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BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF

	)	
RCRA DELISTING ADJUSTED STANDARD	)	**AS 08-10**
PETITION OF PEORIA DISPOSAL COMPANY	)	**(Adjusted Standard – Land)**
	)	**(RCRA Delisting)**

POST-HEARING BRIEF OF PEORIA DISPOSAL COMPANY

NOW COMES Peoria Disposal Company ("PDC"), by its attorneys, Elias, Meginnes, Riffle & Seghetti, P.C. and Brown, Hay & Stephens, LLP, and provides this Post-Hearing Brief for consideration by the Pollution Control Board (the "Board"). (New information and documentation provided herein in response to the oral and written public comments received by the Board in this case are intended to be in the nature of public comment).

INTRODUCTION

In this matter, the Board is presented with a petition which it is called upon to review pursuant to Section 28.1 of the Illinois Environmental Protection Act, 415 ILCS §5/1 *et seq.* (the "Act") and Section 720.122 of the Board's rules, adopted pursuant to the Act. *See* 415 ILCS §5/28.1 and 35 Ill. Adm. Code §720.122. The cited rules represent the State of Illinois's implementation of the federal Resource Conservation and Recovery Act of 1976 ("RCRA") program, a program which the Illinois legislature has declared should be "equivalent" to the federal program. *See* 415 ILCS §§5/20(a)(5)-(9). The RCRA Delisting Adjusted Standard Petition (the "Petition") at issue herein was filed by PDC on April 25, 2008. The Petition will be subject to the conditions that have been proposed by the Illinois Environmental Protection Agency (the "IEPA" or the "Agency") and the Board, pursuant to those entities' reviews of the Petition, which conditions have been accepted by PDC through this delisting process. Also, this

Petition is the product of substantive pre-filing review on the part of the IEPA, as well as the United States Environmental Protection Agency (the "USEPA"). PDC proposes an Adjusted Standard pursuant to which "K061" electric arc furnace ("EAF") dust that is treated and rendered non-hazardous at PDC's waste stabilization facility in Peoria, Illinois (the "WSF") will be deemed a delisted waste subject to disposal in a RCRA Subtitle D landfill.

NATURE OF THE MATTER

As stated above, this Petition is authorized by both state and federal law which, in the context underlying this Petition, represent identical-in-substance authorities. In other words, the State of Illinois, through the Board, is here required to make a determination as to whether the Petition sufficiently demonstrates, in accordance with the methodology set forth in RCRA, that the EAF dust treated at the WSF (the "EAFDSR") is rendered non-hazardous and therefore is entitled to be "delisted" as a hazardous waste. That methodology has been adopted by the State of Illinois in Section 720.122 of the Board's regulations. *See* 35 Ill. Adm. Code §720.122. In those rules, the Board determined that the adjusted standard process, pursuant to Section 28.1 of the Act, is the appropriate process to consider a RCRA delisting petition such as this one. The Illinois legislature has designated that the Board, with its statutorily-presumed technical expertise and its general authority to interpret and implement the Act in a manner that meets its legislative purposes, is the appropriate entity to make the determination to delist a waste. Nonetheless, prior to filing the Petition with the Board, PDC conducted an extensive pre-filing review with technical staff from both the IEPA and the USEPA, and the outcome of such review has been incorporated into the Petition, as set forth therein and as further explained in filings PDC made in response to Board and IEPA questions.

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Pursuant to the provisions of the Act and the Board's rules, the Board has a long history of reviewing delisting petitions such as the one sought here and, more generally, petitions for adjusted standards. Some of the public comments in this proceeding, most notably Public Comment ("PC") #301, urge the Board to require siting prior to approving the delisting sought in the Petition, a condition that has never before been imposed by the Board or by the USEPA. This comment and others like it ignore the context of the technical decision appropriately before the Board. These comments also ignore the substantive technical requirements and safeguards of the RCRA program, both Subtitles C and D.

Unlike siting decisions, the issue before the Board in this Petition is not appropriate for local review or control. Nonetheless, PDC recognizes that its Petition faces opposition from those persons and interested groups who desire to see that PDC discontinue operating its hazardous waste facility in Peoria County, despite the fact that the facility has been in operation for numerous years with no incidents of pollution and not one single notice of violation from the IEPA. As a consequence of that opposition, although it was not required to by law, PDC has reached out to relevant local entities concerning the Petition.

At its August, 2008, meeting, the Peoria County Board considered taking a position regarding the Petition. In preparation for that vote, the County Staff submitted a report to the County Board incorporating a Draft Memorandum prepared by Patrick Engineering, an independent engineering company retained by the County to review the Petition. A copy of the Staff Report is attached hereto as Exhibit A. Patrick Engineering found that the Petition "meets all of the applicable criteria for making such a case, and has been supported with a sufficient technical demonstration" and, therefore, that the delisting is "reasonable, appropriate, technically defensible, and equally protective of human health and the environment as the

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currently employed treatment and disposal strategy for this K061 waste." (Ex. A, pg. 9). Based on the Staff Report, Patrick Engineering's opinion, and the favorable recommendations of various people including the Secretary-Treasurer of Teamsters Local 627, the County Board declined to take a position either in favor or against the Petition, finding that the matter should "go through the established regulatory process for the Illinois Pollution Control Board to decide the issue." (Peoria County Board meeting Agenda for August 14, 2008, meeting, attached hereto with the minutes of the meeting as Exhibit B, item 14, pg. 3).

PDC proposes to dispose of the delisted waste primarily at Indian Creek Landfill #2, in Tazewell County, Illinois. The Petition has the support of the two local entities with jurisdiction over Indian Creek Landfill #2, namely, the Tazewell County Board and the Hopedale Township Board. The Resolutions approved by these entities on May 30, 2007, and August 12, 2008, respectively, approving delivery of delisted waste to Indian Creek Landfill #2 are attached hereto as Exhibits C and D. (The Hopedale Township Resolution was previously filed in this matter as public comment 9).[1]

Patrick Engineering, the independent engineering company retained by Peoria County to review the Petition and the record in this case, succinctly stated as follows regarding the Adjusted Standard sought herein:

> K061 EAF dust is one of the most commonly delisted wastes in the United States. The method by which this waste is almost always delisted is via treatment by chemical stabilization, the same process being proposed (and already employed) by PDC. The waste stream was originally listed by the US Environmental Protection Agency as hazardous due to the toxicity of cadmium,

[1] In addition to conferring with Peoria County, Tazewell County and Hopedale Township, in response to public concerns in DeWitt County regarding disposal of EAFDSR at the Clinton Landfill, the operator of the Clinton Landfill, PDC-affiliate Clinton Landfill, Inc., agreed to an amendment to its Host Community Agreement with DeWitt County to provide for approval by the County Board prior to disposal of EAFDSR at the Clinton Landfill. A copy of the Second Amendment to Host Community Agreement is attached hereto as Exhibit E.

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> hexavalent chromium, and lead. Each of these compounds is still present within the final treated residue. However, the stabilization process fixes these compounds within a rigid chemical and physical matrix, drastically reducing their mobility and leachability. Thus, testing of the residue after stabilization demonstrates that the residue is no longer characteristically toxic.
>
> As required by state regulation, PDC has performed a series of demonstration tests of their specifically-proposed stabilization process, and the resulting testing of the treated residue has confirmed that this process is capable of achieving the proposed treatment standards. Based upon Patrick's review of the available documents, it is Patrick's opinion that PDC has met all of the technical and legal criteria needed to successfully delist the K061 waste. The proposed treatment standards have been developed with well-established risk assessment techniques (reviewed by Patrick), and with the acquiescence of the Illinois EPA, which has also reviewed this risk assessment modeling in detail.
>
> PDC has requested an upfront delisting of the K061 waste, contingent upon confirmation sampling that the treatment process is successfully achieving the treatment standards on an ongoing basis. This ongoing sampling is proposed to occur daily, a reasonable sampling frequency in Patrick's opinion.
>
> Overall, Patrick believes that this delisting petition meets all of the applicable criteria for making such a case, and has been supported with a sufficient technical demonstration. Delisting, if granted, will be contingent upon the ongoing confirmation of the successful treatment of the waste on an ongoing basis. Patrick believes that this delisting is therefore reasonable, appropriate, technically defensible, and equally protective of human health and the environment as the currently employed treatment and disposal strategy for this K061 waste.

(Ex. A, pgs. 8-9). PDC agrees entirely with Patrick Engineering's characterization of the Petition and the record. The Petition is not opposed by the IEPA or the USEPA, and PDC has addressed all the issues identified by the IEPA and the Board's staff concerning the Petition. Based on all the foregoing and the following discussion, PDC requests that the Board approve the proposed Adjusted Standard as set forth below.

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PROCEDURAL BACKGROUND

In accordance with Board procedure, PDC filed its Petition with the Board on April 25, 2008, along with Motions for Expedited Review and to File Reduced Number of Copies, and PDC's Application for Non-Disclosure. PDC published notice of the filing of the Petition on April 28, 2008. On June 5, 2008, the Board found that PDC's Petition was complete and that the published notice was proper, and the Board granted PDC's Motions for Expedited Review and to File Reduced Number of Copies.

On June 12, 2008, the IEPA filed its Response to the Petition. The response generally supported the petition and expressed the IEPA's belief "that PDC's request for a RCRA waste delisting of treated K061 electric arc furnace dust will likely meet the required level of justification with some additional information...." PDC filed its response to the IEPA's questions on June 26, 2008, which included the additional information sought by the IEPA.

On July 15, 2008, the Board posed its own questions to PDC. PDC filed its response to the Board's questions on August 7, 2008. In that response, PDC agreed to certain conditions suggested by the Board, and responded to the Board's technical questions. At the public hearing in this case, the Board's technical staff stated that they needed no further information from PDC beyond the responses provided. The Board's questions and PDC's response thereto are discussed in detail below.

The public hearing in this case was held on August 18, 2008, at the Peoria Public Library in Peoria County, Illinois. PDC presented two expert witnesses, both of whom were found to be credible by Carol Webb, the Board's hearing officer. Twenty-seven persons offered oral public comment at the hearing, including representatives from five of the ten steel mills sending their K061 waste to PDC for treatment and disposal. The public comment deadline,

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originally set to September 11, 2008, was extended by the Board to September 25, 2008. PDC was directed to file its post-hearing Brief on or before October 9, 2008.

THE PETITION

In the Petition, PDC seeks an adjusted standard to delist the stabilized residue generated by PDC from the treatment of EAF dust at the WSF (the EAFDSR). The EAF dust is a listed hazardous waste designated as hazardous waste code K061, specified by 35 Ill. Adm. Code §721.132 for "emission control dust/sludge from the primary production of steel in electric furnaces." The K061 dust must be stabilized to meet applicable land disposal restrictions ("LDR") treatment standards specified for K061 listed hazardous wastes by Subpart D of 35 Ill. Adm. Code Part 728 prior to land disposal. The residue that PDC currently generates from the treatment of K061 dust remains classified as a K061 hazardous waste by virtue of the "derived-from" rule (35 Ill. Adm. Code §721.103(e)) because it is generated from the treatment of a listed hazardous waste. Therefore, at present, the residue from the treatment of EAF dust must be disposed of in a landfill regulated under Subtitle C of RCRA. Excepting the PDC No. 1 Landfill (which is nearing capacity), the nearest operating Subtitle C landfill to the WSF is located in Roachdale, Indiana, nearly 220 miles from PDC's WSF.

Under the proposed Adjusted Standard, the residue from treatment of the EAF dust will be excluded from the list of hazardous wastes contained in Subpart D of 35 Ill. Adm. Code 721 and PDC will be able to transport and dispose of the residue at a Subtitle D landfill permitted by the IEPA. PDC intends to transport the delisted EAFDSR to its affiliated Subtitle D landfill in Tazewell County, Illinois ("Indian Creek Landfill #2"), though the Adjusted Standard would, appropriately and reasonably, permit PDC to dispose of the EAFDSR in any permitted Subtitle D landfill in Illinois.

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With its Petition, PDC filed an Application to have certain information designated "Non-Disclosable Information" pursuant to 35 Ill. Adm. Code Part 130 and the Act. This request has been taken under consideration by the Board.

In the Petition and the Technical Support Document (or "TSD") appended thereto, PDC demonstrated that all the justifications required to delist the residue were met by PDC's treatment process. *As a further fail-safe mechanism, PDC proposed to test every daily batch of residue before disposal in a RCRA Subtitle D landfill.* The proposed Adjusted Standard (as modified through PDC's response to the Board's questions, filed on August 7, 2008) is stated below.

REVIEW BY THE IEPA AND THE BOARD

Pursuant to 35 Ill. Adm. Code §104.416, the IEPA was required to file a response to the Petition within thirty days of filing of the Petition. On June 12, 2008, the IEPA filed such a response. Therein, the IEPA expressed its general support for the Petition, which can only be granted by the Board. The IEPA's response also indicated a very close review of the Petition by the IEPA's technical staff, as the IEPA noted that PDC made an adjustment to one parameter of the delisting risk assessment software ("DRAS") used for the risk analysis. Second, the IEPA noted a discrepancy in a table as between Appendix H.4 to the Petition and the modeling input (0.02 to 0.006). (PDC worked closely with the IEPA and the USEPA in the development of the Petition). On June 26, 2008, PDC filed a written response to the IEPA's comments, providing explanations for the adjustment noted by the IEPA and for the discrepancy identified, and provided certain new, corrected tables for the Petition. These responses apparently satisfied the IEPA, as it had no further questions subsequent to PDC's response or at the public hearing.

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In addition to the IEPA's pre-filing and post-filing reviews, the Board also conducted a significant review of the Petition, upon filing. Such review is evident from the substantive pre-hearing questions the Board posed to PDC, which were filed as Attachment A to the Hearing Officer's Order dated July 15, 2008. PDC was given until August 11, 2008, to file written responses to the Board's questions. The Board posed nineteen (19) multi-part questions to PDC, concerning highly technical aspects of the Petition and concerning PDC's proposed plans for operation under the Adjusted Standard. In PDC's fifteen (15) page response to the Board's questions, filed on August 7, 2008, PDC agreed to six (6) significant additional conditions to its proposed Adjusted Standard as a result of the Board's questions. PDC also filed over 100 pages in additional Appendices, plus a large set of revised raw laboratory data reports.

At the public hearing in this case, discussed below in detail, the IEPA and the Board declined to ask any follow-up questions regarding PDC's responses. One of the Board's technical experts, engineer Anand Rao, explained that "[a]t this time the Board has reviewed the responses provided by PDC, and I think our questions that were raised in those questions have been answered." (R29/5-7).[2]

Both the IEPA and the Board raised numerous specific questions concerning PDC's Petition, fulfilling their duties to carefully review the delisting Petition and to ensure that the proposed Adjusted Standard is protective of the environment and of public health and safety. PDC responded satisfactorily to all the questions raised by the IEPA and the Board, and agreed to a number of conditions to the Adjusted Standard, further ensuring that the environment and public health and safety will be protected.

THE PUBLIC HEARING

[2] Citations to the transcript of the public hearing on August 18, 2008, which transcript was posted online by the Clerk of the Board on August 25, 2008, will be in the following format: "R[page]/[line]-[line]" or "R[page]/[line]-[page]/[line]."

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At the hearing on August 18, 2008, PDC presented the sworn testimony of two witnesses. The first witness, Laura Curtis, was the Project Manager for RMT, Inc. ("RMT"), PDC's technical consultant for the delisting. The second witness, Dr. Ajit Chowdhury, developed the stabilization technology proposed to be utilized by PDC if the delisting sought herein is approved. Both witnesses were found to be credible by the Board's hearing officer.

Ms. Curtis testified extensively about the process RMT used to prepare the Technical Support Document attached to the Petition as Attachment 2, including without limitation, identifying the constituents of concern (or "COCs"), and performing multiple phases of sampling, testing and analysis. Ms. Curtis testified to the highly professional, technical and independent nature of the work performed in the development of the specific protocol, procedures and testing relevant to the Petition:

> RMT was selected as the consultant to be a third party objective resource for PDC. We operate with high integrity, and -- both professional and ethical standards. We also were allowed by PDC to contract an independent laboratory to conduct the analytical procedures.

(R21/11-16).

Ms. Curtis explained the "TCLP" and "MEP" tests as follows:

> A * * *. In addition to the compositional analyses, stabilized waste also requires, per the U.S. EPA delisting guidance document, additional leaching procedures. One is the toxicity characteristic leaching procedure or the TCLP. This is performed to simulate the leaching potential in an improperly run, unlined municipal solid waste landfill.
>
> What was required was not only running it as it is written in SW846, but with three different extraction fluids. Now at the same time these are separate analytical runs, which has an acidic, a neutral and an alkaline leach.
>
> This waste is also required to have another leaching potential procedure called a multiple extraction procedure or the

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> MEP. This is performed to simulate the leaching potential over a 1,000-year period. And, again, we were using the three different extraction fluids -- an acidic, a neutral, and an alkaline leach.
>
> Q [by Ms. Nair] How does the acidity of the solution used in the TCLP and MEP test compare to, let say, orange juice, other human consumables?
>
> A According to the FDA, orange juice has a pH in the range of 3.3 to 4.19. In the toxicity characteristic leaching procedure, the acidic fluid, we needed to use the most aggressive which is number 2. That is 2.88 plus or minus .05. So it is considerably more aggressive than orange juice. Also, pH is a logarithmic. So it's not just a comparable. There is -- quite a step change in between those numbers.
>
> Q How is the TCLP test itself performed?
>
> A The TCLP test takes the material -- in this case it's a solid material. It will grind it up, and then tumble it in the extraction fluid for over 24 hours. Then the extraction fluid is removed and analyzed for any constituents of concern to see what has migrated from the waste.
>
> Q And comparing that to the MEP test, what is added in the MEP test?
>
> A The MEP is doing that in ten successive times and using the same material, but it's exposing it. For example, if we do it with the acidic, we do it -- tumble it for 24 hours, remove the extraction fluid, but then fresh new acidic at the same, 2.88, is added to the waste. It's tumbled again another 24 hours. So the material is the most aggressive for all ten successive tumbles and extractions.

(R21/21-23/19). Ms. Curtis described the analysis of the data collected through the testing of the EAFDSR as follows:

> A * * *. We took all the analytical and ran a DRAS 16 model evaluation. And the DRAS model is a multimedia risk tool that simulates landfill management based on a 20-year lifetime. And we put in an annual waste generation for this of 95,000 cubic yards. We show that the screening levels -- or we used screening levels that are based on risk targets set by U.S. EPA region 5, and that were confirmed by Illinois EPA. But the DRAS models exposure pathways were to groundwater, to air and to the surface

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waters. And that the risk assumptions that we used were realistic and conservative. The concentrations were used to set the delisting concentrations.

Q [by Ms. Nair] Ms. Curtis, what interactions did you have with the U.S. EPA regarding the DRAS model?

A U.S. EPA region 5 provided technical assistance and their expertise both as the holders of the DRAS model. They gave us updates for the version 2. Right now they are in the process of changing over to a version 3, but that was not available during the time that we had submitted this petition. So they provided the additional information for us on that. They were also instructed -- or we were instructed by Illinois EPA to forward any of our technical questions for the DRAS to them. And in many instances they were also a party to that conversation.

Q Please proceed with your outline.

A Okay. The DRAS model provided some of the numbers, but where they -- where an LDR treatment standard was available and was more stringent, PDC decided to propose that as the delisting concentration.

Q If I could jump in for just a moment, what is LDR?

A LDR stands for land disposal restriction.

(R25/15-26/24).

Finally, Ms. Curtis rendered the following expert opinions:

Q [by Ms. Nair] Is it RMT's conclusion that PDC's treatment of the electric arc furnace dust, the KO61 waste, renders the waste nonhazardous and subject to delisting?

A Yes, it is.

Q And is it RMT's position that the proposed delisting is entirely protective of the environment and public health and safety?

A Yes. This is our belief.

(R28/1-9).

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In addition, Ms. Curtis testified as follows regarding other delisting petitions she reviewed in formulating the Technical Support Document:

> Q [by Ms. Nair] Of the ten K061 delistings that you have familiarized yourself with for this project, how many of those were in Illinois?
>
> A There are three that were in Illinois.
>
> Q And how many of those ten delistings you familiarized yourself with were K061 waste for commercial waste treatment facilities rather than steel mills?
>
> A Seven of those.
>
> Q Seven of the ten?
>
> A Yes.
>
> * * *
>
> Q * * *. Of the ten K061 delistings you reviewed in anticipation of this delisting project, how many of them contemplated disposal of the delisted waste in a municipal solid waste landfill rather than on-site?
>
> A That was seven of them. That was the seven.

(R16/5-15, 16/24-17/4).

Dr. Chowdhury has been a chemical engineer for 34 years and has worked stabilizing solid hazardous waste for the past 20 years. (R30/16-17, 32/2-5). He is an author or co-author of fourteen U.S. patents and one Canadian patent. (R31/14-19). Approximately half of Dr. Chowdhury's patents relate to solid waste stabilization. (R31/20-32/1). Dr. Chowdhury has retained ownership of the process he designed for this delisting, and will license the process to PDC if the delisting is approved. (R32/17-24). While Dr. Chowdhury has not yet patented any of the elements of the process, he is considering applying for patent protections for same. (R33/1-

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3). Dr. Chowdhury described the stabilization process proposed to be used by PDC after delisting generally as follows (without identifying specific proprietary formulations):

> * * *. The new chemical treatment regimen PDC utilized for the trials incorporated addition of reagents involving sulfur oxy-anion compounds of alkaline-earth metals along with agents for pH control which included calcined and uncalcined lime. As necessary, the pH control agents which may be used include various phosphate and iron compounds. The additive mix ratio and dosage were controlled to provide a robust chemistry such that the potential for leaching of heavy metals of concern are minimized under various natural and induced leaching scenarios. During this treatment, the heavy metals are stabilized through a series of complex precipitation and adsorption-coprecipitation reactions in a pH regime of very low solubility of the metals. The material after stabilization is characterized by low potential for leaching of heavy metals as indicated by the TCLP (U.S. EPA Toxicity Characteristic Leaching Procedure) which is TCLP, analysis with using different extraction fluids like acidic, neutral and a pH 11.0 solution and also the corresponding MEP tests which is a multiple extraction procedure of U.S. EPA.

(R33/14-34/10). Dr. Chowdhury specifically stated that the process described above is not mere dilution of the EAF dust. (R34/11-13). He further testified that there would be no changes to the stabilized residue over time, and there are no plausible pH or temperature conditions in a landfill that would cause the “destabilization” of the stabilized residue. (R34/14-35/6).

Based on the Petition, the TSD and the evidence submitted by PDC at the hearing, it is clear that PDC has met the required level of justification for this delisting. Moreover, the TSD fully and comprehensively addresses all items identified as necessary to granting a delisting pursuant to relevant Board rules and corresponding federal rules and guidance.

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PUBLIC COMMENTS AND RESPONSES

Public comment is generally permitted in delisting cases. However, public comments, including both those made orally at hearing and those filed in writing, do not constitute evidence in this proceeding. Persons who offered public comments at hearing were not sworn, and were not subject to cross examination.

As above, only two persons testified in this case: Ms. Curtis and Dr. Chowdhury. Their testimony is entitled to greater weight than the public comment. Nevertheless, PDC addresses each and every timely-filed public comment below. (The Board set a written public comment deadline of September 25, 2008. Any written public comments received by the Board, and postmarked, after September 25, 2008, are not addressed herein.)

1. Public Comments in Favor of the Petition.

A. Governmental Support

In addition to being supported by the IEPA which, as explained above, is designated to implement the federal RCRA program in Illinois, other significant government officials and entities have filed public comments advancing the reasonableness of the Petition.

In PC #24, State Senator Bill Brady takes a stand in support of the Petition. Senator Brady's district includes Indian Creek Landfill #2 and the Clinton Landfill. Senator Brady focuses on the economic impacts of the delisting sought by PDC:

> PDC is an 80 year old Central Illinois company with an excellent and long history of compliance with environmental law and regulations. It has asked the Board for an expedited decision so that it can continue to serve the needs of its steel mill customers, a majority of which are based in Illinois and also provided public comment at the Board's public hearing on August 18 in Peoria supporting the issuance of this K061 delisting petition. It is my understanding that if PDC does not receive this K061 delisting authorization, it may be forced to lay off most of its 70 union employee workforce in Peoria, which accounts for an approximate

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> $3,400,000 payroll, as this is the largest waste stream that PDC currently processes at its facility in Peoria County. In addition, PDC's steel mill customers would have a multi-million dollar cost impact on their facilities. Finally, Tazewell County and Hopedale Township could stand to collectively lose hundred of thousands of dollars in new host fees for beneficial programs like municipal recycling grants, environmental enforcement activities and road improvement programs..

Senator Brady further requests that the Board reach an expedited decision in favor of PDC.

PC #9 is a copy of a Hopedale Township Resolution dated August 12, 2008, in support of the Petition. Hopedale Township encompasses Indian Creek Landfill #2, the likely destination of the EAFDSR after delisting. The Resolution states, in pertinent part, as follows: "...Hopedale Township supports the RCRA Delisting Adjusted Standard Petition filed by PDC with the Board petitioning for an upfront and conditional delisting for the Treated K061 Residues * * * [and] that Hopedale Township supports the disposal of the Treated K061 Residues by TCL [the operator of Indian Creek Landfill #2] at Indian Creek Landfill." Jess Slager, the Hopedale Township Supervisor, appeared at the public hearing on August 18, 2008, and spoke in support of the Petition as set forth in the Resolution. (R38/11-41/12).

For further discussion of local government input on the Petition, see the discussion found at pages 3 through 6 of this Brief, above.

B. Industry Support

Additionally, representatives of several steel companies that are customers of PDC provided comments concerning the appropriateness of and justification for the Petition.

Keystone Steel & Wire. PC #11 is a letter from Keystone Steel & Wire ("Keystone") in Peoria, Illinois, a steel mill customer of PDC's, in support of the Petition. Therein, Keystone makes clear that the continued stabilization of K061 wastes by PDC is an important part of Keystone's plan for future operations. Chad Erdmann, Keystone's environmental manager,

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appeared at the public hearing on August 18, 2008, and spoke in support of the Petition as set forth in Keystone's letter. (R86/8-87/17).

Gerdau Ameristeel. PC #12 is a letter from Gerdau Ameristeel ("Gerdau"), a steel mill customer of PDC's, in support of the Petition. Gerdau states that the continued stabilization of K061 wastes by PDC is required pending expansion of recycling operations nationwide, and that it supports the IEPA's conclusions regarding the Petition. Gerdau further notes that "PDC's environmental performance record is unmatched in the landfill industry, which is well known and highly respected in the steel industry." Jack Skelley, Gerdau's corporate environmental affairs manager for Gerdau's steel mill in Wilton, Iowa appeared at the public hearing on August 18, 2008, and spoke in support of the Petition as set forth in Gerdau's letter. (R83/4-84/22). Regarding recycling, Mr. Skelley noted as follows:

> Gerdau Ameristeel is first and foremost a recycling company. Our preference is to recycle. But in the case of EAF dust, there is not enough capacity to recycle the entire North American production of 800 to 1.1 million tons. Secure and well-run treatment and landfill operations like Peoria Disposal Company are critical to the steel industry until such time as sufficient capacity to recycle all EAF produced. There are a number of recycling projects being conducted worldwide to solve the EAF dust challenge. However, it will be a number of years before these are commercially available with recycling capacity limit.

(R83/11-22).

Alton Steel. Jeannine Kelly, the director of regulatory compliance for Alton Steel in Alton, Illinois, spoke in support of the Petition at the August 18, 2008 public hearing. (R87/21-90/4). Ms. Kelly noted in particular as follows:

> As an environmentally responsible company, it is of utmost importance to Alton Steel to ensure that its waste is handled in an environmentally responsible manner from the time it is generated until its final disposition. It is also crucial for ASI to ensure that it is receiving cost effective services, that it minimizes its

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> environmental liability, and that it minimizes its carbon footprint. That is something new that people are talking about now. We all need to look at our carbon footprint.
>
> Peoria Disposal Company's delisting is crucial for Alton Steel to ensure that it achieves all of these results. By PDC's strict adherence to environmental laws and its close proximity to ASI, ASI can rest assured that it is utilizing the services of a company with an exceptional track record for environmental stewardship, and at the same time we can ensure that we are minimizing our potential liability by traveling a shorter distance. We have reduced the chance for environmental releases by traveling a shorter distance. And we minimize our carbon footprint by using less energy traveling to the site and in the process itself. A lot of recycling activities generate a lot -- or utilize a lot of energy in recycling.

(R88/24-89/23).

Arcelor Mittal. Tom Barnett, the Indiana solid and hazardous waste manager for Arcelor Mittal, also spoke in support of the Petition at the August 18, 2008 public hearing. (R90/8-91/13). Arcelor Mittal has strong ties to Illinois: "That [Indiana] facility supplies substraight to feed our plants in Riverdale, Illinois, Hennepin, Illinois. And between those two plants and our large sales force downtown, we employ about 1,000 people in the state of Illinois." (R90/16-20). Mr. Barnett explained that Arcelor Mittal formerly recycled its EAF dust, but was cut off by its recycler, forcing Arcelor Mittal to pursue other options:

> I think what is important is that we once did recycle EAF dust. And we divorced that industry. So we essentially got cut off because of a couple of things. One, there is not enough capacity. Our particular material was very low in zinc. So they just one day said, "That's it."
>
> We have to have safe, well run landfills in order to operate. That's just a fact of life. Since that time at our Columbus Avenue research facility, we have been working ever since trying to figure out how to recycle this material, and we think we will get there. But worldwide -- and our store is worldwide. We have the same problem and the same issue. We have not been able to figure out a way to effectively recycle this material.

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> So, obviously, our sole purpose here is to support this delisting petition.

(R90/21-91/13).

Sterling Steel Company. Finally, David Long, environmental manager at Sterling Steel Company in Sterling, Illinois, spoke in favor of the Petition at the public hearing on August 18, 2008. (R131/8-138/6). Mr. Long explained that steel manufacture using an electric arc furnace is itself a recycling process, and that if scrap metal is not recycled using this process, the metals in the EAF dust will simply stay in the scrap metal and be disposed of in a landfill in any case:

> Before we make that steel, it comes to us like this [holding up a piece of scrap metal]. This is a sample of scrap. Scrap steel is dirty. It's rusty. There have been comments that people make about, "We've got to keep this K061 stuff out of the landfill." People, it's going in the landfill. For sure it's going in. If it doesn't go in as a dust that we produced, it goes in as a steel from wrecked cars. At one time this was part of an automobile. It was shredded; now it goes to the steel plant. When you take steel like this, 200 tons at a time at our plant and put it into a furnace, putting 70-degree steel like this into 3,000 degree liquid steel immediately vaporizes all the contaminants and junk that's on there. If this was a galvanized piece of steel, it certainly could be, that zinc that's on the galvanized piece goes right into the air. When that happens we collect it on fabric filter as dust. And that dust is collected and sent to PDC.
>
> The material is going into the landfill one way or the other. Either as 100 million tons of scrap steel or as a much, much, much smaller percentage of K061 dust.

(R133/5-134/2; emphasis added). Regarding recycling of EAF dust as an option for Sterling Steel, Mr. Long stated as follows:

> * * *. We have recycled our material also. But, again, the amount of recycling capability has some restriction. One is the amount of zinc. Recyclers that recycle K061 don't want to recycle and get iron. They want a more valuable material. Lead and zinc are things that they can make money from. If the K061 material does not

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> have enough zinc in particular, they don't want it. They can't make any money out of recycling low zinc material.
>
> * * *
>
> Steel companies have a need for different options. There are companies that recycle material. We want to recycle. It's probably the best option. We do recycle some, but we can't recycle all of it. The capability and capacity in the United States is not there. 100 million tons of steel are made. Some small percentage of that is K061 tons. That capability is not there for the entire country. In the meantime, until it is or until other processes are designed, landfilling is a very viable option and one that we want to take care of.

(R136/15-23, 137/15-138/1).

Mr. Long stated as follows in regard to PDC's stabilization process:

> We think that PDC is an exceptional company. Like I said, for 15 more years I have been sending material there. I come down from time to time to audit their operations. I have seen their test results on my material. I think their results are as comparable to super detox method that I used personally for about 12 years. The test results shows that the material is stabilized. You cannot remove zinc and lead by landfilling. Metals are not something that are going to evaporate. They are there. When you make a cake, you mix a lot of ingredients. You bake it. When you are done, where is the egg and flour and everything else? It's still there, but you don't see it. It's tied up. That's the same way as with the metals and the stabilized K061.

(R136/24-137/14).

C. Miscellaneous Support

At the public hearing, Bill Spencer stated general concerns about the existence of dioxins, though not relative to the stabilization process. (R98/17-99/6). However, in his later written comment, PC #298, Mr. Spencer withdrew this concern, stating as follows: "Presence of dioxins is considered unlikely based on an understanding of the process, the agency believes that this constituent is not likely to be present in the waste. Generator knowledge also supports

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the absence of this constituent in the waste. In this case as in others a single sample is considered sufficient to verify the absence of this compound."

In his written public comment, PC #298, Mr. Spencer notes that the "DRAS model calculates risk assuming worst case scenario of no liner at all" and that the "DRAS software [was] the appropriate model for evaluation, migration and exposure...." He further notes that a "[c]onsiderable amount of time and effort went into the development of the TCLP and the Agency believes that it is a reasonable laboratory test and that the TCLP results generally correlate well with environmental measurements."[3]

2. Public Comments Primarily Regarding Issues Resolved by the Board.

At the public hearing on August 18, 2008, Matt Varble requested an additional public hearing in DeWitt County, Illinois. Mr. Varble's request was repeated in written public comments he filed before and after the hearing (namely, PC # 6, 7, 19 and 25). David Taylor (R85/22-86/5) and Rick Fox (R138/14-21) also requested another public hearing at the public hearing on August 18, 2008. These comments were dealt with by the Board in its Order entered on September 4, 2008.

In PC #1, the commenter requests that the public hearing be in the evening. This request was accommodated by the Board.

In PC #4, the commenter makes another request that the public hearing be in the evening. This request was accommodated by the Board.

[3] Mr. Spencer was mistaken, however, in his assertion that "[i]f this delisting is granted I see no reason that K061 treated waste can not be used as usable, marketable products (such as road base or construction fill) and no longer stored in subtitle C or D landfills." In fact, PDC's Petition does provide for disposal of all delisted EAFDSR only in a landfill in Illinois permitted and regulated pursuant to RCRA Subtitle D.

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In the next public comment, which was docketed as a "motion," the commenter requests disclosure of certain documents filed as Non-Disclosable Information. This comment was dealt with by the Board in its Order entered on August 21, 2008.

In PC #5, the commenter requests an additional public hearing in DeWitt County, Illinois. This comment was dealt with by the Board in its Order entered on September 4, 2008.

In PC #6, the commenter objects to the conduct of the public hearing on August 18, 2008. The commenter objected to limitation of his speaking time at the hearing, the hearing officer's allowing of counsel to make objections during his comment at the hearing, and actions by the IEPA personnel at the hearing. PC #7 is a follow-up to PC #6, adding a note that the commenter contacted his state representative about his concerns and attaching a photograph of the IEPA personnel at the hearing. These comments were dealt with by the Board in its Order entered on September 4, 2008.

PC #8, 17, 18, 21, 22, and 25 are all from the commenter who filed PC #6, 7, 19 and 26. Each of these is an email with a link or attachment to a media story concerning public hearings regarding this matter. These comments do not concern the Petition.

PC #19 and 26 were filed by the same commenter who filed PC #6, 7, 8, 17, 18, 21, 22 and 25. The entirety of the comments are devoted to the commenter's request for an additional public hearing in DeWitt County, and do not relate to the Petition. This request was dealt with by the Board in its Order entered on September 4, 2008.

3. Public Comments Primarily Regarding Recycling of EAF Dust and Indian Creek Landfill #2.

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Comments

Bill Spencer advocated recycling the EAF dust instead of stabilizing and landfilling it. (R96/24-98/16). His subsequently filed written comment, PC #298 (discussed above), also emphasizes the benefits of recycling EAF dust.

In PC #3, the commenter (Joyce Blumenshine) states concerns about the location of Indian Creek Landfill #2 (the likely destination of the EAFDSR after delisting) over the Mahomet Aquifer. She further states concerns that the stabilization process increases the volume of the EAF dust without reducing the total amount of hazardous substances, and that delisting (as opposed to recycling) results in more landfilling.

Joyce Blumenshine's comments at the public hearing, generally incorporated into her written public comment submission, PC #15, concerned the wetlands at Indian Creek Landfill #2. PC #15 is a set of "exhibits" referenced by Ms. Blumenshine at the public hearing.

In Joyce Blumenshine's final public comment, PC #308, she again focuses on the suitability of Indian Creek Landfill #2, and to a lesser extent the Clinton Landfill in DeWitt County, for EAFDSR disposal. (The comment does not reference the fact that the Petition justifies approval to dispose of EAFDSR in any Subtitle D landfill in Illinois). The comment additionally questions the testing performed by RMT, which issue is discussed at pages 32 through 40 of this Brief, below.

Response

With regards to high temperature metal recovery technologies, it is perhaps unfortunate that not all K061 wastes are viable recycling candidates in all market conditions. A waste's desirability to a recycler is often determined by market variables, such as available recycling capacity, cost to acquire feedstock, recycling operating costs (*e.g.*, energy to power kilns),

recoverable concentrations of target metals, and market commodity prices. It has been PDC's experience that, as a general rule, the waste market is efficient enough that K061 wastes with higher zinc concentrations are being recycled while PDC's K061 receipts are those with lower zinc concentrations. Perhaps the single greatest determinant of a K061 waste's recycling value is the market price for zinc, which can fluctuate dramatically. For example, the prevailing market price for zinc fell from a historical high of $2.08 per pound on December 5, 2006, to $0.82 per pound as of July 28, 2008.

Several representatives of PDC's steel mill customers commented at the public hearing in this case regarding the recycling of EAF dust.

Mr. Jack Skelley, representing Gerdau Ameristeel, stated as follows:

> Our preference is to recycle. But in the case of EAF dust, there is not enough capacity to recycle the entire North American production of 800 to 1.1 million tons. Secure and well-run treatment and landfill operations like Peoria Disposal Company are critical to the steel industry until such time as sufficient capacity to recycle all EAF produced. There are a number of EAF dust recycling projects being conducted worldwide to solve the EAF dust challenge. However, it will be a number of years before these are commercially available with recycling capacity limit.

(R83/11-22).

Mr. Tom Barnett, representing Arcelor Mittal Steel, spoke about the potential adverse impact of the recycling market's changing conditions. Specifically, he stated that although his company once recycled its EAF dust, it has since "divorced that industry" after being cut off by a recycler because there is not enough recycling capacity available, and because Arcelor Mittal's K061 is very low in zinc and therefore is not particularly desirable to recyclers. (R90).

Mr. Dave Long, representing Sterling Steel, stated as follows:

> We have recycled our material also. But, again, the amount of recycling capability has some restriction. One is the amount of

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> zinc. Recyclers that recycle K061 don't want to recycle and get iron. They want a more valuable material. Lead and Zinc are things that they can make money from. If the K061 material does not have enough zinc in particular, they don't want it. They can't make any money out of recycling low zinc material.

(R136/15-23).

PDC believes that the general market will continue to trend toward more recycling due largely to added efficiencies by recyclers, but until then the market is perhaps best summarized by Mr. Barnett, who stated that "[w]e have to have safe, well run landfills in order to operate. That's just a fact of life." (R91/3-4).

Also, to follow up on the concerns expressed in PC #3 regarding Indian Creek Landfill #2, neither Indian Creek Landfill #2, nor any other IEPA-permitted municipal solid waste landfill in Illinois could receive and maintain an IEPA permit if it were not fully protective of human health and the environment, including any underlying aquifer. As each Subtitle D landfill is required to demonstrate, Indian Creek Landfill #2 has demonstrated through groundwater impact assessment modeling and actual groundwater monitoring that it will not and has not impacted groundwater beneath the facility. Appendix E to the TSD provides additional hydrogeological and groundwater monitoring information for Indian Creek Landfill #2.

4. Public Comments Primarily Regarding the Testing of the EAFDSR and the Stability of the EAFDSR (Impact of Time, Volatility, Exposure to Heat and Cold, Exposure to Acids and Bases, etc.)

<u>Comments</u>

At the public hearing on August 18, 2008, Ila Minson stated her concern that "[c]hanging it [the EAF dust] -- changing the consistency does not change how toxic it is. It's still -- tomato, tomato (emphasizing pronunciation) it does not change it. Just because they are taking the protective coating off, it's still toxic. And it is just going to leach that much slower

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into our drinking water." (R43/7-12). She also took a position against the fees paid by PDC to Hopedale Township, stating, "I think that's called bribing a politician." (R44/24). Finally, she expressed a need for independent review of the Petition. (R44/15-19).

Dennis Ford expressed concerns about the testing of the waste stabilization process. (R56/10-17). He was also concerned about the environmental impacts of leaching of constituents of concern, if the stabilized waste became unstable. (R56/17-59/12). Finally, Mr. Ford discussed his feeling that waste should be disposed of through methods other than land disposal. (R60/3-9). (*See* PDC's response regarding recycling, above).

Tessie Bucklar expressed concerns that, first, the stabilization process does not alter the elemental nature of the constituents of concern. (R74/16-17 ("The lead is still lead, the chromium still chromium, the mercury still mercury...")). She was concerned that the proprietary treatment process is confidential. Second, Ms. Bucklar was concerned about disposal of the delisted waste in a municipal solid waste landfill without testing for on-site conditions. (R75/3-76/12). Third, Ms. Bucklar stated her feeling that the economic impact on PDC and its customers should be balanced against the potential economic impact of contamination of the aquifer on businesses that use water from the aquifer. (R76/13-77/7). Finally, she was concerned about the health impacts from potential contamination of the aquifer. (R77/10-16). Ms. Bucklar also requested another public hearing, which request was dealt with by the Board in its Order entered on September 4, 2008.

Diane Jorgenson stated, without support or analysis, that she "strongly oppose[d] the delisting of EAF dust because of concerns of long-term health and safety concerns." (R78/3-4). Ms. Jorgenson also requested another public hearing, which request was dealt with by the Board in its Order entered on September 4, 2008.

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Julie Luner stated that the technical conclusions of RMT should be verified by an independent party. (R78/12-22).

Dan Pioletti expressed his concern that the IEPA had not "demanded a totally independent study, not paid for by PDC, so there is no conflict of interest." (R85/4-19).

Bill Cook generally expressed concerns about the extent of testing of the stabilization process under extremes of heat, cold, and acid and base environments. He specifically called for a multi-year test of the stabilized residue. (R91/16-96/19).

Suzanne Gerard expressed her opinion that landfilling stabilized residue over any aquifer in Illinois should not be permitted. (R99/13-100/17).

Lisa Offutt's comments at the public hearing are incorporated into her written public comment submissions, PC #20 and 315. Rudy Habben's comments at the public hearing are mostly incorporated into his written public comment submission, PC #13. In addition, Mr. Habben expressed concern regarding the questions generated by the IEPA and PDC's responses thereto, discussed above. Tom Edwards's comments at the public hearing are incorporated into his written public comment submissions, PC #2, 14, 23 and 307. Cara Rosson's comments at the public hearing are incorporated into her written public comment submission, PC #16.

In PC #10, the commenter requests that there be further testing of the EAFDSR and that the EAFDSR not be placed in a landfill in Peoria County, Illinois.

In PC #23, the same commenter who filed PC #2 and #14 states that mills should be stabilizing EAF dust on site (though neither PDC nor the Board has the authority to require that steel mills perform on-site treatment), that the proprietary treatment process merely stabilizes the metals in the EAF dust rather than removing such metals, that the EAFDSR could volatilize during the curing period after treatment, that "the PDC camp will try getting EPA approval to

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achieve compliance by simply adding soil to 'dilute' the toxicity of the waste so it can be taken to regular landfills," and finally, that PDC's hazardous waste landfill should be relocated.

The vast majority of the written public comment received by the Board takes the form of pre-printed postcards, signed and addressed by different commenters. Approximately 90 of the written public comments are identical pre-printed postcards promulgated by the Heart of Illinois Group Sierra Club amongst its members, signed and addressed by different commenters.[4] The text of all these comments is the same. The comments express concerns about independent testing of the treatment process and the duration of same, and concerns about physical variations in the landfills in which the delisted treated residues could be disposed after the delisting.

Over 160 of the written public comments are on a second form of pre-printed postcard promulgated by Peoria Families Against Toxic Waste ("PFATW"), and are signed and addressed by different commenters.[5] Therein, the commenters express concerns that there was no study of the impact of the proposed delisting on PDC's hazardous waste landfill in Peoria County, Illinois (which is not a proposed disposal site for the delisted waste), that the proprietary stabilization process is not available for public review, that the testing was limited, that no independent labs verified the test results, and that no on-site testing at the proposed disposal sites was performed. It is informative to view the postcards in context with the mailing that accompanied the postcards. In that mailing, PFATW advises the recipients as follows:

[4] PC #27-32, 34, 40, 41, 48, 52, 58, 62, 64-67, 69-71, 76, 77, 79, 82, 99-112, 114, 127, 131, 132, 162-166, 168, 170, 177, 178, 180, 181, 184-197, 210, 211, 216, 226, 238, 244, 249, 251, 252, 260, 262, 264, 268, 272, 274, 275, 278, 280, 286, 292, 293, 295, 296, 299, 303, and 311.

[5] PC #35-39, 42-47, 49-51, 53-57, 59-61, 63, 68, 72-75, 78, 80, 81, 83, 84, 89-98, 101-110, 113, 115-126, 128, 129, 133-162, 167, 169, 171, 176, 179, 182, 183, 198-209, 212-215, 217-225, 227-231, 233-237, 239-243, 245-248, 250, 253-259, 261, 263, 265-267, 269-273, 276, 277, 279, 281-285, 287, 289-291, 294, 309, and 310. Also, PC #85 contains essentially the same content as these postcards. PC #256 includes a newspaper clipping regarding the water content in the human body and other facts about water.

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- "As you probably guessed, Peoria Disposal Company (PDC) is making another attempt at expansion."
- "PDC is now proposing that we just quit calling the waste 'hazardous' and let them dispose of it somewhere else!"
- "PDC is hoping to use its waste stabilization facility to treat this toxic-laden dust and then truck it to its municipal landfills in Tazewell, Dewitt, and Pike counties."
- "(T)he delisting effectively circumvents earlier rulings denying PDC's request to expand the landfill."
- "[A]ll the air pollution impacts of treating it will continue for another ten years."

Some of these statements are misleading, while others are downright false. The mailing is provided herewith as Exhibit F.

PC #86 expresses concerns regarding the fact that the studies of the stabilized waste were conducted by a company hired by PDC, and that "[o]nce it becomes possible to 'delist' hazardous waste, what would stop many other requests to de-list by other companies, it seems opening a Pandora's Box." (Of course, delisting of K061 wastes is permitted under applicable Illinois and Federal law, and has been sought by numerous companies other than PDC).

PC #222 expresses concerns about the Hopedale Township Resolution filed with the Board as PC #9. The comment also expresses concerns about the long-term stability of the stabilized residue, and alleges a need for long-term study by a firm that is not retained by PDC.

PC #288 relates historical health crises unrelated to EAF dust. The commenter also expresses concerns that an earthquake might cause failure of a liner in a landfill, and that "toxic" waste should be disposed of in other places away from water sources.

PC #297 expresses concerns as to what will happen to the EAFDSR under wet conditions, with temperature variations, and in contact with municipal wastes. In addition, the commenter expresses concerns about potential volatilization of the waste, and the fact that the testing was not "year-round" and "seasonal." Finally, the commenter generally expresses his

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concerns for the environment and for the Mahomet aquifer, which underlies Indian Creek Landfill #2.

The primary concern expressed in PC #300 is that PDC did not provide a detailed description of the manufacturing and treatment processes generating the EAFDSR and did not provide the public information concerning the proprietary treatment process (as the commenter was not privy to the Non-Disclosable Information filed by PDC and reviewed by the Board). Secondarily, the commenter questions whether PDC is the "generator" of the EAFDSR for delisting purposes. The second issue is addressed in response to PC #2, below. Finally, the commenter is disconcerted by the fact that not all the appendices to the TSD were posted on the Board's website. (In fact, with the exception of the limited Non-Disclosable Information, all of the materials filed by PDC were available for public inspection at the office of the Clerk of the Board. These materials fill several Banker's boxes.)

PC #302 expresses concerns about the designation of the treatment process details as proprietary and non-disclosable, and about the perceived lack of long-term testing. The commenter generally challenges the usefulness of the TCLP and MEP tests, incorrectly stating that the TCLP and MEP tests do not "provide any data about the long-term integrity of the treated waste." The commenter makes notes about other EAF dust stabilization regimens, though not the process for which delisting is sought here. The commenter also generally challenges the DRAS model. Finally, the commenter expresses concerns about volatilization.

PC #305 expresses concerns about the treatment process and, in particular, the perceived lack of independent, long-term testing "in actual municipal waste landfills where waste would be disposed of."

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PC #306 also expresses concerns about the treatment process and the perceived lack of independent, long-term testing. The commenter also expresses concerns about the proprietary nature of the treatment process. Finally, the commenter is very concerned about the fact that a portion of the EAF dust originates outside Central Illinois, opining that the economics favor denial of the Petition for public health reasons.

PC #307, filed by the same commenter who filed PC #2, 14, and 23, expresses concern regarding the non-disclosure of the proprietary treatment process. The commenter also identifies a concern with "[t]he idea of using the Peoria PDC landfill as a 'transfer station'...," which the Petition clearly does not contemplate. This issue is addressed in regard to PC #301, below. Also, the commenter mischaracterizes the treatment process as dilution of the EAF dust. He again suggests that the steel mills should perform treatment on-site (though, again, neither PDC nor the Board has the authority to require that steel mills perform on-site treatment). He again states concerns about volatilization, and about the fact that a portion of the EAF dust originates outside Illinois.

PC #312 first challenges the TCLP test in general. Second, the commenter expresses concerns about the use of "coal combustion waste" as a stabilizing material in the proprietary treatment process. Finally, the commenter expresses concerns that the TCLP test does not accurately predict the behavior of the EAFDSR in a Subtitle D landfill over time.

Response

Non-Disclosable, Proprietary Information

PDC requested that the Board designate certain portions of Appendix F to the Technical Support Document "Non-Disclosable Information" pursuant to 35 Ill. Adm. Code Part 130 and the Illinois Environmental Protection Act. The Board's regulations permit filing of certain

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information under the seal of "non-disclosability" pursuant to the procedures set forth in 35 Ill. Adm. Code §130.404. PDC has complied with those procedures.

Included in the Non-Disclosable Information are documents pertaining to the specific chemicals comprising the proprietary chemical treatment regimen utilized by PDC in conducting the full-scale, in-plant treatment trials. Also included as part of Appendix F is a general description of the reactions that occur in PDC's proprietary treatment process. The information in Appendix F is sufficient to determine that the treatment technology results in legitimate treatment. Because the chemical treatment technology was developed by and is owned by a consultant, Dr. Chowdhury, as is explained above, PDC is contractually prohibited from detailing the complete reaction mechanism.

Dr. Chowdhury developed a new chemical treatment technology tailored specifically for PDC's K061 delisting efforts. Dr. Chowdhury, the owner of the treatment technology, provided expert testimony at the public hearing in this case. Specifically, Dr. Chowdhury testified to the legitimacy of the treatment and the stability of the treated waste even when exposed to any reasonably conceivable landfill condition. Highlights of that testimony are summarized above. The IEPA and the Board or its staff could have directed any technical questions regarding the proprietary treatment process to Dr. Chowdhury at the hearing, if they had any such questions.

The Board *has* had the opportunity to review the Non-Disclosable Information submitted by PDC in this matter, along with the testimony of Dr. Chowdhury and, presumably, has thoroughly and independently analyzed same.

Finally, PDC is not aware of any adjusted standard, whether approved by the USEPA or the Board, which requires the disclosure of specific information regarding treatment chemistry. (*See* section regarding other delistings, below).

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Independence of RMT

PDC did not perform any of its own sampling and analysis. RMT, the company that performed all the sampling and analysis for the Petition, is an independent consulting company, with its own reputation and integrity to safeguard. The suggestion by some commenters that RMT would allow its methods and analysis to be compromised by PDC's influence is without any basis in the record. In any case, RMT's analysis has been and will continue to be thoroughly and independently reviewed by the IEPA and the Board. Notably, Patrick Engineering, the technical consultant hired by the Peoria County Board to review the Petition and the TSD, found no flaws in RMT's work on the Petition and the TSD.

RMT itself selected an outside testing laboratory to perform all of the testing that was required to develop the Petition and the TSD. The commenters present no rational argument to support concerns about the laboratory's independence. All laboratory raw data generated as part of the delisting trials are available for scrutiny by the public as well as by the IEPA and the Board. Nevertheless, no technical errors regarding the performance of the analytical methods, the precision and accuracy of the data results, or the integrity of the reported data have been pointed out by any commenter. Likewise, no such errors were discovered during reviews by the IEPA, the USEPA through the IEPA, the Board, or Patrick Engineering.

PDC believes that it achieved the greatest possible degree of independence in developing the Petition.

The Testing

PDC and its retained consultants performed laboratory testing for more than one and one-half years and generated thousands of laboratory data points before a chemical treatment regimen

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was developed and refined that was ready to take to full-scale in the form of the in-plant trials represented in the Petition and its TSD.

As part of the Petition development, PDC conducted more than double the number of trials required by the USEPA. The analytical testing methods and procedures performed on samples generated from those trials is specifically designed to be aggressive and severe on stabilized waste material like the EAFDSR, relative to expected conditions within a RCRA Subtitle D landfill. Specifically, the EAFDSR samples were subjected to both the Toxicity Characteristic Leaching Procedure ("TCLP") using multiple extraction fluids and the Multiple Extraction Procedure ("MEP") tests described by Ms. Curtis at the public hearing on August 18, 2008.

A number of commenters stated that the testing should have been performed only after disposal of the EAFDSR in an actual Subtitle D landfill. Clearly, until the delisting is approved, PDC cannot dispose of EAFDSR in a Subtitle D landfill. The purpose of the TCLP and MEP tests (and the DRAS model described below) is to simulate very long term exposure of the EAFDSR to the harshest possible Subtitle D landfill conditions, under the worst regulatory conditions reasonably conceivable.

The TCLP test is designed to simulate a co-disposal scenario in an improperly managed, unlined municipal solid waste landfill. The TCLP method involves adding a ground-up sample of the EAFDSR to an aggressive acetic acid solution (pH = 2.88) and tumbling the mixture for 18 $\pm$ 2 hours. The liquid is removed and an extraction from this solution is then analyzed for the target constituents. Not only was the standard TCLP performed, but two variations were also performed, one with a neutral pH extraction fluid (pH = 7.0) and another with an alkaline extraction fluid (pH = 11.0). Performing extractions with acidic, neutral, and alkaline extraction

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fluids and having final concentrations of target constituents below risk value levels demonstrates that the EAFDSR was stable in a controlled simulation and would likely remain stable in any potential landfill environment. Notwithstanding one commenter's quibbles with the TCLP test, it remains the USEPA-prescribed method for identifying hazardous wastes, demonstrating LDR compliance, and establishing adjusted standard delisting levels.

The USEPA designed the MEP test to simulate the leaching a waste would undergo from repeated precipitation of acid rain on an improperly designed municipal solid waste landfill, *i.e.*, uncovered waste directly exposed to acid rain. The test method involves an extraction procedure similar to the TCLP, but it is repeated at least nine more times and possibly continued with further repeated steps until the concentrations of any of the target constituents do not increase. In the context of a delisting effort, the MEP helps predict the long-term resistance of the waste sought to be delisted to leaching. The USEPA estimates that these synthetic acid rain extractions simulate approximately *1,000 years* of acid rainfall. (*See* 47 FR 52687, Nov. 22, 1982).

These USEPA test methods are the accepted and appropriate standard for delisting petitions, as they are designed to simulate improper, extremely aggressive, and long-term disposal scenarios, which are in stark contrast to the actual conditions within a RCRA Subtitle D landfill.

Results of the Testing

PDC demonstrated in its Petition that its chemical treatment technology dramatically reduces the leachable concentrations of COCs (constituents of concern) far beyond (orders of magnitude in some cases) what could be achieved by simple dilution. Dilution to achieve the LDR treatment standards as a substitute for treatment is specifically prohibited by IEPA regulations (35 Ill. Adm. Code §728.103). The treatment technology utilized by PDC is

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recognized as a Best Demonstrated Available Technology ("BDAT") by RCRA regulations and would not have been promulgated as a BDAT if the technology relied on dilution as a mechanism for achieving LDR standards.

The commenters express concerns about various waste constituents, though they present no bases for their concerns. The extensive, scientific evaluation of COCs is documented in the TSD and was further explored by both the IEPA and the Board in their questions and comments in this matter. Extensive testing on samples for dioxins and furans was conducted and all of this data show the results are comparable to background levels documented by the USEPA. Mercury and lead are COCs and the test results show that final concentrations for both constituents are below established risk levels and proposed delisting levels. Further, PDC believes that it has convincingly satisfied all criteria to be granted the proposed delisting, and has proposed a fail-safe procedure for demonstrating ongoing (daily) compliance.

The information provided in Appendix F of the TSD is sufficient for the Board to determine that the treatment technology results in legitimate treatment. Because the chemical treatment technology was developed by and is owned by a consultant, PDC is contractually prohibited from detailing the complete reaction mechanism. Dr. Ajit Chowdhury, the owner of the proprietary treatment technology, testified regarding the legitimacy of the treatment and the stability of the treated waste even when exposed to any reasonably conceivable landfill condition. Highlights of that testimony include the following:

- The fact that Dr. Chowdhury created and his company owns the proprietary chemistry;
- The fact that PDC licensed the technology from that company;
- A general description of the reactions that occur;
- The fact that the treatment that occurs is not dilution;

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- The fact that the treatment is permanent and does not change over time;
- The fact that the treatment would not destabilize in an extremely acidic environment;
- The fact that the treatment would not destabilize in an extremely alkaline environment;
- The fact that the treatment would not destabilize due to heat encountered in a landfill;
- The fact that the treatment would not destabilize due to cold encountered in a landfill; and
- The fact that temperature has no effect on the chemistry.

PC #312 discusses at great length perceived issues with the use of coal combustion waste as a treatment reagent. PDC is confused as to the pertinence of this comment because no inference can be made from the Petition or TSD that PDC's technology employs any such materials. PDC's Petition and TSD, its statements herein, and Dr. Chowdhury's testimony verify that none of the commenter's perceived shortcomings will be experienced with PDC's treatment technology.

Volatilization

The suggestion that heavy metals will volatilize is, at best, misleading. The potential to volatilize is a function of vapor pressure. While all liquids and solids have a vapor pressure, the relative difference in vapor pressure between common liquids such as water or gasoline and the solid metal constituents present in EAF dust is dramatic. Vapor pressure is commonly expressed in the unit of mm Hg at a specified temperature. Higher values indicate higher volatility while lower values indicate lower volatility. Vapor pressure is also very temperature dependent and increases as temperature increases. Water, the benchmark for measuring vapor pressure, exhibits a vapor pressure of 1.0 mm Hg at 68 degrees Fahrenheit (F). Evaporation of liquid water over a relatively short time at room temperature is a common phenomenon and the evaporation takes place much more quickly at 212 degrees F (boiling) due to the increase in vapor pressure at the

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higher temperature. Similarly, regular gasoline blends have vapor pressures in the range of 220 - 450 mm Hg at 68 degrees F and are much more volatile than water; hence the gasoline odor so familiar at gas station pumps.

Common metals such as iron, zinc, and lead by comparison have vapor pressures that are orders of magnitude less than products such as gasoline. These metals would require extremely high temperatures, such as those found in an electric arc furnace (which runs around 3,000 degrees F), to experience any appreciable loss of solid mass due to conversion to liquid or vapor phase. The corresponding vapor pressures at ambient temperatures and at temperatures within a landfill are much too low to experience any such meaningful (in terms of airborne concentrations) loss.

An example of the relatively low volatility of metals is the fact that steel structures, such as bridges and sign posts, do not collapse from "evaporation" and why we can find intact metallic coins and artifacts many thousands of years old.

Conclusion

PDC believes that it has convincingly met all regulatory criteria to be granted the proposed Adjusted Standard. The effect of that Adjusted Standard would be the classification of the EAFDSR as non-hazardous waste, which would be managed in accordance with all applicable Illinois regulations, including the requirement to dispose of the waste in an IEPA-permitted municipal solid waste landfill. The DRAS model is intentionally site-neutral and incorporates a number of default inputs that are recognized by the USEPA to conservatively model the risks from any RCRA Subtitle D landfill (*i.e.* municipal solid waste landfill) in the United States. (*See* section on other delistings, below). The only changes made by RMT to the default input values are applicable to all RCRA Subtitle D IEPA-permitted landfills in Illinois.

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Thus, PDC demonstrated in the Petition and the TSD that disposal of the EAFDSR in such landfills is fully protective of human health and the environment. That demonstration was further bolstered in PDC's response to the Board's questions.

Regarding the landfill to which the delisted waste will be shipped, PDC believes that it has convincingly demonstrated to the Board that it can be safely disposed at any IEPA-permitted municipal solid waste landfill in Illinois. The facility(ies) that PDC utilizes for disposal of the delisted waste will be restricted beyond the Board's approval to the extent that PDC will be required to obtain the approval of the landfill owner and/or operator.

During operations, PDC will utilize a testing laboratory with all required certifications to perform the verification testing. PDC does not own "its own testing laboratory," but does have an affiliate company that performs the required testing, namely, PDC Laboratories, Inc. PDC Laboratories, Inc. is a commercial environmental laboratory and provides analytical testing to more than 2,000 companies and governmental bodies, including the State of Illinois. PDC Laboratories, Inc. is NELAP-accredited and, as such, routinely undergoes extensive independent audits to ensure data integrity. PDC prefers to use the affiliate laboratory not because of the affiliate relationship, but rather because it is familiar with the laboratory's certifications, procedures, and controls, and has a higher confidence level than it would with an "outside" laboratory that the integrity of its data product is fully defensible and beyond reproach. Currently, PDC uses the affiliated laboratory to perform verification testing on the delisted F006 treated residues that are being shipped to Indian Creek Landfill #2 for disposal.

5. Public Comments Primarily Concerning Stabilization of EAF Dust from Multiple Waste Streams.

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Comment

At the public hearing on August 18, 2008, David Wentworth commented that the delisting proposed by PDC was overly broad, in that PDC could accept new waste streams. He further stated that to his knowledge, delistings were generally site-specific (by which he seemed to mean that the disposal sites were specific). (R126/16-131/4).

PC #16 consists of two documents. In the first document, the commenter states a concern that PDC will be accepting EAF dust for treatment from multiple sites. The commenter is further concerned that the testing of the stabilization process was not conducted during commercial activity. The commenter takes issue with the process for inclusion of additional K061 waste streams after delisting. The commenter expresses general concerns about the interaction of the EAFDSR with chemicals under extreme heat, and about the efficacy of the acidic-solution TCLP test. Finally, in the first document, the commenter states that nationwide, K061 delistings have only permitted on-site disposal. The additional concerns raised in the second document are the possibility of recycling K061 waste instead of stabilizing and landfilling it, the need for additional air pollution controls due to volatilization, and a demand that PDC not be permitted to perform its own testing.

Response

Multiple waste stream delistings by commercial treaters are specifically contemplated and permitted in the USEPA delisting guidance materials. Specifically, numerous cites from the USEPA document entitled EPA RCRA Delisting Program, Guidance Manual for the Petitioner (the "EPA Guidance Manual"), incorporated into Illinois law in 35 Ill. Adm. Code §720.111(a), validate the eligibility and appropriateness of the requested Adjusted Standard for EAFDSR. The EPA Guidance Manual describes derived-from wastes as "eligible for exclusion." It further

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explains that "[o]riginally, the overall intent of the delisting process was to ease the regulatory burden on handlers of listed waste improperly captured by the broad listing definitions. Delisting has since evolved to also include listed wastes that are sufficiently treated such that they no longer pose a health threat." Regarding upfront exclusions, such as that proposed by PDC, the USEPA explains: "We grant upfront exclusions for wastes and/or residues that have not yet been generated, but will be generated in the future, based on available information (*e.g.*, pilot-scale system data) that demonstrates that the petitioned waste will most likely meet the delisting criteria." That is, according to the EPA Guidance Manual, by its approval the Board will grant PDC "...an upfront delisting with verification testing requirements, which must be met when the full-scale system becomes operational. The full-scale verification testing requirements may involve more than one round of waste characterization (*e.g.*, testing every batch before disposal) to address any concerns regarding waste variability." PDC has proposed just such a testing requirement. Regarding the appropriateness of an approval for multiple waste streams, a section of the EPA Guidance Manual is dedicated to information required "for petitioners requesting an upfront exclusion for waste that is not currently generated, yet will be in the future, or for the <u>exclusion of a waste that is generated by a multiple waste treatment facility (MWTF)</u>." (Emphasis added). Regarding the variability of multiple waste streams, the EPA Guidance Manual specifically considered that "[m]ultiple waste treatment facilities (MWTFs) typically receive large numbers of individual waste shipments having a wide variety of compositions." Regarding the appropriateness of adding additional waste streams that are not specifically represented in the in-plant trials, the EPA Guidance Manual requires "(a) procedure for prescreening clients and wastes...." The Petition includes a procedure for qualifying any additional waste streams. Clearly, when comparing the EPA Guidance Manual to what PDC has

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proposed in its Petition and as further detailed below, PDC meets and exceeds all applicable requirements and the EAFDSR is a prime candidate for delisting. (*See* section regarding other delistings, below).

The TSD convincingly supports PDC's proposal to treat EAF from multiple mills through the pre-acceptance and post-treatment testing requirements that PDC has proposed. Waste variability and its control by PDC are thoroughly discussed in the TSD. PDC's proprietary and robust treatment technology, as well as its proposal to sample and analyze <u>every</u> daily batch, fully allay this concern. Finally, it is a requirement under the Illinois waste delisting rules in 35 Ill. Adm. Code §720.122(b) that a petitioner must make a waste delisting demonstration with respect to the waste mixture as a whole and does not allow for individual demonstrations, unless managed as such. PDC has fulfilled this obligation.

As detailed in the TSD, PDC conducted the required delisting trials on a full-scale, in-plant basis, treating bulk waste shipments from ten different steel mills. No regulatory requirement or definition for "commercial activity" exists, but certainly the waste shipment, receipt, and treatment performed by PDC during the full-scale trials was commercial activity.

The authority proposed by PDC allowing delisting of EAFDSR not already included in the full-scale trials is specifically conditioned. PDC can only accept a new EAF dust for treatment and disposal under the Adjusted Standard after conducting a separate study and analysis demonstrating that the EAFDSR generated from treatment of the new EAF dust meets the same delisting levels as the EAFDSR in the trials described in the Petition and TSD. PDC proposed this procedure to ensure that any new EAF dust treated at the WSF would be amenable to the PDC treatment technology. To do otherwise would be to jeopardize the success of an entire day's batch of EAFDSR because of one contributing mill. The commenter should be

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assured that no party has a greater interest than PDC in achieving successful treatment through component knowledge and process controls.

The commenter's statement that nationwide K061 delistings have only permitted on-site disposal is false. At the public hearing in this case, Ms. Curtis of RMT, the consultant that prepared the TSD, testified that she was familiar with ten K061 delistings, seven of which contemplated disposal in a municipal waste landfill. In fact, the Heritage Environmental Services, LLC delisting at the Nucor Steel facility in Crawfordsville, Indiana that was discussed in the TSD, is an example of a delisted K061 disposed of in a Subtitle D municipal waste landfill. A review of 40 C.F.R., Appendix IX to Part 261 (Wastes Excluded Under §§260.20 and 260.22) demonstrates that none of the K061 delistings approved by the USEPA have mandated on-site disposal. Rather, once a K061 treatment residue is delisted, it can be disposed of like any other non-hazardous waste – in a properly constructed and operated Subtitle D landfill. As the Board itself noted in the case of In the Matter of Petition of Keystone Steel & Wire Co. for Hazardous Waste Delisting, AS 91-1, where the Board approved a K061 delisting for Keystone in Peoria, Illinois, "once a waste is delisted, the ability to predict and control the disposal of the waste is terminated." In the Matter of Petition of Keystone Steel & Wire Co. for Hazardous Waste Delisting, AS 91-1, February 6, 1992, pg. 130-123, n. 3. *See also*, *e.g.*, 40 C.F.R., Appendix IX to Part 261, exclusions for K061 treatment residues generated by CF&I Steel Corporation, Roanoke Electric Steel Corp., Bethlehem Steel Corp., USX Steel Corporation (USS Division, Southworks Plant, Gary Works).

The remaining concerns expressed in these comments are addressed above.

6. Other Public Comments

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Comment

At the public hearing on August 18, 2008, Tracy Fox commented extensively about her concerns over the initial failure results as to certain COCs tested by RMT. She also echoed the concerns outlined above, stating that the stabilization process should be tested for a year while located in a municipal solid waste landfill. Third, Ms. Fox criticized RMT for conferring with the USEPA to employ the most current DRAS model, opining that until DRAS version 3 is released, all delistings should be put on hold. Finally, Ms. Fox stated that without 100% certainty that there will never, ever be a problem with the EAFDSR, the Board should deny the Petition. (R105/11-110/16).

These comments and others are recited in Ms. Fox's written public comment, PC #313 (postmarked September 25, 2008). Ms. Fox's comments are addressed individually below in the order in which they are raised in her written comment.

Response

The commenter first contends that PDC never developed an unbiased representative sample of the incoming waste stream, specifically mentioning waste variability, and that there are issues with volatilization, the short time frame of the testing, and alleged sampling bias. In response, PDC points to specific data contained in the TSD. First, Tables 1a and 1b provide an in-depth summary of the variability, by final COC, in each mill's K061 waste stream for the years 2001 through 2007. This data was used, along with each mill's 2001 through 2007 generation rates, to develop a very specific and comprehensive sampling process that ensured that EAF dust from each mill was representatively sampled in quantities proportional to the total volume of EAF dust processed at the WSF. In its Sampling and Analysis Plan and Quality Assurance Project Plan ("SAP/QAPP") provided as Appendix G to the TSD, PDC details in a

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79-page document the rationale and appropriateness of its sampling protocol. Specifically, Section 3.3 of the SAP/QAPP addresses data collection design, with subsection 3.3.1 addressing the potential spatial and temporal variability in the waste. The SAP/QAPP was reviewed by and discussed with both the USEPA and the IEPA prior to its implementation. As detailed above, PDC collected more than double the number of samples required by the EPA Guidance Manual. Through the selection of RMT as its consultant and RMT's selection of an independent laboratory to perform the analyses, PDC's Petition will satisfy any reasonable person in demonstrating an absence of bias. The commenter's concerns regarding volatilization and other testing issues are addressed above.

The commenter claims that PDC demonstrated no data demonstrating the safety of the reagents. Please see the above responses for discussions regarding the treatment technology.

The commenter expresses concern about storing EAFDSR in containers located on the PDC No. 1 Landfill. PDC's container storage is regulated by PDC's RCRA Part B Permit, issued by the IEPA on November 27, 2007, and reviewed and approved by the Board. The proposed delisting is not expected to increase the amount of storage or the normal operations of the WSF relating to storage in any significant way. The facility roads and landfill liner system were designed to withstand all loading from traffic and container storage. Documentation of these designs was submitted to the IEPA as part of PDC's RCRA Part B Permit application. In any case, this concern is clearly not a subject relevant to this delisting proceeding.

The commenter alleges that PDC selected COCs based on convenience, specifically discussing hexavalent chromium and dioxins/furans. The TSD and SAP/QAPP fully demonstrate that the COCs were not selected based on convenience. Hexavalent chromium can be present only as a fraction of total chromium. As such, in demonstrating that the proposed

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delisting levels for *total* chromium (including hexavalent chromium) are fully protective of human health and the environment, the lesser included hexavalent chromium presence is also fully protective, *i.e.*, if the hexavalent chromium concentration were not fully protective, it would be impossible to demonstrate the protectiveness of the total chromium concentration. PDC, in the TSD, in its response to IEPA comments, and in its response to the Board questions, has fully justified that dioxins/furans should not be considered to be final delisting COCs. PDC addressed in its answers to the Board's questions the commenter's concerns about the USEPA's position on the Petition. As the Board knows, in matters of state implementation of federal law such as RCRA, the USEPA voices any specific concerns to the IEPA. Given that the IEPA expressed no specific concerns regarding the Petition, the Board can reasonably presume the USEPA has no specific concerns requiring the Board's consideration.

The commenter claims that PDC "cherry pick[ed]" the bases for some COC determinations, specifically identifying some SVOCs, dioxin, and reactivity. PDC did not disregard the SVOCs or "cherry pick" a standard as the commenter contends. RMT used the Tiered Approach for Corrective Action (or "TACO") standards only as a frame of reference to further support its decision to eliminate the named SVOCs as final COCs. It is important to note that the further support was provided only because the method detection limits were above the exceedingly low screening levels. The constituents *were not detected* in the analyses. RMT did not dismiss the DRAS model or USEPA-provided spreadsheet as suggested by the commenter. To the contrary, as detailed in Section 4 of the TSD, it considered both in its hierarchy of decision-making regarding dioxin. RMT further explained its position regarding dioxin in its response to the Board questions.

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While the commenter may disagree with the basis for RMT's determination regarding sulfide, such determination was nonetheless complete and appropriate. Reactivity is not a determination of concentration, but a determination of whether or not a solid waste exhibits a reactive characteristic. When a waste containing sulfides in sufficient concentrations is exposed to pH conditions between 2 and 12.5, it can generate toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment. Knowledge of this waste stream's characteristics, coupled with the laboratory's observation that no such evolution of gas or vapor occurred during the analysis, provide an appropriate basis for RMT's determination the EAFDSR does not exhibit the characteristic of reactivity. Additionally, RMT explains that PDC is required to perform a pre-acceptance reactivity test on every shipment of EAF dust it receives, thus ensuring that no wastes exhibiting the characteristic of reactivity are accepted.

The commenter contends that DRAS is not an appropriate model in the presence of certain special wastes that may be present in the landfill. The DRAS model functions based on input concentrations, independent and irrespective of specific waste types that may be present in the landfill. Moreover, the DRAS model is the model approved and utilized by the USEPA in delistings. (*See* section regarding other delistings, below). The applicable Illinois regulations require a petitioner for an adjusted standard to follow the EPA Guidance Manual, which itself requires that petitioners use the DRAS model. *See* 35 Ill. Adm. Code §§720.111(a), 720.122(a)(2). Regardless, RCRA regulations, particularly those which prohibit wastes that exhibit the characteristics of ignitability, corrosivity and reactivity from being landfilled in municipal solid waste landfills, effectively prevent negative interactions between wastes, including the EAFDSR, that are disposed in landfills.

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The commenter expresses concern that the delisting levels proposed by PDC are less protective than other delistings. Delisting levels are typically set at waste- and situation-specific, risk-based concentrations, capped at the constituent-specific LDR standards. Therefore, each risk assessment is apt to yield different allowable concentrations. Even when set at the LDR standards, some variation exists simply because those standards have changed over time. Therefore, it is improper to conclude that a higher delisting level is less protective of human health and the environment. PDC, through waste-specific risk assessment, has convincingly demonstrated that its proposed delisting levels are fully protective of human health and the environment. As but one example that rebuts the notion that the delisting levels proposed by PDC are "significantly less protective than other delistings," please see the table provided in the below response to PC #33, which compares PDC's proposed levels to those granted Heritage Environmental Services LLC ("Heritage") in a similar K061 delisting. That table demonstrates that the majority (9 of 14) of the proposed PDC delisting levels are lower than those granted to Heritage, with the remaining 5 delisting levels equal to those granted to Heritage.

The commenter questions why a delisting level for total mercury is not proposed when the Heritage delisting contains one. As detailed in the PDC response to Board question 15(b), PDC proposed a TCLP mercury concentration that will verify greater protection than the total concentration suggested by the commenter. Also as explained in that response, the maximum observed total mercury concentration in the EAFDSR is over six times less than the maximum risk-based total concentration. Therefore, adding a delisting level for total mercury is neither necessary nor more protective than the proposed delisting levels.

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The commenter contends that PDC failed to demonstrate control over the treatment process because some analytical results exceeded the proposed delisting levels on the initial sample. RMT dedicates four pages of Section 3 of the TSD to explain in great detail why a periodic exceedance of a delisting level on initial sample round(s) is both reasonable and expected. What the commenter characterizes as an "out of control" process is in actuality what PDC has experienced and fully expects as the reaction of the treatment chemicals with the waste progresses. Exactly when the reaction progresses to a point at which the EAFDSR exhibits concentrations below the proposed delisting levels will vary to some extent depending on certain variables. When asked how much time would elapse before the chemical reaction at work in PDC's process was 100% complete, Dr. Chowdhury responded that it could only be expressed in "geological time." He further explained that it is not important for the reaction to be 100% complete, but rather just complete enough to achieve target concentration levels. The reaction does not reverse itself over time and, in fact, the leaching potential is further reduced with time. These facts are not unique to PDC's process and are perfectly acceptable and expected of any chemical stabilization process. The commenter further contends that PDC offered no proof other than experience and knowledge of the waste-chemical reactions. That contention is absolutely false. The TSD fully and analytically supports every aspect of PDC's Petition, including that portion dealing with progressive curing as a known form of additional treatment.

The commenter also stated that PDC's treatment had a 63.5% first pass failure rate during the demonstration. The commenter did not read or perhaps did not understand RMT's explanation that while the Petition demonstration sampling was being conducted, the original SAP/QAPP did not take into account the possible need to resample after the initial treatment, to

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verify that the reaction's completeness was adequate to meet target concentrations. Although PDC was able to resample each batch in accordance with the sampling protocol in its IEPA-issued operating Permit to demonstrate that target concentrations were achieved, the SAP/QAPP protocol inadvertently did not provide for resampling, and therefore the SAP/QAPP did not allow PDC to demonstrate the efficacy of the treatment technology as the chemical reaction progressed. For this reason, another round of sampling was conducted. That round of sampling fully demonstrates that the delisting levels are achieved as the treatment reactions are allowed to continue. Furthermore, the proposed Adjusted Standard virtually guarantees that sufficient reaction time will occur to ensure that the delisting levels are achieved on every daily batch prior to transporting the EAFDSR to a municipal solid waste landfill for disposal.

The commenter contends that the Petition should be denied because no testing was performed subsequent to disposal of the EAFDSR at Indian Creek Landfill #2 or any other municipal waste landfill. Obviously, no EAFDSR has been or may be disposed of at Indian Creek Landfill #2 prior to approval of the Adjusted Standard. It would be illegal for PDC or any other waste generator to manage listed hazardous waste at a municipal waste landfill. In any case, no such testing is required of a delisting petitioner.

The commenter complains that "PDC conducted no real-time testing whatsoever," and "that there appears to be only laboratory analysis to ensure that the waste meets the delisting limits." PDC conducted full-scale, in-plant trials that yielded more than double the number of samples required by the EPA Guidance Manual. PDC tested those samples using every method prescribed by the USEPA for delisting petitions. A public comment on this Petition is not the proper vehicle for effecting changes in the USEPA requirements for delisting petitions, which

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have been accepted by the State of Illinois in its adoption of a RCRA program that is "equivalent" to the federal program.

Comment

In PC #2, the commenter [Edwards] first requests that the public hearing be held "at a time and place convenient to the people of Peoria County and adjacent counties" and, second, asserts that the EAFDSR is generated by steel mills rather than by PDC.

Response

On the first point, the commenter's request was accommodated by the Board. On the second point, PDC's statement that the EAFDSR sought to be delisted in this matter is generated at the WSF is factually and legally accurate. The EAF dust is initially created by steel mills and when the EAF dust is treated at the WSF using PDC's treatment technology, PDC generates EAFDSR. Any legal question as to what party generates the waste has absolutely no bearing on the fact that PDC is the only appropriate petitioner for an adjusted standard for the EAFDSR under the EPA Guidance Manual and relevant Board rules.

Comments

In PC #13, the commenter states in general that the delisting should be denied, that PDC's hazardous waste landfill in Peoria, Illinois, should be closed next year, and that a second hearing should be held.

In PC #14, the same commenter who filed PC #2 first states that PDC's proprietary treatment process should be disclosed and that further testing should be conducted. The commenter asserts that the EAF dust is "mixed with soil or non-hardening cement to hold it stable, i.e., keep it from blowing away." The commenter states that contaminants in the EAF

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dust might volatilize. In a handwritten note, the commenter states that the EPA should help find a location for a new landfill and should close PDC's hazardous waste landfill in Peoria, Illinois.

Response

The commenters' concerns about testing and the stabilization process are addressed above. The commenters' requests for a second hearing was dealt with by the Board in its Order entered on September 4, 2008.

Regarding the commenters' assertion that PDC's hazardous waste landfill in Peoria, Illinois, should be closed or relocated (an assertion repeated in other public comments), the PDC No. 1 Landfill is not the subject of the Petition. Pursuant to PDC's renewed RCRA Part B Permit issued by the IEPA on November 27, 2007, which issuance was upheld by the Board, PDC has been permitted to operate the landfill until January 1, 2018. Further, the IEPA and the Board have no authority to force closure of any landfill without cause. The landfill has nothing whatsoever to do with the delisting requested in the Petition – it is clear from these commenters' insistence on linking the two issues that their opposition to the delisting is not based on the Petition, but rather is based on their opposition to the continued operation of the landfill and the WSF.

Comment

In PC #20, the commenter raises a number of concerns and requests. The relevant concerns are as follows: (1) increased truck traffic, (2) possible contamination of the aquifer purportedly underlying the waste stabilization facility, (3) disposal with liquids in municipal waste, and (4) inclusion of additional K061 waste streams after delisting. The commenter also states a concern that the delisting will result in PDC's hazardous waste landfill staying open past 2009. Finally, the commenter requests a second public hearing in Clinton, Illinois.

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Response

Truck traffic is irrelevant to the Board's review of the Petition. PDC will state, however, that at the present, there is *no maximum* amount of EAF dust that PDC can receive at the WSF for treatment. Under the proposed Adjusted Standard, PDC's EAF dust receipts will be capped at 95,000 cubic yards, clearly limiting the truck traffic to the WSF. Furthermore, PDC does not anticipate any significant increase in the number of shipments of EAF dust received at the WSF if the proposed Adjusted Standard is granted. In the event that there is an increase in shipments to the WSF, such increase will be nominal and unrelated to the delisting.

Although the PDC No. 1 Landfill is irrelevant to the review of PDC's Petition, the status of the PDC facility groundwater monitoring program is detailed in the TSD. In summary, PDC remains in a detection monitoring program due to the absence of statistically significant increases attributable to the facility operating units. The facility groundwater monitoring program monitors the WSF as well as the landfill units.

The commenter's remaining concerns are dealt with above.

Comment

PC #33 is a submission from the law firm of Baker & McKenzie, LLP, presumably on behalf of an undisclosed client. The commenter first suggests that the grant of the delisting be conditioned on the analysis of all metals constituents, even for re-treatment batches. The commenter next suggests that the grant of the delisting be conditioned on demonstrating a complete reaction mechanism prior to disposal. Finally, the comment asserts that, to be consistent with delistings granted by USEPA, reopener language similar to that found in a delisting granted Heritage (Heritage Environmental Services LLC) should be incorporated into the PDC delisting.

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Response

PDC has already agreed to the first condition suggested by the commenter in its response to the Board's questions. (*See* response to question 18, at pg. 14 of the Technical Responses to Attachment A to the Hearing Officer's Order Entered on July 15, 2008).

The second concern expressed in PC #33 is addressed through the daily batch testing requirements proposed in the Petition. Moreover, PDC has never, nor will it with the delisting treatment technology, dry mix waste with treatment chemicals, which could rely on the TCLP extraction fluid to initiate the chemical reaction. PDC clearly states multiple times in Section 3 of the TSD that the addition of water is a process component. The water component is identified in the TSD as an additive that facilitates mixing and prevents airborne emissions when the treated waste is deposited at the face of the landfill. PC #33 seemingly concludes that because the water added as part of the PDC process is not specifically identified as a reaction initiator, it may not act as one. In actuality, no part of the reaction mechanism is disclosed in the TSD. (*See* the discussion of the Non-Disclosable Information in this matter, above). No existing patent was utilized by PDC in developing the Petition.

The technology utilized by PDC in developing the Petition is legitimate treatment that occurs in the WSF, not in the laboratory. PDC's treatment complies with both the letter and the spirit of the regulations. Any implication to the contrary is baseless and inaccurate.

On the third and final point raised in PC #33, as set forth in detail below, the subject reopener language is without purpose for any waste delisted in Illinois and disposed in an IEPA-permitted RCRA Subtitle D landfill.

Leachate quality monitoring is already required for RCRA Subtitle D landfills located in Illinois. In accordance with 35 Ill. Adm. Code §813.304, every RCRA Subtitle D landfill located

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in Illinois must demonstrate as part of each five-year permit renewal that the facility's leachate quality does not pose a risk to groundwater. This is accomplished by comparing the actual, analyzed leachate quality with the quality that was used in the groundwater impact assessment modeling performed as part of the permit application. If the actual leachate quality equals or is better than the quality assumed, the permittee has effectively demonstrated that the landfill will not affect groundwater quality. If the permittee is unable to make that demonstration, an updated groundwater impact assessment must be performed.

Groundwater quality monitoring is already required for RCRA Subtitle D landfills located in Illinois. Appendix E to the TSD provides hydrogeological and groundwater monitoring information for Indian Creek Landfill #2. Highlights of that information include the following:

- Extensive computer modeling of the landfill's performance and groundwater quality was performed as part of the monitoring process;
- The modeling was approved by the IEPA as demonstrating that the facility will have no negative effect on groundwater quality;
- The operator performs routine monitoring and reporting;
- The landfill has 15 existing monitoring wells, increasing to 54 during the active life of the landfill; and
- All monitoring conducted to date demonstrates that the landfill has had no negative effect on groundwater quality.

The analyzed groundwater constituent concentrations that would require action at Indian Creek Landfill #2 under the current IEPA operating permit are much lower (*i.e.*, more conservative) than the action levels that would be imposed by the subject reopener language.

The above-described leachate and groundwater quality monitoring programs are designed to ensure that the overall waste disposal operations at the landfills remain protective of human health and the environment. Therefore, the impact on leachate and groundwater quality of the

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entire landfill facility, including *all* managed wastes and constituents is monitored, not merely a subset of each as would be required by the subject reopener language. Although information specific to Indian Creek Landfill #2 is provided herein, any RCRA-permitted Subtitle D landfill in Illinois is subject to the same leachate and groundwater modeling, monitoring and reporting requirements.

It is also important to consider that the delisting levels granted Heritage are quite relaxed relative to those proposed by PDC, as presented in this table:

Constituent	**Proposed PDC Level**	**Heritage Level**
Antimony	0.206	0.206
Arsenic	0.0936	0.0936
Barium*	21.0	55.7
Beryllium	0.416	0.416
Cadmium*	0.11	0.15
Chromium*	0.6	1.55
Lead*	0.75	5.0
Mercury*	0.025	0.149
Nickel*	11.0	28.3
Selenium	0.58	0.58
Silver*	0.14	3.84
Thallium	0.088	0.088
Vanadium*	3.02	21.1
Zinc*	4.3	280.0

(* indicates a constituent for which PDC's proposed delisting level is lower than Heritage's USEPA-approved delisting level)

With some of the Heritage levels set at or above the hazardous characteristic level and/or the relevant LDR, the USEPA may have deemed waste-specific vigilance necessary. In this case, nine (9) of the proposed delisting levels for PDC are more stringent than the Heritage delisting levels approved by the USEPA. Further, Heritage is not required to test every daily batch, as PDC has proposed in this Adjusted Standard.

Finally, with PDC's proposed delisting levels set well below the toxicity characteristic levels, a strong presumption exists that at any RCRA Subtitle D landfill, other non-hazardous

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wastes with much higher TCLP constituent concentrations than those in the EAFDSR could be co-disposed with the EAFDSR. As such, if leachate or groundwater constituent concentration increases were experienced, the delisted EAFDSR would have extensive supporting documentation in its validation testing of every daily batch to show it is unlikely to be a potential contributing waste source.

Irrespective of what the USEPA rationale may have been for the Heritage reopener requirements, PDC's proposed delisting levels and the existing Illinois landfill monitoring requirements preclude the need for such language in PDC's delisting.

Comment

PC #220 is a letter from a physician in Peoria, Illinois, expressing general concerns about the "importation" of "known carcinogenic chemicals" into Peoria County, because "Peoria County has an elevated cancer incidence, when compared to most other counties in Illinois.

Response

The commenter is careful not to claim that PDC is responsible for any "elevated cancer incidence" he identifies. PDC categorically denies that it is in any way responsible for any alleged "elevated cancer incidence" in Peoria County, and denies that the delisting will cause any increased risk of cancer in the Peoria community (or in any other community for that matter).

In fact, the commenter's data regarding the incidence of cancer is out of date and somewhat misleading. According to the Illinois Department of Public Health, Illinois State Cancer Registry (public data as of November 2005), and the Surveillance, Epidemiology and End Results (SEER) Program, SEER*Stat Database": Mortality—All COD Public-Use with

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State, Total U.S. (1969-2003), National Cancer Institute, DCCPS, Surveillance Research Program, Cancer Statistics Branch, released April 2006 (underlying mortality data provided by NCHS), while Peoria County's cancer incidence rate is slightly above the state average, its cancer mortality rate is lower than the state average. There are 56 counties in Illinois with cancer mortality rates higher than Peoria County. Charts summarizing these data printed from the American Cancer Society website (under the "Statistics" link) are attached herewith as Exhibit G for the Board's reference.

The commenter contends that it is not clear which heavy metals PDC will be stabilizing and that "[i]nquiring minds want to know!" Actually, the Petition and the TSD are replete with lists of the fourteen metals at issue. RMT discusses its selection of COCs at great length in the TSD, including the designation of the fourteen metals to be analyzed in each and every treated daily batch. Perhaps more prominently the fourteen metals are named in the Petition itself. Finally, the fourteen metals to be analytically monitored for every daily batch appear above in the response to PC #33, and in the proposed Adjusted Standard below.

The commenter expresses concern regarding "the unacceptable health risks posed to our population by importing these compounds into Peoria...." However, the transport of wastes to the WSF is not relevant to the review of this Petition. PDC is nonetheless troubled by such an unsubstantiated claim by a medical professional. PDC, through compliance with applicable Illinois law and its IEPA operating permits (air, land, and water) continuously demonstrates that its operations are fully protective of human health and the environment. PDC regrets that the commenter neglected to define any perceived risk and offered not a shred of support for his statements that could avail to PDC an opportunity to provide a more technical response. As it is, the comment must be left to stand as simply irresponsible and false.

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The commenter goes on to state that he seemingly supports PDC managing locally-produced hazardous waste, specifically and perhaps not coincidentally naming two of his employer's largest clients. If the commenter believes that PDC can manage K061 waste produced locally properly and safely, it necessarily follows that the commenter believes PDC can manage any steel mill's K061 waste properly and safely. The geographic location of an EAF dust customer does not influence the risk associated with delisting, and is therefore irrelevant to the review of a delisting petition.

Comment

PC #301 was filed on behalf of the PFATW and the Heart of Illinois Sierra Club, the same entities (by the same attorney) who appeared at the local siting hearing where Peoria County considered PDC's request to expand its hazardous waste facility, pursuant to Section 39.2 of the Act. 415 ILCS §5/39.2. Understandably, the groups' attempt to link this Petition to the local siting decision made by Peoria County, a decision which purportedly denied PDC's request to expand and which, upon review under a "manifest weight" standard by the Board, was upheld.

PC #301 first claims that PDC's Petition did not demonstrate compliance with Section 28.1(a) of the Act, insofar as Section 28.1(a) requires compliance with Section 27(a) of the Act. Second, the commenter states that any permits required upon issuance of the delisting should be circulated as part of the delisting process for the Board's consideration. Third, the commenter claims that siting is required for the delisting because the delisting would somehow make the waste stabilization facility a new pollution control facility under the Act.

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Response

First, the commenter claims that PDC's Petition did not demonstrate compliance with Section 28.1(a) of the Act, insofar as Section 28.1(a) requires compliance with Section 27(a) of the Act. Section 28.1(a) of the Act provides, in pertinent part, as follows: "After adopting a regulation of general applicability, the Board may grant, in a subsequent adjudicatory determination, an adjusted standard for persons who can justify such an adjustment consistent with subsection (a) of Section 27 of this Act." 415 ILCS §5/28.1(a). Section 27(a) of the Act provides, in pertinent part, as follows: "In promulgating regulations under this Act, the Board shall take into account the existing physical conditions, the character of the area involved, including the character of surrounding land uses, zoning classifications, the nature of the existing air quality, or receiving body of water, as the case may be, and the technical feasibility and economic reasonableness of measuring or reducing the particular type of pollution." 415 ILCS §5/27(a).

The commenter quotes only part of the Illinois Supreme Court's interpretation of the phrase "take into account" as used in Section 27(a) of the Act. In fact, the entirety of the Illinois Supreme Court's direction is as follows:

> Generally, the phrase " 'take into account' " means " 'allow for, make allowance for, weigh carefully, consider, take into consideration, bear in mind, remember, realize, appreciate, have in one's mind.' [Citation.]" (*Shell Oil Co.*, 37 Ill.App.3d at 272, 346 N.E.2d 212.) Contrary to petitioners' contentions, under the plain meaning of the statutory language, the Board is only required to "consider" or "weigh carefully" the technical feasibility and economic reasonableness of compliance with proposed regulations in the rulemaking process.

Granite City Div. of Nat. Steel Co. v. Illinois Pollution Control Bd., 155 Ill.2d 149, 181, 613 N.E.2d 719, 733-34, 184 Ill.Dec. 402, 416-17 (1993) (emphasis added). "In light of the above,

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we conclude that section 27(a) does not impose specific evidentiary requirements on the Board, thereby limiting its authority to promulgate only regulations that it has determined to be technically feasible and economically reasonable. Rather, section 27(a) requires only that the Board consider or take into account the factors set forth therein." Id. at 183, 734, 417 (emphasis added). *See also* Shell Oil Co. v. Illinois Pollution Control Bd., 37 Ill.App.3d 264, 274, 346 N.E.2d 212, 221 (5th Dist. 1976) ("The requirement of Section 27 is a flexible one and of necessity requires that a great deal of discretion be exercised by the Board"). Given that Section 27(a) "does not impose specific evidentiary requirements on the Board," such requirements certainly cannot be imposed as affirmative obligations on the petitioner in a delisting.

Pursuant to Section 28.1(b) of the Act, the Board created regulations specifying the level of justification required to comply with both Sections 28.1(a) and 27(a), namely, Section 720.122 of the Board's regulations. 35 Ill.Adm.Code §720.122. As the IEPA pointed out in its response to the Petition filed on June 12, 2008, the Section 27(a) general factors are assumed in the more specific RCRA factors established to properly implement the federal program – the analysis of the proposed Adjusted Standard under Section 104.106 of the Board's regulations (35 Ill. Adm. Code §104.106) also applies to Section 720.122. Moreover, the commenter's claim that the Board must analyze those factors consistent with Peoria County's siting determination is nonsensical and defies RCRA. Therefore, the demonstration throughout the Petition clearly shows compliance with Sections 28.1(a) and 27(a).

Furthermore, in Section D of the Petition PDC expressly discusses the location of the WSF and provides figures depicting same, and discusses existing air and water impacts, operations, and so on. (Interestingly, Figure 1 to the Petition illustrates that the WSF is near the

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center of PDC's facility, and over 2,000 feet from the nearest residence, rather than at the edge of the facility as implied by the public comment).

Finally, while the commenter references the third-party appeal to the Board of PDC's RCRA Part B Permit renewal on November 27, 2007 (Tom Edwards v. Peoria Disposal Company and Illinois Environmental Protection Agency, PCB 08-42), the commenter fails to note the Board's ruling in that case: "The Board affirms the November 27, 2007 RCRA Part B permit renewal issued by the Illinois Environmental Protection Agency to Peoria Disposal Company, finding that petitioner Edwards has failed to demonstrate that issuance of the permit will cause a violation of the Environmental Protection Act or the Board's regulations." (Opinion and Order, June 19, 2008, pg. 18). The Board also noted that "the Board finds that Edwards has failed to demonstrate that issuance of the permit would violate the Act or Board rules" and that "[o]n the other hand, the Agency and PDC have pointed to ample evidence in the record demonstrating that permit issuance is consistent with the Act and Board regulations." (Id. at pg. 16).

Thus, the Board has decided, as a matter of law, that continued operation of the PDC No. 1 Landfill facility does not violate the Act or Board regulations. Certainly, the Board is free to "take into account" its own finding in this regard pursuant to Section 27(a) of the Act. Importantly, PDC has operated the PDC No. 1 Landfill facility without a violation for numerous years. Based on the foregoing, PDC has clearly demonstrated compliance with Section 28.1(a) of the Act in its Petition.

The commenter's second claim is that any permits that PDC may require after issuance of the Adjusted Standard should be circulated as part of the delisting process for the Board's consideration. First, this is clearly not an accurate statement of the law. There is no

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requirement in the regulation or in the law that a permit modification relating to such delisting be proposed alongside a delisting. In fact, the practical effect of contemporaneous consideration is circular: the permit modification would simply memorialize the delisting, so consideration of the modification prior to or with the delisting would be out of order. Moreover, the issuance of a permit modification memorializing a delisting is a purely ministerial act that would be undertaken by the IEPA, not the Board. In any case, since the filing of the Petition, PDC has conferred with the IEPA and has confirmed that no permits or permit modifications will be required if the delisting is granted. PDC's existing, recently-renewed RCRA Part B Permit (referenced above) is sufficient to cover PDC's operations in treating the EAFDSR after delisting.

The commenter's third and final claim is that siting is required for the delisting because the delisting would somehow make the WSF a new pollution control facility under the Act. This is a delisting case, not an expansion case requiring siting. (The Board expressly distinguished this case from two previous matters cited by the commenter in its Order entered on September 4, 2008, stating that "[t]his adjusted standard proceeding, Board docket AS 08-10, in which the Board is considering PDC's RCRA delisting request, is separate and distinct from two recent proceedings before the Board involving PDC." Pg. 12, fn. 4.) Moreover, the commenter seems confused throughout this section of the comment, discussing PDC's hazardous waste landfill rather than the WSF.

Siting is only required for "new pollution control facilities," defined in the Act as follows:

> A new pollution control facility is:
>
> (1) a pollution control facility initially permitted for development or construction after July 1, 1981; or

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> (2) the area of expansion beyond the boundary of a currently permitted pollution control facility; or
>
> (3) a permitted pollution control facility requesting approval to store, dispose of, transfer or incinerate, for the first time, any special or hazardous waste.

415 ILCS §5/3.330(b). None of the foregoing definitions apply. Therefore, the facility is not a "new pollution control facility" in need of siting.

The commenter claims that if the delisting is granted, "the facility will be transformed from a waste disposal site to a transfer station." (Pg. 11). The WSF has long been permitted to treat waste, and is permitted to do so under its renewed RCRA Part B Permit issued on November 27, 2007, the issuance of which was upheld by the Board. The reclassification of the type of waste it treats and transfers does not suddenly turn the WSF into a waste transfer station, which would require a new permit and siting as a precondition for same. First, at present, the facility in question (the waste stabilization facility) is a waste *treatment* facility permitted by the IEPA as a containment building, not a disposal facility. If the delisting is approved, the WSF will continue to be a waste treatment facility. PDC will accept the K061 materials that are the subject of this Adjusted Standard at the facility for *treatment*, not for "temporary storage or consolidation and further transfer to a waste disposal, treatment or storage facility" as would a transfer station. 415 ILCS §5/3.500. PDC will (1) accept EAF dust at the waste stabilization facility, as it currently is, (2) treat the EAF dust, as it currently is, and (3) transport the EAFDSR for disposal, as it currently is. The only difference in operations is the disposal destination of the EAFDSR, which could be a Subtitle D landfill rather than a Subtitle C landfill. This is the operational process currently followed for delisted F006 waste and decharacterized waste that is being transported to Indian Creek Landfill #2. If this makes the WSF a "transfer station" (which it clearly does not under the plain meaning of the statute), the WSF is already a transfer station.

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In any case, Section III of PDC's RCRA Part B Permit, issued November 27, 2007, permits storage incident to treatment of waste at the WSF, stating that "[a] Waste Stabilization Facility is authorized for storage and treatment of hazardous and non-hazardous wastes that contain free liquids or require treatment." (A copy of page III-1 of the Permit is attached hereto as Exhibit H; emphasis added).

The commenter's other argument for siting is that the WSF is a "new pollution control facility" because "PDC is requesting approval to store and transfer, for the first time, the EAFDSR special waste...." (Pg. 12). PDC does not agree that it is "requesting approval to store and transfer" the EAFDSR in the Petition. PDC has been accepting hazardous waste (including K061 waste) and non-hazardous waste for treatment as authorized by its RCRA Part B Permit. PDC has previously treated hazardous waste and subsequently disposed of the resultant non-hazardous special waste at Subtitle D facilities in Illinois as authorized by its RCRA Part B Permit. Pursuant to Section 3.330(b)(3), a "new pollution control facility" may be created by "a permitted pollution control facility requesting approval to store, dispose of, transfer or incinerate, for the first time, any special or hazardous waste." (415 ILCS §5/3.330(b)(3); emphasis added). The PDC facility currently manages special and hazardous waste for treatment and subsequent disposal in Subtitled D facilities. Therefore, siting is not required for this delisting.[6]

Comment

In PC #314, the commenter focuses on two areas of concern: (1) the economic justification provided by PDC in the Petition, and (2) the alleged "lack of oversight" under the

[6] Notably, the Peoria County Board (which would be the relevant siting authority) correctly concluded that it was not the entity to decide this delisting, but that the matter should "go through the established regulatory process for the Illinois Pollution Control Board to decide the issue." (*See* Exhibit B hereto, Agenda item 14, pg. 3).

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proposed Adjusted Standard. On the second point, the commenter is especially concerned about the use of bench-scale testing and notice to the IEPA prior to changing the treatment formula.

Response

The commenter takes issue with comparing transport to and disposal in the nearest Subtitle C facility with transport to and disposal in the nearest PDC-affiliated Subtitle D facility. PDC is uncertain as to the exact complaint, but the comment seems to suggest that the economic comparison made by PDC would not yield such a dramatic difference if PDC had assumed disposal in a more distant Subtitle D landfill. While that is accurate, it makes no sense that PDC would bypass a qualified and affiliated landfill in closer proximity to the WSF in favor of a more distant facility. PDC states as much in the TSD, specifically and logically naming Indian Creek Landfill #2 as the most likely receiving facility. As such, the comparison presented by PDC in its Petition remains valid and representative.

The commenter incorrectly states that "it is clear the majority of waste will have be [sic] stabilized at least two or more times." First, that is false and cannot be inferred from any data or text included with the Petition. Second, even if that were accurate, it would be of no import in constructing the subject cost comparison because it would weigh almost equally on either cost scenario. If it had any bearing whatsoever, it would only serve to increase the cost differential due to the increased weight being disposed at the more expensive Subtitle C landfill.

The commenter discusses distances from EAF dust generating locations to PDC versus the nearest Subtitle C facility in Indiana, concluding that "there is no reason why PDC could not effectively compete with Roachdale as a stabilization alternative." The commenter mistakenly compares PDC receiving and treating EAF dust prior to shipment to the Subtitle C facility in Indiana with PDC's customers shipping their EAF dusts directly to the Indiana facility. That

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could be valid if the requirement to present the cost of alternatives applied to PDC's customers, but it does not. Instead, the appropriate and provided comparison is the cost differential that would be experienced by PDC to manage its treated K061 waste with and without the proposed delisting.

The commenter makes additional references to PDC's revenues and the success of the steel industry that have no relevance in this context. The required alternatives comparison goes wholly to costs and not at all to revenues. As to the health of the steel industry, PDC does not seek or need to discredit the commenter's references. PDC could provide anecdotes from customers and references to articles that indicate a sharp industry downturn in September, 2008, due to turmoil in the credit markets and general demand destruction. The contrast between those and the commenter's reference would have no relevance herein; instead, it would simply highlight that the steel industry is highly cyclical. Representatives from five of PDC's steel mill customers provided comments at the public hearing in this case regarding the importance of the WSF to their respective companies. PDC provided a representative cost comparison that accurately depicts the unbearable cost differential of operating the WSF without the proposed delisting.

The commenter takes exception with PDC's conditioned proposals that would allow PDC to qualify EAF dust from additional steel mill(s) for delisting in the future without re-petitioning the Board. Based on PDC's experience, any requirement to re-petition the Board simply to qualify a new customer would unnecessarily shackle PDC in the marketplace insofar as it could not timely respond to any future opportunities. Justification for PDC's proposal is provided in the Petition. PDC is currently authorized by its IEPA-issued operating permit to add new customers of all waste types, but only after verifying treatability as is proposed in the

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Petition. The proposed qualification procedure will ensure that any prospective K061 waste is at least as amenable to PDC's treatment technology on a stand-alone basis as those represented in the in-plant trials conducted for this Petition. This is identical to the existing procedure in PDC's IEPA operating permit to add new waste streams after demonstrating acceptability and treatability, *i.e.*, there is no requirement to secure authorization from a regulatory body prior to exercising the authority already granted PDC by its Permit. Similarly, the proposed language that would provide this authority is modeled after the counterpart condition authorized by the Board in AS 1991-003, PDC's F006 delisting. PDC demonstrated in the full-scale trials that its technology effectively treated EAF dust from 10 different mills in various proportions. With conditions to conduct pre-acceptance treatability testing and post-treatment testing of every daily batch, PDC's proposed condition is reasonable and appropriate. As a final point, the adjusted standard process is designed to accommodate operational allowances such as those proposed here, without further action by the Board. *See* 415 ILCS §5/28.1(a) ("In granting such adjusted standards, the Board may impose such conditions as may be necessary to accomplish the purposes of this Act. The rule-making provisions of the Illinois Administrative Procedure Act and Title VII of this Act shall not apply to such subsequent determinations.").

The commenter complains about the proposed condition that would allow conditioned flexibility regarding the specific chemical stabilization reagents employed. Similar to the above explanation for adding new customers, it is imperative that PDC have some flexibility to adopt improvements in available treatment technologies without re-petitioning the Board. The proposed qualifying procedure will ensure that any significant change in chemicals from the technology employed in the in-plant trials will result in a treatment regimen that is equally robust and undergo the testing necessary to demonstrate that the EAFDSR will be non-

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hazardous with respect to the delisting criteria. The commenter should be assured that PDC is highly incentivized to use only the best available technology to achieve the best possible analytical results for the initial sample round(s). To act otherwise would be self-defeating as it could lead to the need for re-treatment of entire daily batches. In its responses to Board questions, PDC did not object to a condition requiring IEPA notification regarding any significant change in technology. (*See* section regarding other delistings, below). Finally, the commenter suggests that PDC adds its treatment chemicals in unknown quantity and sequence. This is simply incorrect, as is well-documented in the TSD.

Comment

PC #315 raises concerns about increased truck traffic to the WSF and about the location of the storage containers at the PDC facility. In particular, on the second point, the commenter expresses concerns about the integrity of the landfill disposal units under the increased load of the storage containers. This comment also includes incorrect allegations that PDC violated its IEPA-issued air emissions permit, and that part of the landfill facility is leaking. Finally, attached to this comment is an irrelevant "Evidentiary Summary" prepared by opponents to PDC's siting expansion effort.

Response

On the first point, as is stated above in response to PC #20, truck traffic is irrelevant to the review of a delisting Petition. The second point is thoroughly addressed in the response to PC #313, above.

While the commenter's allegations concerning air emissions and purported "leaking" of the landfill are clearly not relevant to this delisting, these allegations are sufficiently inflammatory that PDC feels compelled to respond to same. This is not the first time that this

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commenter has made these allegations. In an "Evidentiary Summary" submitted by PFATW during PDC's effort to secure siting approval from the Peoria County Board to expand its hazardous waste landfill, attached with PC #315, the same false allegations were made regarding PM-10 emissions from the PDC facility and regarding purported leaking. In a supplement to the record in that matter filed with the Peoria County Board on March 29, 2006, PDC rebutted those false allegations with facts demonstrating that PDC's actual emissions were well below limits established in its IEPA-issued air emissions control permit, and that the facility had not impacted groundwater. Provided herewith as Exhibits K and L, respectively, are Exhibits B and F to PDC's supplemental filing, which provide relevant facts regarding PDC's actual PM-10 emissions and the facility's impact on groundwater.

Miscellaneous Comments

At the public hearing, Bob Jorgenson generally exhorted the Board to perform its statutory and regulatory functions. (R81/10-83/1). PDC agrees.

PC #87 generally requests denial of the delisting because it is an "'end run' around Peoria." The commenter does not specify the bases for her request. Insofar as this request constitutes an argument for siting, this matter is addressed in response to PC #301, above.

PC #88 generally requests denial of the delisting, "for many sound reasons" to preserve the drinking water. The commenter does not specify the "sound reasons" on which his request is based. PDC believes that the Petition should be granted for the reasons stated herein.

OTHER K061 DELISTINGS

Numerous commenters in this matter referenced the "Super-Detox" process, both at the public hearing and in written comment. The Super-Detox process is a proprietary EAF dust

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stabilization process formulated by Conversion Systems, Inc. ("CSI"). The CSI delisting by the USEPA is informative in this matter.

First, CSI applied for a "multiple-site exclusion" from the regulation of general applicability. The exclusion granted by the USEPA "applie[d] to chemically stabilized EAFD generated at CSI's Sterling, Illinois facility as well as to similar wastes that CSI may generate at future facilities." (60 FR 31107 *et seq.*, attached hereto as Exhibit I, pg. 1 of 15; emphasis added). CSI declared an intention "to construct 12 other facilities nationwide." (Id., pg. 3 of 15). CSI justified the multiple-site exclusion, stating that it "believe[d] that a multiple-site delisting will save both EPA and CSI the cost and administrative burden of multiple petitions each providing essentially the same, duplicative information of a process already well known and accepted by the Agency as effective in treating EAFD wastes...." (Id.)

Commenters in the CSI delisting objected to the multiple-site exclusion, stating that "there will be no opportunity for comment on any of the CSEAFD delistings at future CSI sites." (Id., at pg. 5 of 15). Nevertheless, the USEPA granted the multiple-site exclusion, requiring only that CSI perform "verification testing" at new facilities after opening same. (Id., at pg. 6 of 15). The USEPA required one month's notice before opening a new facility, simply to permit the USEPA to expand the exclusion to include the new facility (no additional approval was required from the USEPA): "This exclusion applies initially to only CSI's Super Detox™ treatment facility located at Northwestern Steel in Sterling, Illinois. As stated in Condition (5), CSI must notify EPA at least one month prior to operation of a new Super Detox™ treatment facility in order to provide EPA with sufficient time to initiate the process to amend CSI's exclusion." (Id., at pg. 9 of 15). In fact, CSI apparently did obtain amendments of its exclusion to add facilities in

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Robstown, Texas, Horsham, Pennsylvania, and Willow Grove, Pennsylvania. (*See* 73 FR 54713-01).

The USEPA addressed the concerns of these commenters with a lengthy response, stating in pertinent part as follows:

> Comment: One commenter (HRD) stated that the multiple-site nature of the delisting for CSI is precedent-setting but the Agency has offered no legal justification for it. The commenter believed that 40 CFR 260.22 and RCRA section 3001(f) limit the scope of delisting petitions to wastes generated at a single facility. This commenter also claimed that this delisting violates the notice and comment requirements of the Administrative Procedure Act because there will be no opportunity for comment on any of the CSEAFD delistings at future CSI sites.
>
> Another commenter, however, believed that the multiple-site nature of the delisting would avoid duplicative delisting petitions and save the steel industry the unnecessary costs and administrative burdens of multiple petitions.
>
> Response: The statute and regulations do not limit the availability of delisting decisions to wastes generated at a single facility. The commenter has misinterpreted the language of section 3001(f) of RCRA and 40 CFR 260.22, which both provide that parties may seek delistings for wastes generated at a ``particular facility.'' The term ``particular facility'' refers to a specific qualifying facility and there is no bar to a delisting covering more than one particular, and qualifying, facility. The language limits delistings to an identified and qualifying facility or facilities; it does not limit them to a ``single'' facility. The intent of this language is to indicate that, because delistings are granted only to specific qualifying facilities, a facility may not manage its waste as non-hazardous based solely on a delisting granted to another facility for the same listed waste.
>
> Today's multiple-site delisting is fully consistent with the purposes of RCRA's listing and delisting scheme. If CSI has more than one facility treating the same wastes with the same process, and EPA is assured (through verification testing) that these wastes meet the requirements for being nonhazardous, the statute, its legislative history and the regulations support their removal from the list of hazardous wastes. No part of the statute or regulations purports to limit the number of facilities that a delisting may cover.

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> As to the ``up-front'' nature of this delisting, the Agency in fact has a longstanding policy and practice of granting delistings to facilities not yet constructed, provided that their waste, once produced, meets specified criteria. * * *.

(Id., at pgs. 5-6 of 15).

Second, a commenter in the CSI delisting complained that the EAF dust should be recycled or reused instead of being landfilled in a Subtitle D landfill. The USEPA's response was as follows:

> CSI indicated in its petition that the CSEAFD will be disposed of at non-hazardous waste landfills. EPA does not have any specific information that CSI has developed its CSEAFD into any viable product that would allow for use or reuse of this material instead of disposal. Therefore, it is unclear if, when, or how potential CSEAFD derived products may be used in the future. EPA's assumption that CSI's petitioned waste, if delisted, will be disposed of in a Subtitile D landfill is conservative and represents a reasonable worst-case management scenario for this delisting for the decision that CSI's CSEAFD may safely be disposed of as a non-hazardous "waste".

(Id., at pg. 7 of 15). Based on the foregoing, the USEPA limited the end destination of the treated EAF dust to Subtitle D landfills. (Id.)

Third, commenters in the CSI delisting expressed concerns about "the longterm physical durability (or structural integrity) of the stabilized EAFD." (Id.) In particular, one commenter stated as follows:

> The commenter believed that the stabilized EAFD will deteriorate over time once disposed of in landfills or elsewhere, which could result in airborne or waterborne exposure which was not evaluated. The commenter presented a list of applicable physical test methods, and suggested that at a minimum, freeze-thaw and wet-dry durability tests be performed, and that EPA should apply "deterioration models."

(Id.) The USEPA responded to the commenter's concerns as follows:

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> This rulemaking adequately addresses the potential deterioration of CSI's CSEAFD and the resulting leachability of the material. The MEP was developed to predict the long-term leachability of stabilized wastes, consisting of ten sequential extractions that simulate approximately 1,000 years of acid rainfall. This method requires that the sample of stabilized material be first crushed and ground so that the sample material can pass through a 9.5-mm sieve (as part of the TCLP extraction incorporated in the MEP). The use of particles less than 9.5 mm is comparable to a worst-case assumption of degradation of the stabilized material. EPA also conservatively assumed that the total constituents in the waste would be readily available for release into air (ignoring that they are contained in the solidified waste matrix). Therefore, this evaluation also addressed the potential deterioration and airborne transmission of the waste.

(Id.)

The K061 delisting requested by Heritage (Heritage Environmental Services, LLC) for the Nucor Steel plant located in Crawfordsville, Indiana, has also been referenced a number of times in this matter. Again, there are substantial corollaries between the comments filed in the Heritage delisting and in this delisting. For example, commenters in the Heritage delisting complained that "[m]uch of the relevant information was confidential business information, such as what treatment reagents were used or specifications of a mixing device." (67 FR 1888 *et seq.*, attached hereto as Exhibit J, pg. 8 of 13). The USEPA responded as follows: "Heritage has claimed information which it submitted on equipment, reagents and process as confidential. Heritage believed that such information in the public domain could be injurious." (Id.) *The USEPA granted the exclusion sought by Heritage, without requiring publication of Heritage's proprietary treatment process.*

Commenters in the Heritage delisting extensively challenged the use of the DRAS model. A sampling of those comments and the USEPA's responses to same are as follows:

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Comment: The [DRAS] model should be peer reviewed and the public should have the opportunity to provide adequate and meaningful comment.

Response: The model has been peer reviewed. The public has the opportunity to submit comments on the DRAS model during the comment period each time a delisting is proposed which is based on the DRAS model.

Comment: EPA is continuing to use the model before completing its own review of comments received. The DRAS may not be appropriate since it is currently being commented upon & revised.

Response: The Agency is continually striving to improve the tools available for assessing risk. The Agency believes that at this time the DRAS model is the best available tool for estimating risk. Revisions and improvements to the model are always possible in the future.

Comment: The DRAS model assumes that the landfill is unlined and that leaching occurs from the beginning, which is counter to the use of liners, covers & slurry walls. The assumption of no liner is not consistent with CMTP which assumes a liner. The DRAS model should allow for the option of including a liner and should use Subtitle D landfill characteristics.

Response: There are existing solid waste landfills which have no liner. Over time, liners may fail and delistings currently have no expiration date. Therefore it is reasonable to consider scenarios for liner failure or to assume that no liner exists.

Comment: The DRAS model assumption of minimal cover increases estimates of volatilization and particulate emissions, which may not be reasonable.

Response: We must consider the worst case scenario of minimal requirements for daily cover. Regulations requiring daily cover on municipal landfills do not necessarily apply to industrial solid waste landfills.

* * *

Comment: DRAS is complex and EPA must explain the models and risk processes used in establishing regulatory limits including the assumptions, methodologies, pathways and variables used in the DRAS model.

> Response: The DRAS Technical Support Document (DTSD) explains the risk algorithms used in the model including the methodologies, variables, pathways and assumptions. The DTSD is available on line at http://www.epa.gov/earth1r6/6pd/rcra__c/pd-o/dtsd.htm.

(Id., at pg. 3 of 13). The USEPA has consistently required petitioners in delisting cases to use the most updated DRAS model to assess the risk of the proposed adjusted standard.

Commenters also worried that "[t]here are no criteria listed for what constitutes a significant change to the treatment process or a change in the chemicals used." (Id., at pg. 9 of 13). The USEPA responded that "[a] change either to the treatment process or in the chemicals used is significant if it results in a change in the composition of the waste." (Id.) Clearly, this is very similar to PDC's proposed definition of "significant change," and thus is applicable to PDC's proposed Adjusted Standard as well.

Regarding the long-term stability of the treated waste, commenters in the Heritage delisting stated as follows:

> In the ANPRM, 65 FR 37932, June 19, 2000, EPA has reservations about the effectiveness of using stabilization to immobilize metal wastes. Stabilization has not been scientifically proven to be reliable over the long term for disposal of such wastes. Allowing this waste to be placed in general purpose landfills which have fewer engineered features to prevent leaching and migration of heavy metals into groundwater ignores sound science. EPA needs to explain why disposing of a hazardous waste in this less protective manner should be allowed, absent any evidence confirming that it will work.

(Id.) The USEPA responded as follows:

> At this time, stabilization is considered to be the best available treatment for metal bearing wastes. We have no evidence that constituents of concern have ever leached from this stabilized waste. To assure that the waste continues to meet the levels established here, we are requiring periodic testing of the waste and placement of the waste in a solid waste landfill which has ground water monitoring.

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(Id.) (In the case at hand, PDC notably proposes to test the EAFDSR daily, rather than merely "periodically"). Another commenter expressed concerns about the concentrations of arsenic and cadmium in the EAF dust at issue, to which the USEPA responded that "[o]nly very low concentrations of these constituents leach from the petitioned waste in a TCLP analysis. EPA believes that at these low concentrations, these constituents do not pose a risk." (Id., at pg. 10 of 13).

Regarding the engineering of the disposal sites for the delisted waste (Subtitle D landfills), commenters expressed concerns about the landfills' liners:

> An independent engineering expert has warned that the massive weight of stabilized K061 on the liner could produce hundreds of high pressure points which will burst and result in leakage of the liner and seepage of groundwater into and through the cell. The problem of groundwater leaching out the heavy metals in a Class C landfill cannot be ignored, but EPA did not analyze it.

(Id., at pg. 9 of 13). The USEPA responded as follows:

> Currently a liner is the best available technology for landfills, regardless of whether it is a hazardous waste landfill (Subtitle C) or a solid waste landfill (Subtitle D). However, the model used to assess the risk of a delisted waste assumes that no liner is present.

(Id.) The USEPA further noted that "[s]ince the model assumes no liner, the weight of the stabilized K061 and its possible effect on a liner is not relevant." (Id., at pg. 10 of 13). A similar concern raised by a commenter was as follows:

> EPA has concluded that over the long term, the actual leachate concentrations suggest that significant groundwater contamination may result after the eventual failure of liner and other contaminant controls.

(Id., at pg. 9 of 13). In response, the USEPA noted that "[t]he DRAS model calculates risk assuming a worst case scenario of no liner at all. Under this scenario, the waste can be delisted." (Id.)

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Clearly, the majority of the concerns raised by public commenters in this proceeding concerning PDC's Petition and proposed Adjusted Standard have been considered by the USEPA in prior K061 delistings. PDC's proposal is not particularly new or innovative, except for the particular chemistry involved in the treatment process. As Patrick Engineering, the independent engineering company retained by Peoria County, stated, "K061 EAF dust is one of the most commonly delisted wastes in the United States." (Ex. A, pg. 8).

THE PROPOSED ADJUSTED STANDARD

The following is the Adjusted Standard proposed by PDC, as amended pursuant to PDC's response, filed on August 7, 2008, to the questions posed by the Board on July 15, 2008:

> The Illinois Pollution Control Board hereby grants to Peoria Disposal Company ("PDC") an adjusted standard from 35 Ill. Adm. Code 721 Subpart D subject to the following conditions:
>
> 1. This adjusted standard becomes effective on (effective date here).
>
> 2. This adjusted standard is provided only for K061 wastes treated using PDC's new proprietary stabilization technology described in the RCRA Delisting Adjusted Standard Petition for PDC EAF Dust Stabilized Residue ("EAFDSR") filed by PDC on April 25, 2008 (the "Petition"), unless and until it is modified in accordance with condition 3(b). This adjusted standard is provided for up to a total annual waste disposal volume of EAFDSR of 95,000 cubic yards. PDC's EAFDSR is non-hazardous as defined in 35 Ill. Adm. Code 721. The EAFDSR must meet the verification and testing requirements prescribed in paragraph 3 listed below to ensure that hazardous constituents are not present in the EAFDSR at levels of regulatory concern. The EAFDSR will no longer be subject to regulation under 35 Ill. Adm. Code Parts 722-728 and the permitting standards of 35 Ill. Adm. Code 703. The EAFDSR shall be disposed of pursuant to the Board's non-hazardous landfill regulations found at 35 Ill. Adm. Code 810-815, and disposed of in a lined landfill with leachate collection and all necessary permits issued by the Illinois Environmental Protection Agency (the "IEPA") to receive the non-hazardous EAFDSR. The landfill used for disposal shall be located in the State of Illinois.

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3. Verification and Testing.

a. Treatability Testing. PDC shall verify through bench-scale treatability testing that each K061 waste stream (other than those already represented in the full-scale, in-plant trials) received by PDC for chemical stabilization can be treated to meet the delisting levels of paragraph 4 prior to the operation of full-scale treatment of that waste stream. PDC shall submit a report of the treatability testing to the Agency within seven days of the completion of such testing.

b. Technology Modification Demonstration. With any significant change in the chemicals used by PDC in its full-scale treatment process, PDC shall first verify through bench-scale treatability testing that each K061 waste stream received by PDC for chemical stabilization can be treated to meet the delisting levels of paragraph 4 using the new chemical treatment regimen prior to the operation of full-scale treatment using the new chemical regimen.

Prior to adopting any significant change in treatment chemicals as part of the full-scale treatment process, PDC shall evaluate each new chemical or chemical treatment regimen for the presence of potential constituents of concern (COC's). The evaluation shall include, but not be limited to the consideration of producer knowledge, MSDS sheets, producer specification sheets, and/or producer- or PDC-supplied analytical data, as necessary to identify any potential COC's reasonably expected to be present at concentrations of concern in the EAF dust stabilized residue resulting from a new chemical treatment regimen. The universe of potential COC's that must be considered is the same as that considered for the Petition. To eliminate a constituent from further evaluation, the concentration must be no greater than the screening concentrations determined and modeled for the Petition as they appear in Tables 3a, 3b, 3c, and 8 of the Technical Support Document included with the Petition as Attachment 2 (the "TSD"). If the concentration of a potential COC in the EAF dust stabilized residue resulting from the proposed chemical treatment regimen is determined to be greater than that analyte's screening concentration, or for any constituents detected but not present on the previously referenced tables, PDC shall conduct a further evaluation, which may include running the then-approved version of the United States Environmental Protection Agency Delisting Risk Assessment Software ("DRAS") (or other appropriate model or risk assessment method) with the inputs reflecting the EAFDSR concentrations as treated with the proposed chemical. PDC may proceed with the change in treatment chemical or chemical treatment regimen as part of the full-scale treatment process only if the evaluation demonstrates that the treated EAF dust stabilized residue does not exceed the target human health and

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environment risk factors upon which the approved Petition is based (see Section 6.3.2 of the TSD).

PDC, at least 15 days before adopting any significant change in the full-scale treatment process, shall submit a report of the technology modification demonstration and bench-scale treatability testing to the IEPA, addressed as specified in condition 5. The Illinois Pollution Control Board recognizes that insofar as the submittal contains non-disclosable information regarding a specific proprietary chemical or chemical treatment regimen, PDC may redact such information from its submittal to the IEPA.

For the purpose of this condition, significant change is defined as the utilization of any new chemical or chemical treatment regimen containing active ingredients different from those utilized in the full-scale, in-plant trials represented in the Petition.

c. Testing of Treatment Residues for Inorganic Parameters. PDC shall collect representative grab samples of each treated mixer load of the EAFDSR and composite the grab samples to produce a daily composite sample. This sample shall be analyzed for TCLP leachate concentrations for all the constituents listed in paragraph 4 (a) prior to disposal of the treated daily batch. If the initial composite sample does not indicate compliance with the delisting levels, the treated residues will either be: 1) treated further using additional curing time as the chemical reagents complete their reactions with the waste, followed by another round of verification sampling and analysis, or 2) re-processed through the WSF for additional treatment, followed by another round of verification sampling and analysis, or 3) managed as a K061 hazardous waste at a properly permitted RCRA Subtitle C facility. All verification analyses shall be conducted on a composite that effectively represents the entire daily batch as did the initial sample, and shall include analysis for all 14 constituents identified in condition 4. If delisting levels are not achieved within the maximum storage time allowed PDC by its RCRA Part B Permit, the entire daily batch must undergo re-treatment or be managed as a hazardous waste as required by 35 Ill. Adm. Code 728 and the WSF RCRA Part B Permit.

PDC shall submit annually to the IEPA the data (and/or a subset or summary thereof to which the IEPA agrees) collected pursuant to this condition. The data submittal shall be addressed as specified in condition 5.

d. All analyses shall be performed according to SW-846 methodologies incorporated by reference in 35 Ill. Adm. Code 720. The analytical data shall be compiled and maintained on site for a minimum of three years.

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These data must be furnished upon request and made available for inspection by any employee or representative of the State of Illinois.

4. Delisting Levels.

The concentration in TCLP leachate from the EAFDSR must not exceed the values shown below, otherwise such wastes shall be managed and disposed in accordance with 35 Ill. Adm. Code 703 and 722-728.

Constituent	TCLP Delisting Level (mg/l)
Antimony	0.206
Arsenic	0.0936
Barium	21.0
Beryllium	0.416
Cadmium	0.11
Chromium (Total)	0.6
Lead	0.75
Mercury	0.025
Nickel	11.0
Selenium	0.58
Silver	0.14
Thallium	0.088
Vanadium	3.02
Zinc	4.3

5. Data Submittal. All data must be submitted to the Manager of the Permit Section, Bureau of Land, Illinois Environmental Protection Agency, 1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276 within the time period specified. At the IEPA's request, PDC must submit any other analytical data obtained pursuant to paragraph C within the time period specified by the IEPA. Failure to submit the required data will be considered a failure to comply with the adjusted standard adopted herein and subject PDC to an enforcement action initiated by the IEPA. All data must be accompanied with the following certification statement:

> Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations (pursuant to the applicable provisions of the Illinois Environmental Protection Act), I certify that the information contained in or accompanying this document is true, accurate and complete.
>
> In the event that any of this information is determined by the Board in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to Peoria Disposal Company, I recognize that this exclusion of wastes will be void as if it never had effect to the extent directed by the Board and that Peoria Disposal Company

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will be liable for any actions taken in contravention of its RCRA Part B Permit and CERCLA obligations premised upon the Peoria Disposal Company's reliance on the void exclusion.

6. PDC, at least 15 calendar days before transporting an initial load of delisted EAFDSR to a given disposal facility, shall provide the IEPA with a one-time, written notification identifying that disposal facility. The notification submittal shall be addressed as specified in condition 5.

____
(Name of certifying person)

____
Title of certifying person)

Date______________________________________

ANALYSIS AND CONCLUSION

Pursuant to 35 Ill. Adm. Code §720.122(b), a person may petition the Board to exclude from 35 Ill. Adm. Code §§721.103(a)(2)(B) or (a)(2)(C), a waste that is described in these Sections and is either a waste listed in Subpart D of 35 Ill. Adm. Code 721 or is derived from a waste listed in that Subpart. This exclusion may only be granted for a particular generating, storage, treatment, or disposal facility. A person seeking such an exclusion must file a petition meeting the requirements specified in 35 Ill. Adm. Code §720.122(n), and such petition must be found by the Board to demonstrate the following:

1. That the waste produced by the particular generating facility does not meet any of the criteria under which the waste was listed as a hazardous or acute hazardous waste. (35 Ill. Adm. Code §720.122(a)(1));

2. That there is a reasonable basis to believe that factors (including additional constituents) other than those for which the waste was listed could cause the waste to be a hazardous waste, that such factors do not warrant retaining the waste as a hazardous waste. A Board determination under the preceding sentence must be made by reliance on, and in a manner consistent with, "EPA RCRA Delisting Program—Guidance

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Manual for the Petitioner," incorporated by reference in Section 720.111(a). (35 Ill. Adm. Code §720.122(a)(2)); and

3. That a waste so excluded is not hazardous waste by operation of Subpart C of 35 Ill. Adm. Code 721, *i.e.*, it is not a hazardous waste by virtue of exhibiting one of the hazardous characteristics specified in Subpart C. (35 Ill. Adm. Code §§720.122(a)(2) and 720.122(b)).

Where the waste is derived from one or more listed hazardous wastes, the demonstration must be made with respect to the waste mixture as a whole; analysis must be conducted for not only those constituents for which the listed waste contained in the mixture was listed as hazardous, but also for factors (including additional constituents) that could cause the waste mixture to be a hazardous waste. 35 Ill. Adm. Code §720.122(b).

Since the EAF dust is listed with hazard code "T" in Subpart D of 35 Ill. Adm. Code 721, PDC must also demonstrate the following:

1. The waste meets the following criteria:

   A. It does not contain the constituent or constituents (as defined in Appendix G of 35 Ill. Adm. Code 721) that caused USEPA to list the waste (35 Ill. Adm. Code §720.122(d)(1)(A)); or

   B. Although containing one or more of the hazardous constituents (as defined in Appendix G of 35 Ill. Adm. Code 721) that caused USEPA to list the waste, the waste does not meet the criterion of 35 Ill. Adm. Code §721.111(a)(3) when considering the factors used in 35 Ill. Adm. Code §§721.111(a)(3)(A) through (a)(3)(K) under which the waste was listed as hazardous (35 Ill. Adm. Code §720.122(d)(1)(B)).

2. That factors (including additional constituents) other than those for which the waste was listed could cause the waste to be hazardous waste, that such factors do not warrant retaining the waste as a hazardous waste (35 Ill. Adm. Code §720.122(d)(2)); and

3. That the waste does not exhibit any of the characteristics defined in 35 Ill. Adm. Code §§721.121, 721.122, 721.123, or 721.124, using any applicable methods prescribed in those sections (35 Ill. Adm. Code §§720.122(d)(3) and 720.122(d)(4)).

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The foregoing demonstrations required for all wastes sought to be delisted (in 35 Ill. Adm. Code §§720.122(a) and (b)) and for wastes coded "T" sought to be delisted (in 35 Ill. Adm. Code §720.122(d)) clearly overlap, and are treated together in the Technical Support Document and in the Petition.

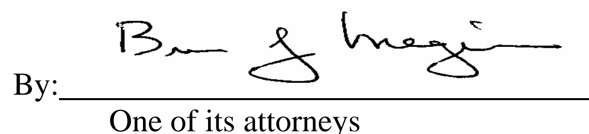
All the foregoing requirements, and the demonstrations that they have been satisfied, are satisfied and addressed in detail in the Petition and the Technical Support Document filed therewith as Attachment 2, in PDC's various responses and documents filed in this case, and in the testimony offered by PDC at the public hearing in this case. Only two experts offered opinions in the course of this matter: Ms. Curtis and Dr. Chowdhury. Both of these experts testified in favor of the Petition and provided the Board and the IEPA with a full opportunity to address any questions that remained after their technical reviews of the Petition and TSD. Based on all the foregoing, PDC respectfully submits that the Adjusted Standard set forth above be granted by the Board.

WHEREFORE, PDC respectfully requests that the Pollution Control Board grant the Adjusted Standard, as set forth in the Petition and subject to the conditions accepted in the Response to the Board's questions, as set forth herein. PDC further requests that the Board act expeditiously upon this Petition.

Dated: October 8, 2008

Respectfully submitted,

PEORIA DISPOSAL COMPANY,
Petitioner

By: 
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CERTIFICATE OF FILING AND SERVICE

I certify that on October 8, 2008, I filed the foregoing document electronically with the Clerk of the Illinois Pollution Control Board, and I served the foregoing document on all parties hereto, by enclosing a true copy of same in an envelope addressed to the attorney of record of each party or the party as listed below, with first class postage fully prepaid, and depositing each of said envelopes in the United States Mail at 5:00 p.m. on said date:

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Office of Solid Waste and Emergency Response
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Washington, D.C. 20460

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