

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Carbon monoxide, Hydrocarbons, Incorporation by reference, Intergovernmental relations, Lead, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

List of Subjects in 40 CFR Part 70

Environmental protection, Administrative practice and procedure, Air pollution control, Intergovernmental relations, Operating permits, Reporting and recordkeeping requirement.

Authority: 42 U.S.C. 7401-7671q.

Dated: February 5, 1997.

William Rice,

Acting Regional Administrator.

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40 CFR Part 268

[FRL-5699-3]

RIN 2050 AE05

Land Disposal Restrictions—Phase IV: Treatment Standards for Characteristic Metal Wastes; Notice of Data Availability

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of data availability.

SUMMARY: EPA has received additional information on an issue it first raised in the Land Disposal Restrictions (LDR) Phase III proposed rule (60 FR 11702, March 2, 1995), that of whether the addition of iron filings (and iron dust) to lead-contaminated spent foundry sand is a means of diluting the waste impermissibly rather than treating it to conform with the requirements of the LDR rules. The new information being noticed today addresses whether this practice stabilizes (or otherwise treats) lead, the chief hazardous constituent found in the spent sand, so that the lead will not migrate through the environment when the spent sand is land disposed. Stabilization as a technology-based LDR standard (STABL) is described in 40 CFR 268.42 as using the following reagents (or waste reagents) or combinations of reagents: (1) Portland cement; or (2) lime/pozzolans (e.g., fly ash and cement kiln dust)—this does not preclude the addition of reagents (e.g., iron salts, silicates, and clays) designed to enhance the set/cure time and/or compressive strength, or to overall reduce the leachability of the metal or inorganic.

New studies have been performed to evaluate this hazardous waste management practice, and the studies have undergone external Peer Review. EPA is noticing these studies, and the results of the Peer Review, in this Notice, and soliciting public comment. EPA may use the results of the studies to promulgate a revised final approach on this waste management practice in an upcoming LDR rulemaking (Phase IV).

The public has 30 days from publication of this notice to comment on the results of the studies and the Peer Review. This notice does not reopen for comment any other Phase III or Phase IV issue; only comments about the waste management practice of adding iron filings or dust to lead-contaminated spent foundry sand will be considered by the Agency.

DATES: Comments are due by April 4, 1997.

ADDRESSES: To submit comments, the public must send an original and two copies to Docket Number F-97-PH3A-FFFFF, located at the RCRA Docket. The mailing address is: RCRA Information Center, U.S. Environmental Protection Agency (5305W), 401 M Street, SW, Washington, DC 20460. RCRA Information Center is located at 1235 Jefferson Davis Highway, First Floor, Arlington, Virginia. The RCRA Information Center is open for public inspection and copying of supporting information for RCRA rules from 9:00 a.m. to 4:00 p.m. Monday through Friday, except for Federal holidays. The public must make an appointment to review docket materials by calling (703) 603-9230. The public may copy a maximum of 100 pages from any regulatory document at no cost. Additional copies cost \$0.15 per page.

FOR FURTHER INFORMATION CONTACT: For general information or to order paper copies of this Federal Register document, call the RCRA Hotline. Callers within the Washington Metropolitan Area must dial 703-412-9810 or TDD 703-412-3323 (hearing impaired). Long-distance callers may call 1-800-424-9346 or TDD 1-800-553-7672. The RCRA Hotline is open Monday-Friday, 9:00 a.m. to 6:00 p.m., Eastern Standard Time. For other information on this notice, contact Mary Cunningham at (703) 308-8453, John Austin at (703) 308-0436 or Rhonda Craig at (703) 308-8771, Office of Solid Waste, Mail Code 5302W, 401 M Street, SW, Washington, DC 20460.

SUPPLEMENTARY INFORMATION:**Paperless Office Effort**

EPA is asking prospective commenters to voluntarily submit one additional copy of their comments on labeled personal computer diskettes in ASCII (TEXT) format or a word processing format that can be converted to ASCII (TEXT). It is essential to specify on the disk label the word processing software and version/edition as well as the commenter's name. This will allow EPA to convert the comments into one of the word processing formats utilized by the Agency. Please use mailing envelopes designed to physically protect the submitted diskettes. EPA emphasizes that submission of comments on diskettes is not mandatory, nor will it result in any advantage or disadvantage to any commenter. This expedited procedure is in conjunction with the Agency "Paperless Office" campaign. For further information on the submission of diskettes, contact Rhonda Craig of the Waste Treatment Branch at (703) 308-8771.

This Federal Register notice is available on the Internet System through EPA Public Access Server, www.epa.gov. For the text of the notice, choose: Rules, Regulations, and Legislation; FR-Waste; Year/Month/Day.

Notice of Data Availability*I. Overview*

On March 2, 1995, EPA published the LDR Phase III proposal in the Federal Register (60 FR 11702). Among other things, EPA proposed that adding iron filings to lead-contaminated spent foundry sand constituted impermissible dilution of hazardous lead waste rather than treatment to meet the LDR treatment standards (60 FR 11731). As explained in the proposed rule, the addition of iron filings seems to temporarily retard the leachability of lead in the spent foundry sand thus allowing the waste to pass the TCLP test, but not to be permanently treated. Comments were mixed on this issue, and EPA decided not to finalize a determination that the practice is a form of impermissible dilution in the Phase III final rule without studying the issue further. See 61 FR 15569, April 8, 1996.

Since then, two studies have become available on this issue. One study was developed by Dr. John Drexler of the University of Colorado, and the other by Dr. Douglas Kendall of the National Enforcement Investigations Center (NEIC). The results of these studies indicate that the addition of iron filings or iron dust to spent foundry sand does

not constitute adequate treatment of the waste because high concentrations of lead remain available to the environment, and indeed have been shown to leach in actual field monitoring of units receiving the spent foundry wastes. The studies also may support a more basic principle: a method of treatment that does not in fact result in substantial reductions of a waste's toxicity or mobility could be viewed as not adequately minimizing threats posed by land disposal of the waste, and therefore, may fail to satisfy the requirements for permissible treatment under section 3004(m) of RCRA. Cf. 62 FR 1994-1995 (Jan. 14, 1997) (EPA discusses similar principle in connection of treatment of hazardous waste K088).

EPA requested that these studies be reviewed by experts from the academic community who are independent of EPA. The studies are discussed in greater detail below.

II. Discussion of the Studies

Spent foundry sand, as generated, may fail the Toxicity Characteristic Leaching Procedure (TCLP) for lead, and would then be considered a characteristic hazardous waste. At a brass foundry in Nacogdoches, Texas, EPA found that hazardous foundry sand is treated by the addition of iron dust and iron filings. After this treatment, the spent foundry sand passed the TCLP (and thus was no longer considered a hazardous waste) and was disposed in the municipal landfill. EPA Region VI commissioned studies to assess the effectiveness of this waste management practice. The studies discuss the chemistry behind iron treatment and conclude that the addition of iron to waste foundry sand does not permanently prevent the release of lead into the environment.

The studies were based on samples collected from two cells at the Nacogdoches Municipal landfill and NIBCO, Inc. in Nacogdoches, Texas by a team from A. T. Kearney (EPA Contractor) and EPA. The landfill cells contained waste sands and other wastes from the NIBCO facility and were sampled so as to preserve depth information. Samples taken at the NIBCO brass foundry included waste foundry sands, green sand, hydrofilter sludge, baghouse dust, resin sand, and silica sand. Dr. John W. Drexler of the University of Colorado performed a geostatistical evaluation of the Nacogdoches Landfill data and photomicrographic analysis of the samples. Dr. Douglas Kendall with EPA's National Enforcement Investigations Center (NEIC) evaluated

total and leachate analyses performed by the NEIC laboratory. These studies and supporting documentation are being placed in the docket for the Phase IV rule, and are being made available for review by today's notice.¹

In his study, Dr. Drexler concluded the following: (1) That the spent foundry wastes placed in the Nacogdoches Municipal Landfill remained hazardous in fact; (2) the addition of iron filings to spent foundry sand does not cause chemical reduction (i.e., the hazardous lead remains oxidized); (3) the addition of iron filings to the spent foundry sand promoted a physicochemical dilution of the sample during the TCLP by producing significant increases in surface area sorption sites; (4) the addition of iron filings to the waste sand artificially altered the environmental character of the TCLP test by increasing pH, and lowering Eh (redox potential) and DO (dissolved oxygen); and (5) in-vitro testing shows that these "treated" spent foundry sands maintain a high bioavailability of lead.

In his study, Dr. Kendall concluded that when metallic iron is mixed with lead-contaminated foundry sand there is no reaction, the lead is not entrapped or immobilized. During the TCLP the mixture comes in contact with an aqueous solution and the lead begins to leach into the solution. If metallic iron is present, the lead concentration in solution will be decreased by an oxidation/reduction reaction to levels below the lead characteristic level. If fresh metallic iron is regularly introduced into the mixture, then soluble lead can be kept at low levels. If, however, the mixture is placed in a landfill and left alone, the iron will oxidize, thereby losing its ability to reduce lead ions. The report concludes that adding iron is not a way to permanently treat lead-contaminated waste.

The A.T. Kearney *Peer Review Report* includes comments from three reviewers: Dr. Abinash Agrawal of Wright State University; Dr. Carl Palmer of the Oregon Institute of Science and Technology; and Dr. Geoffrey Thyne of California State University at Bakersfield. The peer reviewers were instructed to review each report to

¹ EPA is mentioning its enforcement activities here solely to indicate the provenance of the studies being made available for public comment. EPA is not seeking to influence the results of any enforcement actions by doing so. In addition, none of the Agency staff involved in any pending enforcement action involving any member of the foundry industry has any substantive involvement in the Agency's rulemaking considering the question of whether addition of iron to foundry wastes is a permissible form of treatment.

determine if the reports addressed the following questions:

1. Does the report support the conclusion that treatment has not occurred by adding iron filings to the foundry sand containing lead?
2. Do the scientific data present in the report support the conclusions reached?
3. Is the report based on sound scientific research and fact?

The peer reviewers agree that adding iron filings to spent foundry sand is not treatment of hazardous waste constituents. The Peer Review report further states that the scientific data presented in the studies support the conclusions reached by the studies. Furthermore, the Peer Review report finds that the studies are based on sound scientific research and fact.

The Agency is in the process of reviewing all the data that were obtained during the NIBCO investigation. The Agency is also continuing to review the comments submitted to the LDR Phase III proposed rulemaking which addressed this issue (59 FR 11731, March 2, 1995). These studies and data are being analyzed in order to determine the treatment validity of adding iron filings to characteristic metal wastes as a method of treatment.

The documents being placed in the docket for this NODA include:

- *Phase I, Characterization of Iron Filings Treatment Method of Foundry Sands*, Dr. John W. Drexler, Associate Professor, University of Colorado Laboratory for Environmental and Geological Studies.
- *Impermanence of Iron Treatment of Lead-Contaminated Foundry Sand*, Douglas Kendall, Ph.D., Senior Chemist, National Enforcement Investigations Center (NEIC).
- *Peer Review Report*, September 3, 1996, submitted by A.T. Kearney, Inc., Dallas, Texas to Rena McClurg, Regional Project Officer, USEPA, Dallas, Texas.
- Fax message to Bret Kendrick from Dr. Abinash Agrawal *RE: Peer Review for EPA Region 6*.
- *Reply to Reviewers' Comments; Impermanence of Iron Treatment of Lead-Contaminated Foundry Sand*, Douglas Kendall, Ph.D., Senior Chemist, National Enforcement Investigations Center (NEIC).
- *Responses to Peer Review Comments, Characterization of Iron Filings Treatment Method of Foundry Sands*, Dr. John W. Drexler.

List of Subjects in 40 CFR Part 268

Environmental protection, Hazardous waste, Reporting and recordkeeping requirements.

Dated: February 20, 1997.

Matthew Hale,

Acting Director, Office of Solid Waste.

[FR Doc. 97-5419 Filed 3-4-97; 8:45 am]

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40 CFR Part 372

[OPPTS-400101; FRL-5584-9]

RIN 2070-AC00

Polymeric Diphenylmethane Diisocyanate; Toxic Chemical Release Reporting; Community Right-to-Know

AGENCY: Environmental Protection Agency (EPA).

ACTION: Denial of petition.

SUMMARY: EPA is denying a petition to remove polymeric diphenylmethane diisocyanate (PMDI) from the diisocyanates category subject to the reporting requirements under section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) and section 6607 of the Pollution Prevention Act of 1990 (PPA). EPA has reviewed the available toxicological data on this chemical and has determined that PMDI does not meet the section 313(d)(3) deletion criterion. Therefore, EPA is denying the petitioner's request to remove PMDI from the EPCRA section 313 diisocyanates category.

FOR FURTHER INFORMATION CONTACT: Daniel R. Bushman, Acting Petitions Coordinator, 202-260-3882, or e-mail: bushman.daniel@epamail.epa.gov, for specific information regarding this document or for more information on EPCRA section 313, the Emergency Planning and Community Right-to-Know Hotline, Environmental Protection Agency, Mail Code 5101, 401 M St., SW., Washington, DC 20460, Toll free: 1-800-535-0202, in Virginia and Alaska: 703-412-9877 or Toll free TDD: 1-800-553-7672.

SUPPLEMENTARY INFORMATION:

I. Introduction

A. Statutory Authority

This action is taken under sections 313(d) and (e)(1) of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA), 42 U.S.C. 11023. EPCRA is also referred to as Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) (Pub. L. 99-499).

B. Background

Section 313 of EPCRA requires certain facilities manufacturing, processing, or otherwise using listed toxic chemicals

to report their environmental releases of such chemicals annually. Beginning with the 1991 reporting year, such facilities also must report pollution prevention and recycling data for such chemicals, pursuant to section 6607 of the Pollution Prevention Act of 1990 (PPA), 42 U.S.C. 13106. Section 313 established an initial list of toxic chemicals that was comprised of more than 300 chemicals and 20 chemical categories. Polymeric diphenylmethane diisocyanate (PMDI) is a diisocyanate chemical reportable under the diisocyanates category which was added to the EPCRA section 313 list of toxic chemicals on November 30, 1994 (59 FR 61432) (FRL-4922-2). Section 313(d) authorizes EPA to add or delete chemicals from the list, and sets forth criteria for these actions. EPA has added and deleted chemicals from the original statutory list. Under section 313(e)(1), any person may petition EPA to add chemicals to or delete chemicals from the list. Pursuant to EPCRA section 313(e)(1), EPA must respond to petitions within 180 days, either by initiating a rulemaking or by publishing an explanation of why the petition is denied.

EPCRA section 313(d)(2) states that a chemical may be listed if any of the listing criteria are met. Therefore, in order to add a chemical, EPA must demonstrate that at least one criterion is met, but does not need to examine whether all other criteria are also met. Conversely, in order to remove a chemical from the list, EPA must demonstrate that none of the criteria are met.

EPA issued a statement of petition policy and guidance in the Federal Register of February 4, 1987 (52 FR 3479), to provide guidance regarding the recommended content and format for submitting petitions. On May 23, 1991 (56 FR 23703), EPA issued guidance regarding the recommended content of petitions to delete individual members of the section 313 metal compound categories. EPA has also published a statement clarifying its interpretation of the section 313(d)(2) and (3) criteria for adding and deleting chemical substances from the section 313 list (59 FR 61432).

II. Description of Petition

On August 15, 1995, EPA received a petition from the Polyurethane Division of the Society of the Plastics Industry (SPI) to delete PMDI (Chemical Abstracts Service Registry Number (CASRN) 9016-87-9) from the list of chemicals reportable under EPCRA section 313 and PPA section 6607. Specifically, the petitioner requested

that PMDI be removed from the EPCRA section 313 diisocyanates category. The petitioner contends that PMDI should be delisted because: (1) PMDI does not independently meet the EPCRA section 313 toxicity criteria since it is a mixture that contains approximately 50 percent 4,4'-methylenediphenylene isocyanate (MDI), and it is the MDI that dominates the toxicity of the mixture; (2) PMDI is not a diisocyanate and does not meet the molecular weight criterion of the diisocyanates category that the petitioner claims was set by EPA; (3) MDI, which is the constituent of toxic concern, is listed in the diisocyanates category and its releases would continue to be reported by users of PMDI; and (4) the higher molecular weight oligomers that make up the other 50 percent of PMDI have low volatility relative to other members of the diisocyanates category which prevents significant environmental exposures.

Because the petitioner does not dispute the listing of MDI and acknowledges that the MDI component of PMDI is a source of the toxicity of PMDI, this petition is limited to the issue of whether the higher molecular weight oligomers in PMDI can reasonably be anticipated to add to the toxicity of PMDI such that PMDI should be included as a separate chemical in the diisocyanates category.

III. EPA's Technical Review of PMDI

A. Introduction

On November 30, 1994 (59 FR 61432), EPA added the diisocyanates category to the EPCRA section 313 list of toxic chemicals based on concerns for chronic pulmonary toxicity. There are no other criteria for defining this EPCRA section 313 category. The diisocyanates category consists of a list of 20 individual diisocyanates, including PMDI. The reference that the petitioner makes to a "molecular weight criteria set by EPA for the diisocyanates category" refers to the definition EPA set for the diisocyanates category under review by EPA's Office of Pollution Prevention and Toxics (OPPT) in the existing chemicals program (Ref. 1). The OPPT existing chemicals review was undertaken to determine whether to regulate diisocyanates under the Toxic Substances Control Act (TSCA). The TSCA diisocyanates category was defined as "monomeric diisocyanates of molecular weight less than or equal to 300, plus polymeric diphenylmethane diisocyanate (which is only 40 to 60 percent polymerized)." While EPA included all members of the TSCA category in the EPCRA section 313 diisocyanates category, it did not