

4—The agent should be recovered from the fire protection system in conjunction with testing or servicing, and recycled for later use or destroyed.

FIRE SUPPRESSION AND EXPLOSION PROTECTION—ACCEPTABLE SUBJECT TO NARROWED USE LIMITS: TOTAL FLOODING AGENTS

Application	Substitute	Decision	Conditions	Comments
Halon 1301, Total Flooding Agents.	C <sub>3</sub> F <sub>8</sub> .....	Acceptable where other alternatives are not technically feasible due to performance or safety requirements: a. due to their physical or chemical properties, or b. where human exposure to the extinguishing agents may approach cardiotoxicity levels or result in other unacceptable health effects under normal operating conditions.	Until OSHA establishes applicable workplace requirements: For occupied areas from which personnel cannot be evacuated in one minute, use is permitted only up to concentrations not exceeding the cardiotoxicity NOAEL of 30%. Although no LOAEL has been established for this product, standard OSHA requirements apply, i.e. for occupied areas from which personnel can be evacuated or egress can occur between 30 and 60 seconds, use is permitted up to a concentration not exceeding the LOAEL. All personnel must be evacuated before concentration of C <sub>3</sub> F <sub>8</sub> exceeds 30%. Design concentration must result in oxygen levels of at least 16%.	The comparative design concentration based on cup burner values is approximately 8.8%. Users must observe the limitations on PFC acceptability by making reasonable efforts to undertake the following measures: (i) conduct an evaluation of foreseeable conditions of end use; (ii) determine that human exposure to the other alternative extinguishing agents may approach or result in cardiotoxicity or other unacceptable toxicity effects under normal operating conditions; and (iii) determine that the physical or chemical properties or other technical constraints of the other available agents preclude their use; Documentation of such measures must be available for review upon request. The principal environmental characteristic of concern for PFCs is that they have high GWPs and long atmospheric lifetimes. Actual contributions to global warming depend upon the quantities of PFCs emitted. For additional guidance regarding applications in which PFCs may be appropriate, users should consult the description of potential uses which is included in the March 18, 1994 Final Rulemaking (58 FR 13043).
	Sulfurhexa-fluoride (SF <sub>6</sub> ).	Acceptable as a discharge test agent in military uses and in civilian aircraft uses only.	.....	This agent has an atmospheric lifetime greater than 1,000 years, with an estimated 100-year, 500-year, and 1,000-year GWP of 16,100, 26,110 and 32,803 respectively. Users should limit testing only to that which is essential to meet safety or performance requirements. This agent is only used to test new Halon 1301 systems.

FIRE SUPPRESSION AND EXPLOSION PROTECTION—UNACCEPTABLE SUBSTITUTES

Application	Substitute	Decision	Comments
Halon 1301 Total Flooding Agents.	HFC-32 .....	Unacceptable .....	Data indicate that HFC-32 is flammable and therefore is not suitable as a halon substitute.

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40 CFR Part 261

[SW-FRL-5219-5]

**Hazardous Waste Management System; Identification and Listing of Hazardous Waste; Final Exclusion**

AGENCY: Environmental Protection Agency.

ACTION: Final rule.

**SUMMARY:** The Environmental Protection Agency (EPA or Agency) today is granting a petition submitted by Conversion Systems, Inc. ("CSI") to exclude from hazardous waste control (or "delist") certain solid wastes. The wastes being delisted consist of electric arc furnace dust ("EAFD") that has been treated by a specific chemical stabilization process. This action responds to CSI's petition to delist these treated wastes on a "generator-specific" basis from the hazardous waste lists. After careful analysis, the Agency has concluded that the petitioned waste is not hazardous waste when disposed of

in Subtitle D landfills. This exclusion applies to chemically stabilized EAFD generated at CSI's Sterling, Illinois facility as well as to similar wastes that CSI may generate at future facilities. Accordingly, this final rule excludes the petitioned waste from the requirements of hazardous waste regulations under the Resource Conservation and Recovery Act (RCRA) when disposed of in Subtitle D landfills, but imposes testing conditions to ensure that the future-generated waste remains qualified for delisting.

**EFFECTIVE DATE:** June 13, 1995.

**ADDRESSES:** The public docket for this final rule is located at the U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, and is available for viewing [Room M2616] from 9 a.m. to 4 p.m., Monday through Friday, excluding Federal holidays. Call (202) 260-9327 for appointments. The reference number for this docket is "F-95-CSEF-FFFFF." The public may copy material from any regulatory docket at no cost for the first 100 pages and at a cost of \$0.15 per page for additional copies.

**FOR FURTHER INFORMATION CONTACT:** For general information, contact the RCRA Hotline, toll free at (800) 424-9346, or at (703) 412-9810. For technical information concerning this notice, contact Chichang Chen, Office of Solid Waste (Mail Code 5304), U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, (202) 260-7392.

**SUPPLEMENTARY INFORMATION:**

**I. Background**

*A. Authority*

Under 40 CFR 260.20 and 260.22, facilities may petition the Agency to remove their wastes from hazardous waste control by excluding them from the lists of hazardous wastes contained in §§ 261.31 and 261.32. Specifically, § 260.20 allows any person to petition the Administrator to modify or revoke any provision of parts 260 through 265 and 268 of title 40 of the Code of Federal Regulations; and § 260.22 provides generators the opportunity to petition the Administrator to exclude a waste on a "generator-specific" basis from the hazardous waste lists. Petitioners must provide sufficient information to EPA to allow the Agency to determine that the waste to be excluded does not meet any of the criteria under which the waste was listed as a hazardous waste. In addition, the Administrator must determine, where he has 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.

*B. History of This Rulemaking*

Conversion Systems, Inc., (CSI), Horsham, Pennsylvania, petitioned the Agency to exclude from hazardous waste control its stabilized waste generated at electric arc furnace dust (EAFD) treatment facilities across the nation. After evaluating the petition, EPA proposed, on November 2, 1993 to

exclude CSI's waste from the lists of hazardous wastes under §§ 261.31 and 261.32 (see 58 FR 58521). Subsequently, in response to a commenter's request, the Agency published a notice extending the comment period until January 3, 1994 (see 58 FR 67389, December 21, 1993).

This rulemaking addresses public comments received on the proposal and finalizes the proposed decision to grant CSI's petition.

**II. Disposition of Petition**

Conversion Systems, Inc., Horsham, Pennsylvania

*A. Proposed Exclusion*

CSI petitioned the Agency for a multiple-site exclusion for chemically stabilized electric arc furnace dust (CSEAFD) resulting from the Super Detox™ treatment process as modified by CSI. (The original Super Detox™ treatment process was developed by Bethlehem Steel Corporation and used at its Johnstown and Steelton, Pennsylvania facilities.) Specifically, CSI requested that the Agency grant a multiple-site exclusion for CSEAFD generated by CSI using its modified Super Detox™ process at the existing Sterling, Illinois facility at Northwestern Steel and future facilities to be constructed (CSI initially is planning to construct 12 other facilities nationwide). The resulting CSEAFD is classified as a K061 hazardous waste by virtue of the "derived from" rule (§ 261.3(c)(2)(i)), because it is generated from the treatment of a hazardous waste (electric arc furnace dust) which is currently listed as EPA Hazardous Waste No. K061—"Emission control dust/sludge from the primary production of steel in electric furnaces." The listed constituents of concern for EPA Hazardous Waste No. K061 are cadmium, hexavalent chromium, and lead. CSI petitioned to exclude Super Detox™ treatment residues because it does not believe that the CSEAFD meets the criteria for which K061 was listed. CSI also believes that the Super Detox™ process, as modified by CSI, generates a non-hazardous waste because the constituents of concern, although present in the waste, are in an essentially immobile form. CSI further believes that the waste is not hazardous for any other reason (i.e., there are no additional constituents or factors that could cause the waste to be hazardous). Lastly, CSI believes 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 (see final exclusions for Bethlehem Steel Corporation's Johnstown and Steelton, Pennsylvania facilities in 54 FR 21941, May 22, 1989). Review of this petition included consideration of the original listing criteria, as well as the additional factors required by the Hazardous and Solid Waste Amendments (HSWA) of 1984. See section 222 of HSWA, 42 U.S.C. 6921(f), and 40 CFR 260.22(d)(2)-(4).

In support of its petition, CSI submitted: (1) Detailed descriptions and schematics of the Super Detox™ treatment process for both wet and dry electric arc furnace dust<sup>1</sup>; (2) total constituent analyses results for the eight Toxicity Characteristic (TC) metals listed in § 261.24 and six other metals from representative samples of the untreated (non-stabilized) EAFD; (3) Toxicity Characteristic Leaching Procedure (TCLP, SW-846 Method 1311) results for the eight TC metals from a representative sample of untreated EAFD; (4) TCLP results for the eight TC metals and six other metals from representative samples of the uncured CSEAFD; (5) Multiple Extraction Procedure (MEP, SW-846 Method 1320) results for the TC metals and six other metals from representative samples of the uncured CSEAFD; (6) total oil and grease (TOG), total cyanide, and total sulfide results from representative samples of the untreated EAFD; (7) information and test results regarding the hazardous waste characteristics of ignitability, corrosivity, and reactivity for the CSEAFD; and (8) ground-water monitoring data from the landfill containing the CSEAFD generated from CSI's Sterling, Illinois Super Detox™ facility.

*B. Request for Public Hearing*

During the comment period, Horsehead Resource Development Company, Inc. ("HRD") and one Congressman requested a formal public hearing to allow interested parties a sufficient opportunity to comment on the November 2, 1993 proposed rulemaking. HRD also indicated its desire to cross-examine EPA and CSI witnesses. Following review of the issues raised by the commenters, the Agency found no compelling need for a public hearing and, therefore, notified the commenters of its decision not to

<sup>1</sup> CSI has claimed some treatment process descriptions, including information on how they improved the original Super Detox™ treatment process, as confidential business information (CBI). This information, therefore, is not available in the RCRA public docket for today's notice.

hold a hearing. See the docket for proposed notice for the related correspondences. In its comments on the proposed rule, HRD claimed that EPA's denial of its hearing request violates the Administrative Procedure Act.

The Agency notes that the applicable regulations (40 CFR § 260.20(d) and § 25.5) specify only that EPA hold an informal hearing at its discretion. The Agency believes that given the highly technical nature of the proposal, written documentation is a more appropriate medium for the issues raised. In addition, even if a hearing were held, such process would not encompass the formal testimony of EPA staff and expert witnesses HRD was seeking; the Agency would merely use this procedure to gather oral comments for the record. The Agency believes a hearing was unnecessary, and that the Agency's procedures were consistent with the Administrative Procedure Act. In any event, the Agency has met with HRD, the primary commenter opposing this delisting, a number of times since the time of the proposal to hear its views in person.

### C. Summary of Responses to Public Comments

The Agency received public comments on the November 2, 1993 proposal from 18 interested parties. Eight of these commenters, consisting chiefly of steelmaking concerns, clearly supported the Agency's proposed decision to grant CSI's petition. One commenter had questions about the RCRA permit requirements for CSI's future facilities, and about the effective date of the proposed delisting in a State not authorized to administer the Federal delisting program. Of the nine remaining commenters, one commenter (HRD) strongly opposed the Agency's proposed decision, and presented discussions on a variety of issues. The remaining eight out of these nine commenters consisted of Congressmen and Senators reiterating concerns about the proposed delisting. Detailed Agency responses to all significant comments are provided in a "Response to Comments" document, which is in the public docket for today's rule. The following discussion is a summary of both the most significant issues raised by HRD and EPA's responses.

### Impact of This Delisting Upon Recycling of K061

*Comment:* A number of commenters, including HRD, claimed that the proposed delisting would inappropriately and illegally allow for the landfilling of chemically stabilized

K061 that is currently being recycled by high-temperature metals recovery ("HTMR") facilities. The commenters' assertions on this issue can be summarized as follows: (1) Both RCRA and the Pollution Prevention Act of 1990 express a general preference for resource recovery and reclamation over conventional waste treatment and disposal. Accordingly, EPA is required by law to promulgate regulations that encourage recycling over treatment and disposal whenever possible. The CSI delisting violates these statutory requirements because it encourages the landfilling of otherwise recoverable materials. (2) EPA's delisting regulations require compliance with these RCRA and PPA mandates. Specifically, the regulations require EPA to consider factors in addition to those for which the waste was originally listed as a hazardous waste if such factors could cause the waste to be listed as a hazardous waste (40 CFR 260.22(a)(2) and 261.11(a)(3)(xi)). EPA must consider, as one of these factors, the impact of the CSI delisting on the overarching mandates of RCRA and the PPA, and must conclude that the CSI delisting is inconsistent with these statutes. (3) The delisting would violate EPA's own regulatory strategy and prior policies and rulemaking precedents favoring resource conservation and recovery over stabilization. These policies and precedents appear in the Agency's RCRA implementation strategy, land disposal regulations and waste minimization guidance. (4) The CSI delisting would also violate the Administration's stated policy to encourage recycling technologies and a "green" economy.

On the other hand, one commenter supporting the proposed delisting stated that the delisting must be granted as a matter of law because EPA has determined that the chemically stabilized EAFD residues do not "pose a substantial hazard to human health or the environment" and therefore are not "hazardous wastes" subject to RCRA regulation, citing RCRA section 1004(5) and 40 CFR 260.22 (a), (b) and 261.11(a). This commenter claimed that the delisting is consistent with the waste management objectives of RCRA and the PPA, which encourage EPA to promote various alternatives to the untreated land disposal of hazardous waste.

*Response:* After careful evaluation of the characteristics and nature of the K061 residues produced by CSI's stabilization process, EPA is today finalizing a determination that these residues do not constitute RCRA hazardous waste. Specifically, EPA has found that these chemically stabilized

K061 wastes do not meet any of the criteria for which K061 wastes were listed as hazardous and that there is no reason to believe that any factors other than those for which K061 wastes were listed (including additional constituents) could cause these CSI wastes to be hazardous. See 40 CFR 260.22(a) and RCRA section 3001(f).

In light of EPA's determination that CSI's treated K061 waste is not hazardous, the Agency has no authority to retain this waste as a listed hazardous waste simply because doing so would effectively promote HTMR recycling and reclamation of K061 wastes over the treatment and disposal of CSI's chemically stabilized, non-hazardous waste. RCRA's general statements of Congressional findings, objectives and national policy addressing the subject of minimizing hazardous waste generation and disposal do not supersede the specific hazardous waste listing and delisting scheme established under RCRA. Here, under that scheme, EPA has determined that CSI's treated waste does not meet the criteria for being considered hazardous waste. Nothing in the general objectives and policy provisions of RCRA generally favoring resource recovery over conventional waste treatment and disposal requires, or indeed authorizes, EPA to forego or reverse this determination. See *Hazardous Waste Treatment Council v. EPA*, 861 F.2d 270, 276-77 (D.C. Cir. 1988).

Similarly, EPA cannot agree with the commenter's conclusion that this delisting conflicts with the mandates of the Pollution Prevention Act of 1990 ("PPA"). Section 6602(b) of the PPA (42 U.S.C. 13101(b)) declares it to be the national policy that pollution control should follow a hierarchy which prefers pollution prevention at the source over recycling and prefers recycling over treatment and disposal in an environmentally safe manner. EPA fully supports this hierarchy and believes it sets forth a desirable general order of preferences for pollution control. Again, however, this policy is not a statutory or regulatory mandate. Nothing in the PPA requires or even contemplates that EPA must retain on the list of hazardous wastes materials that the Agency finds to be non-hazardous simply because there exists an ability to perform resource recovery on these materials.

EPA also disagrees with the commenter's claim that the delisting regulations require this delisting to be denied. 40 CFR 260.22(a)(2) focuses on factors that "could cause the waste to be a hazardous waste". The factor cited by the commenter does not fit this description. In addition, EPA finds that

today's delisting decision is fully consistent with the Agency's and the Administration's own regulatory strategy and policies, as explained in the Response to Comments document.

In any event, EPA believes that today's delisting decision does harmonize with the overall intent and purposes of RCRA and the PPA. While these two statutes generally encourage resource recovery where appropriate, they do not require it in every conceivable case, regardless of the nature of the waste. Indeed, the commenter's interpretation would have the effect of contravening Congressional intent to allow for delistings where appropriate.

EPA also notes that the effect of this delisting on K061 recycling practices is speculative in any event. As explained in the Response to Comments document, the extent to which steelmakers may stop using recycling technologies upon today's delisting in favor of managing EAFD through CSI's Super Detox™ process is unclear.

EPA's response on these issues is further explained in the Response to Comments document for this rulemaking.

#### *Multiple Site Nature of the Delisting*

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

In any event, today's delisting decision appears to be consistent even with the commenter's incorrect interpretation of the statute and regulations. Today's action does not automatically grant a delisting to a multiple number of CSI's facilities. Instead, although EPA has reviewed the Super Detox™ treatment process itself on a generic basis, EPA is requiring verification testing at each specific facility before the Agency grants a delisting. Thus, the Agency is, in fact, considering each CSEAFD facility separately. The focus of the commenter's criticism would seem to be that EPA is not requiring the company to submit a separate delisting petition for each new facility. It would make no sense to require a company to submit multiple individual petitions for similar wastes generated from similar process and feed materials when the only difference between petitions is the name and location of the specific facility; to do so would be an unnecessary administrative burden and waste of resources for both EPA and the petitioner.

The commenter also alleged an inconsistency with EPA's 1993 publication, "Petitions to Delist Hazardous Wastes: A Guidance Manual" (second edition). The Manual states that "separate petitions must be submitted for wastes generated at different facility locations, even if the contributing processes and raw materials are similar. This requirement is necessary because an amendment to

40 CFR part 261 for an exclusion only applies to a waste produced at a particular facility." This provision was originally included in the draft of the Manual at a point before EPA contemplated the type of multiple-site delisting requested by CSI, and it has been inadvertently carried over in later revisions of the guidance document. EPA has accepted CSI's petition for a multiple-site delisting because of the efficiencies created and in light of the protections afforded by future verification testing. To the extent this provision in the guidance document is viewed as inconsistent with today's delisting, the guidance document should be considered superseded by the notice of proposed rulemaking and this final rulemaking for the CSI delisting to permit appropriate multiple-site petitions here and in the future. In any event, EPA's practice has evolved beyond the provision originally included in this non-binding guidance document and today's action is fully consistent with that practice.

EPA also disagrees with the commenter's claim that today's delisting violates the notice and comment requirements of the Administrative Procedure Act ("APA") since there will be no opportunity for comment on additional CSI facilities producing CSEAFD that may be added to the scope of this delisting in the future. There has been sufficient opportunity for meaningful comment on the current and potential future delistings of CSI facilities producing CSEAFD since all issues the Agency will possibly consider in granting the future delistings have already been aired for comment.

EPA's response on these issues is further explained in the Response to Comments document for this rulemaking.

#### **Executive Order 12866**

*Comment:* One commenter (HRD) alleged that EPA did not conduct the complete regulatory review required by Executive Order 12866 for significant regulatory actions having an annual effect on the economy of \$100 million or more. By HRD's account, the economic impact of this delisting would exceed \$100 million/year because electric arc furnace ("EAF") steelmakers will choose to abandon the existing high temperature metals recovery (HTMR) operations and give all K061 waste treatment business to CSI. The commenter also alleged that EPA failed to consider the other principles of regulatory development stipulated in the Executive Order.

*Response:* The Agency determined that the effect of the proposed rule,

unlike regulations imposing tighter control requirements, would be to *reduce* the overall costs and economic impact of the RCRA regulations. Therefore, this rule is unlikely to have an adverse annual effect on the economy of \$100 million or more. The extent to which EAF steelmakers may change from one waste management alternative such as recycling to other methods after today's delisting is speculative in any event.

In addition, the Agency did not fail to consider the other principles of regulatory development stipulated in the Executive Order. See the Response to Comments document for a further discussion of these issues.

### Waste Management

*Comment:* One commenter (HRD) noted that CSI may develop products from CSEAFD, that the delisted waste may be delivered to a facility that beneficially uses or reuses the material and that the waste may be disposed of in any acceptable manner under Federal or State law. As such, this commenter believed that the assumption of disposal in a Subtitle D landfill is not the reasonable worst-case disposal scenario for CSI's petitioned waste. In support of its argument, the commenter submitted an excerpt of a paper presented by a CSI employee at a trade meeting held in February 1995. This excerpt reflects two alternative concepts that are being developed" for recycling EAFD, including use of stabilized EAFD as ingredients in the production of Portland cement.

*Response:* 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 Subtitle 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".

Nevertheless, as the commenter pointed out and as the petition also indicates, CSI is working on different ways to reuse the CSEAFD as a feedstock or product (see Page 17 of CSI's petition). It is unclear if the effectiveness of CSI's stabilization process could be somewhat compromised as a result of certain

product-use applications; or if the levels of total constituents in the CSEAFD could become a concern due to certain exposure scenarios not considered in the delisting evaluation. Because EPA was not provided with any detailed information and data from CSI on how its waste might be used in products, EPA believes it is appropriate to limit the scope of today's final rule to exclude CSI's CSEAFD only where it is disposed of in Subtitle D landfills. EPA does not reach a decision today on whether CSI's CSEAFD that is not disposed of in Subtitle D landfills qualifies for exclusion from the list of hazardous wastes. In the future, if CSI has successfully developed uses for CSEAFD and seeks an exclusion for such uses, it must submit pertinent information in a petition to EPA and await further decision by the Agency on that matter.

### Potential Deterioration of CSI's Stabilized K061

*Comment:* One commenter (HRD) stated that the petition relied on the TCLP and MEP chemical testing procedures to determine the efficacy of CSI's stabilization process, but largely failed to address the long-term physical durability (or structural integrity) of the stabilized EAFD. 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."

*Response:* 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.

### Use of EPA's Composite Model for Landfills (EPACML)

*Comment:* One commenter (HRD) claimed that the EPACML model was not adequate for evaluating CSI's petitioned waste for several reasons. First, more accurate models, such as MINTEQ, must be used to quantify the migration and mobility of metals from land disposal units. Second, the Monte Carlo simulation mode implemented in the model is inappropriate for multiple site delistings because it does not account for site-specific variability. The commenter felt that only numerical models can account for such variability. Third, the model does not check for unrealistic combinations of input parameters, thereby resulting in inaccurate dilution and attenuation factors (DAFs). The commenter felt that the combination of input parameters should have been made public to allow for review and comment. Lastly, the commenter stated that the Agency did not clearly identify and justify the specific options used in the EPACML model for the delisting evaluation.

*Response:* The Agency disagrees with the commenter's contention that the EPACML model is inadequate for evaluating CSI's petitioned waste. First, the EPACML fate and transport model consists of an unsaturated zone module and a saturated zone module, both of which were reviewed and endorsed by EPA's Science Advisory Board for use for regulatory purposes. See 56 FR 32993 (July 18, 1991) and the EPACML Background Document<sup>2</sup> for a complete discussion of the EPACML model, assumptions and input parameters, and their use in delisting decision-making. EPA believes that the EPACML reasonably estimates the subsurface fate and transport of metals from land disposal units.

For prior cases, the MINTEQ model has not been found appropriate for use for delisting evaluations. To use it would require a large amount of additional information regarding the speciation of the metals present in the waste and the disposal site. EPA has discussed its finding that the EPACML model is adequate and conservative for delistings. Indeed, incorporation of results of MINTEQ in the EPACML model would only be *less* conservative if anything—*i.e.*, it would likely serve only to increase the output DAFs

<sup>2</sup> "Background Document for EPA's Composite Model for Landfills (EPACML)", available in the RCRA public docket for the November 2, 1993 proposed rule.

because speciation reactions between metallic ions in the leachate and the soil particles may cause further attenuation of metal concentrations in the subsurface. These higher DAFs would result in even higher allowable leachable levels of metals in CSI's waste.

In addition, the Agency disagrees with the commenter's claim that the Monte Carlo simulation mode implemented in the EPACML is inappropriate for multiple site delistings and disagrees with the commenter's remaining contentions regarding the use of the EPACML model. See the Response to Comment document for a further discussion of all of these issues.

#### Verification Testing Conditions

*Comment:* One commenter (HRD) stated that the proposed initial and subsequent testing conditions are insufficient. The commenter believed that these testing conditions will result in over-compositing of the samples collected from each batch, as they require only a minimum of four composite samples during the 20-day initial verification testing period and thereafter a minimum of one monthly composite sample.

*Response:* Although the concentrations of metals in the CSEAFD are expected to be somewhat variable over time (e.g., as the source and type of scrap charged to the EAF changes over time), EPA does not expect these variations to be significant on a day-to-day basis (i.e., most steel mills procure large volumes of scrap and their EAF operations do not vary widely on a daily basis). Also, at any given facility, the daily variations in EAFD metals concentrations are dampened where the EAFD is mixed together within the pneumatic EAFD transport system, baghouse, electrostatic precipitator, and/or storage silos. The Agency, therefore, believes that the proposed initial verification testing requirement is sufficient.

In addition, the data demonstrate that CSI's Super Detox™ process can effectively immobilize the constituents of concern, and justify the Agency's proposal to require less frequent, but long-term, verification testing (monthly or more frequently at CSI's discretion) subsequent to the initial verification testing.

#### Delisting Levels

In the proposed rule EPA solicited comments on the proposed maximum allowable leachable concentrations for a specific set of inorganic constituents (the "delisting levels") that CSI would need to meet during verification testing.

In this respect, the Agency also requested comments on the option of applying the generic exclusion levels for K061 HTMR nonwastewater residues set under § 261.3(c)(2)(ii)(C) to CSI's CSEAFD for the sake of national consistency. No comments were received on which of these two approaches should be chosen. The Agency has now concluded that the delisting levels applying to CSI's CSEAFD should be at least as stringent as the K061 HTMR generic exclusion levels. Therefore, the Agency is finalizing the delisting levels by using the lesser of the proposed levels for CSI's CSEAFD and the respective generic exclusion levels for HTMR residues, as shown below (in ppm): Antimony—0.06; arsenic—0.50; barium—7.6; beryllium—0.010; cadmium—0.050; chromium—0.33; lead—0.15; mercury—0.009; nickel—1; selenium—0.16; silver—0.30; thallium—0.020; vanadium—2; and zinc—70.

#### Economics and Related Issues

*Comment:* A number of commenters raised issues concerning the economic and related implications of this delisting. First, the Steel Manufacturers Association ("SMA") claimed that this delisting is necessary in order to increase the number of cost-effective alternatives for managing K061 waste. Because of the high cost of HTMR, SMA stated, steelmakers ultimately may be forced to substitute greater tonnages of direct reduced iron as feedstock instead of using scrap metal. Direct reduced iron contains only pure iron, so any EAFD generated from it would not contain hazardous metals (obviating the need to use HTMR processes). By granting the delisting, EPA will be promoting the continued resource recovery of iron and other valuable metals from scrap metal (of which, SMA claimed, about 40 million tons per year are currently used as EAF steelmaking feedstock).

Another commenter (HRD) disagreed with the above claims. It pointed out that the cost of managing EAFD by either HTMR or chemical stabilization and disposal is less than one percent of the steel production cost, and that the savings from switching to chemical stabilization would amount to only cents per ton of production. HRD claimed that direct reduced iron is much more expensive than scrap metal, affecting the cost of steelmaking 10 times as much as the cost of EAF dust management. Hence, HRD disputed the claim that steel makers might discontinue the use of scrap feedstock if this delisting is not granted. HRD also

stated that the steel industry in fact has a number of EAFD management options, including HTMR processing by HRD and other firms, treatment and disposal as a hazardous waste, use as a fertilizer ingredient, and export for processing.

*Response:* The focus of today's delisting decision is on whether or not CSI's stabilized EAFD should continue to be listed as hazardous waste in light of the relevant statutory and regulatory criteria. As explained above, EPA has found that CSI's chemically stabilized K061 wastes do not meet any of the criteria for which K061 wastes were listed as hazardous and there is no reason to believe that any factors other than those for which K061 wastes were listed (including additional constituents) could cause these wastes to be hazardous. Therefore, today's rule finalizes EPA's determination to exclude these residues from the RCRA Subtitle C regulatory regime. See 40 CFR § 260.22(a) and RCRA Section 3001(f).

EPA explained above that the effect of today's delisting decision on K061 recycling (i.e., whether granting this delisting effectively promotes treatment and disposal of K061 wastes over HTMR recycling of these wastes) is irrelevant to the delisting determination. Similarly, the economic and related issues that have been raised by the commenters are not relevant to today's delisting decision because they bear no nexus to the issue of whether the stabilized K061 wastes remain hazardous. See the Response to Comments document for a further discussion of these issues.

#### D. Final Agency Decision

For the reasons stated in both the proposal and this notice, the Agency believes that CSI's chemically stabilized electric arc furnace dust, upon meeting certain verification testing requirements, should be excluded from hazardous waste control. The Agency, therefore, is granting a final conditional exclusion to Conversion Systems, Inc., Horsham, Pennsylvania, for its treatment residue (CSEAFD) generated at its Sterling, Illinois facility and other facilities yet to be constructed nationwide, described in its petition as EPA Hazardous Waste No. K061.

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. CSEAFD generated from a new Super Detox™ treatment facility will not be excluded until the Agency

publishes a notice amending CSI's exclusion as specified in Condition (1)(B). CSI will require a new exclusion if the treatment process specified for any Super Detox™ treatment facility is significantly altered beyond the changes in operating conditions described in Condition (4). Accordingly, the facility would need to file a new petition for a changed process. The facility must manage wastes generated from a changed process as hazardous until a new exclusion is granted.

Although the CSEAFD wastes covered by this petition are excluded from regulation as listed hazardous wastes under Subtitle C upon today's final exclusion, this exclusion applies only where these wastes are disposed of in Subtitle D landfills.

### III. Limited Effect of Federal Exclusion

The final exclusion being granted today is issued under the Federal (RCRA) delisting program. States, however, are allowed to impose their own, non-RCRA regulatory requirements that are more stringent than EPA's, pursuant to section 3009 of RCRA. These more stringent requirements may include a provision which prohibits a Federally-issued exclusion from taking effect in the State. Because a petitioner's waste may be regulated under a dual system (*i.e.*, both Federal (RCRA) and State (non-RCRA) programs), petitioners are urged to contact State regulatory authority to determine the current status of their wastes under State law.

Furthermore, some States (*e.g.*, Georgia, Illinois) are authorized to administer a delisting program in lieu of the Federal program, *i.e.*, to make their own delisting decisions. Therefore, this exclusion does not apply in those authorized States. If the petitioned CSEAFD will be transported to and managed in any State with delisting authorization, CSI must obtain delisting authorization from that State before the CSEAFD may be managed as non-hazardous in the State.

### IV. Effective Date

This rule is effective on June 13, 1995. The Hazardous and Solid Waste Amendments of 1984 amended section 3010 of RCRA to allow rules to become effective in less than six months when the regulated community does not need the six-month period to come into compliance. That is the case here because this rule reduces, rather than increases, the existing requirements for persons generating hazardous wastes. In light of the unnecessary hardship and expense that would be imposed on this petitioner by an effective date of six

months after publication and the fact that a six-month deadline is not necessary to achieve the purpose of Section 3010, EPA believes that this rule should be effective immediately upon publication. These reasons also provide a basis for making this rule effective immediately, upon publication, under the Administrative Procedure Act, pursuant to 5 U.S.C. 553(d).

### V. Regulatory Impact

Under Executive Order 12866, EPA must conduct an "assessment of the potential costs and benefits" for all "significant" regulatory actions. The effect of this rule is to reduce the overall costs and economic impact of EPA's hazardous waste management regulations. The reduction is achieved by excluding waste from EPA's lists of hazardous wastes, thereby enabling a facility to treat its waste as non-hazardous. As discussed in the Agency response to public comments, this rule is unlikely to have an adverse annual effect on the economy of \$100 million or more. Therefore, this rule does not represent a significant regulatory action under the Executive Order, and no assessment of costs and benefits is necessary. The Office of Management and Budget (OMB) has exempted this rule from the requirement for OMB review under section (6) of Executive Order 12866.

### VI. Regulatory Flexibility Act

Pursuant to the Regulatory Flexibility Act, 5 U.S.C. 601-612, whenever an agency is required to publish a general notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis which describes the impact of the rule on small entities (*i.e.*, small businesses, small organizations, and small governmental jurisdictions). No regulatory flexibility analysis is required, however, if the Administrator or delegated representative certifies that the rule will not have any impact on any small entities.

This regulation will not have an adverse impact on any small entities since its effect will be to reduce the overall costs of EPA's hazardous waste regulations. Accordingly, I hereby certify that this regulation will not have a significant economic impact on a substantial number of small entities. This regulation, therefore, does not require a regulatory flexibility analysis.

### VII. Paperwork Reduction Act

Information collection and recordkeeping requirements associated with this final rule have been approved

by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act of 1980 (Pub. L. 96-511, 44 U.S.C. 3501 et seq.) and have been assigned OMB Control Number 2050-0053.

### VIII. Unfunded Mandates Reform Act

Under section 202 of the Unfunded Mandates Reform Act of 1995 ("UMRA"), Pub. L. 104-4, which was signed into law on March 22, 1995, EPA generally must prepare a written statement for rules with Federal mandates that may result in estimated costs to State, local, and tribal governments in the aggregate, or to the private sector, of \$100 million or more in any one year. When such a statement is required for EPA rules, under section 205 of the UMRA EPA must identify and consider alternatives, including the least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule. EPA must select that alternative, unless the Administrator explains in the final rule why it was not selected or it is inconsistent with law. Before EPA establishes regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must develop under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, giving them meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising them on compliance with the regulatory requirements.

The UMRA generally defines a Federal mandate for regulatory purposes as one that imposes an enforceable duty upon State, local, or tribal governments or the private sector. EPA finds that today's delisting decision is deregulatory in nature and does not impose any enforceable duty on any State, local, or tribal governments or the private sector. In addition, today's delisting decision does not establish any regulatory requirements for small governments and so does not require a small government agency plan under UMRA section 203.

### Lists of Subjects in 40 CFR Part 261

Hazardous Waste, Recycling, Reporting and recordkeeping requirements.

Dated: May 30, 1995.  
**Michael H. Shapiro,**  
 Director, Office of Solid Waste.

For the reasons set out in the preamble, 40 CFR part 261 is amended as follows:

**PART 261—IDENTIFICATION AND LISTING OF HAZARDOUS WASTE**

1. The authority citation for Part 261 continues to read as follows:

**Authority:** 42 U.S.C. 6905, 6912(a), 6921, 6922, and 6938.

2. In Table 2 of Appendix IX, Part 261 add the following wastestream in alphabetical order by facility to read as follows: Appendix IX—Wastes Excluded Under §§ 260.20 and 260.22.

TABLE 2.—WASTES EXCLUDED FROM SPECIFIC SOURCES

Facility	Address	Waste description
* Conversion Systems, Inc.	* Horsham, Pennsylvania.	* Chemically Stabilized Electric Arc Furnace Dust (CSEAFD) that is generated by Conversion Systems, Inc. (CSI) (using the Super Detox™ treatment process as modified by CSI to treat EAFD (EPA Hazardous Waste No. K061)) at the following sites and that is disposed of in Subtitle D landfills: Northwestern Steel, Sterling, Illinois after June 13, 1995. CSI must implement a testing program for each site that meets the following conditions for the exclusion to be valid: (1) <i>Verification Testing Requirements:</i> Sample collection and analyses, including quality control procedures, must be performed according to SW-846 methodologies. (A) <i>Initial Verification Testing:</i> During the first 20 operating days of full-scale operation of a newly constructed Super Detox™ treatment facility, CSI must analyze a minimum of four (4) composite samples of CSEAFD representative of the full 20-day period. Composites must be comprised of representative samples collected from every batch generated. The CSEAFD samples must be analyzed for the constituents listed in Condition (3). CSI must report the operational and analytical test data, including quality control information, obtained during this initial period no later than 60 days after the generation of the first batch of CSEAFD. (B) <i>Addition of New Super Detox™ Treatment Facilities to Exclusion:</i> If the Agency's review of the data obtained during initial verification testing indicates that the CSEAFD generated by a specific Super Detox™ treatment facility consistently meets the delisting levels specified in Condition (3), the Agency will publish a notice adding to this exclusion the location of the new Super Detox™ treatment facility and the name of the steel mill contracting CSI's services. If the Agency's review of the data obtained during initial verification testing indicates that the CSEAFD generated by a specific Super Detox™ treatment facility fails to consistently meet the conditions of the exclusion, the Agency will not publish the notice adding the new facility. (C) <i>Subsequent Verification Testing:</i> For the Sterling, Illinois facility and any new facility subsequently added to CSI's conditional multiple-site exclusion, CSI must collect and analyze at least one composite sample of CSEAFD each month. The composite samples must be composed of representative samples collected from all batches treated in each month. These monthly representative samples must be analyzed, prior to the disposal of the CSEAFD, for the constituents listed in Condition (3). CSI may, at its discretion, analyze composite samples gathered more frequently to demonstrate that smaller batches of waste are nonhazardous. (2) <i>Waste Holding and Handling:</i> CSI must store as hazardous all CSEAFD generated until verification testing as specified in Conditions (1)(A) and (1)(C), as appropriate, is completed and valid analyses demonstrate that Condition (3) is satisfied. If the levels of constituents measured in the samples of CSEAFD do not exceed the levels set forth in Condition (3), then the CSEAFD is non-hazardous and may be disposed of in Subtitle D landfills. If constituent levels in a sample exceed any of the delisting levels set in Condition (3), the CSEAFD generated during the time period corresponding to this sample must be retreated until it meets these levels, or managed and disposed of in accordance with Subtitle C of RCRA. CSEAFD generated by a new CSI treatment facility must be managed as a hazardous waste prior to the addition of the name and location of the facility to the exclusion. After addition of the new facility to the exclusion, CSEAFD generated during the verification testing in Condition (1)(A) is also non-hazardous, if the delisting levels in Condition (3) are satisfied. (3) <i>Delisting Levels:</i> All leachable concentrations for those metals must not exceed the following levels (ppm): Antimony—0.06; arsenic—0.50; barium—7.6; beryllium—0.010; cadmium—0.050; chromium—0.33; lead—0.15; mercury—0.009; nickel—1; selenium—0.16; silver—0.30; thallium—0.020; vanadium—2; and zinc—70. Metal concentrations must be measured in the waste leachate by the method specified in 40 CFR 261.24. (4) <i>Changes in Operating Conditions:</i> After initiating subsequent testing as described in Condition (1)(C), if CSI significantly changes the stabilization process established under Condition (1) (e.g., use of new stabilization reagents), CSI must notify the Agency in writing. After written approval by EPA, CSI may handle CSEAFD wastes generated from the new process as non-hazardous, if the wastes meet the delisting levels set in Condition (3).

TABLE 2.—WASTES EXCLUDED FROM SPECIFIC SOURCES—Continued

Facility	Address	Waste description
*	*	<p>(5) <i>Data Submittals:</i> At least one month prior to operation of a new Super Detox™ treatment facility, CSI must notify, in writing, the Chief of the Waste Identification Branch (see address below) when the Super Detox™ treatment facility is scheduled to be on-line. The data obtained through Condition (1)(A) must be submitted to the Branch Chief of the Waste Identification Branch, OSW (Mail Code 5304), U.S. EPA, 401 M Street, SW, Washington, DC 20460 within the time period specified. Records of operating conditions and analytical data from Condition (1) must be compiled, summarized, and maintained on site for a minimum of five years. These records and data must be furnished upon request by EPA, or the State in which the CSI facility is located, and made available for inspection. Failure to submit the required data within the specified time period or maintain the required records on site for the specified time will be considered by EPA, at its discretion, sufficient basis to revoke the exclusion to the extent directed by EPA. All data must be accompanied by a signed copy of the following certification statement to attest to the truth and accuracy of the data submitted:</p> <p>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 Federal Code, which include, but may not be limited to, 18 U.S.C. 1001 and 42 U.S.C. 6928), I certify that the information contained in or accompanying this document is true, accurate and complete.</p> <p>As to the (those) identified section(s) of this document for which I cannot personally verify its (their) truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.</p> <p>In the event that any of this information is determined by EPA in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of waste will be void as if it never had effect or to the extent directed by EPA and that the company will be liable for any actions taken in contravention of the company's RCRA and CERCLA obligations premised upon the company's reliance on the void exclusion.</p>
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[FR Doc. 95-14338 Filed 6-12-95; 8:45 am]  
 BILLING CODE 6560-50-P

**40 CFR Part 261**

[SW-FRL-5220-5]

**Hazardous Waste Management System; Identification and Listing of Hazardous Waste; Final Exclusion**

**AGENCY:** Environmental Protection Agency.

**ACTION:** Final rule.

**SUMMARY:** The Environmental Protection Agency (EPA or Agency) today is granting a petition submitted by the U.S. Department of Energy (DOE), Richland, Washington, to exclude certain wastes to be generated by a treatment process at its Hanford facility from being listed as hazardous wastes. This action responds to DOE's petition to exclude these treated wastes on a "generator-specific" basis from the hazardous waste lists.

Based on careful analyses, the Agency has concluded that the disposal of these wastes, after treatment, will not adversely affect human health and the environment. This final rule excludes the petitioned waste from the requirements of hazardous waste regulations under the Resource Conservation and Recovery Act (RCRA), but imposes testing conditions to ensure

that the future-generated waste remains qualified for delisting.

This final rule will also allow DOE to proceed with critical cleanup at the Hanford site. The primary goal of cleanup is to protect human health and the environment by reducing risks from unintended releases of hazardous wastes that are currently stored at the site.

**EFFECTIVE DATE:** June 13, 1995.

**ADDRESSES:** The public docket for this final rule is located at the U.S. Environmental Protection Agency, 401 M Street SW., Washington, D.C. 20460, and is available for viewing (room M2616) from 9 a.m. to 4 p.m., Monday through Friday, excluding Federal holidays. Call (202) 260-9327 for appointments. The reference number for this docket is "F-95-HNEF-FFFFF". The public may copy material from any regulatory docket at no cost for the first 100 pages, and at \$0.15 per page for additional copies.

**FOR FURTHER INFORMATION CONTACT:** For general information, contact the RCRA Hotline, toll free at (800) 424-9346, or at (703) 412-9810. For technical information concerning this notice, contact Shen-yi Yang, Office of Solid Waste (5304), U.S. Environmental Protection Agency, 401 M Street SW., Washington, D.C. 20460, (202) 260-1436.

**SUPPLEMENTARY INFORMATION:**

**I. Background**

*A. Authority*

Under §§ 260.20 and 260.22, facilities may petition the Agency to remove their wastes from hazardous waste control by excluding them from the lists of hazardous wastes contained in §§ 261.31 and 261.32. Petitioners must provide sufficient information to EPA to allow the Agency to determine that the waste to be excluded does not meet any of the criteria under which the waste was listed as a hazardous waste. In addition, the administrator must determine, where he has 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.

*B. History of This Rulemaking*

DOE's Hanford site, located in Richland, Washington, petitioned the Agency to exclude from hazardous waste control the effluents to be generated from its proposed 200 Area Effluent Treatment Facility (ETF). The effluents are presently listed as EPA Hazardous Waste Nos. F001 through F005, and F039 derived from F001 through F005. After evaluating the petition, EPA proposed, on February 1,