes	Sep. 19, 1996.
D031	All others	Dec. 19, 1994.



D032	Mixed with radioactive wastes	Sep. 19, 1996.
D032	All others	Dec. 19, 1994.
D033	Mixed with radioactive wastes	Sep. 19, 1996.
D033	All others	Dec. 19, 1994.
D034	Mixed with radioactive wastes	Sep. 19, 1996.
D034	All others	Dec. 19, 1994.
D035	Mixed with radioactive wastes	Sep. 19, 1996.
D035	All others	Dec. 19, 1994.
D036	Mixed with radioactive wastes	Sep. 19, 1996.
D036	All others	Dec. 19, 1994.
D037	Mixed with radioactive wastes	Sep. 19, 1996.
D037	All others	Dec. 19, 1994.
D038	Mixed with radioactive wastes	Sep. 19, 1996.
D038	All others	Dec. 19, 1994.
D039	Mixed with radioactive wastes	Sep. 19, 1996.
D039	All others	Dec. 19, 1994.
D040	Mixed with radioactive wastes	Sep. 19, 1996.
D040	All others	Dec. 19, 1994.
D041	Mixed with radioactive wastes	Sep. 19, 1996.
D041	All others	Dec. 19, 1994.
D042	Mixed with radioactive wastes	Sep. 19, 1996.
D042	All others	Dec. 19, 1994.
D043	Mixed with radioactive wastes	Sep. 19, 1996.
D043	All others	Dec. 19, 1994.
F001	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent-containing sludges and solids	Nov. 8, 1988.
F001	All others	Nov. 8, 1986.
F002 (1,1,2-trichloroethane)	Wastewater and Nonwastewater	Aug. 8, 1990.
F002	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent-containing sludges and solids	Nov. 8, 1988.
F002	All others	Nov. 8, 1986.
F003	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent-containing sludges and solids	Nov. 8, 1988.
F003	All others	Nov. 8, 1986.
F004	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent-containing sludges and solids	Nov. 8, 1988.
F004	All others	Nov. 8, 1986.
F005 (benzene, 2-ethoxy)	Wastewater and Nonwastewater	Aug. 8, 1990.

ethanol, 2-nitropropane)		
F005	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent-containing sludges and solids	Nov. 8, 1988.
F005	All others	Nov. 8, 1986.
F006	Wastewater	Aug. 8, 1990.
F006	Nonwastewater	Aug. 8, 1988.
F006 (cyanides)	Nonwastewater	July 8, 1989.
F007	All	July 8, 1989.
F008	All	July 8, 1989.
F009	All	July 8, 1989.
F010	All	June 8, 1989.
F011 (cyanides)	Nonwastewater	Dec. 8, 1989.
F011	All others	July 8, 1989.
F012 (cyanides)	Nonwastewater	Dec. 8, 1989.
F012	All others	July 8, 1989.
F019	All	Aug. 8, 1990.
F020	All	Nov. 8, 1988.
F021	All	Nov. 8, 1988.
F025	All	Aug. 8, 1990.
F026	All	Nov. 8, 1988.
F027	All	Nov. 8, 1988.
F028	All	Nov. 8, 1988.
F032	Mixed with radioactive wastes	May 12, 1999.
F032	All others	<del>May</del> Aug. 12, 1997.
<del>F033</del>	<del>Mixed with radioactive wastes</del>	<del>May 12, 1999.</del>
<del>F033</del>	<del>All others</del>	<del>May 12, 1997.</del>
F034	Mixed with radioactive wastes	May 12, 1999.
F034	All others	<del>May</del> Aug. 12, 1997.
<u>F035</u>	<u>Mixed with radioactive wastes</u>	<u>May 12, 1999.</u>
<u>F035</u>	<u>All others</u>	<u>Aug. 12, 1997.</u>
F037	Not generated from surface impoundment cleanouts or closures	June 30, 1993.
F037	Generated from surface impoundment cleanouts or closures	June 30, 1994.
F037	Mixed with radioactive wastes	June 30, 1994.
F038	Not generated from surface impoundment cleanouts or closures	June 30, 1993.

F038	Generated from surface impoundment cleanouts or closures	June 30, 1994.
F038	Mixed with radioactive wastes	June 30, 1994.
F039	Wastewater	Aug. 8, 1990.
F039	Nonwastewater	May 8, 1992.
K001 (organics) <sup>b</sup>	All	Aug. 8, 1988.
K001	All others	Aug. 8, 1988.
K002	All	Aug. 8, 1990.
K003	All	Aug. 8, 1990.
K004	Wastewater	Aug. 8, 1990.
K004	Nonwastewater	Aug. 8, 1988.
K005	Wastewater	Aug. 8, 1990.
K005	Nonwastewater	June 8, 1989.
K006	All	Aug. 8, 1990.
K007	Wastewater	Aug. 8, 1990.
K007	Nonwastewater	June 8, 1989.
K008	Wastewater	Aug. 8, 1990.
K008	Nonwastewater	Aug. 8, 1988.
K009	All	June 8, 1989.
K010	All	June 8, 1989.
K011	Wastewater	Aug. 8, 1990.
K011	Nonwastewater	June 8, 1989.
K013	Wastewater	Aug. 8, 1990.
K013	Nonwastewater	June 8, 1989.
K014	Wastewater	Aug. 8, 1990.
K014	Nonwastewater	June 8, 1989.
K015	Wastewater	Aug. 8, 1988.
K015	Nonwastewater	Aug. 8, 1990.
K016	All	Aug. 8, 1988.
K017	All	Aug. 8, 1990.
K018	All	Aug. 8, 1988.
K019	All	Aug. 8, 1988.
K020	All	Aug. 8, 1988.
K021	Wastewater	Aug. 8, 1990.
K021	Nonwastewater	Aug. 8, 1988.
K022	Wastewater	Aug. 8, 1990.
K022	Nonwastewater	Aug. 8, 1988.
K023	All	June 8, 1989.
K024	All	Aug. 8, 1988.
K025	Wastewater	Aug. 8, 1990.
K025	Nonwastewater	Aug. 8, 1988.
K026	All	Aug. 8, 1990.
K027	All	June 8, 1989.
K028 (metals)	Nonwastewater	Aug. 8, 1990.
K028	All others	June 8, 1989.
K029	Wastewater	Aug. 8, 1990.

K029	Nonwastewater	June 8, 1989.
K030	All	Aug. 8, 1988.
K031	Wastewater	Aug. 8, 1990.
K031	Nonwastewater	May 8, 1992.
K032	All	Aug. 8, 1990.
K033	All	Aug. 8, 1990.
K034	All	Aug. 8, 1990.
K035	All	Aug. 8, 1990.
K036	Wastewater	June 8, 1989.
K036	Nonwastewater	Aug. 8, 1988.
K037 <sup>b</sup>	Wastewater	Aug. 8, 1988.
K037	Nonwastewater	Aug. 8, 1988.
K038	All	June 8, 1989.
K039	All	June 8, 1989.
K040	All	June 8, 1989.
K041	All	Aug. 8, 1990.
K042	All	Aug. 8, 1990.
K043	All	June 8, 1989.
K044	All	Aug. 8, 1988.
K045	All	Aug. 8, 1988.
K046 (Nonreactive)	Nonwastewater	Aug. 8, 1988.
K046	All others	Aug. 8, 1990.
K047	All	Aug. 8, 1988.
K048	Wastewater	Aug. 8, 1990.
K048	Nonwastewater	Nov. 8, 1990.
K049	Wastewater	Aug. 8, 1990.
K049	Nonwastewater	Nov. 8, 1990.
K050	Wastewater	Aug. 8, 1990.
K050	Nonwastewater	Nov. 8, 1990.
K051	Wastewater	Aug. 8, 1990.
K051	Nonwastewater	Nov. 8, 1990.
K052	Wastewater	Aug. 8, 1990.
K052	Nonwastewater	Nov. 8, 1990.
K060	Wastewater	Aug. 8, 1990.
K060	Nonwastewater	Aug. 8, 1988.
K061	Wastewater	Aug. 8, 1990.
K061	Nonwastewater	June 30, 1992.
K062	All	Aug. 8, 1988.
K069 (Non-Calcium Sulfate)	Nonwastewater	Aug. 8, 1988.
K069	All others	Aug. 8, 1990.
K071	All	Aug. 8, 1990.
K073	All	Aug. 8, 1990.
K083	All	Aug. 8, 1990.
K084	Wastewater	Aug. 8, 1990.
K084	Nonwastewater	May 8, 1992.
K085	All	Aug. 8, 1990.

K086 (organics) <sup>b</sup>	All	Aug. 8, 1988.
K086	All others	Aug. 8, 1988.
K087	All	Aug. 8, 1988.
K088	Mixed with radioactive wastes	Apr. 8, 1998.
K088	All others	<del>Jan.</del> Oct. 8, 1997.
K093	All	June 8, 1989.
K094	All	June 8, 1989.
K095	Wastewater	Aug. 8, 1990.
K095	Nonwastewater	June 8, 1989.
K096	Wastewater	Aug. 8, 1990.
K096	Nonwastewater	June 8, 1989.
K097	All	Aug. 8, 1990.
K098	All	Aug. 8, 1990.
K099	All	Aug. 8, 1988.
K100	Wastewater	Aug. 8, 1990.
K100	Nonwastewater	Aug. 8, 1988.
K101 (organics)	Wastewater	Aug. 8, 1988.
K101 (metals)	Wastewater	Aug. 8, 1990.
K101 (organics)	Nonwastewater	Aug. 8, 1988.
K101 (metals)	Nonwastewater	May 8, 1992.
K102 (organics)	Wastewater	Aug. 8, 1988.
K102 (metals)	Wastewater	Aug. 8, 1990.
K102 (organics)	Nonwastewater	Aug. 8, 1988.
K102 (metals)	Nonwastewater	May 8, 1992.
K103	All	Aug. 8, 1988.
K104	All	Aug. 8, 1988.
K105	All	Aug. 8, 1990.
K106	Wastewater	Aug. 8, 1990.
K106	Nonwastewater	May 8, 1992.
K107	Mixed with radioactive wastes	June 30, 1994.
K107	All others	Nov. 9, 1992.
K108	Mixed with radioactive wastes	June 30, 1994.
K108	All others	Nov. 9, 1992.
K109	Mixed with radioactive wastes	June 30, 1994.
K109	All others	Nov. 9, 1992.
K110	Mixed with radioactive wastes	June 30, 1994.
K110	All others	Nov. 9, 1992.
K111	Mixed with radioactive wastes	June 30, 1994.
K111	All others	Nov. 9, 1992.
K112	Mixed with radioactive wastes	June 30, 1994.
K112	All others	Nov. 9, 1992.
K113	All	June 8, 1989.
K114	All	June 8, 1989.
K115	All	June 8, 1989.
K116	All	June 8, 1989.

K117	Mixed with radioactive wastes	June 30, 1994.
K117	All others	Nov. 9, 1992.
K118	Mixed with radioactive wastes	June 30, 1994.
K118	All others	Nov. 9, 1992.
K123	Mixed with radioactive wastes	June 30, 1994.
K123	All others	Nov. 9, 1992.
K124	Mixed with radioactive wastes	June 30, 1994.
K124	All others	Nov. 9, 1992.
K125	Mixed with radioactive wastes	June 30, 1994.
K125	All others	Nov. 9, 1992.
K126	Mixed with radioactive wastes	June 30, 1994.
K126	All others	Nov. 9, 1992.
K131	Mixed with radioactive wastes	June 30, 1994.
K131	All others	Nov. 9, 1992.
K132	Mixed with radioactive wastes	June 30, 1994.
K132	All others	Nov. 9, 1992.
K136	Mixed with radioactive wastes	June 30, 1994.
K136	All others	Nov. 9, 1992.
K141	Mixed with radioactive wastes	Sep. 19, 1996.
K141	All others	Dec. 19, 1994.
K142	Mixed with radioactive wastes	Sep. 19, 1996.
K142	All others	Dec. 19, 1994.
K143	Mixed with radioactive wastes	Sep. 19, 1996.
K143	All others	Dec. 19, 1994.
K144	Mixed with radioactive wastes	Sep. 19, 1996.
K144	All others	Dec. 19, 1994.
K145	Mixed with radioactive wastes	Sep. 19, 1996.
K145	All others	Dec. 19, 1994.
K147	Mixed with radioactive wastes	Sep. 19, 1996.
K147	All others	Dec. 19, 1994.
K148	Mixed with radioactive wastes	Sep. 19, 1996.
K148	All others	Dec. 19, 1994.
K149	Mixed with radioactive wastes	Sep. 19, 1996.
K149	All others	Dec. 19, 1994.
K150	Mixed with radioactive wastes	Sep. 19, 1996.
K150	All others	Dec. 19, 1994.
K151	Mixed with radioactive wastes	Sep. 19, 1996.
K151	All others	Dec. 19, 1994.
K156	Mixed with radioactive wastes	Apr. 8, 1998.
K156	All others	July 8, 1996.
K157	Mixed with radioactive wastes	Apr. 8, 1998.
K157	All others	July 8, 1996.
K158	Mixed with radioactive wastes	Apr. 8, 1998.
K158	All others	July 8, 1996.
K159	Mixed with radioactive wastes	Apr. 8, 1998.
K159	All others	July 8, 1996.

K160	Mixed with radioactive wastes	Apr. 8, 1998.
K160	All others	July 8, 1996.
K161	Mixed with radioactive wastes	Apr. 8, 1998.
K161	All others	July 8, 1996.
P001	All	Aug. 8, 1990.
P002	All	Aug. 8, 1990.
P003	All	Aug. 8, 1990.
P004	All	Aug. 8, 1990.
P005	All	Aug. 8, 1990.
P006	All	Aug. 8, 1990.
P007	All	Aug. 8, 1990.
P008	All	Aug. 8, 1990.
P009	All	Aug. 8, 1990.
P010	Wastewater	Aug. 8, 1990.
P010	Nonwastewater	May 8, 1992.
P011	Wastewater	Aug. 8, 1990.
P011	Nonwastewater	May 8, 1992.
P012	Wastewater	Aug. 8, 1990.
P012	Nonwastewater	May 8, 1992.
P013 (barium)	Nonwastewater	Aug. 8, 1990.
P013	All others	June 8, 1989.
P014	All	Aug. 8, 1990.
P015	All	Aug. 8, 1990.
P016	All	Aug. 8, 1990.
P017	All	Aug. 8, 1990.
P018	All	Aug. 8, 1990.
P020	All	Aug. 8, 1990.
P021	All	June 8, 1989.
P022	All	Aug. 8, 1990.
P023	All	Aug. 8, 1990.
P024	All	Aug. 8, 1990.
P026	All	Aug. 8, 1990.
P027	All	Aug. 8, 1990.
P028	All	Aug. 8, 1990.
P029	All	June 8, 1989.
P030	All	June 8, 1989.
P031	All	Aug. 8, 1990.
P033	All	Aug. 8, 1990.
P034	All	Aug. 8, 1990.
P036	Wastewater	Aug. 8, 1990.
P036	Nonwastewater	May 8, 1992.
P037	All	Aug. 8, 1990.
P038	Wastewater	Aug. 8, 1990.
P038	Nonwastewater	May 8, 1992.
P039	All	June 8, 1989.
P040	All	June 8, 1989.

P041	All	June 8, 1989.
P042	All	Aug. 8, 1990.
P043	All	June 8, 1989.
P044	All	June 8, 1989.
P045	All	Aug. 8, 1990.
P046	All	Aug. 8, 1990.
P047	All	Aug. 8, 1990.
P048	All	Aug. 8, 1990.
P049	All	Aug. 8, 1990.
P050	All	Aug. 8, 1990.
P051	All	Aug. 8, 1990.
P054	All	Aug. 8, 1990.
P056	All	Aug. 8, 1990.
P057	All	Aug. 8, 1990.
P058	All	Aug. 8, 1990.
P059	All	Aug. 8, 1990.
P060	All	Aug. 8, 1990.
P062	All	June 8, 1989.
P063	All	June 8, 1989.
P064	All	Aug. 8, 1990.
P065	Wastewater	Aug. 8, 1990.
P065	Nonwastewater	May 8, 1992.
P066	All	Aug. 8, 1990.
P067	All	Aug. 8, 1990.
P068	All	Aug. 8, 1990.
P069	All	Aug. 8, 1990.
P070	All	Aug. 8, 1990.
P071	All	June 8, 1989.
P072	All	Aug. 8, 1990.
P073	All	Aug. 8, 1990.
P074	All	June 8, 1989.
P075	All	Aug. 8, 1990.
P076	All	Aug. 8, 1990.
P077	All	Aug. 8, 1990.
P078	All	Aug. 8, 1990.
P081	All	Aug. 8, 1990.
P082	All	Aug. 8, 1990.
P084	All	Aug. 8, 1990.
P085	All	June 8, 1989.
P087	All	May 8, 1992.
P088	All	Aug. 8, 1990.
P089	All	June 8, 1989.
P092	Wastewater	Aug. 8, 1990.
P092	Nonwastewater	May 8, 1992.
P093	All	Aug. 8, 1990.
P094	All	June 8, 1989.



P095	All	Aug. 8, 1990.
P096	All	Aug. 8, 1990.
P097	All	June 8, 1989.
P098	All	June 8, 1989.
P099 (silver)	Wastewater	Aug. 8, 1990.
P099	All others	June 8, 1989.
P101	All	Aug. 8, 1990.
P102	All	Aug. 8, 1990.
P103	All	Aug. 8, 1990.
P104 (silver)	Wastewater	Aug. 8, 1990.
P104	All others	June 8, 1989.
P105	All	Aug. 8, 1990.
P106	All	June 8, 1989.
P108	All	Aug. 8, 1990.
P109	All	June 8, 1989.
P110	All	Aug. 8, 1990.
P111	All	June 8, 1989.
P112	All	Aug. 8, 1990.
P113	All	Aug. 8, 1990.
P114	All	Aug. 8, 1990.
P115	All	Aug. 8, 1990.
P116	All	Aug. 8, 1990.
P118	All	Aug. 8, 1990.
P119	All	Aug. 8, 1990.
P120	All	Aug. 8, 1990.
P121	All	June 8, 1989.
P122	All	Aug. 8, 1990.
P123	All	Aug. 8, 1990.
P127	Mixed with radioactive wastes	Apr. 8, 1998.
P127	All others	July 8, 1996.
P128	Mixed with radioactive wastes	Apr. 8, 1998.
P128	All others	July 8, 1996.
P185	Mixed with radioactive wastes	Apr. 8, 1998.
P185	All others	July 8, 1996.
P188	Mixed with radioactive wastes	Apr. 8, 1998.
P188	All others	July 8, 1996.
P189	Mixed with radioactive wastes	Apr. 8, 1998.
P189	All others	July 8, 1996.
P190	Mixed with radioactive wastes	Apr. 8, 1998.
P190	All others	July 8, 1996.
P191	Mixed with radioactive wastes	Apr. 8, 1998.
P191	All others	July 8, 1996.
P192	Mixed with radioactive wastes	Apr. 8, 1998.
P192	All others	July 8, 1996.
P194	Mixed with radioactive wastes	Apr. 8, 1998.
P194	All others	July 8, 1996.

P196	Mixed with radioactive wastes	Apr. 8, 1998.
P196	All others	July 8, 1996.
P197	Mixed with radioactive wastes	Apr. 8, 1998.
P197	All others	July 8, 1996.
P198	Mixed with radioactive wastes	Apr. 8, 1998.
P198	All others	July 8, 1996.
P199	Mixed with radioactive wastes	Apr. 8, 1998.
P199	All others	July 8, 1996.
P201	Mixed with radioactive wastes	Apr. 8, 1998.
P201	All others	July 8, 1996.
P202	Mixed with radioactive wastes	Apr. 8, 1998.
P202	All others	July 8, 1996.
P203	Mixed with radioactive wastes	Apr. 8, 1998.
P203	All others	July 8, 1996.
P204	Mixed with radioactive wastes	Apr. 8, 1998.
P204	All others	July 8, 1996.
P205	Mixed with radioactive wastes	Apr. 8, 1998.
P205	All others	July 8, 1996.
U001	All	Aug. 8, 1990.
U002	All	Aug. 8, 1990.
U003	All	Aug. 8, 1990.
U004	All	Aug. 8, 1990.
U005	All	Aug. 8, 1990.
U006	All	Aug. 8, 1990.
U007	All	Aug. 8, 1990.
U008	All	Aug. 8, 1990.
U009	All	Aug. 8, 1990.
U010	All	Aug. 8, 1990.
U011	All	Aug. 8, 1990.
U012	All	Aug. 8, 1990.
U014	All	Aug. 8, 1990.
U015	All	Aug. 8, 1990.
U016	All	Aug. 8, 1990.
U017	All	Aug. 8, 1990.
U018	All	Aug. 8, 1990.
U019	All	Aug. 8, 1990.
U020	All	Aug. 8, 1990.
U021	All	Aug. 8, 1990.
U022	All	Aug. 8, 1990.
U023	All	Aug. 8, 1990.
U024	All	Aug. 8, 1990.
U025	All	Aug. 8, 1990.
U026	All	Aug. 8, 1990.
U027	All	Aug. 8, 1990.
U028	All	June 8, 1989.
U029	All	Aug. 8, 1990.

U030	All	Aug. 8, 1990.
U031	All	Aug. 8, 1990.
U032	All	Aug. 8, 1990.
U033	All	Aug. 8, 1990.
U034	All	Aug. 8, 1990.
U035	All	Aug. 8, 1990.
U036	All	Aug. 8, 1990.
U037	All	Aug. 8, 1990.
U038	All	Aug. 8, 1990.
U039	All	Aug. 8, 1990.
U041	All	Aug. 8, 1990.
U042	All	Aug. 8, 1990.
U043	All	Aug. 8, 1990.
U044	All	Aug. 8, 1990.
U045	All	Aug. 8, 1990.
U046	All	Aug. 8, 1990.
U047	All	Aug. 8, 1990.
U048	All	Aug. 8, 1990.
U049	All	Aug. 8, 1990.
U050	All	Aug. 8, 1990.
U051	All	Aug. 8, 1990.
U052	All	Aug. 8, 1990.
U053	All	Aug. 8, 1990.
U055	All	Aug. 8, 1990.
U056	All	Aug. 8, 1990.
U057	All	Aug. 8, 1990.
U058	All	June 8, 1989.
U059	All	Aug. 8, 1990.
U060	All	Aug. 8, 1990.
U061	All	Aug. 8, 1990.
U062	All	Aug. 8, 1990.
U063	All	Aug. 8, 1990.
U064	All	Aug. 8, 1990.
U066	All	Aug. 8, 1990.
U067	All	Aug. 8, 1990.
U068	All	Aug. 8, 1990.
U069	All	June 30, 1992.
U070	All	Aug. 8, 1990.
U071	All	Aug. 8, 1990.
U072	All	Aug. 8, 1990.
U073	All	Aug. 8, 1990.
U074	All	Aug. 8, 1990.
U075	All	Aug. 8, 1990.
U076	All	Aug. 8, 1990.
U077	All	Aug. 8, 1990.
U078	All	Aug. 8, 1990.

U079	All	Aug. 8, 1990.
U080	All	Aug. 8, 1990.
U081	All	Aug. 8, 1990.
U082	All	Aug. 8, 1990.
U083	All	Aug. 8, 1990.
U084	All	Aug. 8, 1990.
U085	All	Aug. 8, 1990.
U086	All	Aug. 8, 1990.
U087	All	June 8, 1989.
U088	All	June 8, 1989.
U089	All	Aug. 8, 1990.
U090	All	Aug. 8, 1990.
U091	All	Aug. 8, 1990.
U092	All	Aug. 8, 1990.
U093	All	Aug. 8, 1990.
U094	All	Aug. 8, 1990.
U095	All	Aug. 8, 1990.
U096	All	Aug. 8, 1990.
U097	All	Aug. 8, 1990.
U098	All	Aug. 8, 1990.
U099	All	Aug. 8, 1990.
U101	All	Aug. 8, 1990.
U102	All	June 8, 1989.
U103	All	Aug. 8, 1990.
U105	All	Aug. 8, 1990.
U106	All	Aug. 8, 1990.
U107	All	June 8, 1989.
U108	All	Aug. 8, 1990.
U109	All	Aug. 8, 1990.
U110	All	Aug. 8, 1990.
U111	All	Aug. 8, 1990.
U112	All	Aug. 8, 1990.
U113	All	Aug. 8, 1990.
U114	All	Aug. 8, 1990.
U115	All	Aug. 8, 1990.
U116	All	Aug. 8, 1990.
U117	All	Aug. 8, 1990.
U118	All	Aug. 8, 1990.
U119	All	Aug. 8, 1990.
U120	All	Aug. 8, 1990.
U121	All	Aug. 8, 1990.
U122	All	Aug. 8, 1990.
U123	All	Aug. 8, 1990.
U124	All	Aug. 8, 1990.
U125	All	Aug. 8, 1990.
U126	All	Aug. 8, 1990.

U127	All	Aug. 8, 1990.
U128	All	Aug. 8, 1990.
U129	All	Aug. 8, 1990.
U130	All	Aug. 8, 1990.
U131	All	Aug. 8, 1990.
U132	All	Aug. 8, 1990.
U133	All	Aug. 8, 1990.
U134	All	Aug. 8, 1990.
U135	All	Aug. 8, 1990.
U136	Wastewater	Aug. 8, 1990.
U136	Nonwastewater	May 8, 1992.
U137	All	Aug. 8, 1990.
U138	All	Aug. 8, 1990.
U140	All	Aug. 8, 1990.
U141	All	Aug. 8, 1990.
U142	All	Aug. 8, 1990.
U143	All	Aug. 8, 1990.
U144	All	Aug. 8, 1990.
U145	All	Aug. 8, 1990.
U146	All	Aug. 8, 1990.
U147	All	Aug. 8, 1990.
U148	All	Aug. 8, 1990.
U149	All	Aug. 8, 1990.
U150	All	Aug. 8, 1990.
U151	Wastewater	Aug. 8, 1990.
U151	Nonwastewater	May 8, 1992.
U152	All	Aug. 8, 1990.
U153	All	Aug. 8, 1990.
U154	All	Aug. 8, 1990.
U155	All	Aug. 8, 1990.
U156	All	Aug. 8, 1990.
U157	All	Aug. 8, 1990.
U158	All	Aug. 8, 1990.
U159	All	Aug. 8, 1990.
U160	All	Aug. 8, 1990.
U161	All	Aug. 8, 1990.
U162	All	Aug. 8, 1990.
U163	All	Aug. 8, 1990.
U164	All	Aug. 8, 1990.
U165	All	Aug. 8, 1990.
U166	All	Aug. 8, 1990.
U167	All	Aug. 8, 1990.
U168	All	Aug. 8, 1990.
U169	All	Aug. 8, 1990.
U170	All	Aug. 8, 1990.
U171	All	Aug. 8, 1990.

U172	All	Aug. 8, 1990.
U173	All	Aug. 8, 1990.
U174	All	Aug. 8, 1990.
U176	All	Aug. 8, 1990.
U177	All	Aug. 8, 1990.
U178	All	Aug. 8, 1990.
U179	All	Aug. 8, 1990.
U180	All	Aug. 8, 1990.
U181	All	Aug. 8, 1990.
U182	All	Aug. 8, 1990.
U183	All	Aug. 8, 1990.
U184	All	Aug. 8, 1990.
U185	All	Aug. 8, 1990.
U186	All	Aug. 8, 1990.
U187	All	Aug. 8, 1990.
U188	All	Aug. 8, 1990.
U189	All	Aug. 8, 1990.
U190	All	June 8, 1989.
U191	All	Aug. 8, 1990.
U192	All	Aug. 8, 1990.
U193	All	Aug. 8, 1990.
U194	All	June 8, 1989.
U196	All	Aug. 8, 1990.
U197	All	Aug. 8, 1990.
U200	All	Aug. 8, 1990.
U201	All	Aug. 8, 1990.
U202	All	Aug. 8, 1990.
U203	All	Aug. 8, 1990.
U204	All	Aug. 8, 1990.
U205	All	Aug. 8, 1990.
U206	All	Aug. 8, 1990.
U207	All	Aug. 8, 1990.
U208	All	Aug. 8, 1990.
U209	All	Aug. 8, 1990.
U210	All	Aug. 8, 1990.
U211	All	Aug. 8, 1990.
U213	All	Aug. 8, 1990.
U214	All	Aug. 8, 1990.
U215	All	Aug. 8, 1990.
U216	All	Aug. 8, 1990.
U217	All	Aug. 8, 1990.
U218	All	Aug. 8, 1990.
U219	All	Aug. 8, 1990.
U220	All	Aug. 8, 1990.
U221	All	June 8, 1989.
U222	All	Aug. 8, 1990.

U223	All	June 8, 1989.
U225	All	Aug. 8, 1990.
U226	All	Aug. 8, 1990.
U227	All	Aug. 8, 1990.
U228	All	Aug. 8, 1990.
U234	All	Aug. 8, 1990.
U235	All	June 8, 1989.
U236	All	Aug. 8, 1990.
U237	All	Aug. 8, 1990.
U238	All	Aug. 8, 1990.
U239	All	Aug. 8, 1990.
U240	All	Aug. 8, 1990.
U243	All	Aug. 8, 1990.
U244	All	Aug. 8, 1990.
U246	All	Aug. 8, 1990.
U247	All	Aug. 8, 1990.
U248	All	Aug. 8, 1990.
U249	All	Aug. 8, 1990.
U271	Mixed with radioactive wastes	Apr. 8, 1998.
U271	All others	July 8, 1996.
U277	Mixed with radioactive wastes	Apr. 8, 1998.
U277	All others	July 8, 1996.
U278	Mixed with radioactive wastes	Apr. 8, 1998.
U278	All others	July 8, 1996.
U279	Mixed with radioactive wastes	Apr. 8, 1998.
U279	All others	July 8, 1996.
U280	Mixed with radioactive wastes	Apr. 8, 1998.
U280	All others	July 8, 1996.
U328	Mixed with radioactive wastes	June 30, 1994.
U328	All others	Nov. 9, 1992.
U353	Mixed with radioactive wastes	June 30, 1994.
U353	All others	Nov. 9, 1992.
U359	Mixed with radioactive wastes	June 30, 1994.
U359	All others	Nov. 9, 1992.
U364	Mixed with radioactive wastes	Apr. 8, 1998.
U364	All others	July 8, 1996.
U365	Mixed with radioactive wastes	Apr. 8, 1998.
U365	All others	July 8, 1996.
U366	Mixed with radioactive wastes	Apr. 8, 1998.
U366	All others	July 8, 1996.
U367	Mixed with radioactive wastes	Apr. 8, 1998.
U367	All others	July 8, 1996.
U372	Mixed with radioactive wastes	Apr. 8, 1998.
U372	All others	July 8, 1996.
U373	Mixed with radioactive wastes	Apr. 8, 1998.
U373	All others	July 8, 1996.

U375	Mixed with radioactive wastes	Apr. 8, 1998.
U375	All others	July 8, 1996.
U376	Mixed with radioactive wastes	Apr. 8, 1998.
U376	All others	July 8, 1996.
U377	Mixed with radioactive wastes	Apr. 8, 1998.
U377	All others	July 8, 1996.
U378	Mixed with radioactive wastes	Apr. 8, 1998.
U378	All others	July 8, 1996.
U379	Mixed with radioactive wastes	Apr. 8, 1998.
U379	All others	July 8, 1996.
U381	Mixed with radioactive wastes	Apr. 8, 1998.
U381	All others	July 8, 1996.
U382	Mixed with radioactive wastes	Apr. 8, 1998.
U382	All others	July 8, 1996.
U383	Mixed with radioactive wastes	Apr. 8, 1998.
U383	All others	July 8, 1996.
U384	Mixed with radioactive wastes	Apr. 8, 1998.
U384	All others	July 8, 1996.
U385	Mixed with radioactive wastes	Apr. 8, 1998.
U385	All others	July 8, 1996.
U386	Mixed with radioactive wastes	Apr. 8, 1998.
U386	All others	July 8, 1996.
U387	Mixed with radioactive wastes	Apr. 8, 1998.
U387	All others	July 8, 1996.
U389	Mixed with radioactive wastes	Apr. 8, 1998.
U389	All others	July 8, 1996.
U390	Mixed with radioactive wastes	Apr. 8, 1998.
U390	All others	July 8, 1996.
U391	Mixed with radioactive wastes	Apr. 8, 1998.
U391	All others	July 8, 1996.
U392	Mixed with radioactive wastes	Apr. 8, 1998.
U392	All others	July 8, 1996.
U393	Mixed with radioactive wastes	Apr. 8, 1998.
U393	All others	July 8, 1996.
U394	Mixed with radioactive wastes	Apr. 8, 1998.
U394	All others	July 8, 1996.
U395	Mixed with radioactive wastes	Apr. 8, 1998.
U395	All others	July 8, 1996.
U396	Mixed with radioactive wastes	Apr. 8, 1998.
U396	All others	July 8, 1996.
U400	Mixed with radioactive wastes	Apr. 8, 1998.
U400	All others	July 8, 1996.
U401	Mixed with radioactive wastes	Apr. 8, 1998.
U401	All others	July 8, 1996.
U402	Mixed with radioactive wastes	Apr. 8, 1998.
U402	All others	July 8, 1996.



U403	Mixed with radioactive wastes	Apr. 8, 1998.
U403	All others	July 8, 1996.
U404	Mixed with radioactive wastes	Apr. 8, 1998.
U404	All others	July 8, 1996.
U407	Mixed with radioactive wastes	Apr. 8, 1998.
U407	All others	July 8, 1996.
U409	Mixed with radioactive wastes	Apr. 8, 1998.
U409	All others	July 8, 1996.
U410	Mixed with radioactive wastes	Apr. 8, 1998.
U410	All others	July 8, 1996.
U411	Mixed with radioactive wastes	Apr. 8, 1998.
U411	All others	July 8, 1996.

<sup>a</sup> This table does not include mixed radioactive wastes (from the First, Second, and Third rules) which are receiving a national capacity variance until May 8, 1992. This table also does not include contaminated soil and debris wastes.

<sup>b</sup> The standard was revised in the Third Third Final Rule (adopted by USEPA at 55 Fed. Reg. 22520 (June 1, 1990) and by the Board in docket R90-11 by orders dated April 11, May 23, and August 8 and 22, 1991).

<sup>c</sup> USEPA amended the standard in the Third Third Emergency Rule (at 58 Fed. Reg. 29860 (May 24, 1993), which the Board adopted in docket R93-16 on March 17, 1994); the original effective date was August 8, 1990.

<sup>d</sup> The standard was revised in the Phase II Final Rule (which USEPA adopted at 59 Fed. Reg. 47982 (Sept. 19, 1994) and the Board adopted in docket R95-6 by orders dated June 1 and 15, 1995); the original effective date was August 8, 1990.

<sup>e</sup> The standards for selected reactive wastes was revised in the Phase III Final Rule (which USEPA adopted at 61 Fed. Reg. 15566 (Apr. 8, 1996) and the Board adopted in docket R96-10/R97-3/R97-5 (consolidated) by an order dated November 6, 1997); the original effective date was August 8, 1990.

TABLE 2  
SUMMARY OF EFFECTIVE DATES OF LAND DISPOSAL  
RESTRICTIONS FOR CONTAMINATED SOIL AND DEBRIS (CSD)

Restricted hazardous waste in CSD	Effective date
1. Solvent-(F001-F005) and dioxin-(F020-F023 and F026-F028) containing soil and debris from CERCLA response of RCRA corrective actions.	Nov. 8, 1990.
2. Soil and debris not from CERCLA response or RCRA corrective actions contaminated with less than one percent total solvents (F001-F005) or dioxins (F020-F023 and F026-F028).	Nov. 8, 1988.
3. All soil and debris contaminated with First Third wastes for which treatment standards are based on incineration.	Aug. 8, 1990.

- |  |                                 |
|--|---------------------------------|
| 4. All soil and debris contaminated with Second Third wastes for which treatment standards are based on incineration.  | June 8, 1991.                   |
| 5. All soil and debris contaminated with Third Third wastes or, First or Second Third “soft hammer” wastes which had treatment standards promulgated in the Third Third rule, for which treatment standards are based on incineration, vitrification, or mercury retorting, acid leaching followed by chemical precipitation, or thermal recovery of metals, as well as all inorganic solids debris contaminated with D004-D011 wastes, and all soil and debris contaminated with mixed RCRA/radioactive wastes. | May 8, 1992.                    |
| 6. Soil and debris contaminated with D012-D043, K141-K145, and K147-151 wastes.  | Dec. 19, 1994.                  |
| 7. Debris (only) contaminated with F037, F038, K107-K112, K117, K118, K123-K126, K131, K132, K136, U328, U353, U359.   | Dec. 19, 1994                   |
| 8. Soil and debris contaminated with K156- K161, P127, P128, P188-P192, P194, P196- P199, P201-P205, U271, U277-U280, U364-U367, U372, U373, U375-U379, U381-U387, U389-U396, U400-U404, U407, and U409-U411 wastes.   | July 8, 1996.                   |
| 9. Soil and debris contaminated with K088 wastes.  | <del>Jan-Oct. 8,</del><br>1997. |
| 10. Soil and debris contaminated with radioactive wastes mixed with K088, K156-K161, P127, P128, P188-P192, P194, P196-P199, P201-P205, U271, U277-U280, U364-U367,U372, U373, U375-U379, U381-U387, U389-U396, U400-U404, U407, and U409-U411 wastes.   | April 8, 1998.                  |
| 11. Soil and debris contaminated with F032, F034, and F035.  | May 12, 1997.                   |
| 12. <u>Soil and debris contaminated with newly identified D004-D011 toxicity characteristic wastes and mineral processing wastes</u>   | <u>Aug. 24, 1998.</u>           |
| 13. <u>Soil and debris contaminated with mixed radioactive newly identified D011 characteristic wastes and mineral processing wastes</u>   | <u>May 26, 2000.</u>            |

BOARD NOTE: This table is provided for the convenience of the reader.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### Section 728.Appendix H National Capacity LDR Variances for UIC Wastes

See Note<sup>a</sup>

Waste code	Waste category	Effective date
D001 (except High TOC Ignitable Liquids Subcategory) <sup>c</sup>	All	Feb. 10, 1994.
D001 (High TOC Ignitable Characteristic Liquids Subcategory)	Nonwastewater	Sep. 19, 1995.

D002 <sup>b</sup>	All	May 8, 1992.
D002 <sup>c</sup>	All	Feb. 10, 1994.
D003 (cyanides)	All	May 8, 1992.
D003 (sulfides)	All	May 8, 1992.
D003 (explosives, reactives).	All	May 8, 1992.
D007	All	May 8, 1992.
D009	Nonwastewater	May 8, 1992.
D012	All	Sep. 19, 1995.
D013	All	Sep. 19, 1995.
D014	All	Sep. 19, 1995.
D015	All	Sep. 19, 1995.
D016	All	Sep. 19, 1995.
D017	All	Sep. 19, 1995.
D018	All, including mixed with radioactive wastes	Apr. 8, 1998.
D019	All, including mixed with radioactive wastes	Apr. 8, 1998.
D020	All, including mixed with radioactive wastes	Apr. 8, 1998.
D021	All, including mixed with radioactive wastes	Apr. 8, 1998.
D022	All, including mixed with radioactive wastes	Apr. 8, 1998.
D023	All, including mixed with radioactive wastes	Apr. 8, 1998.
D024	All, including mixed with radioactive wastes	Apr. 8, 1998.
D025	All, including mixed with radioactive wastes	Apr. 8, 1998.
D026	All, including mixed with radioactive wastes	Apr. 8, 1998.
D027	All, including mixed with radioactive wastes	Apr. 8, 1998.
D028	All, including mixed with radioactive wastes	Apr. 8, 1998.
D029	All, including mixed with radioactive wastes	Apr. 8, 1998.
D030	All, including mixed with radioactive wastes	Apr. 8, 1998.
D031	All, including mixed with radioactive wastes	Apr. 8, 1998.
D032	All, including mixed with radioactive wastes	Apr. 8, 1998.
D033	All, including mixed with radioactive wastes	Apr. 8, 1998.
D034	All, including mixed with radioactive wastes	Apr. 8, 1998.
D035	All, including mixed with radioactive wastes	Apr. 8, 1998.
D036	All, including mixed with radioactive wastes	Apr. 8, 1998.
D037	All, including mixed with radioactive wastes	Apr. 8, 1998.
D038	All, including mixed with radioactive wastes	Apr. 8, 1998.
D039	All, including mixed with radioactive wastes	Apr. 8, 1998.
D040	All, including mixed with radioactive wastes	Apr. 8, 1998.
D041	All, including mixed with radioactive wastes	Apr. 8, 1998.
D042	All, including mixed with radioactive wastes	Apr. 8, 1998.
D043	All, including mixed with radioactive wastes	Apr. 8, 1998.
F001-F005	All spent F001-F005 solvent containing less than 1 percent total F001-F005 solvent constituents	Aug. 8, 1990.
F007	All	June 8, 1991.
F032	All, including mixed with radioactive wastes	May 12, 1999.
F034	All, including mixed with radioactive wastes	May 12, 1999.
F035	All, including mixed with radioactive wastes	May 12, 1999.

F037	All	Nov. 8, 1992.
F038	All	Nov. 8, 1992.
F039	Wastewater	May 8, 1992.
K009	Wastewater	June 8, 1991.
K011	Nonwastewater	June 8, 1991.
K011	Wastewater	May 8, 1992.
K013	Nonwastewater	June 8, 1991.
K013	Wastewater	May 8, 1992.
K014	All	May 8, 1992.
K016 (dilute)	All	June 8, 1991.
K049	All	Aug. 8, 1990.
K050	All	Aug. 8, 1990.
K051	All	Aug. 8, 1990.
K052	All	Aug. 8, 1990.
K062	All	Aug. 8, 1990.
K071	All	Aug. 8, 1990.
K088	All	Jan. 8, 1997.
K104	All	Aug. 8, 1990.
K107	All	Nov. 8, 1992.
K108	All	Nov. 9, 1992.
K109	All	Nov. 9, 1992.
K110	All	Nov. 9, 1992.
K111	All	Nov. 9, 1992.
K112	All	Nov. 9, 1992.
K117	All	June 30, 1995.
K118	All	June 30, 1995.
K123	All	Nov. 9, 1992.
K124	All	Nov. 9, 1992.
K125	All	Nov. 9, 1992.
K126	All	Nov. 9, 1992.
K131	All	June 30, 1995.
K132	All	June 30, 1995.
K136	All	Nov. 9, 1992.
K141	All	Dec. 19, 1994.
K142	All	Dec. 19, 1994.
K143	All	Dec. 19, 1994.
K144	All	Dec. 19, 1994.
K145	All	Dec. 19, 1994.
K147	All	Dec. 19, 1994.
K148	All	Dec. 19, 1994.
K149	All	Dec. 19, 1994.
K150	All	Dec. 19, 1994.
K151	All	Dec. 19, 1994.
K156	All	July 8, 1996.
K157	All	July 8, 1996.
K158	All	July 8, 1996.

K159	All	July 8, 1996.
K160	All	July 8, 1996.
K161	All	July 8, 1996.
<u>NA</u>	<u>Newly identified mineral processing wastes from titanium dioxide production and mixed radioactive/newly identified D004-D011 characteristic wastes and mineral processing wastes.</u>	<u>May 26, 2000.</u>
P127	All	July 8, 1996.
P128	All	July 8, 1996.
P185	All	July 8, 1996.
P188	All	July 8, 1996.
P189	All	July 8, 1996.
P190	All	July 8, 1996.
P191	All	July 8, 1996.
P192	All	July 8, 1996.
P194	All	July 8, 1996.
P196	All	July 8, 1996.
P197	All	July 8, 1996.
P198	All	July 8, 1996.
P199	All	July 8, 1996.
P201	All	July 8, 1996.
P202	All	July 8, 1996.
P203	All	July 8, 1996.
P204	All	July 8, 1996.
P205	All	July 8, 1996.
U271	All	July 8, 1996.
U277	All	July 8, 1996.
U278	All	July 8, 1996.
U279	All	July 8, 1996.
U280	All	July 8, 1996.
U328	All	Nov. 9, 1992.
U353	All	Nov. 9, 1992.
U359	All	Nov. 9, 1992.
U364	All	July 8, 1996.
U365	All	July 8, 1996.
U366	All	July 8, 1996.
U367	All	July 8, 1996.
U372	All	July 8, 1996.
U373	All	July 8, 1996.
U375	All	July 8, 1996.
U376	All	July 8, 1996.
U377	All	July 8, 1996.
U378	All	July 8, 1996.
U379	All	July 8, 1996.
U381	All	July 8, 1996.

U382	All	July 8, 1996.
U383	All	July 8, 1996.
U384	All	July 8, 1996.
U385	All	July 8, 1996.
U386	All	July 8, 1996.
U387	All	July 8, 1996.
U389	All	July 8, 1996.
U390	All	July 8, 1996.
U391	All	July 8, 1996.
U392	All	July 8, 1996.
U395	All	July 8, 1996.
U396	All	July 8, 1996.
U400	All	July 8, 1996.
U401	All	July 8, 1996.
U402	All	July 8, 1996.
U403	All	July 8, 1996.
U404	All	July 8, 1996.
U407	All	July 8, 1996.
U409	All	July 8, 1996.
U410	All	July 8, 1996.
U411	All	July 8, 1996.

- <sup>a</sup> Wastes that are deep well disposed on-site receive a six-month variance, with restrictions effective in November 1990.
- <sup>b</sup> Deep well injected D002 liquids with a pH less than 2 must meet the California List treatment standards on August 8, 1990.
- <sup>c</sup> Managed in systems defined in 35 Ill. Adm. Code 730.105(e) as Class V injection wells that do not engage in CWA-equivalent treatment before injection.

BOARD NOTE: This table is provided for the convenience of the reader.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### Section 728. Table I Generator Paperwork Requirements

Required information	Subsection of Section 728.107 under Which the Paperwork is Required:			
	(a)(2)	(a)(3)	(a)(4)	(a)(9)
1. <u>USEPA hazardous waste and manifest number of first shipment</u>	✓	✓	✓	✓
2. Statement: this waste is not prohibited from			✓	

## land disposal

- |   |   |   |   |
|---|---|---|---|
| 3. The waste is subject to the LDRs. The constituents of concern for <u>USEPA hazardous waste numbers F001 through F005 and F039 waste</u> , and underlying hazardous constituents <del>(for wastes that are not managed in a Clean Water Act (CWA) or CWA equivalent facility)</del> <u>in characteristic waste</u> , unless the waste will be treated and monitored for all constituents. If all constituents will be treated and monitored, there is no need to put them all on the LDR notice | ✓ | ✓ |   |
| 4. The notice must include the applicable wastewater/ nonwastewater category (see Section 728.102(d) and (f)) and subdivisions made within a waste code based on waste-specific criteria (such as D003 reactive cyanide)  | ✓ | ✓ |   |
| 5. Waste analysis data (when available)   | ✓ | ✓ | ✓ |
| 6. Date the waste is subject to the prohibition   |   |   | ✓ |
| 7. For hazardous debris, when treating with the alternative treatment technologies provided by Section 728.145: the contaminants subject to treatment, as described in Section 728.145(b); and an indication that these contaminants are being treated to comply with Section 728.145   | ✓ |   | ✓ |
| 8. For contaminated soil subject to LDRs as <u>provided in Section 728.149(a), the constituents subject to treatment as described in Section 728.149(d), and the following statement: This contaminated soil [does/does not] contain listed hazardous waste and [does/does not] exhibit a characteristic of hazardous waste and [is subject to/complies with] the soil treatment standards as provided by Section 728.149(c) or the universal treatment standards</u>                             | ✓ |   |   |
| 89. A certification is needed (see applicable subsection for exact wording)   |   | ✓ | ✓ |

BOARD NOTE: Derived from Table 1 to 40 CFR 268.7(a)(4) (1997), as amended at 63 Fed. Reg. 28639 (May 26, 1998).

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 728. Table T Treatment Standards for Hazardous Wastes

Note: The treatment standards that heretofore appeared in tables in Sections 728.141, 728.142, and 728.143 have been consolidated into this table.

Waste Code

Waste Description and Treatment or Regulatory Subcategory<sup>1</sup>

Regulated Hazardous Constituent

Wastewaters

Nonwastewaters  
Concentration in  
mg/kg<sup>5</sup> unless

Concentration in  
mg/l<sup>3</sup>; or Techno-  
logy Code<sup>4</sup>

noted as "mg/l  
TCLP"; or Tech-  
nology Code<sup>4</sup>

Common Name

CAS<sup>2</sup> Number

D001<sup>9</sup>

Ignitable Characteristic Wastes, except for the 35 Ill. Adm. Code 721.121(a)(1) High TOC Subcategory.

NA

NA

DEACT and meet  
Section 728.148  
standards;<sup>8</sup> or  
RORGS; or  
CMBST

DEACT and meet  
Section 728.148  
standards;<sup>8</sup> or  
RORGS; or  
CMBST

D001<sup>9</sup>

High TOC Ignitable Characteristic Liquids Subcategory based on 35 Ill. Adm. Code 721.121(a)(1) - Greater than or equal to 10 percent total organic carbon.

(Note: This subcategory consists of nonwastewaters only.)

NA

NA

NA

RORGS;  
CMBST; or  
POLYM

D002<sup>9</sup>

Corrosive Characteristic Wastes.

NA

NA

DEACT and meet  
Section 728.148  
standards<sup>8</sup>

DEACT and meet  
Section 728.148  
standards<sup>8</sup>



D002, D004, D005, D006, D007, D008, D009, D010, D011  
 Radioactive high level wastes generated during the reprocessing of fuel rods.  
 (Note: This subcategory consists of nonwastewaters only.)

Corrosivity (pH)	NA	NA	HLVIT
Arsenic	7440-38-2	NA	HLVIT
Barium	7440-39-3	NA	HLVIT
Cadmium	7440-43-9	NA	HLVIT
Chromium (Total)	7440-47-3	NA	HLVIT
Lead	7439-92-1	NA	HLVIT
Mercury	7439-97-6	NA	HLVIT
Selenium	7782-49-2	NA	HLVIT
Silver	7440-22-4	NA	HLVIT

D003<sup>9</sup>

Reactive Sulfides Subcategory based on 35 Ill. Adm. Code 721.123(a)(5).

NA	NA	DEACT	DEACT
----	----	-------	-------

D003<sup>9</sup>

Explosive subcategory based on 35 Ill. Adm. Code 721.123(a)(6), (a)(7), and (a)(8).

NA	NA	DEACT and meet Section 728.148 standards <sup>8</sup>	DEACT and meet Section 728.148 standards <sup>8</sup>
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D003<sup>9</sup>

Unexploded ordnance and other explosive devices that have been the subject of an emergency response.

NA	NA	DEACT	DEACT
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D003<sup>9</sup>

Other Reactives Subcategory based on 35 Ill. Adm. Code 721.123(a)(1).

NA	NA	DEACT and meet Section 728.148 standards <sup>8</sup>	DEACT and meet Section 728.148 standards <sup>8</sup>
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D003<sup>9</sup>

Water Reactive Subcategory based on 35 Ill. Adm. Code 721.123(a)(2), (a)(3), and (a)(4).  
 (Note: This subcategory consists of nonwastewaters only.)

NA	NA	NA	DEACT and meet Section 728.148 standards <sup>8</sup>
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D003<sup>9</sup>

Reactive Cyanides Subcategory based on 35 Ill. Adm. Code 721.123(a)(5).

Cyanides (Total) <sup>7</sup>	57-12-5	--	590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30

D004<sup>9</sup>

Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for arsenic based on the ~~extraction~~-toxicity characteristic leaching procedure (EP)-(TCLP) in SW-846 Method ~~1310~~ 1311.

Arsenic	7440-38-2	<del>5.0</del> <u>1.4</u> and meet <u>Section 728.148</u> <u>standards<sup>8</sup></u>	<del>5.0 mg/l-EP</del> TCLP and meet <u>Section 728.148</u> <u>standards<sup>8</sup></u>
<del>Arsenic; alternative<sup>6</sup> standard for nonwastewaters only.</del>	<del>7440-38-2</del>	<del>NA</del>	<del>5.0 mg/l TCLP</del>

D005<sup>9</sup>

Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for barium based on the ~~extraction~~-toxicity characteristic leaching procedure (EP)-(TCLP) in SW-846 Method ~~1310~~ 1311.

Barium	7440-39-3	<del>100</del> <u>1.2</u> and meet <u>Section 728.148</u> <u>standards<sup>8</sup></u>	<del>100</del> <u>21</u> mg/l TCLP and meet <u>Section 728.148</u> <u>standards<sup>8</sup></u>
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D006<sup>9</sup>

Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for cadmium based on the ~~extraction~~-toxicity characteristic leaching procedure (EP)-(TCLP) in SW-846 Method ~~1310~~ 1311.

Cadmium	7440-43-9	<del>1.00</del> <u>0.69</u> and meet <u>Section 728.148</u> <u>standards<sup>8</sup></u>	<del>1.0</del> <u>0.11</u> mg/l TCLP and meet <u>Section 728.148</u> <u>standards<sup>8</sup></u>
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D006<sup>9</sup>

Cadmium-Containing Batteries Subcategory

(Note: This subcategory consists of nonwastewaters only.)

Cadmium	7440-43-9	NA	RTHRM
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D007<sup>9</sup>

Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for chromium based on the ~~extraction~~-toxicity characteristic leaching procedure (EP)-(TCLP) in SW-846 Method ~~1310~~ 1311.

Chromium (Total)	7440-47-3	<del>5.0</del> <u>2.77</u> and meet <u>Section 728.148</u> <u>standards<sup>8</sup></u>	<del>5.0</del> <u>0.60</u> mg/l TCLP and meet <u>Section 728.148</u> <u>standards<sup>8</sup></u>
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D008<sup>9</sup>

Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for lead based on the extraction-toxicity characteristic leaching procedure (EP)-(TCLP) in SW-846 Method-1310 1311.

Lead	7439-92-1	<del>5.00.69</del> and meet Section 728.148 standards <sup>8</sup>	<del>5.0-0.75</del> mg/l-EP TCLP and meet Section 728.148 standards <sup>8</sup>
<del>Lead; alternative<sup>6</sup> standard for nonwastewaters only</del>	<del>7439-92-1</del>	NA	5.0 mg/l TCLP

D008<sup>9</sup>

Lead Acid Batteries Subcategory

(Note: This standard only applies to lead acid batteries that are identified as RCRA hazardous wastes and that are not excluded elsewhere from regulation under the land disposal restrictions of this Part or exempted under other regulations (see 35 Ill. Adm. Code 726.180). This subcategory consists of nonwastewaters only.)

Lead	7439-92-1	NA	RLEAD
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D008<sup>9</sup>

Radioactive Lead Solids Subcategory

(Note: These lead solids include, but are not limited to, all forms of lead shielding and other elemental forms of lead. These lead solids do not include treatment residuals such as hydroxide sludges, other wastewater treatment residuals, or incinerator ashes that can undergo conventional pozzolanic stabilization, nor do they include organo-lead materials that can be incinerated and stabilized as ash. This subcategory consists of nonwastewaters only.)

Lead	7439-92-1	NA	MACRO
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D009<sup>9</sup>

Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the extraction-toxicity characteristic leaching procedure (EP)-(TCLP) in SW-846 Method-1310 1311; and contain greater than or equal to 260 mg/kg total mercury that also contain organics and are not incinerator residues. (High Mercury-Organic Subcategory)

Mercury	7439-97-6	NA	IMERC; or RMERC
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D009<sup>9</sup>

Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the extraction-toxicity characteristic leaching procedure (EP)-(TCLP) in SW-846 Method-1310 1311; and contain greater than or equal to 260 mg/kg total mercury that are inorganic, including incinerator residues and residues from RMERC. (High Mercury-Inorganic Subcategory)

Mercury	7439-97-6	NA	RMERC
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D009<sup>9</sup>

Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the ~~extraction~~-toxicity characteristic leaching procedure (~~EP~~)-(TCLP) in SW-846 Method ~~1310~~ 1311; and contain less than 260 mg/kg total mercury. (Low Mercury

Subcategory)

Mercury	7439-97-6	NA	0.20 mg/l TCLP and meet Section <u>728.148</u> standards <sup>8</sup>
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D009<sup>9</sup>

All other nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the toxicity characteristic leaching procedure (TCLP) in SW-846 Method 1311; and contain less than 260 mg/kg total mercury and that are not residues from RMERC.

(Low Mercury Subcategory)

<u>Mercury</u>	<u>7439-97-6</u>	<u>NA</u>	<u>0.025 mg/l TCLP</u> <u>and meet Section</u> <u>728.148</u> <u>standards<sup>8</sup></u>
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D009<sup>9</sup>

All D009 wastewaters.

Mercury	7439-97-6	<u>0.200.15 and</u> <u>meet Section</u> <u>728.148</u> <u>standards<sup>8</sup></u>	NA
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D009<sup>9</sup>

Elemental mercury contaminated with radioactive materials.

(Note: This subcategory consists of nonwastewaters only.)

Mercury	7439-97-6	NA	AMLGM
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D009<sup>9</sup>

Hydraulic oil contaminated with Mercury Radioactive Materials Subcategory.

(Note: This subcategory consists of nonwastewaters only.)

Mercury	7439-97-6	NA	IMERC
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D010<sup>9</sup>

Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for selenium based on the ~~extraction~~-toxicity characteristic leaching procedure (~~EP~~)-(TCLP) in SW-846 Method ~~1310~~ 1311.

Selenium	7782-49-2	<u>1.00.82</u>	<u>5.7 mg/l TCLP</u> <u>and meet Section</u> <u>728.148</u> <u>standards<sup>8</sup></u>
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D011<sup>9</sup>

Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for silver based on the extraction-toxicity characteristic leaching procedure (ETCLP) in SW-846 Method 1310 1311.

Silver	7440-22-4	<del>5.00.43</del>	<del>5.0</del> 0.14 mg/l TCLP and meet Section 728.148 standards <sup>8</sup>
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D012<sup>9</sup>

Wastes that are TC for Endrin based on the toxicity characteristic leaching procedure (TCLP) in SW-846 Method 1311.

Endrin	72-20-8	BIODG; or CMBST	0.13 and meet Section 728.148 standards <sup>8</sup>
Endrin aldehyde	7421-93-4	BIODG; or CMBST	0.13 and meet Section 728.148 standards <sup>8</sup>

D013<sup>9</sup>

Wastes that are TC for Lindane based on the toxicity characteristic leaching procedure (TCLP) in SW-846 Method 1311.

$\alpha$ -BHC	319-84-6	CARBN; or CMBST	0.066 and meet Section 728.148 standards <sup>8</sup>
$\beta$ -BHC	319-85-7	CARBN; or CMBST	0.066 and meet Section 728.148 standards <sup>8</sup>
$\delta$ -BHC	319-86-8	CARBN; or CMBST	0.066 and meet Section 728.148 standards <sup>8</sup>
$\chi$ -BHC (Lindane)	58-89-9	CARBN; or CMBST	0.066 and meet Section 728.148 standards <sup>8</sup>

D014<sup>9</sup>

Wastes that are TC for Methoxychlor based on the toxicity characteristic leaching procedure (TCLP) in SW-846 Method 1311.

Methoxychlor	72-43-5	WETOX or CMBST	0.18 and meet Section 728.148 standards <sup>8</sup>
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D015<sup>9</sup>

Wastes that are TC for Toxaphene based on the toxicity characteristic leaching procedure (TCLP) in SW-846 Method 1311.

Toxaphene	8001-35-2	BIODG or	2.6 and meet
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		CMBST	Section 728.148 standards <sup>8</sup>
D016 <sup>9</sup> Wastes that are TC for 2,4-D (2,4-Dichlorophenoxyacetic acid) based on the <u>toxicity characteristic leaching procedure (TCLP)</u> in SW-846 Method 1311.			
2,4-D (2,4-Dichlorophenoxy-acetic acid)	94-75-7	CHOXD; BIODG; or CMBST	10 and meet Section 728.148 standards <sup>8</sup>
D017 <sup>9</sup> Wastes that are TC for 2,4,5-TP (Silvex) based on the <u>toxicity characteristic leaching procedure (TCLP)</u> in SW-846 Method 1311.			
2,4,5-TP (Silvex)	93-72-1	CHOXD or CMBST	7.9 and meet Section 728.148 standards <sup>8</sup>
D018 <sup>9</sup> Wastes that are TC for Benzene based on the <u>toxicity characteristic leaching procedure (TCLP)</u> in SW-846 Method 1311.			
Benzene	71-43-2	0.14 and meet Section 728.148 standards <sup>8</sup>	10 and meet Section 728.148 standards <sup>8</sup>
D019 <sup>9</sup> Wastes that are TC for Carbon tetrachloride based on the <u>toxicity characteristic leaching procedure (TCLP)</u> in SW-846 Method 1311.			
Carbon tetrachloride	56-23-5	0.057 and meet Section 728.148 standards <sup>8</sup>	6.0 and meet Section 728.148 standards <sup>8</sup>
D020 <sup>9</sup> Wastes that are TC for Chlordane based on the <u>toxicity characteristic leaching procedure (TCLP)</u> in SW-846 Method 1311.			
Chlordane ( $\alpha$ and $\chi$ isomers)	57-74-9	0.0033 and meet Section 728.148 standards <sup>8</sup>	0.26 and meet Section 728.148 standards <sup>8</sup>
D021 <sup>9</sup> Wastes that are TC for Chlorobenzene based on the <u>toxicity characteristic leaching procedure (TCLP)</u> in SW-846 Method 1311.			
Chlorobenzene	108-90-7	0.057 and meet Section 728.148 standards <sup>8</sup>	6.0 and meet Section 728.148 standards <sup>8</sup>

D022<sup>9</sup>

Wastes that are TC for Chloroform based on the toxicity characteristic leaching procedure (TCLP) in SW-846 Method 1311.

Chloroform	67-66-3	0.046 and meet Section 728.148 standards <sup>8</sup>	6.0 and meet Section 728.148 standards <sup>8</sup>
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D023<sup>9</sup>

Wastes that are TC for o-Cresol based on the toxicity characteristic leaching procedure (TCLP) in SW-846 Method 1311.

o-Cresol	95-48-7	0.11 and meet Section 728.148 standards <sup>8</sup>	5.6 and meet Section 728.148 standards <sup>8</sup>
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D024<sup>9</sup>

Wastes that are TC for m-Cresol based on the toxicity characteristic leaching procedure (TCLP) in SW-846 Method 1311.

m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77 and meet Section 728.148 standards <sup>8</sup>	5.6 and meet Section 728.148 standards <sup>8</sup>
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D025<sup>9</sup>

Wastes that are TC for p-Cresol based on the toxicity characteristic leaching procedure (TCLP) in SW-846 Method 1311.

p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77 and meet Section 728.148 standards <sup>8</sup>	5.6 and meet Section 728.148 standards <sup>8</sup>
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D026<sup>9</sup>

Wastes that are TC for Cresols (Total) based on the toxicity characteristic leaching procedure (TCLP) in SW-846 Method 1311.

Cresol-mixed isomers (Cresylic acid) (sum of o-, m-, and p-cresol concentrations)	1319-77-3	0.88 and meet Section 728.148 standards <sup>8</sup>	11.2 and meet Section 728.148 standards <sup>8</sup>
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D027<sup>9</sup>

Wastes that are TC for p-Dichlorobenzene based on the toxicity characteristic leaching procedure (TCLP) in SW-846 Method 1311.

p-Dichlorobenzene (1,4-Dichlorobenzene)	106-46-7	0.090 and meet Section 728.148 standards <sup>8</sup>	6.0 and meet Section 728.148 standards <sup>8</sup>
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D028<sup>9</sup>

Wastes that are TC for 1,2-Dichloroethane based on the toxicity characteristic leaching procedure (TCLP) in SW-846 Method 1311.

1,2-Dichloroethane	107-06-2	0.21 and meet Section 728.148 standards <sup>8</sup>	6.0 and meet Section 728.148 standards <sup>8</sup>
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D029<sup>9</sup>

Wastes that are TC for 1,1-Dichloroethylene based on the toxicity characteristic leaching procedure (TCLP) in SW-846 Method 1311.

1,1-Dichloroethylene	75-35-4	0.025 and meet Section 728.148 standards <sup>8</sup>	6.0 and meet Section 728.148 standards <sup>8</sup>
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D030<sup>9</sup>

Wastes that are TC for 2,4-Dinitrotoluene based on the toxicity characteristic leaching procedure (TCLP) in SW-846 Method 1311.

2,4-Dinitrotoluene	121-14-2	0.32 and meet Section 728.148 standards <sup>8</sup>	140 and meet Section 728.148 standards <sup>8</sup>
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D031<sup>9</sup>

Wastes that are TC for Heptachlor based on the toxicity characteristic leaching procedure (TCLP) in SW-846 Method 1311.

Heptachlor	76-44-8	0.0012 and meet Section 728.148 standards <sup>8</sup>	0.066 and meet Section 728.148 standards <sup>8</sup>
Heptachlor epoxide	1024-57-3	0.016 and meet Section 728.148 standards <sup>8</sup>	0.066 and meet Section 728.148 standards <sup>8</sup>

D032<sup>9</sup>

Wastes that are TC for Hexachlorobenzene based on the toxicity characteristic leaching procedure (TCLP) in SW-846 Method 1311.

Hexachlorobenzene	118-74-1	0.055 and meet Section 728.148 standards <sup>8</sup>	10 and meet Section 728.148 standards <sup>8</sup>
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D033<sup>9</sup>

Wastes that are TC for Hexachlorobutadiene based on the toxicity characteristic leaching procedure (TCLP) in SW-846 Method 1311.

Hexachlorobutadiene	87-68-3	0.055 and meet Section 728.148 standards <sup>8</sup>	5.6 and meet Section 728.148 standards <sup>8</sup>
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D034<sup>9</sup>

Wastes that are TC for Hexachloroethane based on the toxicity characteristic leaching procedure (TCLP) in SW-846 Method 1311.

Hexachloroethane	67-72-1	0.055 and meet Section 728.148 standards <sup>8</sup>	30 and meet Section 728.148 standards <sup>8</sup>
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D035<sup>9</sup>

Wastes that are TC for Methyl ethyl ketone based on the toxicity characteristic leaching procedure (TCLP) in SW-846 Method 1311.

Methyl ethyl ketone	78-93-3	0.28 and meet Section 728.148 standards <sup>8</sup>	36 and meet Section 728.148 standards <sup>8</sup>
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D036<sup>9</sup>

Wastes that are TC for Nitrobenzene based on the toxicity characteristic leaching procedure (TCLP) in SW-846 Method 1311.

Nitrobenzene	98-95-3	0.068 and meet Section 728.148 standards <sup>8</sup>	14 and meet Section 728.148 standards <sup>8</sup>
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D037<sup>9</sup>

Wastes that are TC for Pentachlorophenol based on the toxicity characteristic leaching procedure (TCLP) in SW-846 Method 1311.

Pentachlorophenol	87-86-5	0.089 and meet Section 728.148 standards <sup>8</sup>	7.4 and meet Section 728.148 standards <sup>8</sup>
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D038<sup>9</sup>

Wastes that are TC for Pyridine based on the toxicity characteristic leaching procedure (TCLP) in SW-846 Method 1311.

Pyridine	110-86-1	0.014 and meet Section 728.148 standards <sup>8</sup>	16 and meet Section 728.148 standards <sup>8</sup>
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D039<sup>9</sup>

Wastes that are TC for Tetrachloroethylene based on the toxicity characteristic leaching procedure (TCLP) in SW-846 Method 1311.

Tetrachloroethylene	127-18-4	0.056 and meet Section 728.148 standards <sup>8</sup>	6.0 and meet Section 728.148 standards <sup>8</sup>
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D040<sup>9</sup>

Wastes that are TC for Trichloroethylene based on the toxicity characteristic leaching procedure (TCLP) in SW-846 Method 1311.

Trichloroethylene	79-01-6	0.054 and meet	6.0 and meet
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Section 728.148  
standards<sup>8</sup>      Section 728.148  
standards<sup>8</sup>

D041<sup>9</sup>

Wastes that are TC for 2,4,5-Trichlorophenol based on the toxicity characteristic leaching procedure (TCLP) in SW-846 Method 1311.

2,4,5-Trichlorophenol	95-95-4	0.18 and meet Section 728.148 standards <sup>8</sup>	7.4 and meet Section 728.148 standards <sup>8</sup>
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D042<sup>9</sup>

Wastes that are TC for 2,4,6-Trichlorophenol based on the toxicity characteristic leaching procedure (TCLP) in SW-846 Method 1311.

2,4,6-Trichlorophenol	88-06-2	0.035 and meet Section 728.148 standards <sup>8</sup>	7.4 and meet Section 728.148 standards <sup>8</sup>
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D043<sup>9</sup>

Wastes that are TC for Vinyl chloride based on the toxicity characteristic leaching procedure (TCLP) in SW-846 Method 1311.

Vinyl chloride	75-01-4	0.27 and meet Section 728.148 standards <sup>8</sup>	6.0 and meet Section 728.148 standards <sup>8</sup>
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F001, F002, F003, F004 & F005

F001, F002, F003, F004, or F005 solvent wastes that contain any combination of one or more of the following spent solvents: acetone, benzene, n-butyl alcohol, carbon disulfide, carbon tetrachloride, chlorinated fluorocarbons, chlorobenzene, o-cresol, m-cresol, p-cresol, cyclohexanone, o-dichlorobenzene, 2-ethoxyethanol, ethyl acetate, ethyl benzene, ethyl ether, isobutyl alcohol, methanol, methylene chloride, methyl ethyl ketone, methyl isobutyl ketone, nitrobenzene, 2-nitropropane, pyridine, tetrachloroethylene, toluene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,1,2-trichloro-1,2,2-trifluoroethane, trichloroethylene, trichloromono-fluoromethane, or xylenes (except as specifically noted in other subcategories). See further details of these listings in 35 Ill. Adm. Code 721.131

Acetone	67-64-1	0.28	160
Benzene	71-43-2	0.14	10
n-Butyl alcohol	71-36-3	5.6	2.6
Carbon disulfide	75-15-0	3.8	NA
Carbon tetrachloride	56-23-5	0.057	6.0
Chlorobenzene	108-90-7	0.057	6.0
o-Cresol	95-48-7	0.11	5.6
m-Cresol	108-39-4	0.77	5.6
(difficult to distinguish from p-cresol)			
p-Cresol	106-44-5	0.77	5.6
(difficult to distinguish from m-			

cresol)			
Cresol-mixed isomers (Cresylic acid)	1319-77-3	0.88	11.2
(sum of o-, m-, and p-cresol concentrations)			
Cyclohexanone	108-94-1	0.36	NA
o-Dichlorobenzene	95-50-1	0.088	6.0
Ethyl acetate	141-78-6	0.34	33
Ethyl benzene	100-41-4	0.057	10
Ethyl ether	60-29-7	0.12	160
Isobutyl alcohol	78-83-1	5.6	170
Methanol	67-56-1	5.6	NA
Methylene chloride	75-9-2	0.089	30
Methyl ethyl ketone	78-93-3	0.28	36
Methyl isobutyl ketone	108-10-1	0.14	33
Nitrobenzene	98-95-3	0.068	14
Pyridine	110-86-1	0.014	16
Tetrachloroethylene	127-18-4	0.056	6.0
Toluene	108-88-3	0.080	10
1,1,1-Trichloroethane	71-55-6	0.054	6.0
1,1,2-Trichloroethane	79-00-5	0.054	6.0
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.057	30
Trichloroethylene	79-01-6	0.054	6.0
Trichloromonofluoromethane	75-69-4	0.020	30
Xylenes-mixed isomers	1330-20-7	0.32	30
(sum of o-, m-, and p-xylene concentrations)			

## F001, F002, F003, F004 &amp; F005

F003 and F005 solvent wastes that contain any combination of one or more of the following three solvents as the only listed F001 through F005 solvents: carbon disulfide, cyclohexanone, or methanol. (Formerly Section 728.141(c))

Carbon disulfide	75-15-0	3.8	4.8 mg/l TCLP
Cyclohexanone	108-94-1	0.36	0.75 mg/l TCLP
Methanol	67-56-1	5.6	0.75 mg/l TCLP

## F001, F002, F003, F004 &amp; F005

F005 solvent waste containing 2-Nitropropane as the only listed F001 through F005 solvent.

2-Nitropropane	79-46-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
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F001, F002, F003, F004 & F005

F005 solvent waste containing 2-Ethoxyethanol as the only listed F001 through F005 solvent.

2-Ethoxyethanol	110-80-5	BIODG; or CMBST	CMBST
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F006

Wastewater treatment sludges from electroplating operations except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning or stripping associated with tin, zinc, and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.

Cadmium	7440-43-9	0.69	<del>0.19</del> <u>0.11</u> mg/l TCLP
Chromium (Total)	7440-47-3	2.77	<del>0.86</del> <u>0.60</u> mg/l TCLP
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30
Lead	7439-92-1	0.69	<del>0.37</del> <u>0.75</u> mg/l TCLP
Nickel	7440-02-0	3.98	<del>5.0</del> <u>11</u> mg/l TCLP
Silver	7440-22-4	NA	<del>0.30</del> <u>0.14</u> mg/l TCLP

F007

Spent cyanide plating bath solutions from electroplating operations.

Cadmium	7440-43-9	NA	<del>0.19</del> <u>0.11</u> mg/l TCLP
Chromium (Total)	7440-47-3	2.77	<del>0.86</del> <u>0.60</u> mg/l TCLP
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30
Lead	7439-92-1	0.69	<del>0.37</del> <u>0.75</u> mg/l TCLP
Nickel	7440-02-0	3.98	<del>5.0</del> <u>11</u> mg/l TCLP
Silver	7440-22-4	NA	<del>0.30</del> <u>0.14</u> mg/l TCLP

F008

Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.

Cadmium	7440-43-9	NA	<del>0.19</del> <u>0.11</u> mg/l TCLP
Chromium (Total)	7440-47-3	2.77	<del>0.86</del> <u>0.60</u> mg/l TCLP

Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30
Lead	7439-92-1	0.69	<del>0.37-0.75</del> mg/l TCLP
Nickel	7440-02-0	3.98	<del>5.0-11</del> mg/l TCLP
Silver	7440-22-4	NA	<del>0.30-0.14</del> mg/l TCLP

## F009

Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.

Cadmium	7440-43-9	NA	<del>0.19-0.11</del> mg/l TCLP
Chromium (Total)	7440-47-3	2.77	<del>0.86-0.60</del> mg/l TCLP
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30
Lead	7439-92-1	0.69	<del>0.37-0.75</del> mg/l TCLP
Nickel	7440-02-0	3.98	<del>5.0-11</del> mg/l TCLP
Silver	7440-22-4	NA	<del>0.30-0.14</del> mg/l TCLP

## F010

Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process.

Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	NA

## F011

Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.

Cadmium	7440-43-9	NA	<del>0.19-0.11</del> mg/l TCLP
Chromium (Total)	7440-47-3	2.77	<del>0.86-0.60</del> mg/l TCLP
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30
Lead	7439-92-1	0.69	<del>0.37-0.75</del> mg/l TCLP
Nickel	7440-02-0	3.98	<del>5.0-11</del> mg/l TCLP
Silver	7440-22-4	NA	<del>0.30-0.14</del> mg/l TCLP

## F012

Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process.

Cadmium	7440-43-9	NA	<del>0.19</del> <u>0.11</u> mg/l TCLP
Chromium (Total)	7440-47-3	2.77	<del>0.86</del> <u>0.60</u> mg/l TCLP
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30
Lead	7439-92-1	0.69	<del>0.37</del> <u>0.75</u> mg/l TCLP
Nickel	7440-02-0	3.98	<del>5.0</del> <u>11</u> mg/l TCLP
Silver	7440-22-4	NA	<del>0.30</del> <u>0.14</u> mg/l TCLP

## F019

Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process.

Chromium (Total)	7440-47-3	2.77	<del>0.86</del> <u>0.60</u> mg/l TCLP
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30

## F020, F021, F022, F023, F026

Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of: (1) tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives, excluding wastes from the production of Hexachlorophene from highly purified 2,4,5-trichlorophenol (i.e., F020); (2) pentachlorophenol, or of intermediates used to produce its derivatives (i.e., F021); (3) tetra-, penta-, or hexachlorobenzenes under alkaline conditions (i.e., F022) and wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of: (1) tri- or tetrachlorophenols, excluding wastes from equipment used only for the production of Hexachlorophene from highly purified 2,4,5-trichlorophenol (F023) or (2) tetra-, penta-, or hexachlorobenzenes under alkaline conditions (i.e., F026).

HxCDDs (All Hexachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
HxCDFs (All Hexachloro-dibenzofurans)	NA	0.000063	0.001
PeCDDs (All Pentachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
PeCDFs (All Pentachloro-dibenzofurans)	NA	0.000035	0.001

Pentachlorophenol	87-86-5	0.089	7.4
TCDDs (All Tetrachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
TCDFs (All Tetrachlorodibenzofurans)	NA	0.000063	0.001
2,4,5-Trichlorophenol	95-95-4	0.18	7.4
2,4,6-Trichlorophenol	88-06-2	0.035	7.4
2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4

## F024

Process wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes, from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. (This listing does not include wastewaters, wastewater treatment sludges, spent catalysts, and wastes listed in 35 Ill. Adm. Code 721.131 or 721.132.)

All F024 wastes	NA	CMBST <sup>11</sup>	CMBST <sup>11</sup>
2-Chloro-1,3-butadiene	126-99-8	0.057	0.28
3-Chloropropylene	107-05-1	0.036	30
1,1-Dichloroethane	75-34-3	0.059	6.0
1,2-Dichloroethane	107-06-2	0.21	6.0
1,2-Dichloropropane	78-87-5	0.85	18
cis-1,3-Dichloropropylene	10061-01-5	0.036	18
trans-1,3-Dichloropropylene	10061-02-6	0.036	18
bis(2-Ethylhexyl)phthalate	117-81-7	0.28	28
Hexachloroethane	67-72-1	0.055	30
Chromium (Total)	7440-47-3	2.77	<del>0.86</del> 0.60 mg/l TCLP
Nickel	7440-02-0	3.98	<del>5.0</del> 11 mg/l TCLP

## F025

Condensed light ends from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one up to and including five, with varying amounts and positions of chlorine substitution. F025--Light Ends Subcategory.

Carbon tetrachloride	56-23-5	0.057	6.0
Chloroform	67-66-3	0.046	6.0
1,2-Dichloroethane	107-06-2	0.21	6.0
1,1-Dichloroethylene	75-35-4	0.025	6.0
Methylene chloride	75-9-2	0.089	30
1,1,2-Trichloroethane	79-00-5	0.054	6.0
Trichloroethylene	79-01-6	0.054	6.0
Vinyl chloride	75-01-4	0.27	6.0

## F025

Spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. F025--Spent Filters/Aids and Desiccants Subcategory.

Carbon tetrachloride	56-23-5	0.057	6.0
Chloroform	67-66-3	0.046	6.0
Hexachlorobenzene	118-74-1	0.055	10
Hexachlorobutadiene	87-68-3	0.055	5.6
Hexachloroethane	67-72-1	0.055	30
Methylene chloride	75-9-2	0.089	30
1,1,2-Trichloroethane	79-00-5	0.054	6.0
Trichloroethylene	79-01-6	0.054	6.0
Vinyl chloride	75-01-4	0.27	6.0

## F027

Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (This listing does not include formulations containing hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.)

HxCDDs (All Hexachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
HxCDFs (All Hexachloro-dibenzofurans)	NA	0.000063	0.001
PeCDDs (All Pentachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
PeCDFs (All Pentachloro-dibenzofurans)	NA	0.000035	0.001
Pentachlorophenol	87-86-5	0.089	7.4
TCDDs (All Tetrachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
TCDFs (All Tetrachlorodibenzo-furans)	NA	0.000063	0.001
2,4,5-Trichlorophenol	95-95-4	0.18	7.4
2,4,6-Trichlorophenol	88-06-2	0.035	7.4
2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4

## F028

Residues resulting from the incineration or thermal treatment of soil contaminated with USEPA hazardous waste numbers F020, F021, F023, F026, and F027.

HxCDDs (All Hexachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
HxCDFs (All Hexachloro-dibenzofurans)	NA	0.000063	0.001
PeCDDs (All Pentachloro-	NA	0.000063	0.001



dibenzo-p-dioxins)			
PeCDFs (All Pentachloro-dibenzofurans)	NA	0.000035	0.001
Pentachlorophenol	87-86-5	0.089	7.4
TCDDs (All Tetrachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
TCDFs (All Tetrachlorodibenzo-furans)	NA	0.000063	0.001
2,4,5-Trichlorophenol	95-95-4	0.18	7.4
2,4,6-Trichlorophenol	88-06-2	0.035	7.4
2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4

## F032

Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations (except potentially cross-contaminated wastes that have had the F032 waste code deleted in accordance with 35 Ill. Adm. Code 721.135 or potentially cross-contaminated wastes that are otherwise currently regulated as hazardous wastes (i.e., F034 or F035), where the generator does not resume or initiate use of chlorophenolic formulations). This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or penta-chlorophenol.

Acenaphthene	83-32-9	0.059	3.4
Anthracene	120-12-7	0.059	3.4
Benz(a)anthracene	56-55-3	0.059	3.4
Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
Benzo(a)pyrene	50-32-8	0.061	3.4
Chrysene	218-01-9	0.059	3.4
Dibenz(a,h)anthracene	53-70-3	0.055	8.2
2-4-Dimethyl phenol	105-67-9	0.036	14
Fluorene	86-73-7	0.059	3.4
Hexachlorodibenzo-p-dioxins	NA	0.000063 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
Hexachlorodibenzofurans	NA	0.000063 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
Indeno (1,2,3-c,d) pyrene	193-39-5	0.0055	3.4
Naphthalene	91-20-3	0.059	5.6
Pentachlorodibenzo-p-dioxins	NA	0.000063 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
Pentachlorodibenzofurans	NA	0.000035 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>

Pentachlorophenol	87-86-5	0.089	7.4
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
Pyrene	129-00-0	0.067	8.2
Tetrachlorodibenzo-p-dioxins	NA	0.000063 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
Tetrachlorodibenzofurans	NA	0.000063 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
2,4,6-Trichlorophenol	88-06-2	0.035	7.4
Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	<del>0.86</del> 0.60 mg/l TCLP

## F034

Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote or pentachlorophenol.

Acenaphthene	83-32-9	0.059	3.4
Anthracene	120-12-7	0.059	3.4
Benz(a)anthracene	56-55-3	0.059	3.4
Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
Benzo(a)pyrene	50-32-8	0.061	3.4
Chrysene	218-01-9	0.059	3.4
Dibenz(a,h)anthracene	53-70-3	0.055	8.2
Fluorene	86-73-7	0.059	3.4
Indeno (1,2,3-c,d) pyrene	193-39-5	0.0055	3.4
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	85-01-8	0.059	5.6
Pyrene	129-00-0	0.067	8.2
Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	<del>0.86</del> 0.60 mg/l TCLP

## F035

Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes that are generated at plants that use inorganic preservatives containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote or pentachlorophenol.

Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	<del>0.86</del> 0.60 mg/l TCLP

## F037

Petroleum refinery primary oil/water/solids separation sludge--Any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oily cooling wastewaters from petroleum refineries. Such sludges include, but are not limited to, those generated in: oil/water/solids separators; tanks and impoundments; ditches and other conveyances; sumps; and stormwater units receiving dry weather flow. Sludge generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges generated in aggressive biological treatment units as defined in 35 Ill. Adm. Code 721.131(b)(2) (including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and K051 wastes are not included in this listing.

Acenaphthene	83-32-9	0.059	NA
Anthracene	120-12-7	0.059	3.4
Benzene	71-43-2	0.14	10
Benz(a)anthracene	56-55-3	0.059	3.4
Benzo(a)pyrene	50-32-8	0.061	3.4
bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
Chrysene	218-01-9	0.059	3.4
Di-n-butyl phthalate	84-74-2	0.057	28
Ethylbenzene	100-41-4	0.057	10
Fluorene	86-73-7	0.059	NA
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
Pyrene	129-00-0	0.067	8.2
Toluene	108-88-3	0.080	10
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Chromium (Total)	7440-47-3	2.77	<del>0.86</del> 0.60 mg/l TCLP
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Lead	7439-92-1	0.69	NA
Nickel	7440-02-0	NA	<del>5.0</del> 11 mg/l TCLP

## F038

Petroleum refinery secondary (emulsified) oil/water/solids separation sludge or float generated from the physical or chemical separation of oil/water/solids in process wastewaters and oily cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges and floats generated in: induced air floatation (IAF) units, tanks and impoundments, and all sludges generated in DAF units. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges and floats generated in aggressive biological treatment units as defined in 35 Ill. Adm. Code 721.131(b)(2) (including sludges and floats generated in one or more additional units after wastewaters have been treated in aggressive biological units) and F037, K048, and K051 are not included in this listing.

Benzene	71-43-2	0.14	10
Benzo(a)pyrene	50-32-8	0.061	3.4
bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
Chrysene	218-01-9	0.059	3.4
Di-n-butyl phthalate	84-74-2	0.057	28
Ethylbenzene	100-41-4	0.057	10
Fluorene	86-73-7	0.059	NA
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
Pyrene	129-00-0	0.067	8.2
Toluene	108-88-3	0.080	10
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Chromium (Total)	7440-47-3	2.77	<del>0.86</del> -0.60 mg/l TCLP
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Lead	7439-92-1	0.69	NA
Nickel	7440-02-0	NA	<del>5.0</del> -11 mg/l TCLP

## F039

Leachate (liquids that have percolated through land disposed wastes) resulting from the disposal of more than one restricted waste classified as hazardous under Subpart D of this Part. (Leachate resulting from the disposal of one or more of the following USEPA hazardous wastes and no other hazardous wastes retains its USEPA hazardous waste numbers: F020, F021, F022, F026, F027, or F028.).

Acenaphthylene	208-96-8	0.059	3.4
Acenaphthene	83-32-9	0.059	3.4
Acetone	67-64-1	0.28	160
Acetonitrile	75-05-8	5.6	NA
Acetophenone	96-86-2	0.010	9.7

2-Acetylaminofluorene	53-96-3	0.059	140
Acrolein	107-02-8	0.29	NA
Acrylonitrile	107-13-1	0.24	84
Aldrin	309-00-2	0.021	0.066
4-Aminobiphenyl	92-67-1	0.13	NA
Aniline	62-53-3	0.81	14
Anthracene	120-12-7	0.059	3.4
Aramite	140-57-8	0.36	NA
$\alpha$ -BHC	319-84-6	0.00014	0.066
$\beta$ -BHC	319-85-7	0.00014	0.066
$\delta$ -BHC	319-86-8	0.023	0.066
$\chi$ -BHC	58-89-9	0.0017	0.066
Benzene	71-43-2	0.14	10
Benzo(a)anthracene	56-55-3	0.059	3.4
Benzo(b)fluoranthene (difficult to distinguish from benzo(k)-fluoranthene)	205-99-2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)-fluoranthene)	207-08-9	0.11	6.8
Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
Benzo(a)pyrene	50-32-8	0.061	3.4
Bromodichloromethane	75-27-4	0.35	15
Methyl bromide (Bromo-methane)	74-83-9	0.11	15
4-Bromophenyl phenyl ether	101-55-3	0.055	15
n-Butyl alcohol	71-36-3	5.6	2.6
Butyl benzyl phthalate	85-68-7	0.017	28
2-sec-Butyl-4,6-dinitrophenol (Dinoseb)	88-85-7	0.066	2.5
Carbon disulfide	75-15-0	3.8	NA
Carbon tetrachloride	56-23-5	0.057	6.0
Chlordane ( $\alpha$ and $\chi$ isomers)	57-74-9	0.0033	0.26
p-Chloroaniline	106-47-8	0.46	16
Chlorobenzene	108-90-7	0.057	6.0
Chlorobenzilate	510-15-6	0.10	NA
2-Chloro-1,3-butadiene	126-99-8	0.057	NA
Chlorodibromomethane	124-48-1	0.057	15
Chloroethane	75-00-3	0.27	6.0
bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2
bis(2-Chloroethyl)ether	111-44-4	0.033	6.0
Chloroform	67-66-3	0.046	6.0
bis(2-Chloroisopropyl)ether	39638-32-9	0.055	7.2
p-Chloro-m-cresol	59-50-7	0.018	14
Chloromethane (Methyl	74-87-3	0.19	30

chloride)			
2-Chloronaphthalene	91-58-7	0.055	5.6
2-Chlorophenol	95-57-8	0.044	5.7
3-Chloropropylene	107-05-1	0.036	30
Chrysene	218-01-9	0.059	3.4
o-Cresol	95-48-7	0.11	5.6
m-Cresol	108-39-4	0.77	5.6
(difficult to distinguish from p-cresol)			
p-Cresol	106-44-5	0.77	5.6
(difficult to distinguish from m-cresol)			
Cyclohexanone	108-94-1	0.36	NA
1,2-Dibromo-3-chloropropane	96-12-8	0.11	15
Ethylene dibromide (1,2-Dibromoethane)	106-93-4	0.028	15
Dibromomethane	74-95-3	0.11	15
2,4-D (2,4-Dichlorophenoxy-acetic acid)	94-75-7	0.72	10
o,p'-DDD	53-19-0	0.023	0.087
p,p'-DDD	72-54-8	0.023	0.087
o,p'-DDE	3424-82-6	0.031	0.087
p,p'-DDE	72-55-9	0.031	0.087
o,p'-DDT	789-02-6	0.0039	0.087
p,p'-DDT	50-29-3	0.0039	0.087
Dibenz(a,h)anthracene	53-70-3	0.055	8.2
Dibenz(a,e)pyrene	192-65-4	0.061	NA
m-Dichlorobenzene	541-73-1	0.036	6.0
o-Dichlorobenzene	95-50-1	0.088	6.0
p-Dichlorobenzene	106-46-7	0.090	6.0
Dichlorodifluoromethane	75-71-8	0.23	7.2
1,1-Dichloroethane	75-34-3	0.059	6.0
1,2-Dichloroethane	107-06-2	0.21	6.0
1,1-Dichloroethylene	75-35-4	0.025	6.0
trans-1,2-Dichloroethylene	156-60-5	0.054	30
2,4-Dichlorophenol	120-83-2	0.044	14
2,6-Dichlorophenol	87-65-0	0.044	14
1,2-Dichloropropane	78-87-5	0.85	18
cis-1,3-Dichloropropylene	10061-01-5	0.036	18
trans-1,3-Dichloropropylene	10061-02-6	0.036	18
Dieldrin	60-57-1	0.017	0.13
Diethyl phthalate	84-66-2	0.20	28
2-4-Dimethyl phenol	105-67-9	0.036	14
Dimethyl phthalate	131-11-3	0.047	28
Di-n-butyl phthalate	84-74-2	0.057	28
1,4-Dinitrobenzene	100-25-4	0.32	2.3

4,6-Dinitro-o-cresol	534-52-1	0.28	160
2,4-Dinitrophenol	51-28-5	0.12	160
2,4-Dinitrotoluene	121-14-2	0.32	140
2,6-Dinitrotoluene	606-20-2	0.55	28
Di-n-octyl phthalate	117-84-0	0.017	28
Di-n-propylnitrosamine	621-64-7	0.40	14
1,4-Dioxane	123-91-1	12.0	170
Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122-39-4	0.92	NA
Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86-30-6	0.92	NA
1,2-Diphenylhydrazine	122-66-7	0.087	NA
Disulfoton	298-04-4	0.017	6.2
Endosulfan I	939-98-8	0.023	0.066
Endosulfan II	33213-6-5	0.029	0.13
Endosulfan sulfate	1031-07-8	0.029	0.13
Endrin	72-20-8	0.0028	0.13
Endrin aldehyde	7421-93-4	0.025	0.13
Ethyl acetate	141-78-6	0.34	33
Ethyl cyanide (Propanenitrile)	107-12-0	0.24	360
Ethyl benzene	100-41-4	0.057	10
Ethyl ether	60-29-7	0.12	160
bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
Ethyl methacrylate	97-63-2	0.14	160
Ethylene oxide	75-21-8	0.12	NA
Famphur	52-85-7	0.017	15
Fluoranthene	206-44-0	0.068	3.4
Fluorene	86-73-7	0.059	3.4
Heptachlor	76-44-8	0.0012	0.066
Heptachlor epoxide	1024-57-3	0.016	0.066
Hexachlorobenzene	118-74-1	0.055	10
Hexachlorobutadiene	87-68-3	0.055	5.6
Hexachlorocyclopentadiene	77-47-4	0.057	2.4
HxCDDs (All Hexachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
HxCDFs (All Hexachloro-dibenzofurans)	NA	0.000063	0.001
Hexachloroethane	67-72-1	0.055	30
Hexachloropropylene	1888-71-7	0.035	30
Indeno (1,2,3-c,d) pyrene	193-39-5	0.0055	3.4
Iodomethane	74-88-4	0.19	65
Isobutyl alcohol	78-83-1	5.6	170
Isodrin	465-73-6	0.021	0.066
Isosafrole	120-58-1	0.081	2.6
Kepone	143-50-8	0.0011	0.13

Methacrylonitrile	126-98-7	0.24	84
Methanol	67-56-1	5.6	NA
Methapyrilene	91-80-5	0.081	1.5
Methoxychlor	72-43-5	0.25	0.18
3-Methylcholanthrene	56-49-5	0.0055	15
4,4-Methylene bis(2-chloro-aniline)	101-14-4	0.50	30
Methylene chloride	75-09-2	0.089	30
Methyl ethyl ketone	78-93-3	0.28	36
Methyl isobutyl ketone	108-10-1	0.14	33
Methyl methacrylate	80-62-6	0.14	160
Methyl methansulfonate	66-27-3	0.018	NA
Methyl parathion	298-00-0	0.014	4.6
Naphthalene	91-20-3	0.059	5.6
2-Naphthylamine	91-59-8	0.52	NA
p-Nitroaniline	100-01-6	0.028	28
Nitrobenzene	98-95-3	0.068	14
5-Nitro-o-toluidine	99-55-8	0.32	28
p-Nitrophenol	100-02-7	0.12	29
N-Nitrosodiethylamine	55-18-5	0.40	28
N-Nitrosodimethylamine	62-75-9	0.40	NA
N-Nitroso-di-n-butylamine	924-16-3	0.40	17
N-Nitrosomethylethylamine	10595-95-6	0.40	2.3
N-Nitrosomorpholine	59-89-2	0.40	2.3
N-Nitrosopiperidine	100-75-4	0.013	35
N-Nitrosopyrrolidine	930-55-2	0.013	35
Parathion	56-38-2	0.014	4.6
Total PCBs	1336-36-3	0.10	10
(sum of all PCB isomers, or all Aroclors)			
Pentachlorobenzene	608-93-5	0.055	10
PeCDDs (All Pentachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
PeCDFs (All Pentachloro-dibenzofurans)	NA	0.000035	0.001
Pentachloronitrobenzene	82-68-8	0.055	4.8
Pentachlorophenol	87-86-5	0.089	7.4
Phenacetin	62-44-2	0.081	16
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
Phorate	298-02-2	0.021	4.6
Phthalic anhydride	85-44-9	0.055	NA
Pronamide	23950-58-5	0.093	1.5
Pyrene	129-00-0	0.067	8.2
Pyridine	110-86-1	0.014	16
Safrole	94-59-7	0.081	22



Silvex (2,4,5-TP)	93-72-1	0.72	7.9
2,4,5-T	93-76-5	0.72	7.9
1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
TCDDs (All Tetrachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
TCDFs (All Tetrachlorodibenzofurans)	NA	0.000063	0.001
1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
Tetrachloroethylene	127-18-4	0.056	6.0
2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
Toluene	108-88-3	0.080	10
Toxaphene	8001-35-2	0.0095	2.6
Bromoform (Tribromomethane)	75-25-2	0.63	15
1,2,4-Trichlorobenzene	120-82-1	0.055	19
1,1,1-Trichloroethane	71-55-6	0.054	6.0
1,1,2-Trichloroethane	79-00-5	0.054	6.0
Trichloroethylene	79-01-6	0.054	6.0
Trichloromonofluoromethane	75-69-4	0.020	30
2,4,5-Trichlorophenol	95-95-4	0.18	7.4
2,4,6-Trichlorophenol	88-06-2	0.035	7.4
1,2,3-Trichloropropane	96-18-4	0.85	30
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.057	30
tris(2,3-Dibromopropyl)phosphate	126-72-7	0.11	NA
Vinyl chloride	75-01-4	0.27	6.0
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Antimony	7440-36-0	1.9	<del>2.4</del> <u>1.15</u> mg/l TCLP
Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
Barium	7440-39-3	1.2	<del>7.6</del> <u>21</u> mg/l TCLP
Beryllium	7440-41-7	0.82	NA
Cadmium	7440-43-9	0.69	<del>0.19</del> <u>0.11</u> mg/l TCLP
Chromium (Total)	7440-47-3	2.77	<del>0.86</del> <u>0.60</u> mg/l TCLP
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	NA
Fluoride	16964-48-8	35	NA
Lead	7439-92-1	0.69	<del>0.37</del> <u>0.75</u> mg/l TCLP
Mercury	7439-97-6	0.15	0.025 mg/l TCLP

Nickel	7440-02-0	3.98	<del>5.0</del> <u>11</u> mg/l TCLP
Selenium	7782-49-2	0.82	<del>0.16</del> <u>5.7</u> mg/l TCLP
Silver	7440-22-4	0.43	<del>0.30</del> <u>0.14</u> mg/l TCLP
Sulfide	8496-25-8	14	NA
Thallium	7440-28-0	1.4	NA
Vanadium	7440-62-2	4.3	NA

## K001

Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote or pentachlorophenol.

Naphthalene	91-20-3	0.059	5.6
Pentachlorophenol	87-86-5	0.089	7.4
Phenanthrene	85-01-8	0.059	5.6
Pyrene	129-00-0	0.067	8.2
Toluene	108-88-3	0.080	10
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Lead	7439-92-1	0.69	<del>0.37</del> <u>0.75</u> mg/l TCLP

## K002

Wastewater treatment sludge from the production of chrome yellow and orange pigments.

Chromium (Total)	7440-47-3	2.77	<del>0.86</del> <u>0.60</u> mg/l TCLP
Lead	7439-92-1	0.69	<del>0.37</del> <u>0.75</u> mg/l TCLP

## K003

Wastewater treatment sludge from the production of molybdate orange pigments.

Chromium (Total)	7440-47-3	2.77	<del>0.86</del> <u>0.60</u> mg/l TCLP
Lead	7439-92-1	0.69	<del>0.37</del> <u>0.75</u> mg/l TCLP

## K004

Wastewater treatment sludge from the production of zinc yellow pigments.

Chromium (Total)	7440-47-3	2.77	<del>0.86</del> <u>0.60</u> mg/l TCLP
Lead	7439-92-1	0.69	<del>0.37</del> <u>0.75</u> mg/l TCLP

## K005

Wastewater treatment sludge from the production of chrome green pigments.

Chromium (Total)	7440-47-3	2.77	<del>0.86</del> -0.60 mg/l TCLP
Lead	7439-92-1	0.69	<del>0.37</del> -0.75 mg/l TCLP
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590

## K006

Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous).

Chromium (Total)	7440-47-3	2.77	<del>0.86</del> -0.60 mg/l TCLP
Lead	7439-92-1	0.69	<del>0.37</del> -0.75 mg/l TCLP

## K006

Wastewater treatment sludge from the production of chrome oxide green pigments (hydrated).

Chromium (Total)	7440-47-3	2.77	<del>0.86</del> -0.60 mg/l TCLP
Lead	7439-92-1	0.69	NA

## K007

Wastewater treatment sludge from the production of iron blue pigments.

Chromium (Total)	7440-47-3	2.77	<del>0.86</del> -0.60 mg/l TCLP
Lead	7439-92-1	0.69	<del>0.37</del> -0.75 mg/l TCLP
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590

## K008

Oven residue from the production of chrome oxide green pigments.

Chromium (Total)	7440-47-3	2.77	<del>0.86</del> -0.60 mg/l TCLP
Lead	7439-92-1	0.69	<del>0.37</del> -0.75 mg/l TCLP

## K009

Distillation bottoms from the production of acetaldehyde from ethylene.

Chloroform	67-66-3	0.046	6.0
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## K010

Distillation side cuts from the production of acetaldehyde from ethylene.

Chloroform	67-66-3	0.046	6.0
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## K011

Bottom stream from the wastewater stripper in the production of acrylonitrile.

Acetonitrile	75-05-8	5.6	38
Acrylonitrile	107-13-1	0.24	84
Acrylamide	79-06-1	19	23
Benzene	71-43-2	0.14	10
Cyanide (Total)	57-12-5	1.2	590

## K013

Bottom stream from the acetonitrile column in the production of acrylonitrile.

Acetonitrile	75-05-8	5.6	38
Acrylonitrile	107-13-1	0.24	84
Acrylamide	79-06-1	19	23
Benzene	71-43-2	0.14	10
Cyanide (Total)	57-12-5	1.2	590

## K014

Bottoms from the acetonitrile purification column in the production of acrylonitrile.

Acetonitrile	75-05-8	5.6	38
Acrylonitrile	107-13-1	0.24	84
Acrylamide	79-06-1	19	23
Benzene	71-43-2	0.14	10
Cyanide (Total)	57-12-5	1.2	590

## K015

Still bottoms from the distillation of benzyl chloride.

Anthracene	120-12-7	0.059	3.4
Benzal chloride	98-87-3	0.055	6.0
Benzo(b)fluoranthene (difficult to distinguish from benzo(k)-fluoranthene)	205-99-2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)-fluoranthene)	207-08-9	0.11	6.8
Phenanthrene	85-01-8	0.059	5.6
Toluene	108-88-3	0.080	10
Chromium (Total)	7440-47-3	2.77	<del>0.86</del> 0.60 mg/l TCLP
Nickel	7440-02-0	3.98	<del>5.0</del> 11 mg/l TCLP

## K016

Heavy ends or distillation residues from the production of carbon tetrachloride.

Hexachlorobenzene	118-74-1	0.055	10
Hexachlorobutadiene	87-68-3	0.055	5.6
Hexachlorocyclopentadiene	77-47-4	0.057	2.4

Hexachloroethane	67-72-1	0.055	30
Tetrachloroethylene	127-18-4	0.056	6.0

## K017

Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin.

bis(2-Chloroethyl)ether	111-44-4	0.033	6.0
1,2-Dichloropropane	78-87-5	0.85	18
1,2,3-Trichloropropane	96-18-4	0.85	30

## K018

Heavy ends from the fractionation column in ethyl chloride production.

Chloroethane	75-00-3	0.27	6.0
Chloromethane	74-87-3	0.19	NA
1,1-Dichloroethane	75-34-3	0.059	6.0
1,2-Dichloroethane	107-06-2	0.21	6.0
Hexachlorobenzene	118-74-1	0.055	10
Hexachlorobutadiene	87-68-3	0.055	5.6
Hexachloroethane	67-72-1	0.055	30
Pentachloroethane	76-01-7	NA	6.0
1,1,1-Trichloroethane	71-55-6	0.054	6.0

## K019

Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production.

bis(2-Chloroethyl)ether	111-44-4	0.033	6.0
Chlorobenzene	108-90-7	0.057	6.0
Chloroform	67-66-3	0.046	6.0
p-Dichlorobenzene	106-46-7	0.090	NA
1,2-Dichloroethane	107-06-2	0.21	6.0
Fluorene	86-73-7	0.059	NA
Hexachloroethane	67-72-1	0.055	30
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	85-01-8	0.059	5.6
1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	NA
Tetrachloroethylene	127-18-4	0.056	6.0
1,2,4-Trichlorobenzene	120-82-1	0.055	19
1,1,1-Trichloroethane	71-55-6	0.054	6.0

## K020

Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production.

1,2-Dichloroethane	107-06-2	0.21	6.0
1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
Tetrachloroethylene	127-18-4	0.056	6.0

## K021

Aqueous spent antimony catalyst waste from fluoromethanes production.

Carbon tetrachloride	56-23-5	0.057	6.0
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Chloroform	67-66-3	0.046	6.0
Antimony	7440-36-0	1.9	<del>2.1</del> 1.15 mg/l TCLP

## K022

Distillation bottom tars from the production of phenol or acetone from cumene.

Toluene	108-88-3	0.080	10
Acetophenone	96-86-2	0.010	9.7
Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122-39-4	0.92	13
Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86-30-6	0.92	13
Phenol	108-95-2	0.039	6.2
Chromium (Total)	7440-47-3	2.77	<del>0.86</del> 0.60 mg/l TCLP
Nickel	7440-02-0	3.98	<del>5.0</del> 11 mg/l TCLP

## K023

Distillation light ends from the production of phthalic anhydride from naphthalene.

Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0	0.055	28
Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	85-44-9	0.055	28

## K024

Distillation bottoms from the production of phthalic anhydride from naphthalene.

Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0	0.055	28
Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	85-44-9	0.055	28

## K025

Distillation bottoms from the production of nitrobenzene by the nitration of benzene.

NA	NA	LLEXT fb SSTRP fb CARBN; or CMBST	CMBST
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## K026

Stripping still tails from the production of methyl ethyl pyridines.

NA	NA	CMBST	CMBST
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## K027

Centrifuge and distillation residues from the toluene diisocyanate production.

NA	NA	CARBN; or CMBST	CMBST
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## K028

Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane.

1,1-Dichloroethane	75-34-3	0.059	6.0
trans-1,2-Dichloroethylene	156-60-5	0.054	30
Hexachlorobutadiene	87-68-3	0.055	5.6
Hexachloroethane	67-72-1	0.055	30
Pentachloroethane	76-01-7	NA	6.0
1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
Tetrachloroethylene	127-18-4	0.056	6.0
1,1,1-Trichloroethane	71-55-6	0.054	6.0
1,1,2-Trichloroethane	79-00-5	0.054	6.0
Cadmium	7440-43-9	0.69	NA
Chromium(Total)	7440-47-3	2.77	<del>0.86</del> <u>0.60</u> mg/l TCLP
Lead	7439-92-1	0.69	<del>0.37</del> <u>0.75</u> mg/l TCLP
Nickel	7440-02-0	3.98	<del>5.0</del> <u>11</u> mg/l TCLP

## K029

Waste from the product steam stripper in the production of 1,1,1-trichloroethane.

Chloroform	67-66-3	0.046	6.0
1,2-Dichloroethane	107-06-2	0.21	6.0
1,1-Dichloroethylene	75-35-4	0.025	6.0
1,1,1-Trichloroethane	71-55-6	0.054	6.0
Vinyl chloride	75-01-4	0.27	6.0

## K030

Column bodies or heavy ends from the combined production of trichloroethylene and perchloroethylene.

o-Dichlorobenzene	95-50-1	0.088	NA
p-Dichlorobenzene	106-46-7	0.090	NA
Hexachlorobutadiene	87-68-3	0.055	5.6
Hexachloroethane	67-72-1	0.055	30
Hexachloropropylene	1888-71-7	NA	30
Pentachlorobenzene	608-93-5	NA	10

Pentachloroethane	76-01-7	NA	6.0
1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
Tetrachloroethylene	127-18-4	0.056	6.0
1,2,4-Trichlorobenzene	120-82-1	0.055	19

## K031

By-product salts generated in the production of MSMA and cacodylic acid.

Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
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## K032

Wastewater treatment sludge from the production of chlordane.

Hexachlorocyclopentadiene	77-47-4	0.057	2.4
Chlordane ( $\alpha$ and $\chi$ isomers)	57-74-9	0.0033	0.26
Heptachlor	76-44-8	0.0012	0.066
Heptachlor epoxide	1024-57-3	0.016	0.066

## K033

Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane.

Hexachlorocyclopentadiene	77-47-4	0.057	2.4
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## K034

Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane.

Hexachlorocyclopentadiene	77-47-4	0.057	2.4
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## K035

Wastewater treatment sludges generated in the production of creosote.

Acenaphthene	83-32-9	NA	3.4
Anthracene	120-12-7	NA	3.4
Benz(a)anthracene	56-55-3	0.059	3.4
Benzo(a)pyrene	50-32-8	0.061	3.4
Chrysene	218-01-9	0.059	3.4
o-Cresol	95-48-7	0.11	5.6
m-Cresol	108-39-4	0.77	5.6
(difficult to distinguish from p-cresol)			
p-Cresol	106-44-5	0.77	5.6
(difficult to distinguish from m-cresol)			
Dibenz(a,h)anthracene	53-70-3	NA	8.2
Fluoranthene	206-44-0	0.068	3.4
Fluorene	86-73-7	NA	3.4
Indeno(1,2,3-cd)pyrene	193-39-5	NA	3.4
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2



Pyrene	129-00-0	0.067	8.2
K036			
Still bottoms from toluene reclamation distillation in the production of disulfoton.			
Disulfoton	298-04-4	0.017	6.2
K037			
Wastewater treatment sludges from the production of disulfoton.			
Disulfoton	298-04-4	0.017	6.2
Toluene	108-88-3	0.080	10
K038			
Wastewater from the washing and stripping of phorate production.			
Phorate	298-02-2	0.021	4.6
K039			
Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate.			
NA	NA	CARBON; or CMBST	CMBST
K040			
Wastewater treatment sludge from the production of phorate.			
Phorate	298-02-2	0.021	4.6
K041			
Wastewater treatment sludge from the production of toxaphene.			
Toxaphene	8001-35-2	0.0095	2.6
K042			
Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T.			
o-Dichlorobenzene	95-50-1	0.088	6.0
p-Dichlorobenzene	106-46-7	0.090	6.0
Pentachlorobenzene	608-93-5	0.055	10
1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
1,2,4-Trichlorobenzene	120-82-1	0.055	19
K043			
2,6-Dichlorophenol waste from the production of 2,4-D.			
2,4-Dichlorophenol	120-83-2	0.044	14
2,6-Dichlorophenol	187-65-0	0.044	14
2,4,5-Trichlorophenol	95-95-4	0.18	7.4
2,4,6-Trichlorophenol	88-06-2	0.035	7.4
2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
Pentachlorophenol	87-86-5	0.089	7.4
Tetrachloroethylene	127-18-4	0.056	6.0

HxCDDs (All Hexachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
HxCDFs (All Hexachloro-dibenzofurans)	NA	0.000063	0.001
PeCDDs (All Pentachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
PeCDFs (All Pentachloro-dibenzofurans)	NA	0.000035	0.001
TCDDs (All Tetrachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
TCDFs (All Tetrachlorodibenzo-furans)	NA	0.000063	0.001

## K044

Wastewater treatment sludges from the manufacturing and processing of explosives.

NA	NA	DEACT	DEACT
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## K045

Spent carbon from the treatment of wastewater containing explosives.

NA	NA	DEACT	DEACT
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## K046

Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds.

Lead	7439-92-1	0.69	$\frac{0.37-0.75 \text{ mg/l}}{\text{TCLP}}$
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## K047

Pink or red water from TNT operations.

NA	NA	DEACT	DEACT
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## K048

Dissolved air flotation (DAF) float from the petroleum refining industry.

Benzene	71-43-2	0.14	10
Benzo(a)pyrene	50-32-8	0.061	3.4
bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
Chrysene	218-01-9	0.059	3.4
Di-n-butyl phthalate	84-74-2	0.057	28
Ethylbenzene	100-41-4	0.057	10
Fluorene	86-73-7	0.059	NA
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
Pyrene	129-00-0	0.067	8.2
Toluene	108-88-33	0.080	10
Xylenes-mixed isomers	1330-20-7	0.32	30

(sum of o-, m-, and p-xylene concentrations)

Chromium (Total)	7440-47-3	2.77	<del>0.86</del> 0.60 mg/l TCLP
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Lead	7439-92-1	0.69	NA
Nickel	7440-02-0	NA	<del>5.0</del> 11 mg/l TCLP

## K049

Slop oil emulsion solids from the petroleum refining industry.

Anthracene	120-12-7	0.059	3.4
Benzene	71-43-2	0.14	10
Benzo(a)pyrene	50-32-8	0.061	3.4
bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
Carbon disulfide	75-15-0	3.8	NA
Chrysene	2218-01-9	0.059	3.4
2,4-Dimethylphenol	105-67-9	0.036	NA
Ethylbenzene	100-41-4	0.057	10
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
Pyrene	129-00-0	0.067	8.2
Toluene	108-88-3	0.080	10
Xylenes-mixed isomers	1330-20-7	0.32	30
(sum of o-, m-, and p-xylene concentrations)			
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Chromium (Total)	7440-47-3	2.77	<del>0.86</del> 0.60 mg/l TCLP
Lead	7439-92-1	0.69	NA
Nickel	7440-02-0	NA	<del>5.0</del> 11 mg/l TCLP

## K050

Heat exchanger bundle cleaning sludge from the petroleum refining industry.

Benzo(a)pyrene	50-32-8	0.061	3.4
Phenol	108-95-2	0.039	6.2
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Chromium (Total)	7440-47-3	2.77	<del>0.86</del> 0.60 mg/l TCLP
Lead	7439-92-1	0.69	NA
Nickel	7440-02-0	NA	<del>5.0</del> 11 mg/l TCLP

## K051

API separator sludge from the petroleum refining industry.

Acenaphthene	83-32-9	0.059	NA
Anthracene	120-12-7	0.059	3.4
Benz(a)anthracene	56-55-3	0.059	3.4
Benzene	71-43-2	0.14	10
Benzo(a)pyrene	50-32-8	0.061	3.4
bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
Chrysene	2218-01-9	0.059	3.4
Di-n-butyl phthalate	105-67-9	0.057	28
Ethylbenzene	100-41-4	0.057	10
Fluorene	86-73-7	0.059	NA
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
Pyrene	129-00-0	0.067	8.2
Toluene	108-88-3	0.08	10
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Chromium (Total)	7440-47-3	2.77	<del>0.86</del> <u>0.60</u> mg/l TCLP
Lead	7439-92-1	0.69	NA
Nickel	7440-02-0	NA	<del>5.0</del> <u>11</u> mg/l TCLP

## K052

Tank bottoms (leaded) from the petroleum refining industry.

Benzene	71-43-2	0.14	10
Benzo(a)pyrene	50-32-8	0.061	3.4
o-Cresol	95-48-7	0.11	5.6
m-Cresol (difficult to distinguish from p- cresol)	108-39-4	0.77	5.6
p-Cresol (difficult to distinguish from m- cresol)	106-44-5	0.77	5.6
2,4-Dimethylphenol	105-67-9	0.036	NA
Ethylbenzene	100-41-4	0.057	10
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
Toluene	108-88-3	0.08	10
Xylenes-mixed isomers (sum of o-, m-, and p-xylene)	1330-20-7	0.32	30

concentrations)			
Chromium (Total)	7440-47-3	2.77	<del>0.86</del> <u>0.60</u> mg/l TCLP
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Lead	7439-92-1	0.69	NA
Nickel	7440-02-0	NA	<del>5.0</del> <u>11</u> mg/l TCLP

## K060

Ammonia still lime sludge from coking operations.

Benzene	71-43-2	0.14	10
Benzo(a)pyrene	50-32-8	0.061	3.4
Naphthalene	91-20-3	0.059	5.6
Phenol	108-95-2	0.039	6.2
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590

## K061

Emission control dust or sludge from the primary production of steel in electric furnaces.

Antimony	7440-36-0	NA	<del>2.1</del> <u>1.15</u> mg/l TCLP
Arsenic	7440-38-2	NA	5.0 mg/l TCLP
Barium	7440-39-3	NA	<del>7.6</del> <u>21</u> mg/l TCLP
Beryllium	7440-41-7	NA	<del>0.014</del> <u>1.22</u> mg/l TCLP
Cadmium	7440-43-9	0.69	<del>0.19</del> <u>0.11</u> mg/l TCLP
Chromium (Total)	7440-47-3	2.77	<del>0.86</del> <u>0.60</u> mg/l TCLP
Lead	7439-92-1	0.69	<del>0.37</del> <u>0.75</u> mg/l TCLP
Mercury	7439-97-6	NA	0.025 mg/l TCLP
Nickel	7440-02-0	3.98	<del>5.0</del> <u>11</u> mg/l TCLP
Selenium	7782-49-2	NA	<del>0.16</del> <u>5.7</u> mg/l TCLP
Silver	7440-22-4	NA	<del>0.30</del> <u>0.14</u> mg/l TCLP
Thallium	7440-28-0	NA	<del>0.078</del> <u>0.20</u> mg/l TCLP
Zinc	7440-66-6	NA	<del>5.3</del> <u>4.3</u> mg/l TCLP

## K062

Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332).

Chromium (Total)	7440-47-3	2.77	<del>0.86</del> <u>0.60</u> mg/l TCLP
Lead	7439-92-1	0.69	<del>0.37</del> <u>0.75</u> mg/l TCLP
Nickel	7440-02-0	3.98	NA

## K069

Emission control dust or sludge from secondary lead smelting. - Calcium sulfate (Low Lead)

Subcategory

Cadmium	7440-43-9	0.69	<del>0.19</del> <u>0.11</u> mg/l TCLP
Lead	7439-92-1	0.69	<del>0.37</del> <u>0.75</u> mg/l TCLP

## K069

Emission control dust or sludge from secondary lead smelting. - Non-Calcium sulfate (High Lead) Subcategory

NA	NA	NA	RLEAD
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## K071

K071 (Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used) nonwastewaters that are residues from RMERC.

Mercury	7439-97-6	NA	0.20 mg/l TCLP
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## K071

K071 (Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used) nonwastewaters that are not residues from RMERC.

Mercury	7439-97-6	NA	0.025 mg/l TCLP
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## K071

All K071 wastewaters.

Mercury	7439-97-6	0.15	NA
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## K073

Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production.

Carbon tetrachloride	56-23-5	0.057	6.0
Chloroform	67-66-3	0.046	6.0
Hexachloroethane	67-72-1	0.055	30
Tetrachloroethylene	127-18-4	0.056	6.0
1,1,1-Trichloroethane	71-55-6	0.054	6.0

## K083

Distillation bottoms from aniline production.

Aniline	62-53-3	0.81	14
Benzene	71-43-2	0.14	10
Cyclohexanone	108-94-1	0.36	NA
Diphenylamine	122-39-4	0.92	13
(difficult to distinguish from diphenylnitrosamine)			
Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86-30-6	0.92	13
Nitrobenzene	98-95-3	0.068	14
Phenol	108-95-2	0.039	6.2
Nickel	7440-02-0	3.98	<del>5.0</del> <u>11</u> mg/l TCLP

## K084

Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.

Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
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## K085

Distillation or fractionation column bottoms from the production of chlorobenzenes.

Benzene	71-43-2	0.14	10
Chlorobenzene	108-90-7	0.057	6.0
m-Dichlorobenzene	541-73-1	0.036	6.0
o-Dichlorobenzene	95-50-1	0.088	6.0
p-Dichlorobenzene	106-46-7	0.090	6.0
Hexachlorobenzene	118-74-1	0.055	10
Total PCBs	1336-36-3	0.10	10
(sum of all PCB isomers, or all Aroclors)			
Pentachlorobenzene	608-93-5	0.055	10
1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
1,2,4-Trichlorobenzene	120-82-1	0.055	19

## K086

Solvent wastes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead.

Acetone	67-64-1	0.28	160
Acetophenone	96-86-2	0.010	9.7
bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
n-Butyl alcohol	71-36-3	5.6	2.6
Butylbenzyl phthalate	85-68-7	0.017	28
Cyclohexanone	108-94-1	0.36	NA
o-Dichlorobenzene	95-50-1	0.088	6.0

Diethyl phthalate	84-66-2	0.20	28
Dimethyl phthalate	131-11-3	0.047	28
Di-n-butyl phthalate	84-74-2	0.057	28
Di-n-octyl phthalate	117-84-0	0.017	28
Ethyl acetate	141-78-6	0.34	33
Ethylbenzene	100-41-4	0.057	10
Methanol	67-56-1	5.6	NA
Methyl ethyl ketone	78-93-3	0.28	36
Methyl isobutyl ketone	108-10-1	0.14	33
Methylene chloride	75-09-2	0.089	30
Naphthalene	91-20-3	0.059	5.6
Nitrobenzene	98-95-3	0.068	14
Toluene	108-88-3	0.080	10
1,1,1-Trichloroethane	71-55-6	0.054	6.0
Trichloroethylene	79-01-6	0.054	6.0
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Chromium (Total)	7440-47-3	2.77	<del>0.86</del> <u>0.60</u> mg/l TCLP
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Lead	7439-92-1	0.69	<del>0.37</del> <u>0.75</u> mg/l TCLP

## K087

Decanter tank tar sludge from coking operations.

Acenaphthylene	208-96-8	0.059	3.4
Benzene	71-43-2	0.14	10
Chrysene	218-01-9	0.059	3.4
Fluoranthene	206-44-0	0.068	3.4
Indeno(1,2,3-cd)pyrene	193-39-5	0.0055	3.4
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	85-01-8	0.059	5.6
Toluene	108-88-3	0.080	10
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Lead	7439-92-1	0.69	<del>0.37</del> <u>0.75</u> mg/l TCLP

## K088

Spent potliners from primary aluminum reduction.

Acenaphthene	83-32-9	0.059	3.4
Anthracene	120-12-7	0.059	3.4
Benz(a)anthracene	56-55-3	0.059	3.4
Benzo(a)pyrene	50-32-8	0.061	3.4



Benzo(b)fluoranthene	205-99-2	0.11	6.8
Benzo(k)fluoranthene	207-08-9	0.11	6.8
Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
Chrysene	218-01-9	0.059	3.4
Dibenz(a,h)anthracene	53-70-3	0.055	8.2
Fluoranthene	206-44-0	0.068	3.4
Indeno(1,2,3-c,d)pyrene	193-39-5	0.0055	3.4
Phenanthrene	85-01-8	0.059	5.6
Pyrene	129-00-0	0.067	8.2
Antimony	7440-36-0	1.9	<del>2.1</del> <u>1.15</u> mg/l TCLP
Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
Barium	7440-39-3	1.2	<del>7.6</del> <u>21</u> mg/l TCLP
Beryllium	7440-41-7	0.82	<del>0.014</del> <u>1.22</u> mg/l TCLP
Cadmium	7440-43-9	0.69	<del>0.19</del> <u>0.11</u> mg/l TCLP
Chromium (Total)	7440-47-3	2.77	<del>0.86</del> <u>0.60</u> mg/l TCLP
Lead	7439-92-1	0.69	<del>0.37</del> <u>0.75</u> mg/l TCLP
Mercury	7439-97-6	0.15	0.025 mg/l TCLP
Nickel	7440-02-0	3.98	<del>5.0</del> <u>11</u> mg/l TCLP
Selenium	7782-49-2	0.82	<del>0.16</del> <u>5.7</u> mg/l TCLP
Silver	7440-22-4	0.43	<del>0.30</del> <u>0.14</u> mg/l TCLP
Cyanide (Total) <sup>7</sup>	57-12-5	1.2	590
Cyanide (Amenable) <sup>7</sup>	57-12-5	0.86	30
Fluoride	16984-48-8	35	48 mg/l TCLP

## K093

Distillation light ends from the production of phthalic anhydride from ortho-xylene.

Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0	0.055	28
Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	85-44-9	0.055	28

## K094

Distillation bottoms from the production of phthalic anhydride from ortho-xylene.

Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0	0.055	28
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acid)			
Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	85-44-9	0.055	28

## K095

Distillation bottoms from the production of 1,1,1-trichloroethane.

Hexachloroethane	67-72-1	0.055	30
Pentachloroethane	76-01-7	0.055	6.0
1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
Tetrachloroethylene	127-18-4	0.056	6.0
1,1,2-Trichloroethane	79-00-5	0.054	6.0
Trichloroethylene	79-01-6	0.054	6.0

## K096

Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.

m-Dichlorobenzene	541-73-1	0.036	6.0
Pentachloroethane	76-01-7	0.055	6.0
1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
Tetrachloroethylene	127-18-4	0.056	6.0
1,2,4-Trichlorobenzene	120-82-1	0.055	19
1,1,2-Trichloroethane	79-00-5	0.054	6.0
Trichloroethylene	79-01-6	0.054	6.0

## K097

Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane.

Chlordane ( $\alpha$ and $\chi$ isomers)	57-74-9	0.0033	0.26
Heptachlor	76-44-8	0.0012	0.066
Heptachlor epoxide	1024-57-3	0.016	0.066
Hexachlorocyclopentadiene	77-47-4	0.057	2.4

## K098

Untreated process wastewater from the production of toxaphene.

Toxaphene	8001-35-2	0.0095	2.6
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## K099

Untreated wastewater from the production of 2,4-D.

2,4-Dichlorophenoxyacetic acid	94-75-7	0.72	10
HxCDDs (All Hexachloro- dibenzo-p-dioxins)	NA	0.000063	0.001
HxCDFs (All Hexachloro- dibenzofurans)	NA	0.000063	0.001
PeCDDs (All Pentachloro- dibenzo-p-dioxins)	NA	0.000063	0.001

PeCDFs (All Pentachloro-dibenzofurans)	NA	0.000035	0.001
TCDDs (All Tetrachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
TCDFs (All Tetrachlorodibenzo-furans)	NA	0.000063	0.001

## K100

Waste leaching solution from acid leaching of emission control dust or sludge from secondary lead smelting.

Cadmium	7440-43-9	0.69	<del>0.19</del> <u>0.11</u> mg/l TCLP
Chromium (Total)	7440-47-3	2.77	<del>0.86</del> <u>0.60</u> mg/l TCLP
Lead	7439-92-1	0.69	<del>0.37</del> <u>0.75</u> mg/l TCLP

## K101

Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.

o-Nitroaniline	88-74-4	0.27	14
Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
Cadmium	7440-43-9	0.69	NA
Lead	7439-92-1	0.69	NA
Mercury	7439-97-6	0.15	NA

## K102

Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.

o-Nitrophenol	88-75-5	0.028	13
Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
Cadmium	7440-43-9	0.69	NA
Lead	7439-92-1	0.69	NA
Mercury	7439-97-6	0.15	NA

## K103

Process residues from aniline extraction from the production of aniline.

Aniline	62-53-3	0.81	14
Benzene	71-43-2	0.14	10
2,4-Dinitrophenol	51-28-5	0.12	160
Nitrobenzene	98-95-3	0.068	14
Phenol	108-95-2	0.039	6.2

## K104

Combined wastewater streams generated from nitrobenzene or aniline production.

Aniline	62-53-3	0.81	14
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Benzene	71-43-2	0.14	10
2,4-Dinitrophenol	51-28-5	0.12	160
Nitrobenzene	98-95-3	0.068	14
Phenol	108-95-2	0.039	6.2
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590

## K105

Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.

Benzene	71-43-2	0.14	10
Chlorobenzene	108-90-7	0.057	6.0
2-Chlorophenol	95-57-8	0.044	5.7
o-Dichlorobenzene	95-50-1	0.088	6.0
p-Dichlorobenzene	106-46-7	0.090	6.0
Phenol	108-95-2	0.039	6.2
2,4,5-Trichlorophenol	95-95-4	0.18	7.4
2,4,6-Trichlorophenol	88-06-2	0.035	7.4

## K106

K106 (wastewater treatment sludge from the mercury cell process in chlorine production) nonwastewaters that contain greater than or equal to 260 mg/kg total mercury.

Mercury	7439-97-6	NA	RMERC
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## K106

K106 (wastewater treatment sludge from the mercury cell process in chlorine production) nonwastewaters that contain less than 260 mg/kg total mercury that are residues from RMERC.

Mercury	7439-97-6	NA	0.20 mg/l TCLP
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## K106

Other K106 nonwastewaters that contain less than 260 mg/kg total mercury and are not residues from RMERC.

Mercury	7439-97-6	NA	0.025 mg/l TCLP
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## K106

All K106 wastewaters.

Mercury	7439-97-6	0.15	NA
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## K107

Column bottoms from product separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.

NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
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## K108

Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.

NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
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## K109

Spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.

NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
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## K110

Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.

NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
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## K111

Product washwaters from the production of dinitrotoluene via nitration of toluene

2,4-Dinitrotoluene	121-1-1	0.32	140
2,6-Dinitrotoluene	606-20-2	0.55	28

## K112

Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene.

NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
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## K113

Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.

NA	NA	CARBN; or CMBST	CMBST
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## K114

Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.

NA	NA	CARBN; or CMBST	CMBST
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## K115

Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.

Nickel	7440-02-0	3.98	<del>5.0</del> 11 mg/l TCLP
NA	NA	CARBN; or CMBST	CMBST

## K116

Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine.

NA	NA	CARBN; or CMBST	CMBST
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## K117

Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene.

Methyl bromide (Bromo- methane)	74-83-9	0.11	15
Chloroform	67-66-3	0.046	6.0
Ethylene dibromide (1,2- Dibromoethane)	106-93-4	0.028	15

## K118

Spent absorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.

Methyl bromide (Bromo- methane)	74-83-9	0.11	15
Chloroform	67-66-3	0.046	6.0
Ethylene dibromide (1,2- Dibromoethane)	106-93-4	0.028	15

## K123

Process wastewater (including supernates, filtrates, and washwaters) from the production of ethylenebisdithiocarbamic acid and its salts.

NA	NA	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST
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## K124

Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts.

NA	NA	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST
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## K125

Filtration, evaporation, and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salts.

NA	NA	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST
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## K126

Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithiocarbamic acid and its salts.

NA	NA	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST
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## K131

Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide.

Methyl bromide (Bromo- methane)	74-83-9	0.11	15
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## K132

Spent absorbent and wastewater separator solids from the production of methyl bromide.

Methyl bromide (Bromo- methane)	74-83-9	0.11	15
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## K136

Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.

Methyl bromide (Bromo- methane)	74-83-9	0.11	15
Chloroform	67-66-3	0.046	6.0
Ethylene dibromide (1,2- Dibromoethane)	106-93-4	0.028	15

## K140

Floor sweepings, off-specification product, and spent filter media from the production of 2,4,6-tribromophenol.

2,4,6-Tribromophenol	118-79-6	0.035	7.4
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## K141

Process residues from the recovery of coal tar, including, but not limited to, collecting sump residues from the production of coke or the recovery of coke by-products produced from coal. This listing does not include K087 (decanter tank tar sludge from coking operations).

Benzene	71-43-2	0.14	10
Benz(a)anthracene	56-55-3	0.059	3.4
Benzo(a)pyrene	50-2-8	0.061	3.4
Benzo(b)fluoranthene (difficult to distinguish from benzo(k)-fluoranthene)	205-99-2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)-fluoranthene)	207-08-9	0.11	6.8
Chrysene	218-01-9	0.059	3.4
Dibenz(a,h)anthracene	53-70-3	0.055	8.2
Indeno(1,2,3-cd)pyrene	193-39-5	0.0055	3.4

## K142

Tar storage tank residues from the production of coke from coal or from the recovery of coke by-products produced from coal.

Benzene	71-43-2	0.14	10
Benz(a)anthracene	56-55-3	0.059	3.4
Benzo(a)pyrene	50-32-8	0.061	3.4
Benzo(b)fluoranthene (difficult to distinguish from benzo(k)-fluoranthene)	205-99-2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)-fluoranthene)	207-08-9	0.11	6.8
Chrysene	218-01-9	0.059	3.4
Dibenz(a,h)anthracene	53-70-3	0.055	8.2
Ideno(1,2,3-cd)pyrene	193-39-5	0.0055	3.4

## K143

Process residues from the recovery of light oil, including, but not limited to, those generated in stills, decanters, and wash oil recovery units from the recovery of coke by-products produced from coal.

Benzene	71-43-2	0.14	10
Benz(a)anthracene	56-55-3	0.059	3.4
Benzo(a)pyrene	50-32-8	0.061	3.4
Benzo(b)fluoranthene (difficult to distinguish from benzo(k)-fluoranthene)	205-99-2	0.11	6.8



to distinguish from benzo(k)-  
fluoranthene)

Benzo(k)fluoranthene (difficult to distinguish from benzo(b)- fluoranthene)	207-08-9	0.11	6.8
Chrysene	218-01-9	0.059	3.4

## K144

Wastewater sump residues from light oil refining, including, but not limited to, intercepting or  
contamination sump sludges from the recovery of coke by-products produced from coal.

Benzene	71-43-2	0.14	10
Benz(a)anthracene	56-55-3	0.059	3.4
Benzo(a)pyrene	50-32-8	0.061	3.4
Benzo(b)fluoranthene (difficult to distinguish from benzo(k)- fluoranthene)	205-99-2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)- fluoranthene)	207-08-9	0.11	6.8
Chrysene	218-01-9	0.059	3.4
Dibenz(a,h)anthracene	53-70-3	0.055	8.2

## K145

Residues from naphthalene collection and recovery operations from the recovery of coke by-  
products produced from coal.

Benzene	71-43-2	0.14	10
Benz(a)anthracene	56-55-3	0.059	3.4
Benzo(a)pyrene	50-32-8	0.061	3.4
Chrysene	218-01-9	0.059	3.4
Dibenz(a,h)anthracene	53-70-3	0.055	8.2
Naphthalene	91-20-3	0.059	5.6

## K147

Tar storage tank residues from coal tar refining.

Benzene	71-43-2	0.14	10
Benz(a)anthracene	56-55-3	0.059	3.4
Benzo(a)pyrene	50-32-8	0.061	3.4
Benzo(b)fluoranthene (difficult to distinguish from benzo(k)- fluoranthene)	205-99-2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)- fluoranthene)	207-08-9	0.11	6.8
Chrysene	218-01-9	0.059	3.4
Dibenz(a,h)anthracene	53-70-3	0.055	8.2
Indeno(1,2,3-cd)pyrene	193-39-5	0.0055	3.4

## K148

Residues from coal tar distillation, including, but not limited to, still bottoms.

Benz(a)anthracene	56-55-3	0.059	3.4
Benzo(a)pyrene	50-32-8	0.061	3.4
Benzo(b)fluoranthene (difficult to distinguish from benzo(k)-fluoranthene)	205-99-2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)-fluoranthene)	207-08-9	0.11	6.8
Chrysene	218-01-9	0.059	3.4
Dibenz(a,h)anthracene	53-70-3	0.055	8.2
Indeno(1,2,3-cd)pyrene	193-39-5	0.0055	3.4

## K149

Distillation bottoms from the production of  $\alpha$ - (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups. (This waste does not include still bottoms from the distillations of benzyl chloride.)

Chlorobenzene	108-90-7	0.057	6.0
Chloroform	67-66-3	0.046	6.0
Chloromethane	74-87-3	0.19	30
p-Dichlorobenzene	106-46-7	0.090	6.0
Hexachlorobenzene	118-74-1	0.055	10
Pentachlorobenzene	608-93-5	0.055	10
1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
Toluene	108-88-3	0.080	10

## K150

Organic residuals, excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes associated with the production of  $\alpha$ - (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.

Carbon tetrachloride	56-23-5	0.057	6.0
Chloroform	67-66-3	0.046	6.0
Chloromethane	74-87-3	0.19	30
p-Dichlorobenzene	106-46-7	0.090	6.0
Hexachlorobenzene	118-74-1	0.055	10
Pentachlorobenzene	608-93-5	0.055	10
1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
1,1,2,2- Tetrachloroethane	79-34-5	0.057	6.0
Tetrachloroethylene	127-18-4	0.056	6.0
1,2,4-Trichlorobenzene	120-82-1	0.055	19

## K151

Wastewater treatment sludges, excluding neutralization and biological sludges, generated during the treatment of wastewaters from the production of  $\alpha$ - (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.

Benzene	71-43-2	0.14	10
Carbon tetrachloride	56-23-5	0.057	6.0
Chloroform	67-66-3	0.046	6.0
Hexachlorobenzene	118-74-1	0.055	10
Pentachlorobenzene	608-93-5	0.055	10
1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
Tetrachloroethylene	127-18-4	0.056	6.0
Toluene	108-88-3	0.080	10

## K156

Organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propyl-n-butylcarbamate.)<sup>10</sup>

Acetonitrile	75-05-8	5.6	38
Acetophenone	96-86-2	0.010	9.7
Aniline	62-53-3	0.81	14
Benomyl	17804-35-2	0.056	1.4
Benzene	71-43-2	0.14	10
Carbaryl	63-25-21	0.006	0.14
Carbenzadim	10605-21-7	0.056	1.4
Carbofuran	1563-66-2	0.006	0.14
Carbosulfan	55285-14-8	0.028	1.4
Chlorobenzene	108-90-7	0.057	6.0
Chloroform	67-66-3	0.046	6.0
o-Dichlorobenzene	95-50-1	0.088	6.0
Methomyl	16752-77-5	0.028	0.14
Methylene chloride	75-09-2	0.089	30
Methyl ethyl ketone	78-93-3	0.28	36
Naphthalene	91-20-3	0.059	5.6
Phenol	108-95-2	0.039	6.2
Pyridine	110-86-1	0.014	16
Toluene	108-88-3	0.080	10
Triethylamine	121-44-8	0.081	1.5

## K157

Wastewaters (including scrubber waters, condenser waters, washwaters, and separation waters) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propyl-n-butylcarbamate.)<sup>10</sup>

Carbon tetrachloride	56-23-5	0.057	6.0
Chloroform	67-66-3	0.046	6.0
Chloromethane	74-87-3	0.19	30

Methomyl	16752-77-5	0.028	0.14
Methylene chloride	75-09-2	0.089	30
Methyl ethyl ketone	78-93-3	0.28	36
o-Phenylenediamine	95-54-5	0.056	5.6
Pyridine	110-86-1	0.014	16
Triethylamine	121-44-8	0.081	1.5

## K158

Baghouse dusts and filter/separation solids from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propyl-n-butylcarbamate.)<sup>10</sup>

Benomyl	17804-35-2	0.056	1.4
Benzene	71-43-2	0.14	10
Carbenzadim	10605-21-7	0.056	1.4
Carbofuran	1563-66-2	0.006	0.14
Carbosulfan	55285-14-8	0.028	1.4
Chloroform	67-66-3	0.046	6.0
Methylene chloride	75-09-2	0.089	30
Phenol	108-95-2	0.039	6.2

## K159

Organics from the treatment of thiocarbamate wastes.<sup>10</sup>

Benzene	71-43-2	0.14	10
Butylate	2008-41-5	0.042	1.4
EPTC (Eptam)	759-94-4	0.042	1.4
Molinate	2212-67-1	0.042	1.4
Pebulate	1114-71-2	0.042	1.4
Vernolate	1929-77-7	0.042	1.4

## K161

Purification solids (including filtration, evaporation, and centrifugation solids), baghouse dust and floor sweepings from the production of dithiocarbamate acids and their salts.<sup>10</sup>

Antimony	7440-36-0	1.9	<del>2.1</del> <u>1.15</u> mg/l TCLP
Arsenic	7440-38-2	<del>1.9</del> <u>1.4</u>	5.0 mg/l TCLP
Carbon disulfide	75-15-0	3.8	4.8 mg/l TCLP
Dithiocarbamates (total)	NA	0.028	28
Lead	7439-92-1	0.69	<del>0.37</del> <u>0.75</u> mg/l TCLP
Nickel	7440-02-0	3.98	<del>5.0</del> <u>11</u> mg/l TCLP
Selenium	7782-49-2	0.82	<del>0.16</del> <u>5.7</u> mg/l TCLP

## P001

Warfarin, & salts, when present at concentrations greater than 0.3 percent

Warfarin	81-81-2	(WETOX or	CMBST
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			CHOXD) fb CARBN; or CMBST	
P002	1-Acetyl-2-thiourea 1-Acetyl-2-thiourea	591-08-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P003	Acrolein Acrolein	107-02-8	0.29	CMBST
P004	Aldrin Aldrin	309-00-2	0.021	0.066
P005	Allyl alcohol Allyl alcohol	107-18-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P006	Aluminum phosphide Aluminum phosphide	20859-73-8	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
P007	5-Aminomethyl-3-isoxazolol 5-Aminomethyl-3-isoxazolol	2763-96-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P008	4-Aminopyridine 4-Aminopyridine	504-24-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

P009	Ammonium picrate Ammonium picrate	131-74-8	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
P010	Arsenic acid Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
P011	Arsenic pentoxide Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
P012	Arsenic trioxide Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
P013	Barium cyanide Barium	7440-39-3	NA	7.6-21 mg/l TCLP
	Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
	Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30
P014	Thiophenol (Benzene thiol) Thiophenol (Benzene thiol)	108-98-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P015	Beryllium dust Beryllium	7440-41-7	RMETL; or RTHRM	RMETL; or RTHRM
P016	Dichloromethyl ether (Bis(chloromethyl)ether) Dichloromethyl ether	542-88-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

P017				
Bromoacetone				
Bromoacetone	598-31-2	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
P018				
Brucine				
Brucine	357-57-3	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
P020				
2-sec-Butyl-4,6-dinitrophenol (Dinoseb)				
2-sec-Butyl-4,6-dinitrophenol (Dinoseb)	88-85-7	0.066		2.5
P021				
Calcium cyanide				
Cyanides (Total) <sup>7</sup>	57-12-5	1.2		590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86		30
P022				
Carbon disulfide				
Carbon disulfide	75-15-0	3.8		CMBST
Carbon disulfide; alternate <sup>6</sup> standard for nonwastewaters only	75-15-0	NA		4.8 mg/l TCLP
P023				
Chloroacetaldehyde				
Chloroacetaldehyde	107-20-0	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
P024				
p-Chloroaniline				
p-Chloroaniline	106-47-8	0.46		16
P026				
1-(o-Chlorophenyl)thiourea				
1-(o-Chlorophenyl)thiourea	5344-82-1	(WETOX or CHOXD) fb		CMBST

			CARBN; or CMBST	
P027				
3-Chloropropionitrile				
3-Chloropropionitrile	542-76-7		(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P028				
Benzyl chloride				
Benzyl chloride	100-44-7		(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P029				
Copper cyanide				
Cyanides (Total) <sup>7</sup>	57-12-5	1.2		590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86		30
P030				
Cyanides (soluble salts and complexes)				
Cyanides (Total) <sup>7</sup>	57-12-5	1.2		590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86		30
P031				
Cyanogen				
Cyanogen	460-19-5		CHOXD; WETOX; or CMBST	CHOXD; WETOX; or CMBST
P033				
Cyanogen chloride				
Cyanogen chloride	506-77-4		CHOXD; WETOX; or CMBST	CHOXD; WETOX; or CMBST
P034				
2-Cyclohexyl-4,6-dinitrophenol				
2-Cyclohexyl-4,6-dinitrophenol	131-89-5		(WETOX or CHOXD) fb CARBN; or CMBST	CMBST



P036 Dichlorophenylarsine Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
P037 Dieldrin Dieldrin	60-57-1	0.017	0.13
P038 Diethylarsine Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
P039 Disulfoton Disulfoton	298-04-4	0.017	6.2
P040 O,O-Diethyl-O-pyrazinyl-phosphorothioate O,O-Diethyl-O-pyrazinyl- phosphorothioate	297-97-2	CARBN; or CMBST	CMBST
P041 Diethyl-p-nitrophenyl phosphate Diethyl-p-nitrophenyl phosphate	311-45-5	CARBN; or CMBST	CMBST
P042 Epinephrine Epinephrine	51-43-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P043 Diisopropylfluorophosphate (DFP) Diisopropylfluorophosphate (DFP)	55-91-4	CARBN; or CMBST	CMBST
P044 Dimethoate Dimethoate	60-51-5	CARBN; or CMBST	CMBST
P045 Thiofanox Thiofanox	39196-18-4	(WETOX or	CMBST

			CHOXD) fb CARBN; or CMBST	
P046				
$\alpha,\alpha$ -Dimethylphenethylamine				
$\alpha,\alpha$ -Dimethylphenethylamine	122-09-8		(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P047				
4,6-Dinitro-o-cresol				
4,6-Dinitro-o-cresol	543-52-1	0.28		160
P047				
4,6-Dinitro-o-cresol salts				
NA	NA		(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P048				
2,4-Dinitrophenol				
2,4-Dinitrophenol	51-28-5	0.12		160
P049				
Dithiobiuret				
Dithiobiuret	541-53-7		(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P050				
Endosulfan				
Endosulfan I	939-98-8	0.023		0.066
Endosulfan II	33213-6-5	0.029		0.13
Endosulfan sulfate	1031-07-8	0.029		0.13
P051				
Endrin				
Endrin	72-20-8	0.0028		0.13
Endrin aldehyde	7421-93-4	0.025		0.13

P054	Aziridine			
	Aziridine	151-56-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P056	Fluorine			
	Fluoride (measured in wastewaters only)	16964-48-8	35	ADGAS fb NEUTR
P057	Fluoroacetamide			
	Fluoroacetamide	640-19-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P058	Fluoroacetic acid, sodium salt			
	Fluoroacetic acid, sodium salt	62-74-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P059	Heptachlor			
	Heptachlor	76-44-8	0.0012	0.066
	Heptachlor epoxide	1024-57-3	0.016	0.066
P060	Isodrin			
	Isodrin	465-73-6	0.021	0.066
P062	Hexaethyl tetraphosphate			
	Hexaethyl tetraphosphate	757-58-4	CARBN; or CMBST	CMBST
P063	Hydrogen cyanide			
	Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
	Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30

P064

Isocyanic acid, ethyl ester

Isocyanic acid, ethyl ester

624-83-9

(WETOX or  
CHOXD) fb  
CARBN; or  
CMBST

CMBST

P065

P065 (mercury fulminate) nonwastewaters, regardless of their total mercury content, that are not incinerator residues or are not residues from RMERC.

Mercury

7439-97-6

NA

IMERC

P065

P065 (mercury fulminate) nonwastewaters that are either incinerator residues or are residues from RMERC; and contain greater than or equal to 260 mg/kg total mercury.

Mercury

7439-97-6

NA

RMERC

P065

P065 (mercury fulminate) nonwastewaters that are residues from RMERC and contain less than 260 mg/kg total mercury.

Mercury

7439-97-6

NA

0.20 mg/l TCLP

P065

P065 (mercury fulminate) nonwastewaters that are incinerator residues and contain less than 260 mg/kg total mercury.

Mercury

7439-97-6

NA

0.025 mg/l TCLP

P065

All P065 (mercury fulminate) wastewaters.

Mercury

7439-97-6

0.15

NA

P066

Methomyl

Methomyl

16752-77-5

(WETOX or  
CHOXD) fb  
CARBN; or  
CMBST

CMBST

P067

2-Methyl-aziridine

2-Methyl-aziridine

75-55-8

(WETOX or  
CHOXD) fb  
CARBN; or  
CMBST

CMBST

P068	Methyl hydrazine			
	Methyl hydrazine	60-34-4	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED, or CMBST
P069	2-Methylactonitrile			
	2-Methylactonitrile	75-86-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P070	Aldicarb			
	Aldicarb	116-06-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P071	Methyl parathion			
	Methyl parathion	298-00-0	0.014	4.6
P072	1-Naphthyl-2-thiourea			
	1-Naphthyl-2-thiourea	86-88-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P073	Nickel carbonyl			
	Nickel	7440-02-0	3.98	<del>5.0</del> <u>11</u> mg/l TCLP
P074	Nickel cyanide			
	Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
	Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30
	Nickel	7440-02-0	3.98	<del>5.0</del> <u>11</u> mg/l TCLP

P075	Nicotine and salts			
	Nicotine and salts	54-11-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P076	Nitric oxide			
	Nitric oxide	10102-43-9	ADGAS	ADGAS
P077	p-Nitroaniline			
	p-Nitroaniline	100-01-6	0.028	28
P078	Nitrogen dioxide			
	Nitrogen dioxide	10102-44-0	ADGAS	ADGAS
P081	Nitroglycerin			
	Nitroglycerin	55-63-0	CHOXD; CHRED; CARBN; BIODG or CMBST	CHOXD; CHRED; or CMBST
P082	N-Nitrosodimethylamine			
	N-Nitrosodimethylamine	62-75-9	0.40	2.3
P084	N-Nitrosomethylvinylamine			
	N-Nitrosomethylvinylamine	4549-40-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P085	Octamethylpyrophosphoramidate			
	Octamethylpyrophosphoramidate	152-16-9	CARBN; or CMBST	CMBST
P087	Osmium tetroxide			
	Osmium tetroxide	20816-12-0	RMETL; or RTHRM	RMETL; or RTHRM

P088				
Endothall				
Endothall	145-73-3	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
P089				
Parathion				
Parathion	56-38-2	0.014		4.6
P092				
P092 (phenyl mercuric acetate) nonwastewaters, regardless of their total mercury content, that are not incinerator residues or are not residues from RMERC.				
Mercury	7439-97-6	NA		IMERC; or RMERC
P092				
P092 (phenyl mercuric acetate) nonwastewaters that are either incinerator residues or are residues from RMERC; and still contain greater than or equal to 260 mg/kg total mercury.				
Mercury	7439-97-6	NA		RMERC
P092				
P092 (phenyl mercuric acetate) nonwastewaters that are residues from RMERC and contain less than 260 mg/kg total mercury.				
Mercury	7439-97-6	NA		0.20 mg/l TCLP
P092				
P092 (phenyl mercuric acetate) nonwastewaters that are incinerator residues and contain less than 260 mg/kg total mercury.				
Mercury	7439-97-6	NA		0.025 mg/l TCLP
P092				
All P092 (phenyl mercuric acetate) wastewaters.				
Mercury	7439-97-6	0.15		NA
P093				
Phenylthiourea				
Phenylthiourea	103-85-5	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST

P094				
Phorate				
Phorate	298-02-2	0.021	4.6	
P095				
Phosgene				
Phosgene	75-44-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
P096				
Phosphine				
Phosphine	7803-51-2	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST	
P097				
Famphur				
Famphur	52-85-7	0.017	15	
P098				
Potassium cyanide.				
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590	
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30	
P099				
Potassium silver cyanide				
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590	
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30	
Silver	7440-22-4	0.43	0.30-0.14 mg/l TCLP	
P101				
Ethyl cyanide (Propanenitrile)				
Ethyl cyanide (Propanenitrile)	107-12-0	0.24	360	
P102				
Propargyl alcohol				
Propargyl alcohol	107-19-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST	



P103				
Selenourea				
Selenium	7782-49-2	0.82	0.16-5.7 mg/l	TCLP
P104				
Silver cyanide				
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590	
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30	
Silver	7440-22-4	0.43	0.30-0.14 mg/l	TCLP
P105				
Sodium azide				
Sodium azide	26628-22-8	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST	
P106				
Sodium cyanide				
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590	
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30	
P108				
Strychnine and salts				
Strychnine and salts	57-24-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
P109				
Tetraethyldithiopyrophosphate				
Tetraethyldithiopyrophosphate	3689-24-5	CARBN; or CMBST	CMBST	
P110				
Tetraethyl lead				
Lead	7439-92-1	0.69	0.37-0.75 mg/l	TCLP
P111				
Tetraethylpyrophosphate				
Tetraethylpyrophosphate	107-49-3	CARBN; or CMBST	CMBST	

P112	Tetranitromethane Tetranitromethane	509-14-8	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
P113	Thallic oxide Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
P114	Thallium selenite Selenium	7782-49-2	0.82	<del>0.16-5.7</del> mg/l TCLP
P115	Thallium (I) sulfate Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
P116	Thiosemicarbazide Thiosemicarbazide	79-19-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P118	Trichloromethanethiol Trichloromethanethiol	75-70-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P119	Ammonium vanadate Vanadium (measured in wastewaters only)	7440-62-2	4.3	STABL
P120	Vanadium pentoxide Vanadium (measured in	7440-62-2	4.3	STABL

wastewaters only)

P121

Zinc cyanide

Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30

P122

Zinc phosphide  $Zn_3P_2$ , when present at concentrations greater than 10 percent

Zinc Phosphide	1314-84-7	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
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P123

Toxaphene

Toxaphene	8001-35-2	0.0095	2.6
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P127

Carbofuran<sup>10</sup>

Carbofuran	1563-66-2	0.006	0.14
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P128

Mexacarbate<sup>10</sup>

Mexacarbate	315-18-4	0.056	1.4
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P185

Tirpate<sup>10</sup>

Tirpate	26419-73-8	0.056	0.28
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P188

Physostigmine salicylate<sup>10</sup>

Physostigmine salicylate	57-64-7	0.056	1.4
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P189

Carbosulfan<sup>10</sup>

Carbosulfan	55285-14-8	0.028	1.4
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P190

Metolcarb<sup>10</sup>

Metolcarb	1129-41-5	0.056	1.4
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P191

Dimetilan<sup>10</sup>

Dimetilan	644-64-4	0.056	1.4
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P192				
Isolan <sup>10</sup>				
Isolan	119-38-0	0.056		1.4
P194				
Oxamyl <sup>10</sup>				
Oxamyl	23135-22-0	0.056		0.28
P196				
Manganese dimethyldithiocarbamates (total) <sup>10</sup>				
Dithiocarbamates (total)	NA	0.028		28
P197				
Formparanate <sup>10</sup>				
Formparanate	17702-57-7	0.056		1.4
P198				
Formetanate hydrochloride <sup>10</sup>				
Formetanate hydrochloride	23422-53-9	0.056		1.4
P199				
Methiocarb <sup>10</sup>				
Methiocarb	2032-65-7	0.056		1.4
P201				
Promecarb <sup>10</sup>				
Promecarb	2631-37-0	0.056		1.4
P202				
m-Cumenyl methylcarbamate <sup>10</sup>				
m-Cumenyl methylcarbamate	64-00-6	0.056		1.4
P203				
Aldicarb sulfone <sup>10</sup>				
Aldicarb sulfone	1646-88-4	0.056		0.28
P204				
Physostigmine <sup>10</sup>				
Physostigmine	57-47-6	0.056		1.4
P205				
Ziram <sup>10</sup>				
Dithiocarbamates (total)	NA	0.028		28

U001	Acetaldehyde			
	Acetaldehyde	75-07-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U002	Acetone			
	Acetone	67-64-1	0.28	160
U003	Acetonitrile			
	Acetonitrile	75-05-8	5.6	CMBST
	Acetonitrile; alternate <sup>6</sup> standard for nonwastewaters only	75-05-8	NA	38
U004	Acetophenone			
	Acetophenone	98-86-2	0.010	9.7
U005	2-Acetylaminofluorene			
	2-Acetylaminofluorene	53-96-3	0.059	140
U006	Acetyl chloride			
	Acetyl chloride	75-36-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U007	Acrylamide			
	Acrylamide	79-06-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U008	Acrylic acid			
	Acrylic acid	79-10-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

U009	Acrylonitrile Acrylonitrile	107-13-1	0.24	84
U010	Mitomycin C Mitomycin C	50-07-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U011	Amitrole Amitrole	61-82-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U012	Aniline Aniline	62-53-3	0.81	14
U014	Auramine Auramine	492-80-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U015	Azaserine Azaserine	115-02-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U016	Benz(c)acridine Benz(c)acridine	225-51-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U017	Benzal chloride Benzal chloride	98-87-3	(WETOX or	CMBST

			CHOXD) fb CARBN; or CMBST	
U018	Benz(a)anthracene			
	Benz(a)anthracene	56-55-3	0.059	3.4
U019	Benzene			
	Benzene	71-43-2	0.14	10
U020	Benzenesulfonyl chloride			
	Benzenesulfonyl chloride	98-09-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U021	Benzidine			
	Benzidine	92-87-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U022	Benzo(a)pyrene			
	Benzo(a)pyrene	50-32-8	0.061	3.4
U023	Benzotrichloride			
	Benzotrichloride	98-07-7	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U024	bis(2-Chloroethoxy)methane			
	bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2
U025	bis(2-Chloroethyl)ether			
	bis(2-Chloroethyl)ether	111-44-4	0.033	6.0

U026	Chlornaphazine Chlornaphazine	494-03-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U027	bis(2-Chloroisopropyl)ether bis(2-Chloroisopropyl)ether	39638-32-9	0.055	7.2
U028	bis(2-Ethylhexyl)phthalate bis(2-Ethylhexyl)phthalate	117-81-7	0.28	28
U029	Methyl bromide (Bromomethane) Methyl bromide (Bromo- methane)	74-83-9	0.11	15
U030	4-Bromophenyl phenyl ether 4-Bromophenyl phenyl ether	101-55-3	0.055	15
U031	n-Butyl alcohol n-Butyl alcohol	71-36-3	5.6	2.6
U032	Calcium chromate Chromium (Total)	7440-47-3	2.77	<del>0.86</del> <u>0.60</u> mg/l TCLP
U033	Carbon oxyfluoride Carbon oxyfluoride	353-50-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U034	Trichloroacetaldehyde (Chloral) Trichloroacetaldehyde (Chloral)	75-87-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST



U035	Chlorambucil			
	Chlorambucil	305-03-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U036	Chlordane			
	Chlordane ( $\alpha$ and $\chi$ isomers)	57-74-9	0.0033	0.26
U037	Chlorobenzene			
	Chlorobenzene	108-90-7	0.057	6.0
U038	Chlorobenzilate			
	Chlorobenzilate	510-15-6	0.10	CMBST
U039	p-Chloro-m-cresol			
	p-Chloro-m-cresol	59-50-7	0.018	14
U041	Epichlorohydrin (1-Chloro-2,3-epoxypropane)			
	Epichlorohydrin (1-Chloro-2,3-epoxypropane)	106-89-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U042	2-Chloroethyl vinyl ether			
	2-Chloroethyl vinyl ether	110-75-8	0.062	CMBST
U043	Vinyl chloride			
	Vinyl chloride	75-01-4	0.27	6.0
U044	Chloroform			
	Chloroform	67-66-3	0.046	6.0
U045	Chloromethane (Methyl chloride)			
	Chloromethane (Methyl	74-87-3	0.19	30

chloride)

U046

Chloromethyl methyl ether

Chloromethyl methyl ether

107-30-2

(WETOX or  
CHOXD) fb  
CARBN; or  
CMBST

CMBST

U047

2-Chloronaphthalene

2-Chloronaphthalene

91-58-7

0.055

5.6

U048

2-Chlorophenol

2-Chlorophenol

95-57-8

0.044

5.7

U049

4-Chloro-o-toluidine hydrochloride

4-Chloro-o-toluidine hydro-  
chloride

3165-93-3

(WETOX or  
CHOXD) fb  
CARBN; or  
CMBST

CMBST

U050

Chrysene

Chrysene

218-01-9

0.059

3.4

U051

Creosote

Naphthalene

91-20-3

0.059

5.6

Pentachlorophenol

87-86-5

0.089

7.4

Phenanthrene

85-01-8

0.059

5.6

Pyrene

129-00-0

0.067

8.2

Toluene

108-88-3

0.080

10

Xylenes-mixed isomers

1330-20-7

0.32

30

(sum of o-, m-, and p-xylene  
concentrations)

Lead

7439-92-1

0.69

0.37-0.75 mg/l  
TCLP

U052

Cresols (Cresylic acid)

o-Cresol

95-48-7

0.11

5.6

m-Cresol (difficult to distinguish  
from p-cresol)

108-39-4

0.77

5.6

p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
Cresol-mixed isomers (Cresylic acid) (sum of o-, m-, and p-cresol concentrations)	1319-77-3	0.88	11.2
U053			
Crotonaldehyde			
Crotonaldehyde	4170-30-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U055			
Cumene			
Cumene	98-82-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U056			
Cyclohexane			
Cyclohexane	110-82-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U057			
Cyclohexanone			
Cyclohexanone	108-94-1	0.36	CMBST
Cyclohexanone; alternate <sup>6</sup> standard for nonwastewaters only	108-94-1	NA	0.75 mg/l TCLP
U058			
Cyclophosphamide			
Cyclophosphamide	50-18-0	CARBN; or CMBST	CMBST
U059			
Daunomycin			
Daunomycin	20830-81-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

U060			
DDD			
o,p'-DDD	53-19-0	0.023	0.087
p,p'-DDD	72-54-8	0.023	0.087
U061			
DDT			
o,p'-DDT	789-02-6	0.0039	0.087
p,p'-DDT	50-29-3	0.0039	0.087
o,p'-DDD	53-19-0	0.023	0.087
p,p'-DDD	72-54-8	0.023	0.087
o,p'-DDE	3424-82-6	0.031	0.087
p,p'-DDE	72-55-9	0.031	0.087
U062			
Diallate			
Diallate	2303-16-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U063			
Dibenz(a,h)anthracene			
Dibenz(a,h)anthracene	53-70-3	0.055	8.2
U064			
Dibenz(a,i)pyrene			
Dibenz(a,i)pyrene	189-55-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U066			
1,2-Dibromo-3-chloropropane			
1,2-Dibromo-3-chloropropane	96-12-8	0.11	15
U067			
Ethylene dibromide (1,2-Dibromoethane)			
Ethylene dibromide (1,2-Dibromoethane)	106-93-4	0.028	15
U068			
Dibromomethane			
Dibromomethane	74-95-3	0.11	15

U069			
Di-n-butyl phthalate			
Di-n-butyl phthalate	84-74-2	0.057	28
U070			
o-Dichlorobenzene			
o-Dichlorobenzene	95-50-1	0.088	6.0
U071			
m-Dichlorobenzene			
m-Dichlorobenzene	541-73-1	0.036	6.0
U072			
p-Dichlorobenzene			
p-Dichlorobenzene	106-46-7	0.090	6.0
U073			
3,3'-Dichlorobenzidine			
3,3'-Dichlorobenzidine	91-94-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U074			
1,4-Dichloro-2-butene			
cis-1,4-Dichloro-2-butene	1476-11-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
trans-1,4-Dichloro-2-butene	764-41-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U075			
Dichlorodifluoromethane			
Dichlorodifluoromethane	75-71-8	0.23	7.2
U076			
1,1-Dichloroethane			
1,1-Dichloroethane	75-34-3	0.059	6.0
U077			
1,2-Dichloroethane			
1,2-Dichloroethane	107-06-2	0.21	6.0

U078			
1,1-Dichloroethylene			
1,1-Dichloroethylene	75-35-4	0.025	6.0
U079			
1,2-Dichloroethylene			
trans-1,2-Dichloroethylene	156-60-5	0.054	30
U080			
Methylene chloride			
Methylene chloride	75-09-2	0.089	30
U081			
2,4-Dichlorophenol			
2,4-Dichlorophenol	120-83-2	0.044	14
U082			
2,6-Dichlorophenol			
2,6-Dichlorophenol	87-65-0	0.044	14
U083			
1,2-Dichloropropane			
1,2-Dichloropropane	78-87-5	0.85	18
U084			
1,3-Dichloropropylene			
cis-1,3-Dichloropropylene	10061-01-5	0.036	18
trans-1,3-Dichloropropylene	10061-02-6	0.036	18
U085			
1,2:3,4-Diepoxybutane			
1,2:3,4-Diepoxybutane	1464-53-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U086			
N,N'-Diethylhydrazine			
N,N'-Diethylhydrazine	1615-80-1	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST

U087	O,O-Diethyl-S-methyldithiophosphate O,O-Diethyl-S-methyldithio- phosphate	3288-58-2	CARBN; or CMBST	CMBST
U088	Diethyl phthalate Diethyl phthalate	84-66-2	0.20	28
U089	Diethyl stilbestrol Diethyl stilbestrol	56-53-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U090	Dihydrosafrole Dihydrosafrole	94-58-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U091	3,3'-Dimethoxybenzidine 3,3'-Dimethoxybenzidine	119-90-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U092	Dimethylamine Dimethylamine	124-40-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U093	p-Dimethylaminoazobenzene p-Dimethylaminoazobenzene	60-11-7	0.13	CMBST
U094	7,12-Dimethylbenz(a)anthracene 7,12-Dimethylbenz(a)anthracene	57-97-6	(WETOX or CHOXD) fb CARBN; or	CMBST

## CMBST

U095				
3,3'-Dimethylbenzidine				
3,3'-Dimethylbenzidine	119-93-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
U096				
$\alpha$ , $\alpha$ -Dimethyl benzyl hydroperoxide				
$\alpha$ , $\alpha$ -Dimethyl benzyl hydro- peroxide	80-15-9	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST	
U097				
Dimethylcarbamoyl chloride				
Dimethylcarbamoyl chloride	79-44-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
U098				
1,1-Dimethylhydrazine				
1,1-Dimethylhydrazine	57-14-7	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST	
U099				
1,2-Dimethylhydrazine				
1,2-Dimethylhydrazine	540-73-8	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST	
U101				
2,4-Dimethylphenol				
2,4-Dimethylphenol	105-67-9	0.036	14	



U102				
Dimethyl phthalate				
Dimethyl phthalate	131-11-3	0.047	28	
U103				
Dimethyl sulfate				
Dimethyl sulfate	77-78-1	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST	
U105				
2,4-Dinitrotoluene				
2,4-Dinitrotoluene	121-14-2	0.32	140	
U106				
2,6-Dinitrotoluene				
2,6-Dinitrotoluene	606-20-2	0.55	28	
U107				
Di-n-octyl phthalate				
Di-n-octyl phthalate	117-84-0	0.017	28	
U108				
1,4-Dioxane				
1,4-Dioxane	123-91-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
1,4-Dioxane; alternate <sup>6</sup> standard for nonwastewaters only	123-91-1	<del>NA</del> <u>12.0</u>	170	
U109				
1,2-Diphenylhydrazine				
1,2-Diphenylhydrazine	122-66-7	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST	
1,2-Diphenylhydrazine; alternate <sup>6</sup> standard for wastewaters only	122-66-7	0.087	NA	

U110				
Dipropylamine				
Dipropylamine	142-84-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
U111				
Di-n-propylnitrosamine				
Di-n-propylnitrosamine	621-64-7	0.40	14	
U112				
Ethyl acetate				
Ethyl acetate	141-78-6	0.34	33	
U113				
Ethyl acrylate				
Ethyl acrylate	140-88-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
U114				
Ethylenebisdithiocarbamic acid salts and esters				
Ethylenebisdithiocarbamic acid	111-54-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
U115				
Ethylene oxide				
Ethylene oxide	75-21-8	(WETOX or CHOXD) fb CARBN; or CMBST	CHOXD; or CMBST	
Ethylene oxide; alternate <sup>6</sup> standard for wastewaters only	75-21-8	0.12	NA	
U116				
Ethylene thiourea				
Ethylene thiourea	96-45-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST	

U117				
Ethyl ether				
Ethyl ether	60-29-7	0.12		160
U118				
Ethyl methacrylate				
Ethyl methacrylate	97-63-2	0.14		160
U119				
Ethyl methane sulfonate				
Ethyl methane sulfonate	62-50-0	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U120				
Fluoranthene				
Fluoranthene	206-44-0	0.068		3.4
U121				
Trichloromonofluoromethane				
Trichloromonofluoromethane	75-69-4	0.020		30
U122				
Formaldehyde				
Formaldehyde	50-00-0	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U123				
Formic acid				
Formic acid	64-18-6	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U124				
Furan				
Furan	110-00-9	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST

U125				
Furfural				
Furfural	98-01-1	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U126				
Glycidylaldehyde				
Glycidylaldehyde	765-34-4	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U127				
Hexachlorobenzene				
Hexachlorobenzene	118-74-1	0.055		10
U128				
Hexachlorobutadiene				
Hexachlorobutadiene	87-68-3	0.055		5.6
U129				
Lindane				
$\alpha$ -BHC	319-84-6	0.00014		0.066
$\beta$ -BHC	319-85-7	0.00014		0.066
$\delta$ -BHC	319-86-8	0.023		0.066
$\chi$ -BHC (Lindane)	58-89-9	0.0017		0.066
U130				
Hexachlorocyclopentadiene				
Hexachlorocyclopentadiene	77-47-4	0.057		2.4
U131				
Hexachloroethane				
Hexachloroethane	67-72-1	0.055		30
U132				
Hexachlorophene				
Hexachlorophene	70-30-4	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST

U133 Hydrazine Hydrazine	302-01-2	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U134 Hydrogen fluoride Fluoride (measured in wastewaters only)	16964-48-8	35	ADGAS fb NEUTR; or NEUTR
U135 Hydrogen sulfide Hydrogen sulfide	7783-06-4	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
U136 Cacodylic acid Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
U137 Indeno(1,2,3-c,d)pyrene Indeno(1,2,3-c,d)pyrene	193-39-5	0.0055	3.4
U138 Iodomethane Iodomethane	74-88-4	0.19	65
U140 Isobutyl alcohol Isobutyl alcohol	78-83-1	5.6	170
U141 Isosafrole Isosafrole	120-58-1	0.081	2.6
U142 Kepone Kepone	143-50-8	0.0011	0.13

U143 Lasiocarpine Lasiocarpine	303-34-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U144 Lead acetate Lead	7439-92-1	0.69	<del>0.37-0.75</del> mg/l TCLP
U145 Lead phosphate Lead	7439-92-1	0.69	<del>0.37-0.75</del> mg/l TCLP
U146 Lead subacetate Lead	7439-92-1	0.69	<del>0.37-0.75</del> mg/l TCLP
U147 Maleic anhydride Maleic anhydride	108-31-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U148 Maleic hydrazide Maleic hydrazide	123-33-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U149 Malononitrile Malononitrile	109-77-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U150 Melphalan Melphalan	148-82-3	(WETOX or	CMBST

CHOXD) fb  
CARBN; or  
CMBST

U151

U151 (mercury) nonwastewaters that contain greater than or equal to 260 mg/kg total mercury.

Mercury	7439-97-6	NA	RMERC
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U151

U151 (mercury) nonwastewaters that contain less than 260 mg/kg total mercury and that are residues from RMERC only.

Mercury	7439-97-6	NA	0.20 mg/l TCLP
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U151

U151 (mercury) nonwastewaters that contain less than 260 mg/kg total mercury and that are not residues from RMERC only.

Mercury	7439-97-6	NA	0.025 mg/l TCLP
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U151

All U151 (mercury) wastewater.

Mercury	7439-97-6	0.15	NA
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U151

Element Mercury Contaminated with Radioactive Materials

Mercury	7439-97-6	NA	AMLGM
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U152

Methacrylonitrile

Methacrylonitrile	126-98-7	0.24	84
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U153

Methanethiol

Methanethiol	74-93-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
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U154

Methanol

Methanol	67-56-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
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Methanol; alternate <sup>6</sup> set of standards for both wastewaters and nonwastewaters	67-56-1	5.6	0.75 mg/l TCLP
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U155				
Methapyrilene				
Methapyrilene	91-80-5	0.081		1.5
U156				
Methyl chlorocarbonate				
Methyl chlorocarbonate	79-22-1	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U157				
3-Methylcholanthrene				
3-Methylcholanthrene	56-49-5	0.0055		15
U158				
4,4'-Methylene bis(2-chloroaniline)				
4,4'-Methylene bis(2-chloro- aniline)	101-14-4	0.50		30
U159				
Methyl ethyl ketone				
Methyl ethyl ketone	78-93-3	0.28		36
U160				
Methyl ethyl ketone peroxide				
Methyl ethyl ketone peroxide	1338-23-4	CHOXD; CHRED; CARBN; BIODG; or CMBST		CHOXD; CHRED; or CMBST
U161				
Methyl isobutyl ketone				
Methyl isobutyl ketone	108-10-1	0.14		33
U162				
Methyl methacrylate				
Methyl methacrylate	80-62-6	0.14		160
U163				
N-Methyl-N'-nitro-N-nitrosoguanidine				
N-Methyl-N'-nitro-N-nitroso- guanidine	70-25-7	(WETOX or CHOXD) fb CARBN; or		CMBST



		CMBST		
U164	Methylthiouracil			
	Methylthiouracil	56-04-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U165	Naphthalene			
	Naphthalene	91-20-3	0.059	5.6
U166	1,4-Naphthoquinone			
	1,4-Naphthoquinone	130-15-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U167	1-Naphthylamine			
	1-Naphthylamine	134-32-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U168	2-Naphthylamine			
	2-Naphthylamine	91-59-8	0.52	CMBST
U169	Nitrobenzene			
	Nitrobenzene	98-95-3	0.068	14
U170	p-Nitrophenol			
	p-Nitrophenol	100-02-7	0.12	29
U171	2-Nitropropane			
	2-Nitropropane	79-46-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

U172				
N-Nitrosodi-n-butylamine				
N-Nitrosodi-n-butylamine	924-16-3	0.40		17
U173				
N-Nitrosodiethanolamine				
N-Nitrosodiethanolamine	1116-54-7	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U174				
N-Nitrosodiethylamine				
N-Nitrosodiethylamine	55-18-5	0.40		28
U176				
N-Nitroso-N-ethylurea				
N-Nitroso-N-ethylurea	759-73-9	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U177				
N-Nitroso-N-methylurea				
N-Nitroso-N-methylurea	684-93-5	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U178				
N-Nitroso-N-methylurethane				
N-Nitroso-N-methylurethane	615-53-2	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U179				
N-Nitrosopiperidine				
N-Nitrosopiperidine	100-75-4	0.013		35
U180				
N-Nitrosopyrrolidine				
N-Nitrosopyrrolidine	930-55-2	0.013		35

U181				
5-Nitro-o-toluidine				
5-Nitro-o-toluidine	99-55-8	0.32		28
U182				
Paraldehyde				
Paraldehyde	123-63-7	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U183				
Pentachlorobenzene				
Pentachlorobenzene	608-93-5	0.055		10
U184				
Pentachloroethane				
Pentachloroethane	76-01-7	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
Pentachloroethane; alternate <sup>6</sup> standards for both wastewaters and nonwastewaters	76-01-7	0.055		6.0
U185				
Pentachloronitrobenzene				
Pentachloronitrobenzene	82-68-8	0.055		4.8
U186				
1,3-Pentadiene				
1,3-Pentadiene	504-60-9	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U187				
Phenacetin				
Phenacetin	62-44-2	0.081		16
U188				
Phenol				
Phenol	108-95-2	0.039		6.2

U189			
Phosphorus sulfide			
Phosphorus sulfide	1314-80-3	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
U190			
Phthalic anhydride			
Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0	0.055	28
Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	85-44-9	0.055	28
U191			
2-Picoline			
2-Picoline	109-06-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U192			
Pronamide			
Pronamide	23950-58-5	0.093	1.5
U193			
1,3-Propane sultone			
1,3-Propane sultone	1120-71-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U194			
n-Propylamine			
n-Propylamine	107-10-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U196			
Pyridine			
Pyridine	110-86-1	0.014	16

U197 p-Benzoquinone p-Benzoquinone	106-51-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U200 Reserpine Reserpine	50-55-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U201 Resorcinol Resorcinol	108-46-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U202 Saccharin and salts Saccharin	81-07-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U203 Safrole Safrole	94-59-7	0.081	22
U204 Selenium dioxide Selenium	7782-49-2	0.82	<del>0.16-5.7</del> mg/l TCLP
U205 Selenium sulfide Selenium	7782-49-2	0.82	<del>0.16-5.7</del> mg/l TCLP
U206 Streptozotocin Streptozotocin	18883-66-4	(WETOX or CHOXD) fb	CMBST

			CARBN; or CMBST	
U207				
1,2,4,5-Tetrachlorobenzene				
1,2,4,5-Tetrachlorobenzene	95-94-3	0.055		14
U208				
1,1,1,2-Tetrachloroethane				
1,1,1,2-Tetrachloroethane	630-20-6	0.057		6.0
U209				
1,1,2,2-Tetrachloroethane				
1,1,2,2-Tetrachloroethane	79-34-5	0.057		6.0
U210				
Tetrachloroethylene				
Tetrachloroethylene	127-18-4	0.056		6.0
U211				
Carbon tetrachloride				
Carbon tetrachloride	56-23-5	0.057		6.0
U213				
Tetrahydrofuran				
Tetrahydrofuran	109-99-9	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U214				
Thallium (I) acetate				
Thallium (measured in wastewaters only)	7440-28-0	1.4		RTHRM; or STABL
U215				
Thallium (I) carbonate				
Thallium (measured in wastewaters only)	7440-28-0	1.4		RTHRM; or STABL
U216				
Thallium (I) chloride				
Thallium (measured in wastewaters only)	7440-28-0	1.4		RTHRM; or STABL

U217	Thallium (I) nitrate			
	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
U218	Thioacetamide			
	Thioacetamide	62-55-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U219	Thiourea			
	Thiourea	62-56-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U220	Toluene			
	Toluene	108-88-3	0.080	10
U221	Toluenediamine			
	Toluenediamine	25376-45-8	CARBN; or CMBST	CMBST
U222	o-Toluidine hydrochloride			
	o-Toluidine hydrochloride	636-21-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U223	Toluene diisocyanate			
	Toluene diisocyanate	26471-62-5	CARBN; or CMBST	CMBST
U225	Bromoform (Tribromomethane)			
	Bromoform (Tribromomethane)	75-25-2	0.63	15

U226			
1,1,1-Trichloroethane			
1,1,1-Trichloroethane	71-55-6	0.054	6.0
U227			
1,1,2-Trichloroethane			
1,1,2-Trichloroethane	79-00-5	0.054	6.0
U228			
Trichloroethylene			
Trichloroethylene	79-01-6	0.054	6.0
U234			
1,3,5-Trinitrobenzene			
1,3,5-Trinitrobenzene	99-35-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U235			
tris-(2,3-Dibromopropyl)-phosphate			
tris-(2,3-Dibromopropyl)- phosphate	126-72-7	0.11	0.10
U236			
Trypan Blue			
Trypan Blue	72-57-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U237			
Uracil mustard			
Uracil mustard	66-75-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U238			
Urethane (Ethyl carbamate)			
Urethane (Ethyl carbamate)	51-79-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST



U239			
Xylenes			
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
U240			
2,4-D (2,4-Dichlorophenoxyacetic acid)			
2,4-D (2,4-Dichloro- phenoxyacetic acid)	94-75-7	0.72	10
2,4-D (2,4-Dichloro- phenoxyacetic acid) salts and esters	NA	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U243			
Hexachloropropylene			
Hexachloropropylene	1888-71-7	0.035	30
U244			
Thiram			
Thiram	137-26-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U246			
Cyanogen bromide			
Cyanogen bromide	506-68-3	CHOXD; WETOX; or CMBST	CHOXD; WETOX; or CMBST
U247			
Methoxychlor			
Methoxychlor	72-43-5	0.25	0.18
U248			
Warfarin, & salts, when present at concentrations of 0.3 percent or less			
Warfarin	81-81-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U249			
Zinc phosphide, Zn <sub>3</sub> P <sub>2</sub> , when present at concentrations of 10 percent or less			
Zinc Phosphide	1314-84-7	CHOXD;	CHOXD;

		CHRED; or CMBST	CHRED; or CMBST
U271			
Benomyl <sup>10</sup>			
Benomyl	17804-35-2	0.056	1.4
U278			
Bendiocarb <sup>10</sup>			
Bendiocarb	22781-23-3	0.056	1.4
U279			
Carbaryl <sup>10</sup>			
Carbaryl	63-25-2	0.006	0.14
U280			
Barban <sup>10</sup>			
Barban	101-27-9	0.056	1.4
U328			
o-Toluidine			
o-Toluidine	95-53-4	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN	CMBST
U353			
p-Toluidine			
p-Toluidine	106-49-0	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN	CMBST
U359			
2-Ethoxyethanol			
2-Ethoxyethanol	110-80-5	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN	CMBST

U364				
Bendiocarb phenol <sup>10</sup>				
Bendiocarb phenol	22961-82-6	0.056		1.4
U367				
Carbofuran phenol <sup>10</sup>				
Carbofuran phenol	1563-38-8	0.056		1.4
U372				
Carbendazim <sup>10</sup>				
Carbendazim	10605-21-7	0.056		1.4
U373				
Propham <sup>10</sup>				
Propham	122-42-9	0.056		1.4
U387				
Prosulfocarb <sup>10</sup>				
Prosulfocarb	52888-80-9	0.042		1.4
U389				
Triallate <sup>10</sup>				
Triallate	2303-17-5	0.042		1.4
U394				
A2213 <sup>10</sup>				
A2213	30558-43-1	0.042		1.4
U395				
Diethylene glycol, dicarbamate <sup>10</sup>				
Diethylene glycol, dicarbamate	5952-26-1	0.056		1.4
U404				
Triethylamine <sup>10</sup>				
Triethylamine	101-44-8	0.081		1.5
U408				
2,4,6-Tribromophenol				
2,4,6-Tribromophenol	118-79-6	0.035		7.4
U409				
Thiophanate-methyl <sup>10</sup>				
Thiophanate-methyl	23564-05-8	0.056		1.4

U410				
Thiodicarb <sup>10</sup>				
Thiodicarb	59669-26-0	0.019		1.4
U411				
Propoxur <sup>10</sup>				
Propoxur	114-26-1	0.056		1.4

## Notes:

- 1 The waste descriptions provided in this table do not replace waste descriptions in 35 Ill. Adm. Code 721. Descriptions of Treatment or Regulatory Subcategories are provided, as needed, to distinguish between applicability of different standards.
- 2 CAS means Chemical Abstract Services. When the waste code or regulated constituents are described as a combination of a chemical with its salts or esters, the CAS number is given for the parent compound only.
- 3 Concentration standards for wastewaters are expressed in mg/l and are based on analysis of composite samples.
- 4 All treatment standards expressed as a Technology Code or combination of Technology Codes are explained in detail in 35 Ill. Adm. Code 728. Table C, "Technology Codes and Descriptions of Technology-Based Standards". "fb" inserted between waste codes denotes "followed by", so that the first-listed treatment is followed by the second-listed treatment. ";" separates alternative treatment schemes.
- 5 Except for Metals (EP or TCLP) and Cyanides (Total and Amenable) the nonwastewater treatment standards expressed as a concentration were established, in part, based upon incineration in units operated in accordance with the technical requirements of 35 Ill. Adm. Code 724. Subpart O or 35 Ill. Adm. Code 725. Subpart O or based upon combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may comply with these treatment standards according to provisions in 35 Ill. Adm. Code 728.140(d). All concentration standards for nonwastewaters are based on analysis of grab samples.
- 6 Where an alternate treatment standard or set of alternate standards has been indicated, a facility may comply with this alternate standard, but only for the Treatment or Regulatory Subcategory or physical form (i.e., wastewater or nonwastewater) specified for that alternate standard.
- 7 Both Cyanides (Total) and Cyanides (Amenable) for nonwastewaters are to be analyzed using Method 9010 or 9012, found in "Test Methods for Evaluating Solid Waste, Physical or Chemical Methods", USEPA Publication SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111, with a sample size of 10 grams and a distillation time of one hour and 15 minutes.

- 8 These wastes, when rendered nonhazardous and then subsequently managed in CWA or CWA-equivalent systems, are not subject to treatment standards. (See Section 728.101(c)(3) and (c)(4).)
- 9 These wastes, when rendered nonhazardous and then subsequently injected in a Class I SDWA well, are not subject to treatment standards. (See 35 Ill. Adm. Code 738.101(d).)
- 10 This footnote corresponds with note 10 to the table to 40 CFR 268.40, which has already expired by its own terms. This statement maintains structural consistency with the federal regulations.
- 11 For these wastes, the definition of CMBST is limited to any of the following that have obtained a determination of equivalent treatment under Section 728.142(b): (1) combustion units operating under 35 Ill. Adm. Code 726, (2) combustion units permitted under 35 Ill. Adm. Code 724.Subpart O, or (3) combustion units operating under 35 Ill. Adm. Code 725.Subpart O.

BOARD NOTE: Derived from table to 40 CFR 268.40 (1997), as amended at 63 Fed. Reg. 24626 (May 4, 1998), 63 Fed. Reg. 28643 (May 26, 1998), and 63 Fed. Reg. 35149 (June 29, 1998).

NA means not applicable.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### Section 728.Table U Universal Treatment Standards (UTS)

Regulated Constituent- Common Name	CAS <sup>1</sup> No.	Wastewater Standard Concentration (in mg/l <sup>2</sup> )	Nonwastewater Standard Concentration (in mg/kg <sup>3</sup> unless noted as "mg/l TCLP")
A2213 <sup>6</sup>	30558-43-1	0.042	1.4
Acenaphthylene	208-96-8	0.059	3.4
Acenaphthene	83-32-9	0.059	3.4
Acetone	67-64-1	0.28	160
Acetonitrile	75-05-8	5.6	38
Acetophenone	96-86-2	0.010	9.7
2-Acetylaminofluorene	53-96-3	0.059	140
Acrolein	107-02-8	0.29	NA
Acrylamide	79-06-1	19	23
Acrylonitrile	107-13-1	0.24	84
Aldicarb sulfone <sup>6</sup>	1646-88-4	0.056	0.28

Aldrin	309-00-2	0.021	0.066
4-Aminobiphenyl	92-67-1	0.13	NA
Aniline	62-53-3	0.81	14
Anthracene	120-12-7	0.059	3.4
Aramite	140-57-8	0.36	NA
$\alpha$ -BHC	319-84-6	0.00014	0.066
$\beta$ -BHC	319-85-7	0.00014	0.066
$\delta$ -BHC	319-86-8	0.023	0.066
$\chi$ -BHC	58-89-9	0.0017	0.066
Barban <sup>6</sup>	101-27-9	0.056	1.4
Bendiocarb <sup>6</sup>	22781-23-3	0.056	1.4
Bendiocarb phenol <sup>6</sup>	22961-82-6	0.056	1.4
Benomyl <sup>6</sup>	17804-35-2	0.056	1.4
Benz(a)anthracene	56-55-3	0.059	3.4
Benzal chloride	98-87-3	0.055	6.0
Benzene	71-43-2	0.14	10
Benzo(b)fluoranthene	205-99-2	0.11	6.8
(difficult to distinguish from benzo(k)fluoranthene)			
Benzo(k)fluoranthene	207-08-9	0.11	6.8
(difficult to distinguish from benzo(b)fluoranthene)			
Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
Benzo(a)pyrene	50-32-8	0.061	3.4
Bromodichloromethane	75-27-4	0.35	15
Methyl bromide (Bromo-methane)	74-83-9	0.11	15
4-Bromophenyl phenyl ether	101-55-3	0.055	15
n-Butyl alcohol	71-36-3	5.6	2.6
Butylate <sup>6</sup>	2008-41-5	0.042	1.4
Butyl benzyl phthalate	85-68-7	0.017	28
2-sec-Butyl-4,6-dinitrophenol (Dinoseb)	88-85-7	0.066	2.5
Carbaryl <sup>6</sup>	63-25-2	0.006	0.14
Carbenzadim <sup>6</sup>	10605-21-7	0.056	1.4
Carbofuran <sup>6</sup>	1563-66-2	0.006	0.14
Carbofuran phenol <sup>6</sup>	1563-38-8	0.056	1.4
Carbon disulfide	75-15-0	3.8	4.8 mg/l TCLP
Carbon tetrachloride	56-23-5	0.057	6.0
Carbosulfan <sup>6</sup>	55285-14-8	0.028	1.4
Chlordane ( $\alpha$ and $\chi$ isomers)	57-74-9	0.0033	0.26
p-Chloroaniline	106-47-8	0.46	16
Chlorobenzene	108-90-7	0.057	6.0
Chlorobenzilate	510-15-6	0.10	NA
2-Chloro-1,3-butadiene	126-99-8	0.057	0.28

p-Chloro-m-cresol	59-50-7	0.018	14
Chlorodibromomethane	124-48-1	0.057	15
Chloroethane	75-00-3	0.27	6.0
bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2
bis(2-Chloroethyl)ether	111-44-4	0.033	6.0
2-Chloroethyl vinyl ether	110-75-8	0.062	NA
Chloroform	67-66-3	0.046	6.0
bis(2-Chloroisopropyl)ether	39638-32-9	0.055	7.2
<del>p-Chloro-m-cresol</del>	<del>59-50-7</del>	<del>0.018</del>	<del>14</del>
Chloromethane (Methyl chloride)	74-87-3	0.19	30
2-Chloronaphthalene	91-58-7	0.055	5.6
2-Chlorophenol	95-57-8	0.044	5.7
3-Chloropropylene	107-05-1	0.036	30
Chrysene	218-01-9	0.059	3.4
o-Cresol	95-48-7	0.11	5.6
m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
m-Cumenyl methyl carbamate <sup>6</sup>	64-00-6	0.056	1.4
Cyclohexanone	108-94-1	0.36	0.75 mg/l TCLP
o,p'-DDD	53-19-0	0.023	0.087
p,p'-DDD	72-54-8	0.023	0.087
o,p'-DDE	3424-82-6	0.031	0.087
p,p'-DDE	72-55-9	0.031	0.087
o,p'-DDT	789-02-6	0.0039	0.087
p,p'-DDT	50-29-3	0.0039	0.087
Dibenz(a,h)anthracene	53-70-3	0.055	8.2
Dibenz(a,e)pyrene	192-65-4	0.061	NA
1,2-Dibromo-3-chloropropane	96-12-8	0.11	15
1,2-Dibromoethane/Ethylene dibromide	106-93-4	0.028	15
Dibromomethane	74-95-3	0.11	15
m-Dichlorobenzene	541-73-1	0.036	6.0
o-Dichlorobenzene	95-50-1	0.088	6.0
p-Dichlorobenzene	106-46-7	0.090	6.0
Dichlorodifluoromethane	75-71-8	0.23	7.2
1,1-Dichloroethane	75-34-3	0.059	6.0
1,2-Dichloroethane	107-06-2	0.21	6.0
1,1-Dichloroethylene	75-35-4	0.025	6.0
trans-1,2-Dichloroethylene	156-60-5	0.054	30
2,4-Dichlorophenol	120-83-2	0.044	14
2,6-Dichlorophenol	87-65-0	0.044	14

2,4-Dichlorophenoxyacetic acid/2,4-D	94-75-7	0.72	10
1,2-Dichloropropane	78-87-5	0.85	18
cis-1,3-Dichloropropylene	10061-01-5	0.036	18
trans-1,3-Dichloropropylene	10061-02-6	0.036	18
Dieldrin	60-57-1	0.017	0.13
Diethylene glycol, dicarbamate <sup>6</sup>	5952-26-1	0.056	1.4
Diethyl phthalate	84-66-2	0.20	28
p-Dimethylaminoazobenzene	60-11-7	0.13	NA
2,4-Dimethyl phenol	105-67-9	0.036	14
Dimethyl phthalate	131-11-3	0.047	28
Dimetilan <sup>6</sup>	644-64-4	0.056	1.4
Di-n-butyl phthalate	84-74-2	0.057	28
1,4-Dinitrobenzene	100-25-4	0.32	2.3
4,6-Dinitro-o-cresol	534-52-1	0.28	160
2,4-Dinitrophenol	51-28-5	0.12	160
2,4-Dinitrotoluene	121-14-2	0.32	140
2,6-Dinitrotoluene	606-20-2	0.55	28
Di-n-octyl phthalate	117-84-0	0.017	28
Di-n-propylnitrosamine	621-64-7	0.40	14
1,4-Dioxane	123-91-1	12.0	170
Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122-39-4	0.92	13
Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86-30-6	0.92	13
1,2-Diphenylhydrazine	122-66-7	0.087	NA
Disulfoton	298-04-4	0.017	6.2
Dithiocarbamates (total) <sup>6</sup>	137-30-4	0.028	28
Endosulfan I	959-98-8	0.023	0.066
Endosulfan II	33213-65-9	0.029	0.13
Endosulfan sulfate	1031-07-8	0.029	0.13
Endrin	72-20-8	0.0028	0.13
Endrin aldehyde	7421-93-4	0.025	0.13
EPTC <sup>6</sup>	759-94-4	0.042	1.4
Ethyl acetate	141-78-6	0.34	33
Ethyl benzene	100-41-4	0.057	10
Ethyl cyanide (Propanenitrile)	107-12-0	0.24	360
<u>Ethylene oxide</u>	<u>75-21-8</u>	<u>0.12</u>	<u>NA</u>
Ethyl ether	60-29-7	0.12	160
<u>bis(2-Ethylhexyl) phthalate</u>	<u>117-81-7</u>	<u>0.28</u>	<u>28</u>
Ethyl methacrylate	97-63-2	0.14	160
<del>Ethylene oxide</del>	<del>75-21-8</del>	<del>0.12</del>	<del>NA</del>



bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
Famphur	52-85-7	0.017	15
Fluoranthene	206-44-0	0.068	3.4
Fluorene	86-73-7	0.059	3.4
Formetanate hydrochloride <sup>6</sup>	23422-53-9	0.056	1.4
Formparanate <sup>6</sup>	17702-57-7	0.056	1.4
Heptachlor	76-44-8	0.0012	0.066
Heptachlor epoxide	1024-57-3	0.016	0.066
Hexachlorobenzene	118-74-1	0.055	10
Hexachlorobutadiene	87-68-3	0.055	5.6
Hexachlorocyclopentadiene	77-47-4	0.057	2.4
HxCDDs (All Hexachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
HxCDFs (All Hexachloro-dibenzofurans)	NA	0.000063	0.001
Hexachloroethane	67-72-1	0.055	30
Hexachloropropylene	1888-71-7	0.035	30
Indeno (1,2,3-c,d) pyrene	193-39-5	0.0055	3.4
Iodomethane	74-88-4	0.19	65
Isobutyl alcohol	78-83-1	5.6	170
Isodrin	465-73-6	0.021	0.066
Isolan <sup>6</sup>	119-38-0	0.056	1.4
Isosafrole	120-58-1	0.081	2.6
Kepone	143-50-0	0.0011	0.13
Methacrylonitrile	126-98-7	0.24	84
Methanol	67-56-1	5.6	0.75 mg/l TCLP
Methapyrilene	91-80-5	0.081	1.5
Methiocarb <sup>6</sup>	2032-65-7	0.056	1.4
Methomyl <sup>6</sup>	16752-77-5	0.028	0.14
Methoxychlor	72-43-5	0.25	0.18
3-Methylcholanthrene	56-49-5	0.0055	15
4,4-Methylene bis(2-chloro-aniline)	101-14-4	0.50	30
Methylene chloride	75-09-2	0.089	30
Methyl ethyl ketone	78-93-3	0.28	36
Methyl isobutyl ketone	108-10-1	0.14	33
Methyl methacrylate	80-62-6	0.14	160
Methyl methansulfonate	66-27-3	0.018	NA
Methyl parathion	298-00-0	0.014	4.6
Metolcarb <sup>6</sup>	1129-41-5	0.056	1.4
Mexacarbate <sup>6</sup>	315-18-4	0.056	1.4
Molinate <sup>6</sup>	2212-67-1	0.042	1.4
Naphthalene	91-20-3	0.059	5.6
2-Naphthylamine	91-59-8	0.52	NA
o-Nitroaniline	88-74-4	0.27	14
p-Nitroaniline	100-01-6	0.028	28

Nitrobenzene	98-95-3	0.068	14
5-Nitro-o-toluidine	99-55-8	0.32	28
o-Nitrophenol	88-75-5	0.028	13
p-Nitrophenol	100-02-7	0.12	29
N-Nitrosodiethylamine	55-18-5	0.40	28
N-Nitrosodimethylamine	62-75-9	0.40	2.3
N-Nitroso-di-n-butylamine	924-16-3	0.40	17
N-Nitrosomethylethylamine	10595-95-6	0.40	2.3
N-Nitrosomorpholine	59-89-2	0.40	2.3
N-Nitrosopiperidine	100-75-4	0.013	35
N-Nitrosopyrrolidine	930-55-2	0.013	35
Oxamyl <sup>6</sup>	23135-22-0	0.056	0.28
Parathion	56-38-2	0.014	4.6
Total PCBs (sum of all PCB isomers, or all Aroclors)	1336-36-3	0.10	10
Pebulate <sup>6</sup>	1114-71-2	0.042	1.4
Pentachlorobenzene	608-93-5	0.055	10
PeCDDs (All Pentachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
PeCDFs (All Pentachloro-dibenzofurans)	NA	0.000035	0.001
Pentachloroethane	76-01-7	0.055	6.0
Pentachloronitrobenzene	82-68-8	0.055	4.8
Pentachlorophenol	87-86-5	0.089	7.4
Phenacetin	62-44-2	0.081	16
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
o-Phenylenediamine <sup>6</sup>	95-54-5	0.056	5.6
Phorate	298-02-2	0.021	4.6
Phthalic acid	100-21-0	0.055	28
Phthalic anhydride	85-44-9	0.055	28
Physostigmine <sup>6</sup>	57-47-6	0.056	1.4
Physostigmine salicylate <sup>6</sup>	57-64-7	0.056	1.4
Promecarb <sup>6</sup>	2631-37-0	0.056	1.4
Pronamide	23950-58-5	0.093	1.5
Propham <sup>6</sup>	122-42-9	0.056	1.4
Propoxur <sup>6</sup>	114-26-1	0.056	1.4
Prosulfocarb <sup>6</sup>	52888-80-9	0.042	1.4
Pyrene	129-00-0	0.067	8.2
Pyridine	110-86-1	0.014	16
Safrole	94-59-7	0.081	22
Silvex (2,4,5-TP)	93-72-1	0.72	7.9
1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
TCDDs (All Tetrachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
TCDFs (All Tetrachloro-	NA	0.000063	0.001

dibenzofurans)			
1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0
Tetrachloroethylene	127-18-4	0.056	6.0
2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
Thiodicarb <sup>6</sup>	59669-26-0	0.019	1.4
Thiophanate-methyl <sup>6</sup>	23564-05-8	0.056	1.4
Tirpate <sup>6</sup>	26419-73-8	0.056	0.28
Toluene	108-88-3	0.080	10
Toxaphene	8001-35-2	0.0095	2.6
Triallate <sup>6</sup>	2303-17-5	0.042	1.4
Tribromomethane (Bromoform)	75-25-2	0.63	15
2,4,6-Tribromophenol	118-79-6	0.035	7.4
1,2,4-Trichlorobenzene	120-82-1	0.055	19
1,1,1-Trichloroethane	71-55-6	0.054	6.0
1,1,2-Trichloroethane	79-00-5	0.054	6.0
Trichloroethylene	79-01-6	0.054	6.0
Trichloromonofluoromethane	75-69-4	0.020	30
2,4,5-Trichlorophenol	95-95-4	0.18	7.4
2,4,6-Trichlorophenol	88-06-2	0.035	7.4
2,4,5-Trichlorophenoxy- acetic acid/2,4,5-T	93-76-5	0.72	7.9
1,2,3-Trichloropropane	96-18-4	0.85	30
1,1,2-Trichloro-1,2,2- trifluoroethane	76-13-1	0.057	30
Triethylamine <sup>6</sup>	101-44-8	0.081	1.5
tris-(2,3-Dibromopropyl) phosphate	126-72-7	0.11	0.10
Vernolate <sup>6</sup>	1929-77-7	0.042	1.4
Vinyl chloride	75-01-4	0.27	6.0
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Antimony	7440-36-0	1.9	<del>2.1</del> <u>1.15</u> mg/l TCLP
Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
Barium	7440-39-3	1.2	<del>7.6</del> <u>21</u> mg/l TCLP
Beryllium	7440-41-7	0.82	<del>0.014</del> <u>1.22</u> mg/l TCLP
Cadmium	7440-43-9	0.69	<del>0.19</del> <u>0.11</u> mg/l TCLP
Chromium (Total)	7440-47-3	2.77	<del>0.86</del> <u>0.60</u> mg/l TCLP
Cyanides (Total) <sup>4</sup>	57-12-5	1.2	590
Cyanides (Amenable) <sup>4</sup>	57-12-5	0.86	30

Fluoride <sup>5</sup>	16984-48-8	35	NA
Lead	7439-92-1	0.69	<del>0.37</del> <u>0.75</u> mg/l TCLP
Mercury-Nonwastewater from Retort	7439-97-6	NA	0.20 mg/l TCLP
Mercury-All Others	7439-97-6	0.15	0.025 mg/l TCLP
Nickel	7440-02-0	3.98	<del>5.0</del> <u>11</u> mg/l TCLP
Selenium <sup>7</sup>	7782-49-2	0.82	<del>0.16</del> <u>5.7</u> mg/l TCLP
Silver	7440-22-4	0.43	<del>0.30</del> <u>0.14</u> mg/l TCLP
Sulfide	18496-25-8	14	NA
Thallium	7440-28-0	1.4	<del>0.078</del> <u>0.20</u> mg/l TCLP
Vanadium <sup>5</sup>	7440-62-2	4.3	<del>0.23</del> <u>1.6</u> mg/l TCLP
Zinc <sup>5</sup>	7440-66-6	2.61	<del>5.3</del> <u>4.3</u> mg/l TCLP

- 1 CAS means Chemical Abstract Services. When the waste code or regulated constituents are described as a combination of a chemical with its salts or esters, the CAS number is given for the parent compound only.
- 2 Concentration standards for wastewaters are expressed in mg/l are based on analysis of composite samples.
- 3 Except for metals (EP or TCLP) and cyanides (total and amenable), the nonwastewater treatment standards expressed as a concentration were established, in part, based on incineration in units operated in accordance with the technical requirements of 35 Ill. Adm. Code 724.Subpart O or 35 Ill. Adm. Code 725.Subpart O or on combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may comply with these treatment standards according to provisions in 40 CFR 268.40(d). All concentration standards for nonwastewaters are based on analysis of grab samples.
- 4 Both Cyanides (Total) and Cyanides (Amenable) for nonwastewaters are to be analyzed using Method 9010 or 9012, found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", USEPA Publication SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111, with a sample size of 10 grams and a distillation time of one hour and 15 minutes.
- 5 These constituents are not "underlying hazardous constituents" in characteristic wastes, according to the definition at Section 728.102(i).

- 6 This footnote corresponds with note 6 to the table to 40 CFR 268.48(a), which has already expired by its own terms. This statement maintains structural consistency with the federal regulations.
- 7 This constituent is not an underlying hazardous constituent, as defined at Section 728.102(i), because its UTS level is greater than its TC level. Thus, a treated selenium waste would always be characteristically hazardous unless it is treated to below its characteristic level.

Note: NA means not applicable.

BOARD NOTE: Derived from table to 40 CFR 268.48(a) (1997), as amended at 63 Fed. Reg. 24626 (May 4, 1998) and 63 Fed. Reg. 28739 (May 26, 1998).

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

TITLE 35: ENVIRONMENTAL PROTECTION  
 SUBTITLE G: WASTE DISPOSAL  
 CHAPTER I: POLLUTION CONTROL BOARD  
 SUBCHAPTER d: UNDERGROUND INJECTION CONTROL AND  
 UNDERGROUND STORAGE TANK PROGRAMS

PART 738  
 HAZARDOUS WASTE INJECTION RESTRICTIONS

SUBPART A: GENERAL

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738.101	Purpose, Scope, and Applicability
738.102	Definitions
738.103	Dilution Prohibited as a Substitute for Treatment
738.104	Case-by-Case Extensions of an Effective Date
738.105	Waste Analysis

SUBPART B: PROHIBITIONS ON INJECTION

Section	
738.110	Waste Specific Prohibitions - Solvent Wastes
738.111	Waste Specific Prohibitions - Dioxin-Containing Wastes
738.112	Waste Specific Prohibitions - California List Wastes
738.114	Waste Specific Prohibitions - First Third Wastes
738.115	Waste Specific Prohibitions - Second Third Wastes
738.116	Waste Specific Prohibitions - Third Third Wastes
738.117	Waste-Specific Prohibitions - Newly-Listed Wastes
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## SUBPART C: PETITION STANDARDS AND PROCEDURES

Section	
738.120	Petitions to Allow Injection of a Prohibited Waste
738.121	Required Information to Support Petitions
738.122	Submission, Review and Approval or Denial of Petitions
738.123	Review of Adjusted Standards
738.124	Termination of Adjusted Standards

AUTHORITY: Implementing Sections 13 and 22.4 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/13, 22.4 and 27].

SOURCE: Adopted in R89-2 at 14 Ill. Reg. 3059, effective February 20, 1990; amended in R89-11 at 14 Ill. Reg. 11948, effective July 9, 1990; amended in R90-14 at 15 Ill. Reg. 11425, effective July 24, 1991; amended in R92-13 at 17 Ill. Reg. 6190, effective April 5, 1993; amended in R93-6 at 17 Ill. Reg. 15641, effective September 14, 1993; amended in R95-4 at 19 Ill. Reg. 9501, effective June 27, 1995; amended in R96-10/R97-3/R97-5 at 22 Ill. Reg. 238, effective December 16, 1997; amended in R97-21/R98-3/R98-5 at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_; amended in R98-21/R99-2/R99-7 at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

## SUBPART B: PROHIBITIONS ON INJECTION

Section 738.118 Waste-Specific Prohibitions - Newly-Listed and Identified Wastes

- a) All newly identified D004 through D011 wastes and characteristic mineral processing wastes, except those identified in subsection (b) of this Section, are prohibited from underground injection.
- b) Effective May 26, 2000, characteristic hazardous wastes from titanium dioxide mineral processing, and radioactive wastes mixed with newly identified D004 through D011 or mixed with newly identified characteristic mineral processing wastes, are prohibited from underground injection.
- ac) ~~Effective August 11, 1997, the~~ The wastes specified in 35 Ill. Adm. Code 721 as USEPA hazardous waste numbers F032, F034, F035 are prohibited from underground injection.
- bd) Effective May 12, 1999, the wastes specified in 35 Ill. Adm. Code 721 as USEPA hazardous waste numbers F032, F034, F035 that are mixed with radioactive wastes are prohibited from underground injection.
- ee) The wastes specified in 35 Ill. Adm. Code 721.132 as having the following USEPA hazardous waste numbers are prohibited from underground injection:

K156  
K157  
K158  
K159  
K160  
K161  
P127  
P128  
P185  
P188  
P189  
P190  
P191  
P192  
P194  
P196  
P197  
P198  
P199  
P201  
P202  
P203  
P204  
P205  
U271  
U277  
U278  
U279  
U280  
U364  
U365  
U366  
U367  
U372  
U373  
U375  
U376  
U377  
U378  
U379  
U381  
U382  
U383  
U384  
U385  
U386

U387  
U389  
U390  
U391  
U392  
U393  
U394  
U395  
U396  
U400  
U401  
U402  
U403  
U404  
U407  
U409  
U410  
U411

- df) The wastes specified in 35 Ill. Adm. Code 721.132 as USEPA hazardous waste number K088 is prohibited from underground injection.
- eg) The wastes specified in 35 Ill. Adm. Code 721 as having the following USEPA hazardous waste numbers and Mixed TC/Radioactive wastes are prohibited from underground injection:

D018  
D019  
D020  
D021  
D022  
D023  
D024  
D025  
D026  
D027  
D028  
D029  
D030  
D031  
D032  
D033  
D034  
D035  
D036  
D037



D038  
 D039  
 D040  
 D041  
 D042  
 D043

~~f) The wastes specified in 35 Ill. Adm. Code 721 as having the following USEPA hazardous waste numbers are prohibited from underground injection:~~

~~D001  
 D002  
 D003~~

h) The wastes specified in 35 Ill. Adm. Code 721.132 as USEPA hazardous waste number K140, and in 35 Ill. Adm. Code 721.133(f) as USEPA hazardous waste number U408 are prohibited from underground injection.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

TITLE 35: ENVIRONMENTAL PROTECTION  
 SUBTITLE G: WASTE DISPOSAL  
 CHAPTER I: POLLUTION CONTROL BOARD  
 SUBCHAPTER c: HAZARDOUS WASTE OPERATING REQUIREMENTS

PART 739  
 STANDARDS FOR THE MANAGEMENT OF USED OIL

SUBPART A: DEFINITIONS

Section  
 739.100 Definitions

SUBPART B: APPLICABILITY

Section  
 739.110 Applicability  
 739.111 Used oil specifications  
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SUBPART C: STANDARDS FOR USED OIL GENERATORS

Section  
 739.120 Applicability  
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 739.123 On-site burning in space heaters  
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**SUBPART D: STANDARDS FOR USED OIL COLLECTION CENTERS  
AND AGGREGATION POINTS**

Section

- 739.130 Do-it-yourselfer used oil collection centers
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**SUBPART E: STANDARDS FOR USED OIL TRANSPORTER AND  
TRANSFER FACILITIES**

Section

- 739.140 Applicability
- 739.141 Restrictions on transporters that are not also processors
- 739.142 Notification
- 739.143 Used oil transportation
- 739.144 Rebuttable presumption for used oil
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**SUBPART F: STANDARDS FOR USED OIL PROCESSORS**

Section

- 739.150 Applicability
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- 739.154 Used oil management
- 739.155 Analysis plan
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**SUBPART G: STANDARDS FOR USED OIL BURNERS THAT BURN  
OFF-SPECIFICATION USED OIL FOR ENERGY RECOVERY**

Section

- 739.160 Applicability
- 739.161 Restriction on burning
- 739.162 Notification
- 739.163 Rebuttable presumption for used oil
- 739.164 Used oil storage
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## SUBPART H: STANDARDS FOR USED OIL FUEL MARKETERS

Section	
739.170	Applicability
739.171	Prohibitions
739.172	On-specification used oil fuel
739.173	Notification
739.174	Tracking
739.175	Notices

## SUBPART I: STANDARDS FOR USE AS A DUST SUPPRESSANT DISPOSAL OF USED OIL

Section	
739.180	Applicability
739.181	Disposal
739.182	Use as a dust suppressant

**AUTHORITY:** Implementing Section 22.4 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/22.4 and 27].

**SOURCE:** Adopted in R93-4 at 17 Ill. Reg. 20954, effective November 22, 1993; amended in R93-16 at 18 Ill. Reg. 6931, effective April 26, 1994; amended in R94-17 at 18 Ill. Reg. 17616, effective November 23, 1994; amended in R95-6 at 19 Ill. Reg. 10036, effective June 27, 1995; amended in R96-10/R97-3/R97-5 at 22 Ill. Reg. 767, effective December 16, 1997.

## SUBPART C: STANDARDS FOR USED OIL GENERATORS

Section 739.122      Used oil storage

Used oil generators are subject to all applicable federal Spill Prevention, Control and Countermeasures (40 CFR 112) in addition to the requirements of this Subpart. Used oil generators are also subject to the Underground Storage Tank (35 Ill. Adm. Code 731) standards for used oil stored in underground tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of this Subpart.

- a) Storage units. Used oil generators shall not store used oil in units other than tanks, containers, or units subject to regulation under 35 Ill. Adm. Code 724 or 725.
- b) Condition of units. Containers and aboveground tanks used to store used oil at generator facilities must be:
  - 1) In good condition (no severe rusting, apparent structural defects or deterioration); and
  - 2) Not leaking (no visible leaks).

- c) Labels.
- 1) Containers and aboveground tanks used to store used oil at generator facilities must be labeled or marked clearly with the words "Used Oil."
  - 2) Fill pipes used to transfer used oil into underground storage tanks at generator facilities must be labeled or marked clearly with the words "Used Oil."
- d) Response to releases. Upon detection of a release of used oil to the environment that is not subject to the federal requirements of ~~Part 40~~ CFR 280, Subpart F and which has occurred after ~~the effective date of the authorized used oil program for the State in which the release is located~~ October 4, 1996, a generator shall perform the following cleanup steps:

BOARD NOTE: Corresponding 40 CFR 279.22(d) applies to releases that "occurred after the effective date of the authorized used oil program for the State in which the release is located." The Board adopted the used oil standards in docket R93-4 at 17 Ill. Reg. 20954, effective November 22, 1993. USEPA approved the Illinois standards at 61 Fed. Reg. 40521 (Aug. 5, 1996), effective October 4, 1996. The Board has interpreted "the effective date of the authorized used oil program" to mean the October 4, 1996 date of federal authorization of the Illinois program, and we substituted that date for the federal effective date language. Had USEPA written something like "the effective date of the used oil program in the authorized State in which the release is located," the Board would have used the November 22, 1993 effective date of the Illinois used oil standards.

- 1) Stop the release;
- 2) Contain the released used oil;
- 3) ~~Clean~~ Properly clean up and manage ~~properly~~ the released used oil and other materials; and
- 4) If necessary ~~to prevent future releases~~, repair or replace any leaking used oil storage containers or tanks prior to returning them to service.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

SUBPART E: STANDARDS FOR USED OIL TRANSPORTER AND  
TRANSFER FACILITIES

Section 739.145      Used oil storage at transfer facilities

A used oil transporter is subject to all applicable Spill Prevention, Control and Countermeasures (40 CFR 112) in addition to the requirements of this Subpart. A used oil transporter is also subject to the Underground Storage Tank (35 Ill. Adm. Code 731) standards for used oil stored in underground tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of this Subpart.

- a)      **Applicability.** This Section applies to used oil transfer facilities. Used oil transfer facilities are transportation related facilities including loading docks, parking areas, storage areas, and other areas where shipments of used oil are held for more than 24 hours during the normal course of transportation and not longer than 35 days. Transfer facilities that store used oil for more than 35 days are subject to regulation under Subpart F.
- b)      **Storage units.** Owners or operators of used oil transfer facilities may not store used oil in units other than tanks, containers, or units subject to regulation under 35 Ill. Adm. Code 724 or 725.
- c)      **Condition of units.** Containers and aboveground tanks used to store used oil at transfer facilities must be:
  - 1)      In good condition (no severe rusting, apparent structural defects or deterioration); and
  - 2)      Not leaking (no visible leaks).
- d)      **Secondary containment for containers.** Containers used to store used oil at transfer facilities must be equipped with a secondary containment system.
  - 1)      The secondary containment system must consist of, at a minimum:
    - A)      Dikes, berms or retaining walls; and
    - B)      A floor. The floor must cover the entire area within the dikes, berms, or retaining walls; or
    - C)      An equivalent secondary containment system.
  - 2)      The entire containment system, including walls and floors, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

- e) Secondary containment for existing aboveground tanks. Existing aboveground tanks used to store used oil at transfer facilities must be equipped with a secondary containment system.
  - 1) The secondary containment system must consist of, at a minimum:
    - A) Dikes, berms or retaining walls; and
    - B) A floor. The floor must cover the entire area within the dike, berm, or retaining wall except areas where existing portions of the tank meet the ground; or
    - C) An equivalent secondary containment system.
  - 2) The entire containment system, including walls and floors, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.
- f) Secondary containment for new aboveground tanks. New aboveground tanks used to store used oil at transfer facilities must be equipped with a secondary containment system.
  - 1) The secondary containment system must consist of, at a minimum:
    - A) Dikes, berms or retaining walls; and
    - B) A floor. The floor must cover the entire area within the dike, berm, or retaining wall; or
    - C) An equivalent secondary containment system.
  - 2) The entire containment system, including walls and floors, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.
- g) Labels.
  - 1) Containers and aboveground tanks used to store used oil at transfer facilities must be labeled or marked clearly with the words "Used Oil."
  - 2) Fill pipes used to transfer used oil into underground storage tanks at transfer facilities must be labeled or marked clearly with the words "Used Oil."

- h) Response to releases. Upon detection of a release of used oil to the environment that is not subject to the federal requirements of ~~35 Ill. Adm. Code 731. Subpart F~~ 40 CFR 280, Subpart F and which has occurred ~~the effective date of the authorized used oil program for the State in which the release is located~~ October 4, 1996, a owner or operator of a transfer facility shall perform the following cleanup steps:

BOARD NOTE: Corresponding 40 CFR 279.45(h) applies to releases that “occurred after the effective date of the authorized used oil program for the State in which the release is located.” The Board adopted the used oil standards in docket R93-4 at 17 Ill. Reg. 20954, effective November 22, 1993. USEPA approved the Illinois standards at 61 Fed. Reg. 40521 (Aug. 5, 1996), effective October 4, 1996. The Board has interpreted “the effective date of the authorized used oil program” to mean the October 4, 1996 date of federal authorization of the Illinois program, and we substituted that date for the federal effective date language. Had USEPA written something like “the effective date of the used oil program in the authorized State in which the release is located,” the Board would have used the November 22, 1993 effective date of the Illinois used oil standards.

- 1) Stop the release;
- 2) Contain the released used oil;
- 3) ~~Clean~~ Properly clean up and manage ~~properly~~ the released used oil and other materials; and
- 4) If necessary ~~to prevent future releases~~, repair or replace any leaking used oil storage containers or tanks prior to returning them to service.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

## SUBPART F: STANDARDS FOR USED OIL PROCESSORS

### Section 739.154 Used oil management

A used oil processor is subject to all applicable Spill Prevention, Control and Countermeasures (40 CFR 112) in addition to the requirements of this Subpart. A used oil processor or re-refiner is also subject to the Underground Storage Tank (35 Ill. Adm. Code 731) standards for used oil stored in underground tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of this Subpart.

- a) Management units. Used oil processors shall not store used oil in units other than tanks, containers, or units subject to regulation under 35 Ill. Adm. Code 724 or 725.

- b) Condition of units. Containers and aboveground tanks used to store or process used oil at processing facilities must be:
  - 1) In good condition (no severe rusting, apparent structural defects or deterioration); and
  - 2) Not leaking (no visible leaks).
- c) Secondary containment for containers. Containers used to store or process used oil at processing and re-refining facilities must be equipped with a secondary containment system.
  - 1) The secondary containment system must consist of, at a minimum:
    - A) Dikes, berms or retaining walls; and
    - B) A floor. The floor must cover the entire area within the dike, berm, or retaining wall; or
    - C) An equivalent secondary containment system.
  - 2) The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.
- d) Secondary containment for existing aboveground tanks. Existing aboveground tanks used to store or process used oil at processing and re-refining facilities must be equipped with a secondary containment system.
  - 1) The secondary containment system must consist of, at a minimum:
    - A) Dikes, berms or retaining walls; and
    - B) A floor. The floor must cover the entire area within the dike, berm, or retaining wall except areas where existing portions of the tank meet the ground; or
    - C) An equivalent secondary containment system.
  - 2) The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.



- e) Secondary containment for new aboveground tanks. New aboveground tanks used to store or process used oil at processing and re-refining facilities must be equipped with a secondary containment system.
- 1) The secondary containment system must consist of, at a minimum:
    - A) Dikes, berms or retaining walls; and
    - B) A floor. The floor must cover the entire area within the dike, berm, or retaining wall; or
    - C) An equivalent secondary containment system.
  - 2) The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.
- f) Labels.
- 1) Containers and aboveground tanks used to store used oil at processing facilities must be labeled or marked clearly with the words "Used Oil."
  - 2) Fill pipes used to transfer used oil into underground storage tanks at processing facilities must be labeled or marked clearly with the words "Used Oil."
- g) Response to releases. Upon detection of a release of used oil to the environment that is not subject to the federal requirements of 35 Ill. Adm. Code 731. Subpart F 40 CFR 280, Subpart F and which has occurred ~~the effective date of the~~ authorized used oil program for the State in which the release is located October 4, 1996, a processor shall perform the following cleanup steps:

BOARD NOTE: Corresponding 40 CFR 279.54(g) applies to releases that "occurred after the effective date of the authorized used oil program for the State in which the release is located." The Board adopted the used oil standards in docket R93-4 at 17 Ill. Reg. 20954, effective November 22, 1993. USEPA approved the Illinois standards at 61 Fed. Reg. 40521 (Aug. 5, 1996), effective October 4, 1996. The Board has interpreted "the effective date of the authorized used oil program" to mean the October 4, 1996 date of federal authorization of the Illinois program, and we substituted that date for the federal effective date language. Had USEPA written something like "the effective date of the used oil program in the authorized State in which the release is located," the Board would have used the November 22, 1993 effective date of the Illinois used oil standards.

- 1) Stop the release;

- 2) Contain the released used oil;
  - 3) ~~Clean~~ Properly clean up and manage ~~properly~~ the released used oil and other materials; and
  - 4) ~~If necessary to prevent future releases,~~ repair or replace any leaking used oil storage containers or tanks prior to returning them to service.
- h) Closure.
- 1) Aboveground tanks. Owners and operators that store or process used oil in aboveground tanks shall comply with the following requirements:
    - A) At closure of a tank system, the owner or operator shall remove or decontaminate used oil residues in tanks, contaminated containment system components, contaminated soils, and structures and equipment contaminated with used oil, and manage them as hazardous waste, unless the materials are not hazardous waste under this chapter.
    - B) If the owner or operator demonstrates that not all contaminated soils can be practicably removed or decontaminated as required in subsection (h)(1)(A) ~~above~~ of this Section, then the owner or operator shall close the tank system and perform post-closure care in accordance with the closure and post-closure care requirements that apply to hazardous waste landfills (35 Ill. Adm. Code 725.410).
  - 2) Containers. Owners and operators that store used oil in containers shall comply with the following requirements:
    - A) At closure, containers holding used oils or residues of used oil must be removed from the site;
    - B) The owner or operator shall remove or decontaminate used oil residues, contaminated containment system components, contaminated soils, and structures and equipment contaminated with used oil, and manage them as hazardous waste, unless the materials are not hazardous waste 35 Ill. Adm. Code 721.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

SUBPART G: STANDARDS FOR USED OIL BURNERS THAT BURN  
OFF-SPECIFICATION USED OIL FOR ENERGY RECOVERY

Section 739.164      Used oil storage

A used oil burner is subject to all applicable Spill Prevention, Control and Countermeasures (40 CFR 112) in addition to the requirements of this Subpart. A used oil burner is also subject to the Underground Storage Tank (35 Ill. Adm. Code 731) standards for used oil stored in underground tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of this Subpart.

- a)      Storage units. Used oil burners may not store used oil in units other than tanks, containers, or units subject to regulation under 35 Ill. Adm. Code 724 or 725.
- b)      Condition of units. Containers and aboveground tanks used to store oil at burner facilities must be:
  - 1)      In good condition (no severe rusting, apparent structural defects or deterioration); and
  - 2)      Not leaking (no visible leaks).
- c)      Secondary containment for containers. Containers used to store used oil at burner facilities must be equipped with a secondary containment system.
  - 1)      The secondary containment system must consist of, at a minimum:
    - A)      Dikes, berms or retaining walls; and
    - B)      A floor. The floor must cover the entire area within the dike, berm, or retaining wall.
  - 2)      The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.
- d)      Secondary containment for existing aboveground tanks. Existing aboveground tanks used to store used oil at burner facilities must be equipped with a secondary containment system.
  - 1)      The secondary containment system must consist of, at a minimum:
    - A)      Dikes, berms or retaining walls; and

- B) A floor. The floor must cover the entire area within the dike, berm, or retaining wall except areas where existing portions of the tank meet the ground; or
  - C) An equivalent secondary containment system.
- 2) The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.
- e) Secondary containment for existing aboveground tanks. New aboveground tanks used to store used oil at burner facilities must be equipped with a secondary containment system.
- 1) The secondary containment system must consist of, at a minimum:
    - A) Dikes, berms or retaining walls; and
    - B) A floor. The floor must cover the entire area within the dike, berm, or retaining wall; or
    - C) An equivalent secondary containment system.
  - 2) The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.
- f) Labels.
- 1) Containers and aboveground tanks used to store used oil at burner facilities must be labeled or marked clearly with the words "Used Oil."
  - 2) Fill pipes used to transfer used oil into underground storage tanks at burner facilities must be labeled or marked clearly with the words "Used Oil."
- g) Response to releases. Upon detection of a release of used oil to the environment that is not subject to the federal requirements of 35 Ill. Adm. Code 731. Subpart F 40 CFR 280, Subpart F and which has occurred the effective date of the authorized used oil program for the State in which the release is located October 4, 1996, a burner shall perform the following cleanup steps:

BOARD NOTE: Corresponding 40 CFR 279.64(g) applies to releases that "occurred after the effective date of the authorized used oil program for the State

in which the release is located.” The Board adopted the used oil standards in docket R93-4 at 17 Ill. Reg. 20954, effective November 22, 1993. USEPA approved the Illinois standards at 61 Fed. Reg. 40521 (Aug. 5, 1996), effective October 4, 1996. The Board has interpreted “the effective date of the authorized used oil program” to mean the October 4, 1996 date of federal authorization of the Illinois program, and we substituted that date for the federal effective date language. Had USEPA written something like “the effective date of the used oil program in the authorized State in which the release is located,” the Board would have used the November 22, 1993 effective date of the Illinois used oil standards.

- 1) Stop the release;
- 2) Contain the released used oil;
- 3) ~~Clean~~ Properly clean up and manage ~~properly~~ the released used oil and other materials; and
- 4) If necessary, repair or replace any leaking used oil storage containers or tanks prior to returning them to service.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### SUBPART H: STANDARDS FOR USED OIL FUEL MARKETERS

##### Section 739.174 Tracking

- a) Off-specification used oil delivery. Any used oil fuel marketer that directs a shipment of off-specification used oil to a burner shall keep a record of each shipment of used oil to a used oil burner. These records may take the form of a log, invoice, manifest, bill of lading or other shipping documents. Records for each shipment must include the following information:
  - 1) The name and address of the transporter that delivers the used oil to the burner;
  - 2) The name and address of the burner that will receive the used oil;
  - 3) The ~~U.S. EPA~~ USEPA identification number and Illinois special waste identification number of the transporter that delivers the used oil to the burner;
  - 4) The ~~U.S. EPA~~ USEPA identification number and Illinois special waste identification number of the burner;
  - 5) The quantity of used oil shipped; and

- 6) The date of shipment.
- b) On-specification used oil delivery. A generator, transporter, processor or re-refiner, or burner that first claims that used oil that is to be burned for energy recovery meets the fuel specifications under Section 739.111 shall keep a record of each shipment of used oil to an on-specification used oil burner. Records for each shipment must include the following information:
- 1) The name and address of the facility receiving the shipment;
  - 2) The quantity of used oil fuel delivered;
  - 3) The date of shipment or delivery; and
  - 4) A cross-reference to the record of used oil analysis or other information used to make the determination that the oil meets the specification as required under Section 739.172(a).
- c) Record retention. The records described in subsections (a) and (b) ~~above~~ of this Section must be maintained for at least three years.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)