

**Document:** Proposed Rule

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**TITLE 329 SOLID WASTE MANAGEMENT  
BOARD**

**Proposed Rule**  
LSA Document #00-255

**DIGEST**

Adds 329 IAC 3.1-6-6 to conditionally exclude from regulation under 329 IAC 3.1 electric arc furnace dust that is treated to be nonhazardous by Heritage Environmental Services, LLC at Nucor Steel Corporation, Crawfordsville, Indiana. Effective 30 days after filing with the secretary of state.

**HISTORY**

Findings and Determination of the Commissioner Pursuant to IC 13-14-9-7, Tentative Recommendation for Rulemaking, Second Notice of Comment Period, and Notice of First Public Hearing: December 1, 2000, Indiana Register (24 IR 804).

Date of First Public Hearing: March 20, 2001.

**PUBLIC COMMENTS UNDER IC 13-14-9-4.5**

IC 13-14-9-4.5 states that a board may not adopt a rule under IC 13-14-9 that is substantively different from the draft rule published under IC 13-14-9-4, until the board has conducted a third comment period that is at least twenty-one (21) days long.

**REQUEST FOR PUBLIC COMMENTS**

Portions of this proposed rule are substantively different from the draft rule published on December 1, 2000, at 24 IR 804. The Indiana Department of Environmental Management (IDEM) is requesting comment on the following portions of the proposed (preliminarily adopted) rule that are substantively different from the language contained in the draft rule. The following sections of the proposed rule are substantively different from the draft rule:

329 IAC 3.1-6-6(1)

329 IAC 3.1-6-6(2)

329 IAC 3.1-6-6(7)

In addition, the following provision appeared in the draft rule but was deleted from the proposed (preliminarily adopted) rule:

Requirements the generator must meet if the treated waste does not meet delisting levels, at 329 IAC 3.1-6-6(3) in the draft rule.

This notice requests the submission of comments on the sections of the rule listed above, including suggestions for specific amendments to those sections. These comments and the department's responses thereto will be presented to the board for its consideration at final adoption under IC 13-14-9-6. Comments on additional sections of the proposed rule that the commentor believes are substantively different from the draft rule may also be submitted for the consideration of the board. Mailed comments should be addressed to:

#00-255(SWMB)[Heritage EAFD Delisting]

Marjorie Samuel

Rules, Planning and Outreach Section

Office of Land Quality

Indiana Department of Environmental Management

P.O. Box 6015

Indianapolis, Indiana 46206-6015.

Hand delivered comments will be accepted by the receptionist on duty at the eleventh floor reception desk, Office of Land Quality, 100 North Senate Avenue, Eleventh Floor East, Indianapolis, Indiana. Comments may be submitted by facsimile at (317) 232-3403, Monday through Friday, between 8:15 a.m. and 4:45 p.m. Please confirm the timely receipt of faxed comments by calling the Rules, Planning and Outreach Section at (317) 232-1655 or (317) 232-7995.

**COMMENT PERIOD DEADLINE**

Comments must be postmarked, hand delivered or faxed by May 23, 2001.

Additional information regarding this action may be obtained from Steve Mojonnier of the Rules, Planning and Outreach Section, Office of Land Quality, (317) 233-1655 or call (800) 451-6027 (in Indiana), press zero (0), and ask for extension 3-1655.

## **SUMMARY/RESPONSE TO COMMENTS FROM THE SECOND PUBLIC COMMENT PERIOD**

The Indiana Department of Environmental Management (IDEM) requested public comment from December 1, 2000, through January 1, 2001, on IDEM's draft rule language. IDEM received comments from the following party:

Mr. Craig Hogarth, Heritage Environmental Services, LLC (HES)

Following is a summary of the comments received and IDEM's responses thereto:

*Comment:* Regarding proposed 329 IAC 3.1-6-6(2)(A): Heritage is clarifying that we will follow the extraction procedure for the toxicity characteristic leaching procedure (TCLP) as modified as described in Appendix D of our petition to delist. (HES)

*Response:* IDEM agrees with this clarification. The modification to the TCLP extraction procedure was originally submitted as confidential business information, and was resubmitted later without the confidentiality claim. This modification involves deoxygenation of the extraction fluids. The modified procedure has been made a part of the draft rule.

*Comment:* Regarding proposed 329 IAC 3.1-6-6(7)(A): Heritage believes that the Subtitle D landfill meets the ground water monitoring requirements of 329 IAC 10-21. We are seeking clarification on whether or not statistics are required as required by Table 1A but not required for Table 1B. Heritage desires clarification as to whether or not these constituents are part of the solid waste permit issued to the facility or part of the exclusion. (HES)

*Response:* The constituents listed in 329 IAC 10-20-15(a), Table 1A, are to be included in the detection monitoring program and are subject to the statistical evaluation procedures described in 329 IAC 10-21-6. The constituents listed in 329 IAC 10-20-15(b), Table 1B, are to be included in the detection monitoring program but are exempt from the statistical evaluation procedures described in 329 IAC 10-21-6.

*Comment:* Regarding proposed 329 IAC 3.1-6-6(7)(C): Heritage believes that the constituent cyanide is not appropriate for ground water monitoring. Heritage analyzed and did not detect cyanide in the electric arc furnace dust. We have a similar concern with vanadium. Our experience at the landfills indicates that naturally occurring arsenic will be present in ground water samples above the specified limit. These background values automatically trigger a notification to the (IDEM) under the draft rule. We are unsure whether these constituents (antimony, beryllium, nickel thallium or vanadium) will be present at naturally occurring concentrations above the specified limits. Heritage is uncertain whether the practical quantitation limit for thallium can routinely be met using the standard metal analysis instrumentation for ground water analysis. (HES)

*Response:* Ground water monitoring for constituents in addition to the requirements of 329 IAC 10-21 is not required. The constituents referred to in these comments are part of language included in the rule for consistency with the U.S. Environmental Protection Agency proposed rule at paragraph (5), "Reopener Language" (65 FR 75905). This paragraph provides that if, at any time after disposal of the waste, Heritage or Nucor possesses or becomes aware of any data indicating that the concentration of any listed constituent in the ground water exceeds the maximum allowable point of exposure concentration predicted for that constituent, then Heritage or Nucor must notify IDEM of that exceedance in writing within ten (10) days. The EPA proposed rule references the EPA Composite Model for Leachate Migration with Transformation Products (EPACMTP), a part of the Delisting Risk Assessment Software Program (DRAS), used to predict the risks associated with delisted wastes. Because it is impractical to incorporate by reference the EPACMTP model, IDEM has calculated these levels and placed them in the draft rule as Table 2. Table 2 is not part of the ground water monitoring program in 329 IAC 10-21. Cyanide will be removed from Table 2. The requirements referred to in these comments will be moved to a separate subdivision.

*Comment:* Regarding proposed 329 IAC 3.1-6-6(8): Heritage desires to have the capability to landfill the excluded waste in either the Subtitle D or the Subtitle C facility located in Roachdale, Putnam County, Indiana. (HES)

*Response:* Disposal of the treated electric arc furnace dust (EAFD) in either cells permitted under 329 IAC 10 or cells permitted under 329 IAC 3.1 is authorized. Disposal in the "Subtitle D" facility must comply with 329 IAC 10 and IC 13-20-7.5. Disposal in the "Subtitle C" facility must comply with 329 IAC 3.1. The draft rule will be revised to clarify where disposal is authorized.

*Comment:* Regarding proposed 329 IAC 3.1-6-6(10): Heritage does not understand the prohibition on alternate daily cover. We believe the prohibition is too restrictive. Under the circumstances, Heritage believes that certain types of daily cover (e.g., chipped tires, tarps, etc.) may not be appropriate, however, other types of daily cover (e.g., petroleum contaminated soils, slag, etc.) would be acceptable in lieu of natural soil cover. Acceptable alternative daily cover for excluded waste should be identified as part of a permit modification for the landfill. (HES)

*Response:* Heritage Landfill is currently permitted for use of a number of materials as alternative daily cover. Several of these materials are not appropriate for use with the treated EAFD. The draft rule will be amended to allow use of alternative daily cover materials that are specifically approved for use over the treated EAFD.

## **SUMMARY/RESPONSE TO COMMENTS RECEIVED AT THE FIRST PUBLIC HEARING**

On March 20, 2001, the solid waste management board (board) conducted the first public hearing/board meeting concerning the

development of new rules at 329 IAC 3.1-6-6. No comments were made at the first hearing.

**FISCAL ANALYSIS PREPARED BY THE LEGISLATIVE SERVICES AGENCY**

IDEM has estimated that the economic impact of this rule will be less than five hundred thousand dollars (\$500,000) on the regulated entities. The proposed rule was not submitted to the Legislative Services Agency for analysis under IC 4-22-2-28.

**329 IAC 3.1-6-6**

SECTION 1. 329 IAC 3.1-6-6 IS ADDED TO READ AS FOLLOWS:

**329 IAC 3.1-6-6 Waste excluded from regulation; Heritage Environmental Services, LLC and Nucor Steel Corporation, Crawfordsville, Indiana**

**Authority: IC 13-14-8; IC 13-22-2**

**Affected: IC 13-22**

**Sec. 6. Electric arc furnace dust (EAFD), hazardous waste code K061, that is generated by Heritage Environmental Services, LLC (Heritage) and Nucor Steel, Division of Nucor, Corporation (Nucor) at Nucor's Crawfordsville, Indiana plant, and treated to be nonhazardous is excluded from regulation under this article so long as management of the waste complies with all of the following conditions:**

**(1) Delisting levels for the waste excluded by this section are as follows:**

**(A) The constituent concentrations measured in any of the extracts required by subdivision (2) must not exceed any of the levels listed in Table 1 as follows:**

**Table 1. Maximum Constituent Concentrations in TCLP Extracts**

<b>Antimony</b>	<b>0.206 mg/L</b>
<b>Arsenic</b>	<b>0.0936 mg/L</b>
<b>Barium</b>	<b>55.7 mg/L</b>
<b>Beryllium</b>	<b>0.416 mg/L</b>
<b>Cadmium</b>	<b>0.15 mg/L</b>
<b>Chromium (total)</b>	<b>1.55 mg/L</b>
<b>Lead</b>	<b>5.0 mg/L</b>
<b>Mercury</b>	<b>0.149 mg/L</b>
<b>Nickel</b>	<b>28.3 mg/L</b>
<b>Selenium</b>	<b>0.58 mg/L</b>
<b>Silver</b>	<b>3.84 mg/L</b>
<b>Thallium</b>	<b>0.088 mg/L</b>
<b>Vanadium</b>	<b>21.1 mg/L</b>
<b>Zinc</b>	<b>280 mg/L</b>

**(B) Total mercury in the treated EAFD must not exceed one (1.0) milligram per kilogram.**

**(2) Heritage shall demonstrate on a monthly basis that the constituents in the treated EAFD do not exceed the delisting levels in subdivision (1) as follows:**

**(A) Heritage shall collect two (2) representative samples of the treated EAFD each month. Each sample must be analyzed using all of the following tests:**

**(i) Method 1311, Toxicity Characteristic Leaching Procedure (TCLP), described in U.S. Environmental Protection Agency Publication SW-846, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," 3rd Edition (November 1986), as amended by Updates I (July 1992), II (September 1994), IIA (August 1993), IIB (January 1995), and III (December 1996) (SW-846).**

**(ii) Method 1311, described in item (i), substituting an extraction fluid with a pH of  $12.0 \pm 0.05$  standard units for the normal extraction fluid. Heritage may remove dissolved oxygen to less than five-tenths (0.5) parts per million by the addition of a stoichiometric amount of sodium hydrosulfite.**

**(iii) Method 7471A, Mercury in Solid or Semi-Solid Waste (Manual Cold-Vapor Technique), described in SW-846.**

- (B) Detection levels must be less than the delisting levels in subdivision (1).
- (C) Heritage must comply with Chapter 1, "Quality Control," of SW-846. U.S. Environmental Protection Agency Publication SW-846 is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.
- (3) Changes in the manufacturing process or the treatment process must be managed as follows:
- (A) Heritage must notify the department in writing if any of the following occur:
- (i) If Nucor changes the manufacturing process or chemicals used in the manufacturing process from those described in the petition for delisting.
  - (ii) If Heritage changes the treatment process or the chemicals used in the treatment process from those described in the petition for delisting.
- (B) Heritage must handle all wastes generated after any process change as hazardous waste until all of the following occur:
- (i) Heritage has demonstrated that:
    - (AA) the wastes continue to meet all delisting levels in subdivision (1); and
    - (BB) no new hazardous constituents listed in 40 CFR 261, Appendix VIII have been introduced.
  - (ii) Heritage has received written approval from the department to continue to manage the treated EAFD under this exclusion.
- (4) Heritage must submit an annual report that summarizes the data obtained through monthly verification testing to IDEM by February 1 of each year. The report must include the results of each month's analysis required by subdivision (2) for the previous calendar year.
- (5) Heritage must compile, summarize, and maintain records of operating conditions and analytical data. The records must be maintained for a minimum of five (5) years. The records must be made available for inspection by the department during normal working hours.
- (6) All data required by subdivisions (4) and (5) must be accompanied by a signed copy of the certification statement in 40 CFR 260.22(i)(12).
- (7) The treated EAFD must be disposed of in accordance with:
- (A) 329 IAC 10; or
  - (B) this article.
- (8) Solid waste landfill units permitted under 329 IAC 10 that accept the treated EAFD must comply with the ground water monitoring requirements of 329 IAC 10-21.
- (9) The treated EAFD must be covered in accordance with 329 IAC 10-20-13 through 329 IAC 10-20-14.
- (10) Only the following materials may be used as alternative daily cover over the treated EAFD:
- (A) Category B slag debris.
  - (B) Foundry sand.
  - (C) Petroleum contaminated soils.
  - (D) Fly ash.
  - (E) Conditioned fly ash.
  - (F) Coal ash.
  - (G) Uncontaminated rocks, bricks, concrete, road demolition waste materials, or dirt.
  - (H) Other materials approved in accordance with 329 IAC 10-20-14.1 for use over the treated EAFD after the effective date of this rule.
- (11) No waste that is capable of providing oxygen or acting as a source of oxygen may be disposed of in the same cell or unit as the treated EAFD.
- (12) If, at any time after disposal of the delisted waste, Heritage possesses or is otherwise made aware of any data relevant to the delisted waste indicating that any constituent identified in subdivision (1) is at a level in a test extract or in the leachate that is higher than the delisting level listed in subdivision (1), then Heritage must report such data in writing to the commissioner within ten (10) days of first possessing or being made aware of that data.
- (13) If, at any time after disposal of the treated EAFD, Heritage possesses or is otherwise made aware of any data relevant to the delisted waste indicating that any of the following constituents is at a level in the ground water higher than the levels listed in Table 2, then Heritage must report such data in writing to the commissioner with ten (10) days after first possessing or being made aware of that data:

Table 2. Maximum Allowable  
Concentrations in Ground Water

Antimony	0.006 mg/L
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<b>Arsenic</b>	<b>0.005 mg/L</b>
<b>Barium</b>	<b>2.0 mg/L</b>
<b>Beryllium</b>	<b>0.004 mg/L</b>
<b>Cadmium</b>	<b>0.005 mg/L</b>
<b>Chromium</b>	<b>0.1 mg/L</b>
<b>Lead</b>	<b>0.015 mg/L</b>
<b>Mercury</b>	<b>0.002 mg/L</b>
<b>Nickel</b>	<b>0.753 mg/L</b>
<b>Selenium</b>	<b>0.05 mg/L</b>
<b>Silver</b>	<b>0.187 mg/L</b>
<b>Thallium</b>	<b>0.002 mg/L</b>
<b>Vanadium</b>	<b>0.263 mg/L</b>
<b>Zinc</b>	<b>11.25 mg/L</b>
<b>Sulfides</b>	<b>1.0 mg/L</b>

**(14) No more than thirty thousand (30,000) cubic yards of treated EAFD may be treated or disposed of annually under this exclusion.**

*(Solid Waste Management Board; 329 IAC 3.1-6-6)*

**Notice of Public Hearing**

*Under IC 4-22-2-24, IC 13-14-8-6, and IC 13-14-9, notice is hereby given that on June 19, 2001 at 1:30 p.m., at the Indiana Government Center-South, 402 West Washington Street, Conference Center Room B, Indianapolis, Indiana the Solid Waste Management Board will hold a public hearing on new rules at 329 IAC 3.1-6-6 for wastes delisted under 329 IAC 3.1-5-2.*

*The purpose of this hearing is to receive comments from the public prior to final adoption of these rules by the board. All interested persons are invited and will be given reasonable opportunity to express their views concerning the proposed new rules. Oral statements will be heard, but for the accuracy of the record, all comments should be submitted in writing. Procedures to be followed at this hearing may be found in the April 1, 1996, Indiana Register, page 1710 (19 IR 1710).*

*Additional information regarding this action may be obtained from Steve Mojonier, Rules, Planning and Outreach Section, Office of Land Quality, (317) 233-1655 or call (800) 451-6027 (in Indiana), press zero (0), and ask for extension 3-1655.*

*Individuals requiring reasonable accommodations for participation in this event should contact the Indiana Department of Environmental Management, Americans with Disabilities Act coordinator at:*

*Attn: ADA Coordinator  
Indiana Department of Environmental Management  
100 North Senate Avenue  
P.O. Box 6015  
Indianapolis, Indiana 46206-6015*

*or call (317) 233-6947 (V) or (317) 233-6565 (TDD). Please provide a minimum of 72 hours' notification. Copies of these rules are now on file at the Office of Land Quality, Indiana Department of Environmental Management, Indiana Government Center-North, 100 North Senate Avenue, Centralized File Room, Room 1201 and Legislative Services Agency, One North Capitol, Suite 325, Indianapolis, Indiana and are open for public inspection.*

Mary Beth Tuohy  
Assistant Commissioner  
Office of Land Quality