

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 63, 258, 260, 261, 264, 265, 266, 270, 271, and 279

[FRL-7394-6]

RIN 2050-AE41

Waste Management System; Testing and Monitoring Activities; Proposed Rule: Methods Innovation Rule

AGENCY: Environmental Protection Agency.

ACTION: Proposed rule; notice of availability.

SUMMARY: The Environmental Protection Agency (EPA or Agency) proposes to amend a variety of testing and monitoring requirements throughout the Resource Conservation and Recovery Act (RCRA) regulations. We are proposing to allow more flexibility when conducting RCRA-related sampling and analysis, by removing unnecessary required uses of methods found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," also known as "SW-846," and only retaining the requirement to use SW-846 methods when the method is the only one capable of measuring a particular property (*i.e.*, it is used to measure a required method-defined parameter). This is an important step towards a performance-based measurement system (PBMS), as part of the Agency's efforts towards *Innovating for Better Environmental Results*. Additionally, we are proposing to: withdraw the reactivity method guidelines from SW-846 Chapter Seven; amend the ignitability and corrosivity hazardous waste characteristic regulations by clarifying the use of certain methods; incorporate by reference Update IIIB to SW-846; add Method 25A for analyses conducted in support of certain RCRA air emission standards; and remove a confidence limit requirement for certain feedstream analyses conducted under the National Emission Standards for Hazardous Air Pollutants (NESHAP). In addition, the Agency is announcing the availability of a new guidance document for public comment entitled "RCRA Waste Sampling Draft Technical Guidance." By making this document available for review and comment, it is our intention to provide draft guidance on waste sampling that would be beneficial to the public. These changes should make it easier and more cost effective to comply with affected regulations, without compromising human health or environmental protection.

DATES: Send your comments to reach us on or before December 30, 2002.

ADDRESSES: Comments may be submitted electronically, by mail, by facsimile, or through hand delivery/courier. Send an original and two copies of your comments to: OSWER Docket, Environmental Protection Agency, Mailcode: 5305-G, 1200 Pennsylvania Avenue, NW, Washington, DC 20460, Attention Docket ID No. RCRA-2002-0025. Follow the detailed instructions as provided in section I.B.

FOR FURTHER INFORMATION CONTACT: For general information, contact the RCRA Hotline at (800) 424-9346 (toll free) or call (703) 412-9810; or, for hearing impaired, call TDD (800) 553-7672 or TDD (703) 412-3323. For more information on specific aspects of this rulemaking, contact Kim Kirkland, Office of Solid Waste (5307W), U.S. Environmental Protection Agency, Ariel Rios Building, 1200 Pennsylvania Avenue, NW, Washington, DC 20460-0002, (703) 308-8855, e-mail address: kirkland.kim@epa.gov.

SUPPLEMENTARY INFORMATION:

I. General Information

A. How Can I Get Copies of this Document and Other Related Information?

i. Docket

EPA has established an official public docket for this action under Docket ID No. RCRA-2002-0025. The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. Although a part of the official docket, the public docket does not include Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. The official public docket is the collection of materials that is available for public viewing at the OSWER Docket, EPA West Building, Room B102, 1301 Constitution Avenue, NW, Washington DC, 20004. This Docket Facility is open from 9 a.m. to 4 p.m., Monday through Friday, excluding legal holidays. The Docket telephone number is (202) 566-1744. To view docket materials, you should call in advance and make an appointment. You may copy a maximum of 100 pages from any regulatory docket at no charge (unless the documents require copyright permission). Additional copies cost \$0.15 per page.

ii. Electronic Access

You may access this **Federal Register** document electronically through the

EPA Internet under the **Federal Register** listings at <http://www.epa.gov/fedrgstr/>.

An electronic version of the public docket is available through EPA's electronic public docket and comment system, EPA Dockets. You may use EPA Dockets at <http://www.epa.gov/edocket/> to submit or view public comments, access the index listing of the contents of the official public docket, and to access those documents in the public docket that are available electronically. Once in the system, select "search," then key in the appropriate docket identification number. You may also view and download docket information from the Internet at: <http://www.epa.gov/SW-846>.

Certain types of information will not be placed in the EPA public dockets. Information claimed as CBI and other information whose disclosure is restricted by statute, which is not included in the official public docket, will not be available for public viewing in EPA's electronic public docket. CBI materials will be placed in a separate CBI docket that is not available to the public. Redacted versions of documents containing CBI will be placed in the public dockets. In addition, EPA's policy is that copyrighted material will not be placed in EPA's electronic public docket but will be available only in printed, paper form in the official public docket. To the extent feasible, publicly available docket materials will be made available in EPA's electronic public docket. When a document is selected from the index list in EPA Dockets, the system will identify whether the document is available for viewing in EPA's electronic public docket. Although not all docket materials may be available electronically, you may still access any of the publicly available docket materials through the docket facility identified in section I.A. EPA intends to work towards providing electronic access to all of the publicly available docket materials through EPA's electronic public docket.

For public commenters, it is important to note that EPA's policy is that public comments, whether submitted electronically or in paper, will be made available for public viewing in EPA's electronic public docket as EPA receives them and without change, unless the comment contains copyrighted material, CBI, or other information whose disclosure is restricted by statute. When EPA identifies a comment containing copyrighted material, EPA will provide a reference to that material in the version of the comment that is placed in EPA's electronic public docket. The entire printed comment, including the

copyrighted material, will be available in the public docket.

Public comments submitted on computer disks that are mailed or delivered to the docket will be transferred to EPA's electronic public docket. Public comments that are mailed or delivered to the Docket will be scanned and placed in EPA's electronic public docket. Where practical, physical objects will be photographed, and the photograph will be placed in EPA's electronic public docket along with a brief description written by the docket staff.

For additional information about EPA's electronic public docket visit EPA Dockets online or see 67 FR 38102, May 31, 2002.

B. How and To Whom Do I Submit Comments?

You may submit comments electronically, by mail, or through hand delivery/courier. To ensure proper receipt by EPA, identify the appropriate docket identification number in the subject line on the first page of your comment. Please ensure that your comments are submitted within the specified comment period. Comments received after the close of the comment period will be marked "late." EPA is not required to consider these late comments, but will make every effort to do so if time and resources permit. If you wish to submit CBI or information that is otherwise protected by statute, please follow the instructions in section I.C. Do not use EPA Dockets or e-mail to submit CBI or information protected by statute.

i. Electronically

If you submit an electronic comment as prescribed below, EPA recommends that you include your name, mailing address, and an e-mail address or other contact information in the body of your comment. Also include this contact information on the outside of any disk or CD ROM you submit, and in any cover letter accompanying the disk or CD ROM. This ensures that you can be identified as the submitter of the comment and allows EPA to contact you in case EPA cannot read your comment due to technical difficulties or needs further information on the substance of your comment. EPA's policy is that EPA will not edit your comment, and any identifying or contact information provided in the body of a comment will be included as part of the comment that is placed in the official public docket, and made available in EPA's electronic public docket. If EPA cannot read your

comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment.

1. EPA Docket

Your use of EPA's electronic public docket to submit comments to EPA electronically is EPA's preferred method for receiving comments. Go directly to EPA Dockets at <http://www.epa.gov/edocket>, and follow the online instructions for submitting comments. To access EPA's electronic public docket from the EPA Internet Home Page, select "Information Sources," "Dockets," and "EPA Dockets." Once in the system, select "search," and then key in Docket ID No. RCRA-2002-0025. The system is an "anonymous access" system, which means EPA will not know your identity, e-mail address, or other contact information unless you provide it in the body of your comment.

2. E-mail

Comments may be sent by electronic mail (e-mail) to RCRA-docket@epamail.epa.gov, Attention Docket ID No. RCRA-2002-0025. In contrast to EPA's electronic public docket, EPA's e-mail system is not an "anonymous access" system. If you send an e-mail comment directly to the Docket without going through EPA's electronic public docket, EPA's e-mail system automatically captures your e-mail address. E-mail addresses that are automatically captured by EPA's e-mail system are included as part of the comment that is placed in the official public docket, and made available in EPA's electronic public docket.

3. Disk or CD ROM

You may submit comments on a disk or CD ROM that you mail to the mailing address identified in section I.B.2. These electronic submissions will be accepted in WordPerfect or ASCII file format. Avoid the use of special characters and any form of encryption.

ii. By Mail

Send an original and two copies of your comments to: OSWER Docket, Environmental Protection Agency, Mailcode: 5305-G, 1200 Pennsylvania Avenue, NW., Washington, DC 20460, Attention Docket ID No. RCRA-2002-0025.

iii. By Hand Delivery or Courier

Deliver your comments to: OSWER Docket, EPA West Building, Room B102, 1301 Constitution Avenue, NW., Washington, DC 20004, Attention Docket ID No. RCRA-2002-0025. Such

deliveries are only accepted during the Docket's normal hours of operation as identified in section I.A.1.

iv. By Facsimile

Fax your comments to (703) 603-9234, Attention Docket ID No. RCRA-2002-0025.

C. How Should I Submit CBI to the Agency?

Do not submit information that you consider to be CBI electronically through EPA's electronic public docket or by e-mail. Send or deliver information identified as CBI only to the following address: RCRA CBI Document Control Officer, Office of Solid Waste, Environmental Protection Agency, Mailcode 5305-W, 1200 Pennsylvania Avenue, NW., Washington, DC 20460, Attention Docket ID No. RCRA-2002-0025. You may claim information that you submit to EPA as CBI by marking any part or all of that information as CBI (if you submit CBI on disk or CD ROM, mark the outside of the disk or CD ROM as CBI and then identify electronically within the disk or CD ROM the specific information that is CBI). Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

In addition to one complete version of the comment that includes any information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket and EPA's electronic public docket. If you submit the copy that does not contain CBI on disk or CD ROM, mark the outside of the disk or CD ROM clearly that it does not contain CBI. Information not marked as CBI will be included in the public docket and EPA's electronic public docket without prior notice. If you have any questions about CBI or the procedures for claiming CBI, please consult the person identified in the **FOR FURTHER INFORMATION CONTACT** section.

D. How Do I Obtain Copies of SW-846?

Proposed Update IIIB and the Third Edition of SW-846, as amended by Final Updates I, II, IIA, IIB, III, and IIIA will be available in pdf format on the Internet at <http://www.epa.gov/SW-846>. A paper copy of Proposed Update IIIB is also located in the docket for this proposal (see **ADDRESSES** above). Table 1 below provides sources for both paper and electronic copies of the Third Edition of SW-846 and all of its updates.

TABLE 1.—SOURCES FOR SW-846, THIRD EDITION, AND ITS UPDATES

Source	Available portions of SW-846
Superintendent of Documents, U.S. Government Printing Office (GPO), Washington, DC 20402, (202) 512-1800.	—Paper copies of the SW-846, Third Edition, basic manual and of certain updates, including Final Updates I, II, IIA, IIB, III; Draft Update IVA; and Proposed Update IIIB. Subscriber must integrate the updates.
National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA 22161, (703) 605-6000 or (800) 553-6847.	—Paper copy of an integrated version of SW-846, Third Edition, as amended by Final Updates I, II, IIA, IIB, and III. —Individual paper copies of the SW-846, Third Edition, basic manual and of certain updates, including Final Updates I, II, IIA, IIB, III, IIIA; Draft Updates IVA and IVB; and Proposed Update IIIB. —CD-ROM of integrated version of SW-846, Third Edition, as amended by Final Updates I, II, IIA, IIB, and III (pdf and WordPerfect electronic copies). —CD-ROM of Draft Update IVA (pdf and WordPerfect electronic copies).
Internet http://www.epa.gov/SW-846	—Integrated version of SW-846, Third Edition, as amended by Final Updates I, II, IIA, IIB, III, and IIIA (pdf electronic copy). —Proposed Update IIIB (pdf electronic copy). —Draft Updates IVA and IVB (pdf electronic copy).

E. What Is the Legal Authority for This Action?

We will promulgate the part 258, 260, 261, 264–266, 270, 271, and 279 regulations under the authority of sections 1006, 2002(a), 3001–3007, 3010, 3013–3018, and 7004 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976 (commonly known as RCRA), as amended; and sections 101(37) and 114 of the Comprehensive Emergency Response and Compensation and Liability Act of 1980 (commonly known as CERCLA), as amended. We will promulgate the part 63 regulation under the authority of sections 112 and 114 of the Clean Air Act.

F. What Should I Consider as I Prepare My Comments for EPA?

In developing this proposal, we tried to address the concerns of all our stakeholders. Your comments will help us improve this rule. We invite you to provide different views on options we propose, new approaches we have not considered, new data, how this rule may effect you, or other relevant information. We welcome your views on all aspects of this proposed rule, but we request comments in particular on comment topics or questions identified within the preamble. Please note however that we are only proposing revisions to small portions of the various RCRA Program regulations and that this proposal does not re-open other parts of those regulations to public comment or judicial review.

Your comments will be most effective if you follow the suggestions below:

- Explain your views as clearly as possible.
- Provide documented technical information and/or cost data to support your views.

- If you estimate potential burden or costs, explain how you arrived at the estimate.
- Tell us which parts you support, as well as those with which you disagree.
 • Provide specific examples to illustrate your concerns.
- Offer specific alternatives.
- Refer your comments to specific sections of the proposal, such as the units or page numbers of the preamble, or the regulatory sections.
- Make sure to submit your comments by the deadline in this proposal.
- Be sure to identify the appropriate docket number in the subject line on the first page of your comment. It would also be helpful if you provided the name, date, and **Federal Register** citation related to your comments.

We will respond to both written and electronic comments in a document in the **Federal Register** or in a response to comments document placed in the official record for this rulemaking. Please note that, if you send electronic comments, we will not reply electronically unless to obtain clarification of text that may be garbled in transmission or during conversion to paper form.

G. How Is The Rest of this Preamble Organized?

We list below the order of the major preamble sections which explain our proposed action.

- II. Summary of Today's Proposed Rule and Covered Entities
- III. Background and Purpose of Proposed Action to Reform RCRA-Related Testing and Monitoring
 - A. How to Determine if a Method Is Appropriate
 - B. Why We Selected the Proposed Approach Over Other Approaches
 - C. Potential Impacts from Removal of Required uses of SW-846 Analyses

- IV. Proposed Regulatory Revisions Involving Removal of SW-846 Requirements
 - A. Removal of Requirements to Use Only SW-846 in § 260.22(d)(1)(i) and Appendix IX to Part 261
 - B. Removal of Requirements to Use Only SW-846 Method 8290 in § 261.35(b)(2)(iii)(A) and (B)
 - C. Removal of Requirement to Use Only SW-846 in § 261.38(c)(7)
 - D. Removal of Requirements to Use Only SW-846 Method 8260 in §§ 264.1034(d)(1)(iii), 264.1063(d)(2), 265.1034(d)(1)(iii), and 265.1063(d)(2)
 - E. Removal of Requirements to Use Only SW-846 Methods 8260 and 8270 and Revisions to Listing of Method Options in § 265.1084(a)(3)(iii) and (b)(3)(iii); and Revisions to § 265.1084(a)(3)(ii)(C), (b)(3)(ii)(C), and (c)(3)(i)
 - F. Removal of Requirements to Use Only SW-846 in §§ 266.100(d)(1)(ii) and (g)(2), and 266.102(b)(1)
 - G. Removal of Requirement to Use Only SW-846 in § 266.106(a)
 - H. Removal of Requirements to Use Only SW-846 in § 266.112(b)(1) and (b)(2)(i)
 - I. Removal of Requirements to Use Only SW-846 in Sections 1.0, 3.0, 10.3, and 10.6 of Appendix IX to Part 266
 - J. Removal of Requirements to Use Only SW-846 Methods in §§ 270.19(c)(1)(iii) and (iv); 270.22(a)(2)(ii)(B); 270.62(b)(2)(i)(C) and (D); and 270.66(c)(2)(i) and (ii)
 - K. Removal of SW-846 Methods from Incorporation by Reference in § 260.11(a)(11)
- V. Proposed Editorial Corrections to SW-846 References in the RCRA Testing and Monitoring Regulations
- VI. Proposed Action to Withdraw Reactivity Interim Guidance from SW-846 Chapter Seven and Remove Required SW-846 Reactivity Analyses and Threshold Levels from Conditional Delistings
- VII. Proposed Clarifications to Corrosivity and Ignitability Hazardous Waste Characteristics
 - A. Revision to § 261.22(a)(2) to Clarify That SW-846 Method 1110 Is the SW-846 Standardized Version of the NACE Standard Specified for Corrosivity Characteristic Testing

- B. Revisions to § 261.21(a)(1) to Update References to ASTM Standards, to Clarify That SW-846 Methods 1010 and 1020 Reference and Use The ASTM Standards Specified for Ignitability Characteristic Testing, and to Remove an Unnecessary Referral to Method Equivalency Petitions; and Revisions to § 260.11(a)(1) and (2) to Include the Updated References
- VIII. Availability of Proposed Update IIIB and Invitation for Public Comment on the Update
- IX. Proposed Addition of Method 25A to §§ 264.1034(c)(1)(ii) and (iv) and 265.1034(c)(1)(ii) and (iv)
- X. Proposed Removal of Requirements from § 63.1208(b)(8)(i) and (ii) in the NESHAP Standards to Demonstrate Feedstream Analytes Are Not Present at Certain Levels
- XI. Announcing the Availability of RCRA Waste Sampling Draft Technical Guidance
 - A. Why Is the Agency Releasing this Guidance?
 - B. What is Included in the Draft Guidance?
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- XII. State Authorization Procedures
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 - B. Unfunded Mandates Reform Act
 - C. Regulatory Flexibility Act (RFA) as Amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), 5 U.S.C. 601 et. seq
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 - E. Protection of Children from Environmental Risks and Safety Risks (Executive Order 13045)
 - F. Consultation and Coordination With Indian Tribal Governments (Executive Order 13175)
 - G. Federalism (Executive Order 13132)
 - H. National Technology Transfer and Advancement Act of 1995
 - I. Energy Effects (Executive Order 13211)
 - J. Paperwork Reduction Act

II. Summary of Today's Proposed Rule and Covered Entities

We, the Environmental Protection Agency (EPA or Agency), propose to amend our hazardous and nonhazardous solid waste regulations for testing and monitoring activities under the Resource Conservation and Recovery Act (RCRA), and to amend a testing requirement in the National Emission Standards for Hazardous Air Pollutants (NESHAP) from hazardous waste combustors. These changes should make it easier and more cost effective for regulated entities to comply

with the respective RCRA and NESHAP regulations. Specifically we are proposing to:

1. Reform RCRA-related testing and monitoring by restricting requirements to use SW-846 to only those situations where the method is the only one capable of measuring the property (*i.e.*, it is used to measure a required method-defined parameter). This will allow more flexibility in RCRA-related sampling and analysis by removing unnecessary required uses of SW-846.

2. Withdraw the cyanide and sulfide reactivity guidance from sections 7.3.3 and 7.3.4 of SW-846 Chapter Seven and withdraw required uses of reactive cyanide and sulfide methods and threshold levels from conditional delistings.

3. Amend the regulations for the ignitability and corrosivity hazardous waste characteristics by clarifying the use of certain methods. As part of this, we are clarifying in § 261.22(a)(2) that SW-846 Method 1110, "Corrosivity Toward Steel," is the standardized SW-846 method to determine the characteristic of corrosivity toward steel. We also propose to incorporate by reference revisions of the ASTM methods used for the determination of flash point under the characteristic of ignitability. Specifically, we propose to replace references to ASTM Methods D 3278-78 and D 93-79 or D 93-80 in § 261.21(a)(1) with more current versions of the methods, to be referenced as ASTM Methods D 3278-96 and D 93-99c.

4. Incorporate by reference Update IIIB to SW-846, which includes four revised chapters, including the revised Chapter Seven, and eleven revised methods, including method revisions to remove unnecessary required uses of SW-846 Chapter Nine, "Sampling Plan," and to update references to the aforementioned ASTM methods.

5. Add Method 25A as an analytical option to analyses conducted in support of air emission standards for process vents and/or equipment leaks at treatment, storage, and disposal facilities.

6. Remove a requirement to demonstrate that feedstream analytes are not present at levels above the 80% upper confidence limit above the mean for sources subject to NESHAP: Final Standards for Hazardous Waste Combustors.

This rule does not propose to add any additional requirements to the regulations. Instead, this rule removes certain existing requirements to use SW-846, and it clarifies what the Agency considers to be other appropriate methods. Our goal is to

make it easier and more cost effective to comply with the RCRA regulations by allowing more flexibility in method selection and use. If you prefer, you can still use the SW-846 methods referenced in the regulations to demonstrate compliance.

As noted earlier in this preamble, we are only proposing revisions to small portions of the various RCRA Program regulations and this proposal does not re-open other parts of those regulations to public comment or judicial review.

You may be covered by this action if you conduct waste sampling and analysis for RCRA- or NESHAP-related activities. Covered entities include anyone that generates, treats, stores, or disposes of hazardous or nonhazardous solid waste and are subject to RCRA subtitle C or D sampling and analysis requirements; and entities subject to NESHAP final standards for hazardous waste combustors (40 CFR part 63, subpart EEE). All types of industries, governments, and organizations may have entities that generate or manage RCRA-regulated solid wastes and may be subject to RCRA-related sampling and analysis requirements.

To determine whether your facility, company, business organization, etc., is covered by this action, you should carefully examine the applicability criteria in part 63 and in parts 258 through 299 of the Code of Federal Regulations. If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

III. Background and Purpose of Proposed Action to Reform RCRA-Related Testing and Monitoring

Currently, either our hazardous and nonhazardous solid waste regulations for testing and monitoring activities (sampling and analysis) under RCRA or the permits or waste analysis plans of facilities regulated by RCRA specify the analytes of concern to be determined in a matrix of concern at a particular regulatory level of concern. Additionally, some recently promulgated regulations specify the confidence level of concern. Most RCRA regulations leave the how (*i.e.*, which test method to use) up to you, a member of the regulated community. However, some RCRA regulations require the use of methods from the EPA publication "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," also known as "SW-846."

We initially issued SW-846 in 1980 soon after the first RCRA regulations were published. At that time, we intended that SW-846 serve two roles.

First, we intended that it serve as a guidance manual of generally appropriate and reliable analytical methods for RCRA-related testing and monitoring. Second, we intended that it serve as a readily-available source of those few analytical methods which were first required for complying with the RCRA regulations. Over the years, we published regulations that required the use of SW-846 methods in general. Subsequently, members of the regulated public made it clear to EPA that they would like the opportunity to use other reliable methods in compliance with RCRA, and EPA also decided that some of the SW-846 requirements were not necessary.

The requirement to use SW-846 in general (e.g., the delisting regulations at § 260.22) does not identify specific SW-846 methods. These requirements typically include the analyses of many different analytes which can be determined by many different methods. Almost every update to SW-846 includes at least one method that may be applicable to the requirements. Therefore, whenever we update SW-846, we must incorporate by reference the new and revised methods into the RCRA regulations as part of a rulemaking. We have to issue the updates as a proposed rule, request public comment, and then promulgate the update in a final rule. This lengthy process delays the timely use of new analytical technologies.

Also, in order to use a method different from any required SW-846 method, members of the regulated community have to develop and submit an equivalency petition, pursuant to § 260.21. This petition process discourages the timely use of new and innovative methods, and is very rarely used by the public, perhaps because it is time-consuming. When the proposed changes of this rule are implemented, it will not be necessary to submit an equivalency petition in order to use a non-SW-846 method for most sampling and analysis scenarios.

On May 8, 1998 in the **Federal Register** (63 FR 25430), we first announced our intent to remove the unnecessary required uses of SW-846 methods from the RCRA regulations. At that time, we described our reasons for wanting to remove those required uses from the regulations, including our desire to allow more flexibility in method selection and fully implement a performance-based measurement system (PBMS) in the RCRA Program. We also requested public comment on our plan. The public comments were largely favorable, and we therefore decided to proceed with publication of this

proposed rule. You may find summaries of the relevant May 8, 1998 **Federal Register** public comments and our responses to those comments in the docket to this proposed rule, docket number RCRA-2002-0025, at the location listed above under **ADDRESSES**.

Therefore, we propose to restrict the requirement to use a specific SW-846 method to only those situations where its particular procedure is the only one that is capable of measuring the property (*i.e.*, a method-defined parameter). For example, to determine compliance with the toxicity characteristic (TC), waste generators must test their waste using SW-846 Method 1311, "The Toxicity Characteristic Leaching Procedure," the TCLP, to determine whether the waste leaching potential is greater than the TC levels specified in § 261.24. The TCLP was developed as a means of simulating the leaching potential of waste material placed in a specific environment. It was the test used to develop the particular regulatory thresholds. No other test is known to yield the same leachate concentrations as Method 1311, the TCLP, and therefore we describe the results obtained from Method 1311 as a required "method-defined parameter."

Examples of other SW-846 methods that will remain required for method-defined parameters (MDPs) include Method 9040, "pH Electrometric Measurement," to demonstrate whether a waste exhibits the corrosivity characteristic based on pH levels, and Method 9095, "Paint Filter Liquids Test," to demonstrate the absence or presence of free liquids in wastes managed in RCRA-regulated treatment, storage, and disposal facilities.

You cannot replace or modify a method if the method is for determination of a RCRA-required method-defined parameter (MDP). However, other MDP methods exist which are not required by the RCRA regulations. It may be possible to modify those methods without adverse regulatory or analytical effects.

To summarize, our reasons for restricting required uses of SW-846 to regulated MDPs include:

1. Allowing the regulated community more flexibility in method use during RCRA-required testing.
2. Stimulating the development and timely use of innovative and more cost-effective monitoring technologies and approaches in the RCRA Program.
3. Allowing more efficient and timely releases of SW-846 methods by decoupling most of the methods from required uses on the RCRA regulations.
4. Making the RCRA Program more effective by focusing on measurement

objectives rather than on measurement technologies.

A. How To Determine If A Method Is Appropriate

Our proposed revisions to remove required uses of SW-846 methods include language allowing the use of "appropriate methods such as those found in SW-846 or other reliable sources." Such a method might be one published by EPA in a different manual or regulation or published by another government agency, a voluntary standards setting organization, or other well-known sources. We retained mention of the SW-846 methods in the regulations as guidance and examples of methods that could be appropriate.

There are two primary considerations in selecting an appropriate method, as addressed below.

i. Appropriate Methods Are Reliable and Accepted as Such in the Scientific Community

Methods published by the Agency or other government entities use techniques that have documented reliability and are generally accepted by the scientific community. SW-846 methods are reviewed by a technical workgroup composed of national expert-level chemists who provide peer input and determine whether method reliability is sufficiently documented. The technical reliability and acceptance of methods published by other governmental or non-governmental organizations may also be documented, especially if the methods are subjected to some form of objective scientific review.

ii. Appropriate Methods Generate Effective Data

Effective data are data of sufficiently known and appropriate quality to be used during project-specific decisions. An example of such a decision is whether a particular waste is hazardous because a constituent of concern is present above a level of concern. Before sampling and analysis begins, project planners should identify why the analysis is being done, how the data will be used, and how "good" the data has to be (*e.g.*, the DQOs). Effective data meet any data quality objectives (DQOs) set by the project planners for the specific project. These objectives (further described below) should be rationally and systematically identified during the planning of the project and development of the project-specific Quality Assurance Project Plan (QAPP), Waste Analysis Plan (WAP), or Sampling and Analysis Plan (SAP). Sampling and analysis documentation

should be sufficient to confirm that the data are effective.

Data quality objectives or DQOs generally refer to the necessary quality of the overall decision to be made or, in other words, the tolerable error (*i.e.*, acceptable level of uncertainty for the decision). For example, a DQO for waste analysis may be that one must demonstrate that an analyte is not present above the reported level at the 80 percent upper confidence around the mean, and that the method could have detected the presence of the analyte at that level and confidence limit. A DQO may be specified in a regulation, a permit, a corrective action agreement, or other regulatory or enforcement document. Sometimes you must consider a DQO regulatory specification when selecting an appropriate method. For example, the RCRA comparable fuels' provisions include DQOs in lieu of naming the use of specific methods (see 63 FR 33781, June 19, 1998). You can find guidance on the development of DQOs in EPA's "Guidance for the Data Quality Objectives Process" (EPA QA/G-4) found at EPA's Quality Staff's Web site (<http://www.epa.gov/quality/>), in Chapter One, "Quality Control," of SW-846, and in ASTM D 5792, "Standard Practice for Generation of Environmental Data Related to Waste Management Activities: Development of Data Quality Objectives."

You should identify the types of quality control (QC) concepts (*e.g.*, spike recovery analyses, blanks, etc.) you will use to determine if you meet your objectives. For example, selection of an appropriate method is sometimes demonstrated by adequate recovery of spiked or surrogate analytes and reproducible results, or through successful analysis of a standard reference material of a matrix-type analogous to that of the actual sample matrix. The method may not be appropriate for its intended use if your data show inadequate recovery of an analyte at a level that impairs a decision regarding whether the analyte is present at or below its regulatory level. Such a method would not generate effective data. Based on your QC data, you should determine whether the method generates results that are sufficiently sensitive, unbiased, and precise to demonstrate compliance with the subject regulation.

However, you should not focus only on controlling or documenting analytical quality, because regulatory decisions are also susceptible to error due to sampling procedures. If the contaminant variability is not properly addressed during the planning and collection of samples, an incorrect

decision could be reached even though the method performed well in terms of laboratory quality control. No matter how accurate or precise the laboratory analysis, the data will provide misleading information if excessive error is introduced by improper sampling procedures. Guidance on identifying the necessary quality control procedures and on minimizing the potential for both analytical and sampling error can be found at the EPA Quality Staff's Web site (<http://www.epa.gov/quality/>) or in Chapters One, Two, and Nine of SW-846, and in some methods.

Finally, you should identify appropriate methods for a specific project before sampling and analysis begins. As the regulated entity, you are ultimately responsible for compliance with a particular regulation. Therefore, you should not rely on the laboratory or other project participant to select an appropriate method. We recommend that you consult with your regulating authority during identification of performance goals and the selection of appropriate methods.

iii. Request for Public Comments on Appropriate Method Selection and Use

We are interested in public comments regarding the selection and use of other appropriate methods in the RCRA regulations, as described above. We are particularly interested in responses to the following questions:

1. What concerns exist regarding the selection of appropriate methods by the regulated community?
2. What other guidance is needed to aid in the selection of appropriate methods by the regulated community?

B. Why We Selected the Proposed Approach Over Other Approaches

We considered several approaches to promoting method use flexibility in the RCRA regulations. We selected the "appropriate method" approach because it is universally applicable to the subject RCRA regulations. It also requires only minimal revisions to the regulations for implementation.

In addition, the option to use "appropriate methods" is not new to the RCRA regulations. For example, use of the TCLP, SW-846 Method 1311, is required for determinations regarding whether a waste is hazardous for the toxicity characteristic (the TC). It generates an extract (the leachate) which is subjected to determinative analysis for comparison with the TC regulatory limits. However, the TCLP procedure does not require specific methods for the leachate determinative analysis, nor does it specify the use of even SW-846

methods in general for the analysis. It allows method flexibility similar to that proposed by this rule by stating in its sec. 7.2.14: "The TCLP extract shall be prepared and analyzed according to appropriate analytical methods."

Before finalizing this rule, we would like the public's opinion of the alternative approaches that we considered, as described below. Please provide specific reasons for your positions regarding the alternative approaches, including perceived advantages or disadvantages.

1. As a variation to the "appropriate method" approach described above, should we remove mention of SW-846 methods as examples of appropriate methods from the subject regulations? We are interested in whether retaining mention of the SW-846 methods offers significant advantages or disadvantages. (For example, one disadvantage could be that it might leave an incorrect impression that the SW-846 methods are still preferred by EPA).

2. In lieu of the "appropriate method" approach, should we instead add performance criteria to each regulation, such as done in the aforementioned comparable fuel rulemaking, and not mention or require the use of an appropriate method (including any SW-846 methods)? We did not select this approach because it might not be directly applicable to some regulations and then might require significant regulatory changes with greater impacts.

C. Potential Impacts From Removal of Required Uses of SW-846 Analyses

If the regulatory revisions of this proposed rule are promulgated, you can use any appropriate analytical test method in demonstrating compliance with the RCRA regulations, except for those demonstrations involving required method-defined parameters. For the reasons given in this section, we believe that this action will not significantly or adversely impact the regulated community or other potentially affected parties. In fact, the primary impact of this rule if adopted will be to result in better analytical results and lower costs. All of the entities involved with the task of waste characterization will pay far greater attention to method performance. In addition, project planners and laboratories will be able to identify methods that are potentially less costly to the regulated community.

i. Expected Impact on Regulated Entities

The use of other appropriate methods will be an option, not a requirement. Regulated entities may continue to use the specified SW-846 methods to demonstrate compliance and thus

experience no impact from this rulemaking. EPA will also continue to publish and update SW-846 methods and ensure their scientific soundness by following peer review guidelines and requesting public comment on the methods through **Federal Register** notices.

We primarily believe that an entity will choose to use another appropriate method from that listed in the regulations *only* when it is beneficial to do so. Method choice will be based on expected efficiencies in cost and performance. For example, you may use methods that are more appropriate for your particular matrix, and cut the cost of using unnecessary standards.

Also, a demonstration that another method is appropriate is not new to RCRA-related sampling and analysis and will not involve much more than what regulated entities already should be doing. For example, you should already be setting method performance goals in your Quality Assurance Project Plan (QAPP) or Sampling and Analysis Plan (SAP), and evaluating compliance with them based on QC data or other data quality indicators.

Some public comments in response to our notice of May 8, 1998, expressed concern regarding the comparability of data generated by different methods for the same purpose. First, this issue is not new, because some regulations already allow the use of more than one method. We also disagree that this should be a concern, provided that any alternative method is also an appropriate method as defined above. Specifically, if both methods generate effective data and meet the same performance goals of the project, then data from both methods are comparable. This has always been EPA's approach in comparing data by different methods, and it is not affected or changed by this proposal.

As a stakeholder, you may prefer a more prescriptive approach in the regulations because method-specific requirements remove the burden of method-selection decision making. You may believe that this translates into lower costs and better compatibility within a workforce of permit writers and other project participants who may not have method-selection expertise. We are familiar with this argument and would like to better understand its perspective. However, we believe that many method-selection decisions should be project specific and thus, when such an approach is applicable, specific methods should not be required in the regulations. Even before this proposed rulemaking, project planners and other participants should be

evaluating the effectiveness of methods during facility or waste evaluations.

You also may be concerned about the impact of this proposal on existing RCRA permits. RCRA permits are typically effective up to ten years. This proposal, if finalized, would only effect new or reissued permits, and only as an option for flexibility in method selection. Therefore, RCRA permits need not be adversely impacted by this action.

Finally, this rule does not propose new information collection or reporting requirements for regulated entities. Sections 260.22(i) (reporting requirements for petitions to exclude wastes) and 264.13(b) and 265.13(b) (reporting requirements for owners and operators of hazardous waste management facilities) provide sufficient reporting requirements to cover RCRA-related testing and analysis documentation regarding the use of other appropriate methods.

ii. Expected Impact on States

Many of the public comments in response to our May 8, 1998, notice favored State adoption of these revisions, but were concerned that this action will impose additional burden on States. In response, we note that the regulatory changes in this rule are equivalent to or less stringent than the existing Federal regulations which they amend. Therefore, authorized States are not required to adopt and seek authorization for this rulemaking. Nevertheless, we encourage the adoption of these or similar revisions by authorized States in order to promote national adoption of PBMS. In addition, if States choose to adopt these revisions, the impact will not be significant since they already conduct method selection and data quality reviews to determine compliance with their testing and monitoring regulations.

iii. Education Efforts by EPA To Facilitate Implementation

Many public comments received on our May 8, 1998 notice expressed a need for communication and training, at all levels, to minimize any adverse impacts and promote implementation. Therefore, we plan to educate and train the States, EPA Regions, and the regulated community regarding the implementation of this rule, through such mechanisms as web and internet training modules, workshops, and fact sheets. Over the past six years, we have offered program-specific training (e.g., "Analytical Strategy for the RCRA Program: A Performance-Based Approach") for EPA Headquarters, Regional, and State personnel involved

in RCRA activities that include sampling and analysis. We plan to offer other courses on the evaluation of data and permit writing from a PBMS and effective data standpoint. In addition, we encourage affected entities to contact the Methods Information Communication Service (MICE Service, see **ADDRESSES**) for answers to any questions or concerns regarding the use of other appropriate methods. These communication and training efforts will help ensure consistency in implementation of this rule by the States, Regions, and regulated community and help limit any associated costs.

iv. Request for Public Comment on Impacts and Implementation

We request public comment on the impact of this proposed rule and how we might promote its successful implementation. We are particularly interested in public comment to the following questions:

1. What can we do to remove implementation barriers and maximize the benefits from the flexibility provided by this action?
2. What might be the economic impact on the regulated community and other entities as a direct result of this action?
3. What concerns exist regarding implementation and compliance assessments involving the use of other appropriate methods?
4. Are there any technical or programmatic barriers to the implementation of this approach?
5. What guidance or training is needed to assure successful implementation of this action?
6. What new or uncommon data quality problems might be caused by allowing increased flexibility in method selection?

IV. Proposed Regulatory Revisions Involving Removal of SW-846 Requirements

Sections IV.A through IV.J address revisions to remove the requirement to use only SW-846 methods and add the flexibility to use other appropriate methods. The overall basis for these revisions is explained in section II above.

Table 2—lists the proposed revisions for each regulation to remove SW-846 requirements and allow the flexibility to use other appropriate methods. It also lists the preamble section which describes the revisions. As addressed by section IV.K, we also propose to revise the incorporation by reference of SW-846 in § 260.11 so that it only includes SW-846 methods required for method-

defined parameters. Therefore, for each section where we propose to remove the requirement to use only SW-846 methods, we propose to also remove the SW-846 incorporation by reference.

TABLE 2. REVISIONS TO RCRA REGULATIONS TO REMOVE REQUIRED USES OF SW-846 METHODS

Revised regulation	Affected topic or program	Preamble section
§ 260.22(d)(1)(i)	Delisting	IV.A
Appendix IX to part 261	Delisting	IV.A
§§ 261.35(b)(2) (iii)(A) and (B)	Deletion of certain waste codes following equipment cleaning	IV.B
§ 261.38(c)(7)	Comparable/syngas fuel exclusion	IV.C
§§ 264.1034(d)(1) (iii), 264.1063(d) (2), 265.1034(d)(1) (iii), and 265.1063(d)(2)	Air emission standards for process vents and equipment leaks ..	IV.D
§§ 265.1084(a)(3) (iii) and (b)(3) tanks, (iii), and 265.1084(a)(3)(ii) (C), (b)(3)(ii)(C), and (c)(3)(i)	Air emission control requirements for surface impoundments, and containers.	IV.E
§§ 266.100(d)(1) (ii) and (g)(2), and 266.102(b)(1)	Hazardous wastes burned in boilers and industrial furnaces (BIFs).	IV.F
§ 266.106(a)	Control of metal emissions at BIFs	IV.G
§§ 266.112(b)(1) and (b)(2)(i)	Residues from burning of wastes in BIFs	IV.H
Appendix IX, part 266	Methods Manual for BIF regulations	IV.I
§§ 270.19(c)(1) (iii) and (iv), 270.22(a)(2)(ii)(B), 270.62(b)(2)(i)(C) and (D), 270.66(c) (2)(i) and (ii)	Part B information and trial burn plan requirements for incinerators and BIFs.	IV.J

We request comment on each of the revisions, particularly in response to the following questions:

1. Does the revision provide adequate flexibility in method selection to facilitate the use of new technologies and encourage a greater focus on the performance of monitoring programs during compliance with the regulation?

2. What are the perceived technical and programmatic barriers to implementing the revision?

3. What is the economic impact of the revision?

4. What guidance or training is needed to aid implementation of the revised regulation?

A. Removal of Requirements To Use Only SW-846 in § 260.22(d)(1)(i) and Appendix IX to Part 261

Section 260.22(d)(1)(i) currently states that SW-846 methods must be used as part of a petition to amend part 261 to exclude ("delist") a waste listed with code "T". We believe that the mandatory use of only SW-846 methods for this aspect of a delisting demonstration is not necessary. Therefore, we are proposing to revise § 260.22(d)(1)(i) by removing the requirement to use only SW-846 methods, deleting the incorporation by reference referral to § 260.11, and explicitly allowing the use of appropriate methods from other reliable sources. With this revision, if you submit a delisting petition, you will no longer be required to use only SW-846 methods. We also strongly recommend that you work with your regulating entity (e.g., EPA Region or authorized State) during selection of methods for a delisting demonstration. In this

instance, the methods are not being used as required method-defined parameters. (Note: We are not proposing revisions to § 260.22(d)(3) of the delisting petition regulations which address the use of methods for determining whether wastes are characteristic hazardous wastes.)

We also propose to revise certain conditional delistings (hazardous waste exclusions) in appendix IX, to Part 261 "Wastes Excluded Under §§ 260.20 and 260.22." We are revising the delistings to allow the use of appropriate methods besides SW-846 methods during the required waste analysis.

In most cases, we are including the following language in the conditional delistings: "Analyses must be performed according to appropriate methods such as methods found in SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in § 260.11, which must be used without substitution)." With this language, if you are an owner/operator of the facility, you will have the option to use appropriate methods from other reliable sources besides SW-846.

Some conditional delistings require the use of Methods 9010 ("Total and Amenable Cyanide: Distillation") and 9012 ("Total and Amenable Cyanide (Automated Colorimetric, with Off-line Distillation)"). These methods, although proposed to be retained in § 260.11(a)(11) as method-defined parameters because of their required use under § 268.44, the universal treatment standards under the land disposal restrictions regulations are not being used in those delistings for that purpose. Therefore, we believe the

facilities should be allowed to use another appropriate method, if they choose to do so.

Specifically, we propose to revise the conditional exclusions found in Table 1 of appendix IX of part 261 for the following facilities (listed in order of appearance):

- Aptus, Inc., Coffeyville, Kansas
- Arkansas Department of Pollution Control and Ecology, Vertac Superfund site, Jacksonville, Arkansas
- BMW Manufacturing Corporation, Greer, South Carolina
- Bethlehem Steel Corporation, Sparrows Point, Maryland
- DuraTherm, Inc., San Leon, Texas
- Eastern Chemical Company, Longview, Texas
- Envirite of York, Pennsylvania
- Geological Reclamation Operations and Systems, Inc., Morrisville, Pennsylvania
- McDonnell Douglas Corporation, Tulsa, Oklahoma
- Occidental Chemical, Ingleside, Texas
- Rhodia, Houston, Texas
- Syntex Agribusiness, Springfield, Missouri
- Texas Eastman, Longview, Texas
- Tyco Printed Circuit Group, Melbourne, FL

We also propose to revise, as described above, the conditional exclusions found in Table 2 of appendix IX of part 261 for the following facilities (listed in order of appearance):

- Bethlehem Steel Corporation, Steelton, Pennsylvania
- Bethlehem Steel Corporation, Johnstown, Pennsylvania
- BF Goodrich Intermediates Company, Inc., Calvert City, Kentucky
- CF&I Steel Corporation, Pueblo, Colorado
- Chaparral Steel Midlothian L.P., Midlothian, Texas
- Conversion System, Inc., Horsham, Pennsylvania
- DOE-RL, Richland, Washington
- Envirite, York, Pennsylvania
- Marathon Oil Co., Texas City, Texas

—Occidental Chemical Corporation, Muscle Shoals Plant, Sheffield, Alabama
 —Occidental Chemical Corporation, Delaware City, Delaware
 —Oxy Vinyls, Deer Park, Texas
 —Roanoke Electric Steel Corporation, Roanoke, Virginia
 —USX Steel Corporation, USS Division, Southworks Plant, Gary Works, Chicago, Illinois

B. Removal of Requirements To Use Only SW-846 Method 8290 in § 261.35(b)(2)(iii)(A) and (B)

Section 261.35(b)(2)(iii) addresses the testing of rinses from equipment cleaning when generators are demonstrating that certain wastes from wood preserving processes do not meet the listing definition of hazardous waste code F032 (wastewaters, process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use chlorophenolic formulations). Paragraph (A) of the section currently includes a requirement to use SW-846 Method 8290, "Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by High-resolution Gas Chromatography/High-resolution Mass Spectrometry." The testing of PCDDs and PCDFs using this method does not involve a method-defined parameter. Therefore, we believe that appropriate methods from other reliable sources should be allowed for this determination. In addition, paragraph (B) of § 261.35(b)(2)(iii) defines criteria for "not detected" values based on information found in SW-846 Method 8290. We propose that other appropriate methods should be allowed if they meet those criteria. If you are a generator subject to these regulations, you will still be required to test for PCDDs and PCDFs. However, you will have flexibility in method selection and can consider the use of other methods besides SW-846 Method 8290.

C. Removal of Requirement to Use Only SW-846 in § 261.38(c)(7)

Section 261.38(c)(7) addresses a demonstration for the exclusion of a waste that meets comparable/syngas fuel specifications. The section states that, as the waste generator, you "shall" develop and follow a plan for the sampling and analysis of the waste, and that the plan "shall" be developed in accordance with SW-846. We propose to revise this section by replacing the second "shall" with "should" and allow the use of other sampling and analysis guidance, besides that found in SW-846, during waste analysis plan development, provided the other guidance is appropriate for your

demonstration. In this case, other guidance will be appropriate if it addresses procedures needed to meet your sampling and analysis performance goals.

D. Removal of Requirements To Use Only SW-846 Method 8260 in §§ 264.1034(d)(1)(iii), 264.1063(d)(2), 265.1034(d)(1)(iii), and 265.1063(d)(2)

Sections 264.1034(d)(1)(iii), 264.1063(d)(2), 265.1034(d)(1)(iii), and 265.1063(d)(2) collectively provide test methods and procedures applicable to the air emission standards for process vents and/or equipment leaks at treatment, storage, and disposal facilities (TSDFs). SW-846 Method 9060, "Total Organic Carbon," and SW-846 Method 8260, "Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry," are required for the determination of total organic carbon (TOC). Method 9060 is used to directly determine TOC, and thus is used for determination of a method-defined parameter. If the conditions under which organic carbon is converted to carbon dioxide are altered, there is a significant potential that a smaller or greater fraction of the carbonaceous material will be converted. Method 8260 is used to determine the individual analytes that may be components of the TOC. This use of Method 8260 is not for a method-defined parameter.

Therefore, we propose to revise these sections to allow the use of appropriate methods from other reliable sources in lieu of SW-846 Method 8260. If you are a facility owner/operator subject to these regulations, you will still be required to determine the TOC content in your waste. However, if you choose not to directly determine TOC by Method 9060, you will be able to consider the use of appropriate methods other than Method 8260 for the determination of individual analytes.

Also, if this rule is finalized, Method 8260 will no longer be incorporated by reference since it will not be solely required by any RCRA regulation. Therefore, we also propose to move the phrase "(incorporated by reference under § 260.11)" from after Method 8260 to after Method 9060. This revision will correctly indicate which method remains incorporated by reference.

E. Removal of Requirements To Use Only SW-846 Methods 8260 and 8270 and Revisions to Listing of Method Options in §§ 265.1084(a)(3)(iii) and (b)(3)(iii); and Revisions to §§ 265.1084(a)(3)(ii)(C), (b)(3)(ii)(C), and (c)(3)(i)

Sections 264.1083 and 265.1084 address the waste determination procedures for the subpart CC air emission control requirements for tanks, surface impoundments, and containers. Section 265.1084 addresses the requirements for interim status treatment, storage, and disposal facilities (facilities that existed at the time that the regulations were established and which needed time to fully comply with the regulations) and provides the details for such procedures. Section 264.1083 addresses the requirements for treatment, storage and disposal facilities which were constructed after the regulations were promulgated and directly references the regulations in § 265.1084. The Agency fully explained the basis and history of the waste determination procedures in these regulations. (See 59 FR 62915, December 6, 1994; 61 FR 4906, February 9, 1996; 61 FR 59942, November 25, 1996; 62 FR 64646, December 8, 1997; and 64 FR 3384, January 21, 1999.)

One purpose for waste determination under these regulations is to determine if a unit is exempt from the air emission control requirements. One way that a unit can be exempt from the subpart CC requirements is if it manages a hazardous waste with an average volatile organic (VO) concentration less than 500 parts per million by weight (ppmw). As the owner or operator of the waste management facility, you can make a direct determination of the VO concentration using waste analysis. For the purpose of such a waste determination, you must evaluate the mass of all VO constituents in the waste that have a Henry's Law value greater than or equal to 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X), which can also be expressed as 1.8×10^{-6} atmospheres/gram-mole/m³ at 25 degrees Celsius. The compounds exceeding these levels are the constituents (analytes) of concern for this determination. (The Henry's Law constant of a compound is one way that is commonly used to predict the potential of a compound to volatilize.)

Sections 265.1084(a)(3)(iii) and (b)(3)(iii) specify the analytical methods that you must use to determine the VO concentration. The list includes Method 25D ("Determination of the Volatile Organic Content of Waste Samples")

found in 40 CFR part 60, appendix A; Methods 624 ("Purgeables"), 625 ("Base Neutrals and Acids"), 1624 ("Volatile Organics by Isotope Dilution GC/MS"), and 1625 ("Semivolatile Organics by Isotope Dilution GC/MS") found in 40 CFR part 136, appendix A; and Methods 8260 ("Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry") and 8270 ("Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry") found in SW-846. SW-846 Methods 8260 and 8270 are listed in § 265.1084(a)(3)(iii)(F) and (G) and (b)(3)(iii)(F) and (G).

Method 25D is a nonspecific determinative procedure that provides a total volatile organic concentration. The other methods listed in the subject regulation are analyte-specific determinative procedures. These methods are not being used for method-defined parameters. We originally offered the analyte-specific methods as alternatives to Method 25D in response to public comments regarding the aggressiveness, expense, and repeatability of Method 25D. We added those methods and related conditions for their use so that you would have a range of practical and affordable method options.

However, for consistency with the intent and purpose of this proposed rule, we propose to remove from §§ 265.1084(a)(3)(iii) and (b)(3)(iii) text related to the listing of Methods 624, 625, 1624, 1625, 8260, and 8270 as alternative methods to Method 25D, and add language allowing the use of other appropriate methods from other reliable sources and give Methods 624, 625, 1624, 1625, 8260 and 8270 as examples of such methods. We give our reasons for each revision in the paragraphs to follow.

We are removing the listing of Methods 624, 625, 1624, 1625, 8260 and 8270 as method options because, given the addition of the phrase "or other appropriate methods," a listing of these methods is unnecessary. We have retained them as examples of appropriate methods because they cover many of the analytes of interest, and are approved methods for RCRA-related analyses. By making this change, we are still abiding by our original intent to include methods in the regulations as options to Method 25D. We are not revising that intent; we are only revising how it is expressed in the regulations. This was the original intent of the language added to § 265.1084 in response to public comments.

As an owner or operator subject to these regulations, you will have the flexibility to use one or more different

methods, provided that the methods are appropriate for the determination. The target analyte lists of Methods 8260 and 8270 might not cover all organic compounds with a Henry's Law constant equal to or greater than 0.1 Y/X (which can also be expressed as 1.8×10^{-6} atmospheres/gram-mole/m³ at 25 degrees Celsius) of concern in a given hazardous waste, and other appropriate methods may be necessary to complete the analysis. On the other hand, you may know that your waste contains only a few analytes of concern and a method with a smaller analyte list is more appropriate.

In addition to the above, we propose to correct language in other paragraphs of § 265.1084. First, § 265.1084(a)(3)(ii)(C), (b)(3)(ii)(C), and (c)(3)(i) currently state that an example of an acceptable sampling plan includes a plan incorporating the sampling requirements specified in SW-846. We propose to revise these sections to make it clear that the sampling procedures found in SW-846 are not requirements. We intend that information in SW-846 regarding sampling be only used as guidance. We are not removing the requirements to prepare and maintain an acceptable sampling plan and one which includes the requirements contained in Method 25D.

Second, we propose to remove the incorporation by reference for SW-846 in § 265.1084(a)(3)(ii)(C), (a)(3)(iii), (b)(3)(ii)(C), (b)(3)(iii), and (c)(3)(i) since only required methods for the analysis of method-defined parameters will be retained in § 260.11 should this proposal be finalized, and SW-846 sampling procedures will not be required for compliance with any regulation under RCRA.

F. Removal of Requirements To Use Only SW-846 in §§ 266.100(d)(1)(ii) and (g)(2), and 266.102(b)(1)

Part 266, subpart H, addresses the standards for the management of hazardous wastes burned in boilers and industrial furnaces (BIFs). Sections 266.100(d)(1)(ii) and (g)(2) currently require the use of SW-846 methods "or alternative methods that meet or exceed the SW-846 method performance," when sampling and analyzing feedstocks for a conditional exemption for smelting, melting, and refining furnaces that burn hazardous waste solely for legitimate recovery. Section 266.102(b)(1) contains the same language regarding waste analysis in support of permits. When we finalized this regulation, we added the use of "alternative methods" in response to concerns that SW-846 method detection limits cannot be achieved when

analyzing certain feedstream matrices (see 56 FR 42504, August 27, 1991). The subject rule noted that we could reject the use of an alternative method because it may not meet or exceed the performance capabilities of the SW-846 methods or the recommended methods.

In this instance, the SW-846 methods are not being used for method-defined parameters. Therefore, we propose to remove from §§ 266.100(d)(1)(ii) and (g)(2) and 266.102(b)(1) the phrase regarding alternative methods and add language allowing the use of "appropriate" procedures from other reliable sources. This change will explicitly allow the use of other appropriate methods and maintain consistency in our language throughout the RCRA regulations regarding the use of other methods. The broad, conforming changes that we are proposing to make throughout the regulations are essentially similar to what is included here. While we are changing specific language here, we are not changing the original intent of the regulation. In fact, we are proposing to use the original intent of this regulation throughout the other RCRA regulations, when applicable.

G. Removal of Requirement To Use Only SW-846 in § 266.106(a)

Section 266.106 provides the standards to control emissions of metals at BIFs. Paragraph (a) of this section states that the owner/operators must comply with the standards for any listed metal of concern that is present at detectable levels using SW-846 methods. The listed metals of concern include antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, thallium, and silver. In this instance, the SW-846 methods are not being used for the analysis of method-defined parameters and their required use is not necessary. Therefore, we propose to revise this section by removing the requirement to use only SW-846 methods, deleting the reference to § 260.11, and explicitly allowing the use of other appropriate methods.

H. Removal of Requirements To Use Only SW-846 in § 266.112(b)(1) and (b)(2)(i)

Section 266.112 of the BIF regulations addresses the regulation of residues resulting from the burning or processing of hazardous wastes in BIFs. Paragraph (b)(1) provides testing requirements for the exclusion of such residues based on comparison of appendix VIII, part 261, constituents in a waste-derived residue to those in a normal residue. It states that sampling and analysis must be in conformance with the procedures of

SW-846. The section does not specify the use of any SW-846 methods for method-defined parameters. In addition, the preamble to the Hazardous Waste Combustion Maximum Achievable Control Technologies (MACT) rulemaking of September 30, 1999 (64 FR 52828) stated that EPA does not require the use of SW-846 methods for the analysis of feedstreams in order to be consistent with a move toward PBMS. Therefore, we propose to remove the requirement to use only SW-846 procedures during the BIF residue exclusion demonstration, to delete the reference to § 260.11, and to explicitly allow the use of other appropriate methods. If you are an owner/operator subject to this regulation, and you select this option, you will still be required to determine if the residue contains appendix VIII constituents. However, you will have more flexibility in the selection of a method for the determination.

In addition, § 266.112(b)(2)(i) requires the use of only SW-846 procedures during a residue exclusion demonstration based on a comparison of non-metal constituent concentrations in the waste-derived residue with health-based limits provided in appendix VII to part 266. Under this section, the testing of the residue does not involve a method-defined parameter and the required use of only SW-846 methods is not necessary. We propose to revise this section by removing the required use of only SW-846 procedures and explicitly allowing the use of other appropriate methods. If you are an owner/operator subject to this regulation, and you select this option, you will still be required to compare levels of non-metal constituents with the health-based limits of appendix VII. However, you will have more flexibility in the selection of a method for the determination. We are not revising § 266.112(b)(2)(ii), which will continue to require the use of the TCLP for the leaching of metal constituents during the residue exclusion demonstration under § 266.112(b)(2).

I. Removal of Requirements To Use Only SW-846 in Sections 1.0, 3.0, 10.3, and 10.6 of Appendix IX to Part 266

Appendix IX to part 266 contains the methods manual for compliance with the BIF regulations. The last paragraph of section 1.0, "Introduction," currently identifies all SW-846 methods to the BIF manual as required procedures for determining compliance with the BIF regulations. The section text does not specifically reference the method numbers; instead it only refers to the methods of SW-846 in general.

However, not all of the SW-846 methods for BIF-related analysis are used for method-defined parameters. Therefore, we propose to revise the last paragraph of section 1.0 to explicitly list those SW-846 methods used for method-defined parameters in BIF-related analyses (*i.e.*, air sampling) and which cannot be substituted with other methods. Those methods will remain required for BIF-related analyses, if this proposal is finalized. These methods include air sampling Methods 0011 ("Sampling for Selected Aldehyde and Ketone Emissions from Stationary Sources"), 0023 ("Sampling Method for Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofuran Emissions from Stationary Sources"), 0050 ("Isokinetic HCl/Cl₂ Emission Sampling Train"), 0051 ("Midjet Impinger HCl/Cl₂ Emission Sampling Train"), 0060 ("Determination of Metals in Stack Emissions"), and 0061 ("Determination of Hexavalent Chromium Emissions from Stationary Sources").

The following two methods are those BIF methods which do not involve method-defined parameters and which can be substituted with other appropriate methods for BIF-related analyses: SW-846 Method 9057, "Determination of Chloride from HCl/Cl₂ Emission Sampling Train (Methods 0050 and 0051) by Anion Chromatography," and Method 8315, "Determination of Carbonyl Compounds by High Performance Liquid Chromatography (HPLC)." We propose to add sentences to the last paragraph of section 1.0 of appendix IX to part 266 that allows the use of appropriate methods from other reliable sources for these determinations.

[Note: Methods 0050 and 0051, referenced in the title of Method 9057, describe the collection of stack gas emission samples for subsequent determinative analysis of hydrogen chloride and chlorine. Method 9057, an ion chromatography method, is typically used in the determinative analysis of chloride from the samples generated by those methods. During use of Methods 0050 and 0051, Cl⁻ ions are collected in separate solutions for subsequent determinative analysis (*e.g.*, using Method 9057). Methods 0050 and 0051 remain required methods for a method-defined parameter because a change in their sampling procedures (*e.g.*, a change in the nature of the solutions submitted for determinative analysis) could result in different results by the determinative method. However, it is not necessary to exclusively require Method 9057 for the chloride determination because, when

appropriate, other determinative methods besides Method 9057 may be used for that determination.]

Given the above, we also propose to revise the "Note" of section 3.0, "Sampling and Analytical Methods," to reflect that the complete SW-846 manual will no longer be incorporated by reference as a source of required methods for BIF-related analyses.

Section 10.3, "Basis," addresses the determination of metal concentrations during BIF-related analyses. Paragraph (2) of this section references SW-846, as incorporated by reference, as the source for methods for the determinations. Methods for such determinations are not used for method-defined parameters. Therefore, we propose to revise the section so that other appropriate methods can be used, and remove the indication that these SW-846 methods are incorporated by reference.

Finally, the fourth bullet of paragraph (5) of section 10.6, "Precompliance Procedures," indicates that daily sample composites must be prepared according to SW-846 procedures. We propose to revise this bullet to allow other appropriate procedures and reflect the intent that SW-846 sampling procedures only be used as guidance.

J. Removal of Requirements To Use Only SW-846 Methods in §§ 270.19(c)(1)(iii) and (iv); 270.22(a)(2)(ii)(B); 270.62(b)(2)(i)(C) and (D); and 270.66(c)(2)(i) and (ii)

Section 270.19 describes the part B information requirements for incinerators. Paragraph (c)(1)(iii) of that section states that, when submitting information in lieu of a trial burn, the applicant must identify any hazardous constituents listed in appendix VIII of part 261 that are present in the waste by using SW-846. Sections 270.62(b)(2)(i)(C) and (D) and 270.66(c)(2)(i) and (ii) provide the same requirements for the trial burn plans submitted by hazardous waste incinerator and BIF permit applicants.

In addition, § 270.22 provides specific part B information requirements for BIFs. Paragraph (a)(2)(ii)(B) of that section states that, when seeking to permit BIFs that burn low risk wastes to waive the DRE trial burn, owner/operators must submit results using SW-846 analytical techniques documenting the concentrations of the nonmetal compounds of appendix VIII of part 261.

Each of the above sections include requirements to use only SW-846 methods during the analyses of appendix VIII, part 261, constituents. These analyses do not involve the use of SW-846 methods for method-defined

parameters. We propose to remove these requirements, to delete the references to § 260.11, and to explicitly allow the use of appropriate methods from other reliable sources. If you are an applicant, you will still be required to conduct analyses for the appendix VIII constituents of concern. However, you will have flexibility in the selection of an appropriate method.

K. Removal of SW-846 Methods From Incorporation by Reference in § 260.11(a)(11)

Currently, all methods of SW-846 are incorporated by reference at § 260.11(a)(11) "when used" within the RCRA regulations. All of SW-846 had to be incorporated by reference because some RCRA regulations require in general any SW-846 method (e.g., the delisting regulations). The required methods had to be incorporated by reference because they are too lengthy for publishing directly in the regulations

and they are readily available to the public in the SW-846 manual. In this rule, we propose to restrict required uses of SW-846 methods for the analysis of method-defined parameters. Therefore, we propose to revise § 260.11(a)(11) to remove the incorporation by reference of all SW-846 methods except those SW-846 methods that may be required for the analyses of method-defined parameters. Those methods will remain incorporated by reference when used for method-defined parameters and required by the RCRA regulations (a few are not explicitly required by the RCRA regulations at this time).

It is important to note that a method listed in § 260.11(a)(11) because it is used for analysis of a method-defined parameter is sometimes used for non-mandatory purposes. For example, Methods 9010, "Total and Amenable Cyanide: Distillation," and 9012, "Total and Amenable Cyanide (Automated

Colorimetric, with Off-line Distillation)" are listed in some conditional delistings and are not being used for a method-defined parameter. Therefore, the facilities can use another appropriate method for those analyses. However, these same methods are used as method-defined parameters under § 268.44, the universal treatment standards under the land disposal restrictions regulations. In that case, the methods cannot be substituted. Therefore, due to the latter scenario, those two methods are incorporated by reference in the regulations at § 260.11(a)(11). It is the application of a method in a regulation that determines whether a method is being used to analyze a required method-defined parameter—not simply whether the method is listed in § 260.11(a)(11).

Given this proposal, the SW-846 methods to remain as incorporated by reference in § 260.11(a)(11) are listed in Table 3.

TABLE 3.—SW-846 METHODS TO REMAIN IN § 260.11(A)(11)

SW-846 method	Method title
0010	Modified Method 5 Sampling Train.
0011	Sampling for Selected Aldehyde and Ketone Emissions from Stationary Sources.
0020	Source Assessment Sampling System (SASS).
0023	Sampling Method for Polychlorinated Dibenzo- <i>p</i> -Dioxins and Polychlorinated Dibenzofuran Emissions from Stationary Sources.
0030	Volatile Organic Sampling Train.
0031	Sampling Method for Volatile Organic Compounds (SMVOC).
0040	Sampling of Principal Organic Hazardous Constituents from Combustion Sources Using Tedlar® Bags.
0050	Isokinetic HCl/Cl ₂ Emission Sampling Train.
0051	Midget Impinger HCl/Cl ₂ Emission Sampling Train.
0060	Determination of Metals in Stack Emissions.
0061	Determination of Hexavalent Chromium Emissions from Stationary Sources.
1010	Pensky-Martens Closed-Cup Method for Determining Ignitability.
1020	Small Scale Closed-Cup Method for Determining Ignitability.
1110	Corrosivity Toward Steel.
1310	Extraction Procedure (EP) and Structural Integrity Test.
1311	Toxicity Characteristic Leaching Procedure.
1312	Synthetic Precipitation Leaching Procedure.
1320	Multiple Extraction Procedure.
1330	Extraction Procedure for Oily Wastes.
3542	Extraction of Semivolatile Analytes Collected Using Method 0010 (Modified Method 5 Sampling Train).
5041	Analysis for Desorption of Sorbent Cartridges from Volatile Organic Sampling Train (VOST).
9010	Total and Amenable Cyanide: Distillation.
9012	Total and Amenable Cyanide (Automated Colorimetric, with Off-line Distillation).
9040	pH Electrometric Measurement.
9045	Soil and Waste pH.
9060	Total Organic Carbon (TOC).
9070	n-Hexane Extractable Material (HEM) for Aqueous Samples.
9071	n-Hexane Extractable Material (HEM) for Sludge, Sediment, and Solid Samples.
9095	Paint Filter Liquids Test.

Please note that we are not adding any new methods to § 260.11(a)(11)—each method listed above is already a part of SW-846 and was incorporated by reference during previous rulemakings. We are only removing from incorporation by reference those

methods that will no longer be required should this proposal be finalized. For each method retained as incorporated by reference, we are indicating in § 260.11(a)(11) the promulgated version of the method which was last incorporated by reference and thus

which must be used during regulatory compliance.

V. Proposed Editorial Corrections to SW-846 References in the RCRA Testing and Monitoring Regulations

We also propose to correct inaccurate references to SW-846 (some of which

are logical outgrowths to the proposed revision to § 260.11), and clarify method selection flexibility in the RCRA regulations. Table 4 lists and

summarizes these proposed changes to the RCRA regulations.

TABLE 4.—PROPOSED CORRECTIONS AND CLARIFICATIONS

Regulation	Correction or clarification
§ 258.28(c)(1)—Liquids restrictions	Correction to add “incorporated by reference in § 260.11” after mention of SW-846 Method 9095, “Paint Filter Liquids Test”
Appendix I to part 258—Constituents for detection monitoring.	Correction to include SW-846 Method 6020 as an example of an appropriate method for detection monitoring.
Appendix II to part 258—List of inorganic and organic hazardous constituents.	Clarification regarding the use of other appropriate methods by removing the “Suggested Methods” and “PQLs (μ g/L)” columns, removing footnotes 1, 5 and 6 and revising and renumbering the remaining footnotes, as appropriate. (As noted in footnote 1, the methods and PQLs were given for informational purposes only; and, as noted in footnote 6, the PQLs were directly related to the indicated methods and not part of a regulation.).
§ 260.21(d)—Petitions for equivalent methods ...	Clarification that equivalent methods will be added to § 260.11, instead of just added to SW-846.
§§ 261.3(a)(2)(v), 279.10(b)(1)(ii), 279.44(c), 279.53(c), and 279.63(c)—Rebuttable presumption for used oil.	Clarification that other appropriate methods beside the example SW-846 methods can be used in analyses to show that a used oil does not contain hazardous waste.
Appendix III to part 261—Chemical analysis test methods.	Clarification regarding the use of other appropriate methods.
§§ 264.1034(f) and 265.1034(f)—Test methods and procedures.	Clarification that appropriate methods other than SW-846 Method 8260 are allowed to resolve disagreements regarding concentration estimates.
Appendix IX to part 264—Ground-water monitoring list.	Clarification regarding the use of other appropriate methods by removing the “Suggested Methods” and “PQLs (μ g/L)” columns and removing footnotes 1, 5 and 6 and revising and renumbering the subsequent footnotes, as appropriate. (As noted in footnote 1, the methods and PQLs were given for informational purposes only; and, as noted in footnote 6, the PQLs were directly related to the indicated methods and not part of a regulation.).
§ 265.1081—Definitions	Correction to SW-846 reference in definition of “waste stabilization process”.
Appendix IX to part 266—Methods manual for compliance with BIF regulations.	Corrections to reflect removal of SW-846 methods from the manual on June 13, 1997 and clarification in existing guidance regarding use of other appropriate methods and SW-846.

VI. Proposed Action To Withdraw Reactivity Interim Guidance From SW-846 Chapter Seven and Remove Required SW-846 Reactivity Analyses and Threshold Levels From Conditional Delistings

We are also proposing to withdraw the reactivity interim threshold levels and reactive cyanide and sulfide methods from Chapter Seven of SW-846 and from certain conditional delistings found in appendix IX to 40 CFR part 261. In particular, July 1985, EPA's Office of Solid Waste (OSW) issued a memorandum entitled “Interim Thresholds for Toxic Gas Generation.” This 1985 memorandum contained interim threshold levels for toxic cyanide and sulfide gas generation and draft analytical methods for testing wastes for those levels. This reactive cyanide and reactive sulfide guidance was developed in response to public inquiries about how to evaluate wastes for the characteristic of reactivity under § 261.21(a)(5). In response to subsequent concerns about the effectiveness of the guidance (as explained further below), EPA's OSW reexamined the guidance, and on April 21, 1998, issued a memorandum entitled “Withdrawal of Cyanide and Sulfide Reactivity

Guidance” which withdrew the July 1985 guidance. At this time, given the 1998 withdrawal of the reactive cyanide and sulfide interim threshold levels and draft method guidance, EPA proposes to withdraw the same guidance from Chapter Seven, “Characteristics Introduction and Regulatory Definitions,” of SW-846 and to withdraw required uses of the interim threshold levels and methods found in certain conditional exclusions (also called delistings) at 40 CFR part 261, appendix IX. The following paragraphs provide background information regarding the 1985 guidance and its withdrawal in 1998, and provide the basis for this proposal. See the docket, number RCRA-2002-0025, of this rulemaking for a copy of the 1985 and 1998 memorandums.

40 CFR 261.23 contains eight narrative descriptions of properties used to identify solid wastes exhibiting the hazardous waste characteristic of reactivity (EPA Hazardous Waste Number D003). The fifth of those properties at § 261.23(a)(5) addresses cyanide- and sulfide-bearing solid wastes. The regulation states that one way a solid waste can be reactive is if “it is a cyanide- or sulfide-bearing waste

which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.” The regulation does not require that a particular test method be used for determination of this reactive property. Instead, as with each of the reactivity characteristic properties, the regulated public must base their determination on the narrative standard and knowledge of their waste.

Some of the hazardous waste characteristics are defined in terms of properties measurable by standardized testing protocols. However, regarding the reactivity characteristic, EPA noted that available test methods suffered from a number of shortcomings which made it inappropriate to specify a numerically quantified definition with accompanying test protocols (see 45 FR 33110, May 19, 1980). In addition, reactive wastes may exist and pose a hazard under a variety of situations and circumstances, and it would be difficult to adequately quantify and test for all of those situations. The Agency noted that a lack of a quantified definition and accompanying test methods would not cause problems because most generators

of reactive wastes are aware that their wastes possess the property and require special handling. Consequently, the Agency developed the narrative definitions found at § 261.23 as sufficient information to determine whether a waste is hazardous based on reactivity.

However, the Agency received many public inquiries regarding how to evaluate wastes for the reactivity characteristic property at § 261.23(a)(5). The Agency therefore initiated studies on the possible development of numerical limits and test methods for the property. On an interim basis, the Agency issued the memorandum in July 1985 which provided interim threshold levels for "toxic gas generation reactivity." These limits were 250 mg of HCN/kg of waste for total available cyanide and 500 mg of H₂S/kg of waste for total available sulfide. The memorandum provided draft testing methods for measuring the available cyanide and sulfide and noted that ongoing studies may result in changes to the methods. The memorandum also provided a description of the mismanagement scenario used to derive the interim threshold levels. This scenario assumed disposal of cyanide- and sulfide-bearing wastes into an open pit containing acidic wastes, resulting in a rapid and high level release of toxic gas. After issuance of the 1985 memorandum, the guidance threshold levels and draft test methods were included in sections 7.3.3 ("Interim Guidance for Reactive Cyanide") and 7.3.4 ("Interim Guidance for Reactive Sulfide") of Chapter Seven of EPA Publication SW-846, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods."

The 1985 memorandum contained non-binding interim guidance and was not a regulation. The EPA reactivity threshold limit and method studies mentioned by the document were not successfully completed. No threshold levels or test methods were ever proposed or promulgated and included in § 261.23(a)(5) as numerically quantified definitions of a reactive hazardous waste. The addition of the 1985 interim limits and draft methods to Chapter Seven of SW-846 did not change the guidance status of the levels and methods for purposes of judging if a waste exhibits the characteristic of reactivity because the reactivity characteristic at § 261.23 does not specify the limits or use of the SW-846 methods. EPA intended that the 1985 and Chapter Seven information only be used as guidance of what might be hazardous.

Since cyanide and sulfide reactivity under § 261.23(a)(5) does not specify the use of a SW-846 method and instead relies on a narrative standard, the SW-846 methods are not incorporated by reference at § 260.11 for the purpose of determining whether a waste is hazardous based on that property of the reactivity characteristic. However, as noted above in section III.A ("Removal Of Requirements to Use only SW-846 in §§ 260.22(d)(1)(i) and Appendix IX to Part 261") of this proposal, some conditional delistings were promulgated after 1985 that require the use of SW-846 methods, including use of the reactive cyanide and reactive sulfide test methods found in SW-846 Chapter Seven. Some of these conditional delistings also specify the reactive cyanide and sulfide limits of 250 mg/kg and 500 mg/kg, respectively, as delisting action levels.

In early 1998, the National Enforcement Investigations Center (NEIC) of EPA expressed concerns regarding the effectiveness of the reactivity guidance contained in the 1985 memorandum and Chapter Seven of SW-846, and urged that EPA withdraw the guidance. Consequently, EPA's OSW conducted a review of the 1985 guidance mismanagement scenario, the derivation of the guidance threshold levels, and the relationship of the scenario and thresholds to the test method results. After this careful review, EPA concluded that NEIC's concerns regarding effectiveness of the guidance were well founded. To summarize, EPA concluded that the guidance had the following significant flaws: (1) The test conditions evaluate a single pH condition and not the range of pH conditions (2 to 12.5) specified in the regulation; (2) the test conditions do not adequately recover the analyte and thus the tests predict low percentages of analyte releases in the waste, (3) the mismanagement scenario and test conditions are not correctly scaled between each other, and (4) the mismanagement scenario of an open pit is not the only exposure of concern and may not represent a plausible worst case scenario. (See the April 21, 1998 memorandum at <http://www.epa.gov/SW-846/> for detailed information regarding NEIC's concerns and EPA's conclusions.) EPA consequently withdrew the July 1985 guidance through the aforementioned April 21, 1998 memorandum.

Therefore, in conjunction with the 1998 withdrawal of the 1985 cyanide and sulfide reactivity guidance, we propose to remove sections 7.3.3 and 7.3.4 from Chapter Seven of SW-846. We will include the revised Chapter

Seven in Proposed Update IIIB to SW-846.

It is necessary to use a rulemaking to remove sections 7.3.3 and 7.3.4 from Chapter Seven, even though the sections were originally added only as guidance, because as noted above certain conditional delistings found in Tables 1 and 2 of 40 CFR part 261, appendix IX, do require use of the methods in those sections. The 1998 withdrawal of the 1985 guidance did not affect those requirements. Since the delistings require the use of SW-846 methods, the reactive cyanide and sulfide methods found in SW-846 are incorporated by reference for the purpose of implementing those specific delisting provisions. We therefore, propose to remove required uses of the SW-846 Chapter Seven methods for reactive cyanide and sulfide from a number of conditional delistings.

In addition, some of the conditional waste exclusions list the reactive cyanide and sulfide interim threshold levels found in the 1985 memorandum and in Chapter Seven as delisting action limits. Therefore, due to Agency concerns regarding the effectiveness of those levels for determining whether a waste is hazardous, the Agency also proposes to remove those levels from the delistings.

The Agency notes that the exclusions in 40 CFR part 261 appendix IX only apply to listed hazardous wastes. As noted by §§ 260.22(c)(2), (d)(4) and (e)(4), an excluded waste may still be a hazardous waste by operation of subpart C of part 261, which contains the RCRA regulations addressing characteristic hazardous wastes. Therefore, generators of excluded wastes are still required to continue to determine whether their wastes remain non-hazardous based on the four hazardous waste characteristics, including the characteristic of reactivity. (EPA's "RCRA Delisting Program Guidance Manual for the Petitioner," March 23, 2000, affirms this requirement by stating that generators with excluded wastes remain obligated to determine whether their waste remains non-hazardous based on the hazardous waste characteristics.) Therefore, removal of required testing for reactive cyanide and sulfide based on the SW-846 methods and threshold levels does not relieve the generators of delisted wastes from a reactivity characteristic determination. Given the regulatory requirement in § 260.22(c)(2), (d)(4) and (e)(4) it also is not necessary to replace the reactive cyanide and sulfide method requirements or threshold levels in those delistings with language requiring a determination based on the narrative at § 261.23(a)(5),

or on any other property under the reactivity characteristic.

As noted by the 1998 memorandum, we understand that withdrawal of the reactivity guidance meant that waste generators who relied on this guidance in the past might have somewhat greater uncertainty about determining the regulatory status of their cyanide- and sulfide-bearing wastes. However, the Agency believes that generators of sulfide- and cyanide-bearing wastes can recognize the acute toxicity of sulfides and cyanides without relying on the guidance test methods and threshold levels. Where wastes with high concentrations of soluble sulfides and cyanides are managed, generators have relied on their knowledge of the waste to classify them as D003. Generators should continue to classify their high concentration sulfide- and cyanide-bearing wastes as hazardous based on the narrative standard of 261.23(a)(5), as they always have been required to do.

We are interested in public comments on the removal of the reactivity guidance from Chapter Seven and on the removal of the reactive cyanide and sulfide analytical requirements and threshold levels from the conditional delistings.

VII. Proposed Clarifications to Corrosivity and Ignitability Hazardous Waste Characteristics

Sections VII.A and VII.B address proposed revisions to the corrosivity characteristic and the ignitability characteristic testing requirements. The revisions include changes to references to ASTM standards and SW-846 methods. These revisions are non-substantive updates of the methods presently used in the regulations and will not affect which wastes are determined to be hazardous based on the characteristics. We request public comment on each of the proposed revisions.

A. Revision to § 261.22(a)(2) To Clarify That SW-846 Method 1110 Is the SW-846 Standardized Version of the NACE Standard Specified for Corrosivity Characteristic Testing

Section 261.22(a)(2) defines the hazardous waste characteristic of corrosivity for a liquid which corrodes steel. The required test method for the determination is identified as "the test method specified in NACE * * * Standard TM-01-69 as standardized in * * * SW-846 * * *". As explained in the May 19, 1980 regulations (*see* 45 FR 33084) which added § 261.22 to the RCRA regulations, EPA standardized the NACE Standard TM-01-69 in SW-846. As also explained in the background

document to the corrosivity characteristic, NACE Standard TM-01-69 describes a simple immersion test to determine the rate of corrosion, and the procedure is not completely standardized because it was designed to test the suitability of metals for a variety of uses. In 1980, a public commenter was concerned that the incomplete standardization of the NACE Standard permitted undesired variation in test conditions. EPA agreed and, in response to the public comment, put a standardized version of the method in SW-846 so that the procedure more clearly defined the appropriate test conditions. At the time, we did not specify which test method of SW-846 included the standardized version of the NACE method. This SW-846 method has always been Method 1110, "Corrosivity Toward Steel." Therefore, we propose to add the number of this method to § 261.22(a)(2) for clarification of which SW-846 test method is the standardized version of NACE. This revision to § 261.22(a)(2) does not represent a change to the characteristic.

B. Revisions to § 261.21(a)(1) To Update References to ASTM Standards, To Clarify That SW-846 Methods 1010 and 1020 Reference and Use the ASTM Standards Specified for Ignitability Characteristic Testing, and To Remove an Unnecessary Referral to Method Equivalency Petitions; and Revisions to § 260.11(a)(1) and (2) To Include the Updated References

Section 261.21(a)(1) defines the hazardous waste characteristic of ignitability for a liquid which has a flash point less than 60 °C (140 °F). For the determination, the section requires the Pensky-Martens Closed Cup Tester using ASTM Standard D 93-79 or D 93-80, or a Setaflash Closed Cup Tester using ASTM Standard D 3278-78. The American Society for Testing and Materials (ASTM) has revised these standards. We compared the latest versions of the standards with the ones currently referenced by § 261.21(a)(1). We found that the differences between ASTM Standard D 3278-78 and the new version D 3278-96 were not substantive and will not affect whether a waste is identified as hazardous based on the ignitability characteristic. We also compared ASTM Standard D 93-80 with the newer versions D 93-99c and D 93-00. Again, we found that the D 93-99c differences were not substantial. However, we found that the D 93-00 differences may be substantial because that version specifies different sample container volumes for different sample types. Specifically, it requires that all matrices except residual fuel oil be

collected in containers not more than 85% or less than 50% full. The revision may significantly affect the characteristic results, since the potential to lose flammable volatile constituents will be greater from sample containers that may now have as much as 50% headspace. We are interested in public comment on this evaluation and conclusion. You can review a copy of our ASTM standard comparisons in the docket (number RCRA-2002-0025) to this proposed rule.

Given the above, we propose to revise § 261.21(a)(1) so that the use of "ASTM Standard D 93-79 or ASTM Standard D 93-80" is replaced by the use of "ASTM Standard D 93-99c" for an ignitability characteristic determination using the Pensky-Martens Closed Cup Tester. We also request comment on whether we should instead replace the older standard with "ASTM Standard D 93-00." Please give detailed reasons for your position.

Likewise, we propose to revise § 261.21(a)(1) whereby the use of "ASTM Standard D 3278-78" is replaced by the use of "ASTM Standard D 3278-96" for a determination using the Small Scale Closed Cup Apparatus (formerly called the Setaflash Closed Cup Tester in ASTM D 3278-78). We also propose to revise the incorporation by reference citations for these methods at § 260.11(a)(1) and (2) to reflect the updated references of these ASTM methods.

In addition, the most current versions of SW-846 Method 1010, "Pensky-Martens Closed-Cup Method for Determining Ignitability," and Method 1020, "Setaflash Closed-Cup Method for Determining Ignitability," use the above ASTM standards as their method procedures. A brief summary of the ASTM procedure is provided by each method and the reader is referred to the appropriate ASTM standard for information on how to conduct the subject test. Therefore, we propose to also revise § 261.21(a)(1) to clarify that the ASTM standards for ignitability characteristic determinations are used and referenced by the subject SW-846 methods.

Finally, regarding § 261.21(a)(1), we propose to remove the end of the last sentence which refers to the equivalent test method demonstration. This information is adequately addressed in §§ 260.20 and 260.21. It is not necessary to repeat the information regarding method equivalency petitions in each section of a RCRA regulation which requires use of a test method. Also, this revision is consistent with similar sections on testing in part 261 and other parts of the RCRA regulations.

None of the above proposed revisions represent a change to the ignitability characteristic.

VIII. Availability of Proposed Update IIIB and Invitation for Public Comment on the Update

SW-846 is a guidance document that changes over time as new information and data are developed. Today, we propose to revise several methods and chapters of SW-846 and release these revisions as an update to the Third Edition of SW-846. To date, EPA has finalized Updates I, II, IIA, IIB, III, and IIIA to the Third Edition of the SW-846 manual. On May 8, 1998 (*see* 63 FR 25430) and on November 27, 2000 (*see* 65 FR 70678), we also respectively announced the availability of Draft Update IVA and Draft Update IVB methods and chapters, which we published for guidance purposes only. The revised methods of today's update (Update IIIB) are used for method-defined parameters and thus, any required uses of those methods will remain in the RCRA regulations (a few of the methods are not explicitly required in the current RCRA regulations). Therefore, we are formally proposing them today as Update IIIB to SW-846. Our reasons for the method revisions follow.

First, as noted earlier, ASTM released Standards D 93-99c, "Flash Point by Pensky-Martins Closed Cup Tester," to replace D 93-80 (which previously replaced D 93-79) and D 3278-96, "Flash Point of Liquids by Small Scale Closed-Cup Apparatus," to replace D 3278-78. The current versions of SW-846 Methods 1010 and 1020 reference the older versions of those standards. We propose to replace these out-of-date references in Methods 1010 and 1020 with references to the newer versions of the subject ASTM standards. We also

propose to revise the title of Method 1020 from "Setaflash Closed-Cup Method for Determining Ignitability" to "Small Scale Closed Cup Method for Determining Ignitability" for consistency with the title of ASTM Standard D 3278-96. None of the above revisions to Methods 1010 and 1020 represent a change to the ignitability characteristic.

We also propose to clarify the surface area equation found in Sec. 4.5 of Method 1110, "Corrosivity Toward Steel." We have received questions from the public indicating that the current equation is not sufficiently clear as written, due to the equation font and format. We wish to note that the equation shown in the method can be correctly followed if one uses the rules for mathematical function precedence (addition, subtraction, multiplication, and then division). Nevertheless, we are changing Sec. 4.5 of Method 1110 to a format that is less subject to misinterpretation. This does not represent a significant change to that method or the characteristic because the new presentation does not change the equation or calculation result.

We also propose to include in Update IIIB seven revised methods which will be retained at § 260.11(a)(11) because they might be required for RCRA-related method-defined parameters. We are also revising the text in section 6.0 of most of these methods to remove required uses of Chapter Nine during the required uses of those methods. We are making these revisions to clarify that use of sampling directions found in Chapter Nine of SW-846 is guidance and not required under the RCRA Program. These revisions do not modify any required uses of the methods in the RCRA regulations or the results from using the methods. Regarding Method 9070A, we are adding the suffix "A"

and a method title, which were inadvertently left out during its last promulgation as part of Update IIIA.

To address editorial revisions due to the revised methods, Update IIIB will include a revised Table of Contents and revised Chapters Five, Six, and Eight. Chapters Five, Six, and Eight will be revised to include the new method numbers for the revised methods of Proposed Update IIIB. Also, Chapter Seven will be revised to reflect the withdrawal of the reactive cyanide and sulfide guidance in sections 7.3.3 ("Interim Guidance for Reactive Cyanide") and 7.3.4 ("Interim Guidance for Reactive Sulfide"), and to replace certain characteristic explanatory text with referrals to the regulations themselves.

In conclusion, we propose to revise § 260.11(a)(11) to include the eleven Update IIIB revised methods described above. Table 5 provides a listing of the Update IIIB eleven revised SW-846 methods and four revised chapters and Table of Contents. The method numbers in the table reflect the appropriate method revision letter suffix (*e.g.*, A, B, C, etc.). These suffixes are not always reflected in the RCRA regulations themselves (*e.g.*, the regulations typically only cite the method number without a suffix), nor are they reflected at § 260.11(a)(11). However, as noted earlier in this proposal, during compliance with those regulations, the regulated community must only use the latest promulgated revision of those methods as indicated in § 260.11(a)(11).

Table 5 also identifies those sections or parts of each method or chapters which are revised and are open for public comment. We will not consider comments on the other sections or parts of the methods or chapters because those portions are not changed by Proposed Update IIIB.

TABLE 5.—REVISED METHODS AND CHAPTERS

Method No.	Method or chapter title	Sections or parts of methods or chapters open for comment
	Table of Contents	References to the revised methods.
	Chapter Five—Miscellaneous Test	References to the revised methods.
	Chapter Six—Properties	References to the revised methods.
	Chapter Seven—Characteristics Introduction	Secs. 7.1.2, 7.2.2, 7.3.2, and removal of secs. 7.3.3 and 7.3.4.
	Chapter Eight—Methods for Determining Characteristics.	References to the revised methods.
1010A	Pensky-Martens Closed-Cup Method for Determining Ignitability.	Secs. 1.1, 1.2, 2.2, and 3.1 and ref. 4 of sec. 4.0.
1020B	Small Scale Closed Cup Method for Determining Ignitability.	Title and secs. 1.1, 1.3, 2.1, and 2.4 and ref. 4 of sec. 4.0.
1110A	Corrosivity Toward Steel	Sec. 4.5.
1310B	Extraction Procedure (EP) Toxicity Test Method and Structural Integrity Test.	Secs. 1.1 and deleted 6.1
9010C	Total and Amenable Cyanide: Distillation	Secs. 1.1 and deleted 6.1.

TABLE 5.—REVISED METHODS AND CHAPTERS—Continued

Method No.	Method or chapter title	Sections or parts of methods or chapters open for comment
9012B	Total and Amenable Cyanide (Automated Colorimetric, with Off-line Distillation).	Secs. 1.1 and deleted 6.1.
9040C	pH Electrometric Measurement	Deleted Sec. 6.1.
9045D	Soil and Waste pH	Deleted Sec. 6.1.
9060A	Total Organic Carbon	Deleted Sec. 6.1.
9070A	n-Hexane Extractable Material (HEM) for Aqueous Samples.	Title.
9095B	Paint Filter Liquids Test	Deleted Sec. 6.1.

Note: A suffix of “A” in the method number indicates revision one (the method has been revised once). A suffix of “B” in the method number indicates revision two (the method has been revised twice). A suffix of “C” in the method number indicates revision three (the method has been revised three times).

IX. Proposed Addition of Method 25A to §§ 264.1034(c)(1)(ii) and (iv) and 265.1034(c)(1)(ii) and (iv)

We propose to revise §§ 264.1034(c)(1)(ii) and (iv) and 265.1034(c)(1)(ii) and (iv) to allow use of Method 25A, as well as Method 18, during analyses in support of air emission standards for process vents and/or equipment leaks at hazardous waste management facilities. We added the flexibility to use a method other than Method 18 as a result of feedback from the regulated public. Method 18 is a technique best applied when the test matrix is known and the number of target compounds is limited. It identifies individual components. On the other hand, Method 25A is a total volatile organic compound (VOC) measurement method. Members of the regulated public found it difficult to effectively use Method 18 in compliance with the subject regulation because their sources contain up to hundreds of regulated compounds, and because the test matrix changes daily. The Agency believes that allowing the use of Method 25A will solve this problem. Also, from an environmental protection viewpoint, Method 25A may be more protective than Method 18 because it is a total analysis method and responds to total volatile organic carbon without differentiating among individual components. Therefore, this change will allow the needed method selection flexibility without lessening environmental protection. As part of this change, we added equations for the calculation of total mass flow rates for sources utilizing Method 25A. Both Methods 25A and 18 are located in 40 CFR part 60, appendix A.

X. Proposed Removal of Requirements from § 63.1208(b)(8)(i) and (ii) in the NESHAP Standards to Demonstrate Feedstream Analytes are not Present at Certain Levels

EPA promulgated the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Hazardous Waste Combustors on September 30, 1999 pursuant to section 112 of the Clean Air Act. Sections 63.1208(b)(8)(i) and (ii) require sources, for each feedstream, to demonstrate that: (1) Each analyte is not present above the reported level at the 80% upper confidence limit around the mean; and (2) the analysis could have detected the presence of the constituent at or below the reported level at the 80% upper confidence limit around the mean.

Several stakeholders raised concerns about implementing this requirement. For example, stakeholders questioned the ability to calculate a confidence level around the mean for data distributions that are not “normal.” Stakeholders also raised the concern that applying a confidence level criteria to each individual feedstream unnecessarily results in a combined feedstream confidence level that is much higher than 80%. While the original intent of these provisions was to place a greater emphasis on performance rather than protocol, the provisions as written are not clear. For example, the term “reported level” is not defined and is not used elsewhere in the regulations. This makes interpretation and application of these provisions difficult.

Upon re-evaluating this provision, we believe that it is inappropriate to require explicit feedstream analytical DQO requirements for hazardous waste combustors in the regulations. The various questions raised by stakeholders suggest that issues relating to feedstream analytical DQOs need to be addressed on a case-by-case basis. We therefore propose to delete § 63.1208(b)(8)(i) and (ii). We will retain the preceding regulatory language that states “It is your responsibility to ensure that the

sampling and analysis procedures are unbiased, precise, and that the results are representative of the feedstream.” In addition to the above regulatory language, we note that § 63.1209(c) also addresses general feedstream analysis requirements. In particular, § 63.1209(c)(1) states that a source must, prior to feeding the material, “obtain an analysis of each feedstream that is sufficient to document compliance with the applicable feedrate limits.” We believe that sources should develop feedstream analytical DQOs consistent with the general principal of ensuring compliance with their applicable feedstream limits.

We anticipate that hazardous waste combustion sources will establish feedstream analytical DQOs that reflect the site-specific needs at their particular facility, and include these DQOs in their Title V permit (when required by the permitting official) and also in their feedstream analysis plan that is required pursuant to § 63.1209(c). This feedstream analysis plan must be kept on site in the operating record, and is subject to review and approval by the authorized regulatory Agency upon request.

XI. Announcing the Availability of the RCRA Waste Sampling Draft Technical Guidance

A. Why Is the Agency Releasing this Guidance?

As part of the Agency’s efforts towards Innovating for Better Environmental Results, we have worked to revise the existing waste sampling guidance in Chapter Nine of SW-846. Many advances in waste sampling strategies have occurred since the existing waste sampling guidance Chapter Nine was initially published in 1986.

The Agency believes that a critical element in a program design is a well-thought out systematic waste sampling or characterization plan for evaluating hazardous wastes. This should include consideration of approaches to address issues regarding evaluating physical and

chemical properties of solid waste. We believe it is our obligation to provide current guidance and better tools to address these environmental monitoring issues in accordance with performance based measurement principles.

Several EPA offices have worked closely together to develop this guidance (the Office of Solid Waste, EPA Regions, the Office of Research and Development, and the Office of Enforcement and Compliance Assurance.) In addition, in order to achieve expert external peer review, we have sought and received considerable input from public stakeholders knowledgeable about sampling issues and techniques.

B. What Is Included in the Draft Guidance?

The draft technical guidance contains information on how to develop a sampling plan to determine if (1) a solid waste exhibits any of the characteristics of a hazardous waste, (2) a hazardous waste is prohibited from land disposal regulations, and (3) a numeric treatment standard has been met. The guidance can also be used as a tool for implementing and assessing your program. In addition, the guidance is an excellent resource of information on other guidance documents that may help the user meet other sampling objectives such as site characterization under the RCRA corrective action programs.

Finally, the guidance includes a glossary of terms, information on fundamental statistical concepts and optimizing the design for obtaining the data, examples of how to control variability and bias in sampling, guidance on selecting equipment and conducting sampling analysis, and information on how to assess data.

In addition, we believe the guidance is a good working tool for planning and implementing your sampling program, and assessing sampling information. The guidance includes statistical concepts which can promote the development of scientifically sound and effective data. It is our intention to provide these statistical concepts in a user-friendly manner.

C. Will This Guidance Replace the Existing Chapter Nine of SW-846?

This document will update and replace the original sampling guidance version of Chapter Nine found in EPA publication SW-846 when the Fourth Edition of SW-846 is published. It is our intention to make the guidance available as a stand-alone document titled, "RCRA Waste Sampling Draft Technical Guidance."

After receipt of your comments, EPA will evaluate them and then revise the guidance as appropriate. The document when finalized will replace the existing sampling guidance of Chapter Nine, and SW-846 will reference the separate, stand-alone sampling guidance document.

D. Can the Draft Technical Guidance Be Used Now?

By releasing the guidance, EPA immediately makes available a wealth of new statistical concepts, examples, and approaches to waste sampling and characterizations. The Agency believes the regulated community and others will use the guidance when it is appropriate and beneficial to do so. The guidance has undergone extensive technical and peer review from EPA's Office of Research and Development (ORD), the American Society of Testing and Material (ASTM), and Academia, and is considered a useable tool. The guidance is not required, and does not replace any regulation or impose any regulatory requirement. Through this announcement, we are making it available to assist the public in addressing issues regarding waste sampling and characterization. Users of the guidance will still be obligated to follow regulations which govern any particular program.

Furthermore, the Agency believes the public will be pleased with the information contained in this document and will choose to use it immediately when appropriate to do so, because of the quality of information provided. The guidance promotes flexibility and cost effectiveness in achieving improved technologies in sampling design. Finally, the release of the guidance has been requested by the public for some time.

Therefore, we believe that this guidance will become an important part of the RCRA program, and will be helpful to users in sampling and characterizing waste streams. We are making the draft technical guidance available to the public on the Web and in the RCRA docket. Please see the instructions in section I.A of the proposed rule for obtaining information on the draft technical guidance via the EPA Internet website or the RCRA docket.

E. When Will the Guidance Be Finalized?

The guidance may be finalized through one of two courses of action. The Agency may place this guidance on a separate track of its own and finalize it soon after careful consideration of all comments received under this notice of

availability. On the other hand, the Agency may announce the availability of the Final Technical Guidance as part of the Final Methods Innovation Rule (MIR) package. Depending on the extent of comments received, the process may take approximately fifteen months.

F. Request for Comment

The Agency developed the "RCRA Waste Sampling Draft Technical Guidance" for use by members of both the regulated community and regulating authorities. By making it available for public comment, we hope to encourage involvement in its development by all stakeholders. All portions of the document are open to comment. Your comments will help us improve the guidance and ensure that it is most beneficial to users. Follow the directions for submitting public comments given in section I.B of this proposed rule and notice of availability.

XII. State Authorization Procedures

A. Applicability of Federal Rules in Authorized States

Under section 3006 of RCRA, EPA may authorize qualified states to administer the RCRA hazardous waste program within the state. Following authorization, the state requirements authorized by EPA apply in lieu of equivalent Federal requirements and become Federally enforceable as requirements of RCRA. EPA maintains independent authority to bring enforcement actions under RCRA sections 3007, 3008, 3013, and 7003. Authorized states also have independent authority to bring enforcement actions under state law. A state may receive authorization by following the approval process described in 40 CFR part 271. 40 CFR part 271 also describes the overall standards and requirements for authorization.

After a state receives initial authorization, new Federal regulatory requirements promulgated under the authority in the RCRA statute which existed prior to the 1984 Hazardous and Solid Waste Amendments (HSWA) do not apply in that state until the state adopts and receives authorization for equivalent state requirements. The state must adopt such requirements to maintain authorization.

In contrast, under RCRA section 3006(g) (*i.e.*, 42 U.S.C. 6926(g)), new Federal requirements and prohibitions imposed pursuant to HSWA provisions take effect in authorized states at the same time that they take effect in unauthorized states. Although authorized states are still required to

update their hazardous waste programs to remain equivalent to the Federal program, EPA carries out HSWA requirements and prohibitions in authorized states, including the issuance of new permits implementing those requirements, until EPA authorizes the state to do so.

Finally, authorized states are required to modify their programs only when EPA promulgates Federal requirements that are more stringent or broader in scope than existing Federal requirements. RCRA section 3009 allows the states to impose standards more stringent than those in the Federal program. See also § 271.1(i). Therefore, authorized states are not required to adopt Federal regulations, both HSWA and non-HSWA, that are considered less stringent.

B. Authorization of States for Today's Proposal

Today's proposal affects many aspects of the RCRA Program and would be promulgated pursuant to both HSWA and non-HSWA statutory authority. Therefore, when promulgated, the Agency will add the rule to Table 1 in § 271.1(j), which identifies Federal regulations that are promulgated pursuant to the statutory authority that was added by HSWA. States may apply for final authorization for the HSWA provisions, as discussed in the following section of this preamble.

Today's proposed rule language provides standards that are equivalent to or less stringent than the existing provisions in the Federal regulations which they would amend. Therefore, States would not be required to adopt and seek authorization for this rulemaking. EPA would implement this rulemaking only in those states which are not authorized for the RCRA Program, and will implement provisions promulgated pursuant to HSWA only in those states which have not received authorization for the HSWA provision that would be amended. In authorized States, the changes will not be applicable until and unless the State revises its program to adopt the revisions. (Note: Procedures and deadlines for State program revisions are set forth in § 271.21.)

This rule will provide significant benefits to EPA, states, and the regulated community, without compromising human health or environmental protection. Because this rulemaking would not become effective in authorized states until they adopted and are authorized for it, EPA will strongly encourage states to amend their programs and seek authorization for today's proposal, once it becomes final.

C. Abbreviated Authorization Procedures

EPA considers today's proposal to be a minor rulemaking and is proposing to add it to the list of minor or routine rulemakings in Table 1 to § 271.21. Placement in this table would enable states to use the abbreviated procedures located in § 271.21(h) when they seek authorization for today's proposed changes after they are promulgated. These abbreviated procedures were established in the HWIR-media rulemaking (see 63 FR 65927, November 30, 1998). EPA requests comment on this placement in Table 1 to § 271.21.

XIII. Administrative Requirements

A. Executive Order 12866

Under Executive Order 12866 (58 FR 51735, October 4, 1993), we must determine whether a proposed regulatory action is "significant," and therefore subject to Office of Management and Budget (OMB) review and the requirements of the Executive Order. The order defines a "significant regulatory action" as one that is likely to result in a rule that may:

- (1) Have an annual effect on the economy of \$100 million or more, adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or state, local, or tribal governments or communities;
- (2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;
- (3) Materially alter the budgetary impact of entitlement, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or
- (4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in this Executive Order.

OMB determined that this proposed rule is not a "significant regulatory action" under the terms of Executive Order 12866 and is therefore not subject to OMB review and the requirements of the Executive Order.

B. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA or the Act), Pub. L. 104-4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed rules and final 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 needed, section 205 of the Act generally requires EPA to identify and consider a reasonable number of regulatory alternatives. Under section 205, EPA must adopt the least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule, unless the Administrator explains in the final rule why that alternative was not adopted. The provisions of section 205 do not apply when they are inconsistent with applicable 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 Act 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.

First, this proposed rule does not contain a Federal mandate. The proposed rule imposes no enforceable duty on any State, local or tribal governments. This proposed rule contains no regulatory requirements that might significantly or uniquely affect small governments. This is due to the fact that this rule does not add any new regulatory requirements and States need not adopt its revisions. This rule only revises certain regulatory sections to remove required uses of SW-846 methods and allow the use of other appropriate methods or to clarify allowed flexibility in method selection for meeting RCRA-related monitoring requirements. Under RCRA, regardless of the method used—the one specified in the regulation or the "other appropriate method"—regulated entities should be demonstrating that the method is appropriate for its intended use. This rule also does not propose new monitoring or information collection requirements. The additional flexibility allowed by this rule should result in improved data quality at reduced cost. Thus, today's proposed rule is not subject to the requirements of sections 202, 203 and 205 of UMRA.

C. Regulatory Flexibility Act (RFA), as Amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), 5 U.S.C. 601 et seq.

The RFA generally requires an agency to prepare a regulatory flexibility

analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of today's rule on small entities, small entity is defined as: (1) A small business that is independently owned and operated and not dominant in its field as defined by Small Business Administration (SBA) regulations under Section 3 of the Small Business Act for SIC; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of today's proposed rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. In determining whether a rule has a significant economic impact on a substantial number of small entities, the impact of concern is any significant adverse economic impact on small entities, since the primary purpose of the regulatory flexibility analyses is to identify and address regulatory alternatives "which minimize any significant economic impact of the proposed rule on small entities." 5 U.S.C. 603 and 604. Thus, an agency may certify that a rule will not have a significant economic impact on a substantial number of small entities if the rule relieves regulatory burden, or otherwise has a positive economic effect on all of the small entities subject to the rule. Today's proposed rule, if finalized, is specifically intended to reduce economic burden for all entities. The proposed action will provide greater flexibility and utility to all effected entities, including small entities, by providing an increase in choices of appropriate analytical methods for RCRA applications. It does not create any new regulatory requirements or require any new reports beyond those now required by the revised regulations. In addition, its revisions need not be adopted by regulated entities. Such entities can continue to use the methods specified in the regulations instead of choosing the option to use appropriate methods from other reliable sources. We have therefore concluded that today's

proposed rule will relieve regulatory burden for small entities. We continue to be interested in the potential impacts of the proposed rule on small entities and welcome comments on issues related to such impacts.

D. Environmental Justice (Executive Order 12898)

Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," February 11, 1994, requires that regulatory actions be accompanied by an environmental justice analysis. This analysis must look at potentially disproportionate impacts the action may have on minority and/or low-income communities.

The Agency has determined that the proposed action does not raise environmental justice concerns. The impact of this proposed rule, if finalized, will be to provide increased flexibility in the choice of appropriate analytical methods for RCRA applications. The Agency is not aware of any disproportionate impacts that such flexibility may have on minority and/or low-income communities.

E. Protection of Children from Environmental Health Risks and Safety Risks (Executive Order 13045)

Executive Order 13045, "Protection of Children From Environmental Health Risks and Safety Risks" (62 FR 19885, April 23, 1997) applies to any rule that: (1) Is determined to be "economically significant" as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, the Agency must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

This proposed rule is not subject to the Executive Order because it is not economically significant as defined in Executive Order 12866. Also, EPA interprets Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5-501 of the Order has the potential to influence the regulation. This proposed rule is not subject to Executive Order 13045 because it does not establish an environmental standard intended to mitigate health or safety risks. The action discussed in today's proposed rule is intended to provide

regulatory relief, and thus is not strictly subject to Executive Order 13045.

F. Consultation and Coordination With Indian Tribal Governments (Executive Order 13175)

Executive Order 13175 (65 FR 67249) entitled, "Consultation and Coordination with Indian Tribal Governments" requires EPA to develop an accountable process to ensure "meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications." "Policies that have tribal implications" are defined in the Executive Order to include regulations that have "substantial direct effects on one or more Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes."

Today's proposed rule does not have tribal implications. It will not have substantial direct effects on tribal governments, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes, as specified in Executive Order 13175. For many of the same reasons described above under unfunded mandates, the requirements of the Executive Order do not apply to this proposed rulemaking. As stated above, this rule does not propose any new regulatory requirements and governments need not adopt it. It does not impose any direct compliance costs on tribal governments. In the spirit of Executive Order 13175, and consistent with EPA policy to promote communications between EPA and tribal governments, EPA specifically solicits additional comment on this proposed rule from tribal officials.

G. Federalism (Executive Order 13132)

Executive Order 13132, entitled "Federalism" (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications." "Policies that have federalism implications" is defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government."

This proposed rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national

government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. As explained above, today's proposed rule does not impose new requirements on the States and its regulatory changes need not be adopted by the States. Thus, Executive Order 13132 does not apply to this rule. Because these changes are equivalent to or less stringent than the existing Federal program, states would not be required to adopt and seek authorization for them.

In the spirit of Executive Order 13132, and consistent with EPA policy to promote communications between EPA and State and local governments, EPA specifically solicits comment on this proposed rule from State and local officials.

H. National Technology Transfer And Advancement Act of 1995

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 ("NTTAA"), Pub. L. 104-113, section 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. The NTTAA directs us to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

This proposed rule increases flexibility in the use of methods for RCRA-related analyses and does not itself identify or require the use of new methods or other technical standards. In fact, this rule, if finalized, may increase the use of available voluntary consensus standards for some RCRA applications, provided that such methods are appropriate for the regulatory application. The only technical standards included in this rule include the proposed replacement of obsolete references to voluntary consensus standards, in this case ASTM Methods D 3278-78 and D 93-79 or D 93-80 for flash point determinations, with references to the most recent versions of those methods, ASTM Methods D 3278-96 and D 93-99c, in the SW-846 methods (Methods 1010 and 1020). The recent versions of the methods are not significantly different from the older versions. EPA welcomes comments on this aspect of the proposed rulemaking.

I. Energy Effects (Executive Order 13211)

This proposed rule is not a "significant energy action" as defined in Executive Order 13211, "Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use" (66 FR 28355, May 22, 2001) because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. Further, we have concluded that this proposed rule is not likely to have any adverse energy effects.

J. Paperwork Reduction Act

This action does not impose any new information collection burden. There are no additional reporting, notification, or recordkeeping provisions associated with today's proposed rule. However, the Office of Management and Budget (OMB) has previously approved the information collection requirements contained in some of the existing regulations being revised by this proposed rule, under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.*, and has assigned OMB control numbers for those information collection requirements, as follows:

- 40 CFR 258.28: OMB control number 2050-0122
- 40 CFR 260.21 and 260.22: OMB control number 2050-0053
- 40 CFR 261.3: OMB control number 2050-0085
- 40 CFR 261.35: OMB control number 2050-0115
- 40 CFR 264.1034, 264.1063, 265.1034, and 265.1063: OMB control number 2050-0050
- 40 CFR 266.100, 266.102, 266.106, 266.112, Appendix IX to part 63, and 270.22: OMB control number 2050-0073
- 40 CFR 270.19: OMB control number 2050-0009
- 40 CFR 270.62: OMB control numbers 2050-0009 and 2050-0149
- 40 CFR 270.66: OMB control numbers 2050-0073 and 2050-0149
- 40 CFR 279.10, 279.44, 279.53 and 279.63: OMB control number 2050-0124

Copies of the ICR document(s) may be obtained from Sandy Farmer, by mail at the Office of Environmental Information, Collection Strategies Division; U.S. Environmental Protection Agency (2822); 1200 Pennsylvania Ave., NW., Washington, DC 20460, by e-mail at farmer.sandy@epa.gov, or by calling (202) 260-2740. A copy may also be downloaded off the Internet at <http://www.epa.gov/icr>. Include the ICR and/or OMB number in any correspondence.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop,

acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An Agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR part 9 and 48 CFR Chapter 15.

List of Subjects

40 CFR Part 63

Environmental protection, Air pollution control, Hazardous substances, Reporting and recordkeeping requirements.

40 CFR Part 258

Environmental protection, Reporting and recordkeeping requirements, Waste treatment and disposal, Water pollution control.

40 CFR Part 260

Environmental protection, Administrative practice and procedure, Confidential business information, Hazardous waste, Incorporation by reference, Reporting and recordkeeping requirements.

40 CFR Part 261

Environmental protection, Comparable fuels, syngas fuels, Excluded hazardous waste, Reporting and recordkeeping requirements.

40 CFR Part 264

Environmental protection, Air pollution control, Hazardous waste, Insurance, Packaging and containers, Reporting and recordkeeping requirements, Security measures, Surety bonds.

40 CFR Part 265

Environmental protection, Air pollution control, Hazardous waste, Insurance, Packaging and containers, Reporting and recordkeeping requirements, Security measures, Surety bonds, Water supply.

40 CFR Part 266

Environmental protection, Energy, Hazardous waste, Recycling, Reporting and recordkeeping requirements.

40 CFR Part 270

Environmental protection, Administrative practice and procedure, Confidential business information, Hazardous materials transportation, Hazardous waste, Reporting and recordkeeping requirements, Water pollution control, Water supply.

40 CFR Part 271

Environmental protection, Administrative practice and procedure, Confidential business information, Hazardous materials transportation, Hazardous waste, Indians-lands, Intergovernmental relations, Penalties, Reporting and recordkeeping requirements, Water pollution control, Water supply.

40 CFR Part 279

Environmental protection, Petroleum, Recycling, Reporting and recordkeeping requirements.

Dated: October 9, 2002.

Christine Todd Whitman,

Administrator, U.S. Environmental Protection Agency.

For the reasons set out in the preamble, title 40, Chapter I, of the Code of Federal Regulations EPA proposes to amend as set forth below:

PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES

1. The authority citation for part 63 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

Subpart EEE—National Emission Standards for Hazardous Air Pollutants From Hazardous Waste Combustors

2. Section 63.1208 is amended by revising paragraph (b)(8) to read as follows:

§ 63.1208 What are the test methods?

* * * * *

(b) * * *

(8) Feedstream analytical methods. You may use any reliable analytical method to determine feedstream concentrations of metals, chlorine, and other constituents. It is your responsibility to ensure that the sampling and analysis procedures are unbiased, precise, and that the results are representative of the feedstream.

* * * * *

PART 258—CRITERIA FOR MUNICIPAL SOLID WASTE LANDFILLS

3. The authority citation for part 258 continues to read as follows:

Authority: 33 U.S.C. 1345(d) and (e); 42 U.S.C. 6902(a), 6907, 6912(a), 6944, 6945(c), and 6949a(c).

Subpart C—Operating Criteria

4. Section 258.28 is amended by revising paragraph (c)(1) to read as follows:

§ 258.28 Liquids restrictions.

* * * * *

(c) * * *

(1) Liquid waste means any waste material that is determined to contain “free liquids” as defined by Method 9095 (Paint Filter Liquids Test), included in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods” (EPA Publication SW-846), incorporated by reference in § 260.11.

* * * * *

5. Appendix I to part 258 is amended by revising footnote 1 to read as follows:

Appendix I to Part 258—Constituents for Detection Monitoring ¹

* * * * *

¹ This list contains 47 volatile organics for which potentially applicable analytical procedures provided in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods” (EPA Publication SW-846) include Method 8260; and 15 metals for which SW-846 provides Methods 6010, and 6020, or the 7000 series of methods.

* * * * *

6. Appendix II to part 258 is revised as follows:

Appendix II to Part 258—List of Hazardous Inorganic and Organic Constituents

Common name ¹	CAS RN ²	Chemical abstracts service index name ³
Acenaphthene	83-32-9	Acenaphthylene, 1,2-dihydro-
Acenaphthylene	208-96-8	Acenaphthylene
Acetone	67-64-1	2-Propanone
Acetonitrile; Methyl cyanide	75-05-8	Acetonitrile
Acetophenone	98-86-2	Ethanone, 1-phenyl-
2-Acetylaminofluorene; 2-AAF	53-96-3	Acetamide, N-9H-fluoren-2-yl-
Acrolein	107-02-8	2-Propenal
Acrylonitrile	107-13-1	2-Propenenitrile
Aldrin	309-00-2	1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro- (1,4,4a,5,8,8a)-
Allyl chloride	107-05-1	1-Propene, 3-chloro-
4-Aminobiphenyl	92-67-1	[1,1'-Biphenyl]- 4-amine
Anthracene	120-12-7	Anthracene
Antimony	(Total)	Antimony
Arsenic	(Total)	Arsenic
Barium	(Total)	Barium
Benzene	71-43-2	Benzene
Benzo[a]anthracene; Benzanthracene	56-55-3	Benz[a]anthracene
Benzo[b]fluoranthene	205-99-2	Benz[e]acephenanthrylene
Benzo[k]fluoranthene	207-08-9	Benzo[k]fluoranthene
Benzo[ghi]perylene	191-24-2	Benzo[ghi]perylene
Benzo[a]pyrene	50-32-8	Benzo[a]pyrene
Benzyl alcohol	100-51-6	Benzenemethanol
Beryllium	(Total)	Beryllium
alpha-BHC	319-84-6	Cyclohexane, 1,2,3,4,5,6- hexachloro-, (1 α ,2 α ,3 β ,4 α ,5 β ,6 β)-
beta-BHC	319-85-7	Cyclohexane, 1,2,3,4,5,6- hexachloro-, (1 α ,2 β ,3 α ,4 β ,5 α ,6 β)-
delta-BHC	319-86-8	Cyclohexane, 1,2,3,4,5,6- hexachloro-, (1 α ,2 α ,3 α ,4 β ,5 α ,6 β)-
gamma-BHC; Lindane	58-89-9	Cyclohexane, 1,2,3,4,5,6- hexachloro-, (1 α ,2 α ,3 β ,4 α ,5 α ,6 β)-
Bis(2-chloroethoxy)methane	111-91-1	Ethane, 1,1'-[methylenebis (oxy)]bis [2-chloro-
Bis(2-chloroethyl)ether; Dichloroethyl ether	111-44-4	Ethane, 1,1'-oxybis[2-chloro-

Common name ¹	CAS RN ²	Chemical abstracts service index name ³
Bis(2-chloro-1-methylethyl) ether; 2,2'- Dichlorodiisopropyl ether; DCIP, See note 4.	108-60-1	Propane, 2,2'-oxybis[1-chloro-
Bis(2-ethylhexyl) phthalate	117-81-7	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl)ester
Bromochloromethane; Chlorobromomethane	74-97-5	Methane, bromochloro-
Bromodichloromethane; Dibromochloromethane	75-27-4	Methane, bromodichloro-
Bromoform; Tribromomethane	75-25-2	Methane, tribromo-
4-Bromophenyl phenyl ether	101-55-3	Benzene, 1-bromo-4-phenoxy-
Butyl benzyl phthalate; Benzyl butyl phthalate	85-68-7	1,2-Benzenedicarboxylic acid, butyl phenylmethyl ester
Cadmium	(Total)	Cadmium
Carbon disulfide	75-15-0	Carbon disulfide
Carbon tetrachloride	56-23-5	Methane, tetrachloro-
Chlordane	57-74-9	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-
p-Chloroaniline	106-47-8	Benzenamine, 4-chloro-
Chlorobenzene	108-90-7	Benzene, chloro-
Chlorobenzilate	510-15-6	Benzenecarboxylic acid, 4-chloro- (4-chlorophenyl)- -hydroxy-, ethyl ester.
p-Chloro-m-cresol; 4-Chloro-3-methylphenol	59-50-7	Phenol, 4-chloro-3-methyl-
Chloroethane; Ethyl chloride	75-00-3	Ethane, chloro-
Chloroform; Trichloromethane	67-66-3	Methane, trichloro-
2-Chloronaphthalene	91-58-7	Naphthalene, 2-chloro-
2-Chlorophenol	95-57-8	Phenol, 2-chloro-
4-Chlorophenyl phenyl ether	7005-72-3	Benzene, 1-chloro-4-phenoxy-
Chloroprene	126-99-8	1,3-Butadiene, 2-chloro-
Chromium	(Total)	Chromium
Chrysene	218-01-9	Chrysene
Cobalt	(Total)	Cobalt
Copper	(Total)	Copper
m-Cresol; 3-Methylphenol	108-39-4	Phenol, 3-methyl-
o-Cresol; 2-Methylphenol	95-48-7	Phenol, 2-methyl-
p-Cresol; 4-Methylphenol	106-44-5	Phenol, 4-methyl-
Cyanide	57-12-5	Cyanide
2,4-D; 2,4-Dichlorophenoxyacetic acid	94-75-7	Acetic acid, (2,4-dichlorophenoxy)-
4,4'-DDD	72-54-8	Benzene 1,1'-(2,2-dichloroethylidene) bis[4-chloro-
4,4'-DDE	72-55-9	Benzene, 1,1'-(dichloroethenylidene) bis[4-chloro-
4,4'-DDT	50-29-3	Benzene, 1,1'-(2,2,2-trichloroethylidene) bis[4-chloro-
Diallate	2303-16-4	Carbamothioic acid, bis(1-methylethyl)-, S- (2,3-dichloro-2-propenyl) ester.
Dibenz[a,h]anthracene	53-70-3	Dibenz[a,h]anthracene
Dibenzofuran	132-64-9	Dibenzofuran
Dibromochloromethane; Chlorodibromomethane	124-48-1	Methane, dibromochloro-
1,2-Dibromo-3-chloropropane;	96-12-8	Propane, DBCP 1,2-dibromo-3-chloro-
1,2-Dibromoethane; Ethylene dibromide; EDB	106-93-4	Ethane, 1,2-dibromo-
Di-n-butyl phthalate	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester
o-Dichlorobenzene; 1,2-Dichlorobenzene	95-50-1	Benzene, 1,2-dichloro-
m-Dichlorobenzene; 1,3-Dichlorobenzene	541-73-1	Benzene, 1,3-dichloro-
p-Dichlorobenzene; 1,4-Dichlorobenzene	106-46-7	Benzene, 1,4-dichloro-
3,3'-Dichlorobenzidine	91-94-1	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-
trans-1,4-Dichloro-2-butene	110-57-6	2-Butene, 1,4-dichloro-, (E)-
Dichlorodifluoromethane; CFC 12	75-71-8	Methane, dichlorodifluoro-
1,1-Dichloroethane; Ethylidene chloride	75-34-3	Ethane, 1,1-dichloro-
1,2-Dichloroethane; Ethylene dichloride	107-06-2	Ethane, 1,2-dichloro-
1,1-Dichloroethylene; 1,1-Dichloroethene; Vinylidene chloride ..	75-35-4	Ethene, 1,1-dichloro-
cis-1,2-Dichloroethylene; cis-1,2-Dichloroethene	156-59-2	Ethene, 1,2-dichloro-(Z)-
trans-1,2-Dichloroethylene; trans-1,2-Dichloroethene	156-60-5	Ethene, 1,2-dichloro-, (E)-
2,4-Dichlorophenol	120-83-2	Phenol, 2,4-dichloro-
2,6-Dichlorophenol	87-65-0	Phenol, 2,6-dichloro-
1,2-Dichloropropane	78-87-5	Propane, 1,2-dichloro-
1,3-Dichloropropane; Trimethylene dichloride	142-28-9	Propane, 1,3-dichloro-
2,2-Dichloropropane; Isopropylidene chloride	594-20-7	Propane, 2,2-dichloro-
1,1-Dichloropropene	563-58-6	1-Propene, 1,1-dichloro-
cis-1,3-Dichloropropene	10061-01-5	1-Propene, 1,3-dichloro-, (Z)-
trans-1,3-Dichloropropene	10061-02-6	1-Propene, 1,3-dichloro-, (E)-
Dieldrin	60-57-1	2,7,3,6-Dimethanonaphth [2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1a2β, 2aα, 3β, 6β, 6aα, 7β, 7aα)-
Diethyl phthalate	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester
O,O-Diethyl O-2-pyrazinyl phosphorothioate; Thionazin	297-97-2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester.
Dimethoate	60-51-5	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester
p-(Dimethylamino)azobenzene	60-11-7	Benzenamine, N,N-dimethyl-4-(phenylazo)-
7,12-Dimethylbenz[a]anthracene	57-97-6	Benz[a]anthracene, 7,12-dimethyl-
3,3'-Dimethylbenzidine	119-93-7	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-
alpha, alpha-Dimethylphenethylamine	122-09-8	Benzenethanamine, α, α-dimethyl-

Common name ¹	CAS RN ²	Chemical abstracts service index name ³
2,4-Dimethylphenol; m-Xylenol	105-67-9	Phenol, 2,4-dimethyl-
Dimethyl phthalate	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester
m-Dinitrobenzene	99-65-0	Benzene, 1,3-dinitro-
4,6-Dinitro-o-cresol; 4,6-Dinitro-2-methylphenol	534-52-1	Phenol, 2-methyl-4,6-dinitro-
2,4-Dinitrophenol	51-28-5	Phenol, 2,4-dinitro-
2,4-Dinitrotoluene	121-14-2	Benzene, 1-methyl-2,4-dinitro-
2,6-Dinitrotoluene	606-20-2	Benzene, 2-methyl-1,3-dinitro-
Dinoseb; DNBP; 2-sec-Butyl-4,6-dinitrophenol	88-85-7	Phenol, 2-(1-methylpropyl)-4,6- dinitro-
Di-n-octyl phthalate	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl ester
Diphenylamine	122-39-4	Benzenamine, N-phenyl-
Disulfoton	298-04-4	Phosphorodithioic acid, O,O- diethyl S-[2- (ethylthio)ethyl] ester
Endosulfan I	959-98-8	6,9-Methano-2,4,3-benzodiox- athiepin, 6,7,8,9,10,10-hexachloro- 1,5,5a,6,9,9a-hexahydro-, 3-oxide,
Endosulfan II	33213-65-9	6,9-Methano-2,4,3- benzodioxathiepin, 6,7,8,9,10,10-hexachloro- 1,5,5a,6,9,9a-hexahydro-, 3-oxide, (3α, 5α, 6β, 9β, 9αα)-
Endosulfan sulfate	1031-07-8	6,9-Methano-2,4,3- benzodioxathiepin, 6,7,8,9,10,10-hexachloro- 1,5,5a,6,9,9a-hexahydro-, 3,3-dioxide
Endrin	72-20-8	2,7:3,6-Dimethanonaphth[2,3- b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a- octahydro-, (1α, 2β, 2aβ, 3α, 6α, 6aβ, 7β, 7αα)-
Endrin aldehyde	7421-93-4	1,2,4-Methe nocyclus penta[cd] pentalene- 5-carboxaldehyde,2,2a,3,3,4,7- hexa-chlorodecahydro-,(1α, 2β, 2aβ, 4β,4aβ,5β,6aβ,6bβ,7R*)-
Ethylbenzene	100-41-4	Benzene, ethyl-
Ethyl methacrylate	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester
Ethyl methanesulfonate	62-50-0	Methanesulfonic acid, ethyl ester
Famphur	52-85-7	Phosphorothioic acid, O-[4- [(dimethylamino)sulfonyl]pheny l]-O,O-dimethyl ester
Fluoranthene	206-44-0	Fluoranthene
Fluorene	86-73-7	9H-Fluorene
Heptachlor	76-44-8	4,7-Methano-1H-indene,1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-
Heptachlor epoxide	1024-57-3	2,5-Methano-2H-indeno[1,2- b]oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a,- hexahydro-,(1α,1bβ,2α,5α,5aβ,6β,6αα)
Hexachlorobenzene	118-74-1	Benzene, hexachloro-
Hexachlorobutadiene	87-68-3	1,3-Butadiene, 1,1,2,3,4,4- hexachloro-
Hexachlorocyclopentadiene	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-
Hexachloroethane	67-72-1	Ethane, hexachloro-
Hexachloropropene	1888-71-7	1-Propene, 1,1,2,3,3,3- hexachloro-
2-Hexanone; Methyl butyl ketone	591-78-6	2-Hexanone
Indeno(1,2,3-cd)pyrene	193-39-5	Indeno[1,2,3-cd]pyrene
Isobutyl alcohol	78-83-1	1-Propanol, 2-methyl-
Isodrin	465-73-6	1,4,5,8- Dimethanonaphthalene,1,2,3,4,1 0,10-hexachloro- 1,4,4a,5,8,8a hexahydro-(1α,4α,4aβ,5β,8β,8aβ)-
Isophorone	78-59-1	2-Cyclohexen-1-one, 3,5,5- trimethyl-
Isosafrole	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-
Kepone	143-50-0	1,3,4-Metheno-2H-cyclobuta- [cd]pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6- decachlorooctahydro-
Lead	(Total)	Lead
Mercury	(Total)	Mercury
Methacrylonitrile	126-98-7	2-Propenenitrile, 2-methyl-
Methapyrilene	91-80-5	1,2,Ethanediamine, N,N-dimethyl-N'-2- pyridinyl- N'-(2-thienylmethyl)-
Methoxychlor	72-43-5	Benzene, 1,1'- (2,2,2,trichloroethylidene)bis [4-methoxy-
Methyl bromide; Bromomethane	74-83-9	Methane, bromo-
Methyl chloride; Chloromethane	74-87-3	Methane, chloro-
3-Methylcholanthrene	56-49-5	Benz[j]aceanthrylene, 1,2- dihydro-3-methyl-
Methyl ethyl ketone; MEK; 2-Butanone	78-93-3	2-Butanone
Methyl iodide; Iodomethane	74-88-4	Methane, iodo-
Methyl methacrylate	80-62-6	2-Propenoic acid, 2-methyl-, methyl ester
Methyl methanesulfonate	66-27-3	Methanesulfonic acid, methyl ester
2-Methylnaphthalene	91-57-6	Naphthalene, 2-methyl-
Methyl parathion; Parathion methyl	298-00-0	Phosphorothioic acid, O,O-dimethyl
4-Methyl-2-pentanone; Methyl isobutyl ketone	108-10-1	2-Pentanone, 4-methyl-
Methylene bromide; Dibromomethane	74-95-3	Methane, dibromo-
Methylene chloride; Dichloromethane	75-09-2	Methane, dichloro-
Naphthalene	91-20-3	Naphthalene
1,4-Naphthoquinone	130-15-4	1,4-Naphthalenedione
1-Naphthylamine	134-32-7	1-Naphthalenamine
2-Naphthylamine	91-59-8	2-Naphthalenamine
Nickel	(Total)	Nickel

Common name ¹	CAS RN ²	Chemical abstracts service index name ³
o-Nitroaniline; 2-Nitroaniline	88-74-4	Benzenamine, 2-nitro-
m-Nitroaniline; 3-Nitroaniline	99-09-2	Benzenamine, 3-nitro-
p-Nitroaniline; 4-Nitroaniline	100-01-6	Benzenamine, 4-nitro-
Nitrobenzene	98-95-3	Benzene, nitro-
o-Nitrophenol; 2-Nitrophenol	88-75-5	Phenol, 2-nitro-
p-Nitrophenol; 4-Nitrophenol	100-02-7	Phenol, 4-nitro-
N-Nitrosodi-n-butylamine	924-16-3	1-Butanamine, N-butyl-N-nitroso-
N-Nitrosodiethylamine	55-18-5	Ethanamine, N-ethyl-N-nitroso-
N-Nitrosodimethylamine	62-75-9	Methanamine, N-methyl-N-nitroso-
N-Nitrosodiphenylamine	86-30-6	Benzenamine, N-nitroso-N-phenyl-
N-Nitrosodipropylamine; N-Nitroso-N-dipropylamine; Di-n-propylnitrosamine.	621-64-7	1-Propanamine, N-nitroso-N-propyl-
N-Nitrosomethylethylamine	10595-95-6	Ethanamine, N-methyl-N-nitroso-
N-Nitrosopiperidine	100-75-4	Piperidine, 1-nitroso-
N-Nitrosopyrrolidine	930-55-2	Pyrrolidine, 1-nitroso-
5-Nitro-o-toluidine	99-55-8	Benzenamine, 2-methyl-5-nitro-
Parathion	56-38-2	Phosphorothioic acid, O,O-diethyl-O-(4-nitrophenyl) ester
Pentachlorobenzene	608-93-5	Benzene, pentachloro-
Pentachloronitrobenzene	82-68-8	Benzene, pentachloronitro-
Pentachlorophenol	87-86-5	Phenol, pentachloro-
Phenacetin	62-44-2	Acetamide, N-(4-ethoxyphenyl)
Phenanthrene	85-01-8	Phenanthrene
Phenol	108-95-2	Phenol
p-Phenylenediamine	106-50-3	1,4-Benzenediamine
Phorate	298-02-2	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester
Polychlorinated biphenyls; PCBs	See Note 6	1,1'-Biphenyl, chloro derivatives
Pronamide	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-
Propionitrile; Ethyl cyanide	107-12-0	Propanenitrile
Pyrene	129-00-0	Pyrene
Safrole	94-59-7	1,3-Benzodioxole, 15-(2-propenyl)-
Selenium	(Total)	Selenium
Silver	(Total)	Silver
Silvex; 2,4,5-TP	93-72-1	Propanoic acid, 12-(2,4,5-trichlorophenoxy)-
Styrene	100-42-5	Benzene, ethenyl-
Sulfide	18496-25-8	Sulfide
2,4,5-T; 2,4,5-Trichlorophenoxyacetic acid	93-76-5	Acetic acid, (2,4,5-trichlorophenoxy)-
2,3,7,8-TCDD; 2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6	Dibenzo[b,e][1,4]dioxin, 2,3,7,8-tetrachloro-
1,2,4,5-Tetrachlorobenzene	95-94-3	Benzene, 1,2,4,5-tetrachloro-
1,1,1,2-Tetrachloroethane	630-20-6	Ethane, 1,1,1,2-tetrachloro-
1,1,2,2-Tetrachloroethane	79-34-5	Ethane, 1,1,2,2-tetrachloro-
Tetrachloroethylene; Tetrachloroethene; Perchloroethylene	127-18-4	Ethene, tetrachloro-
2,3,4,6-Tetrachlorophenol	58-90-2	Phenol, 2,3,4,6-tetrachloro-
Thallium	(Total)	Thallium
Tin	(Total)	Tin
Toluene	108-88-3	Benzene, methyl-
o-Toluidine	95-53-4	Benzenamine, 2-methyl-
Toxaphene	See Note 7	Toxaphene
1,2,4-Trichlorobenzene.	120-82-1	Benzene, 1,2,4-trichloro-
1,1,1-Trichloroethane; Methylchloroform	71-55-6	Ethane, 1,1,1-trichloro-
1,1,2-Trichloroethane	79-00-5	Ethane, 1,1,2-trichloro-
Trichloroethylene; Trichloroethene	79-01-6	Ethene, trichloro-
Trichlorofluoromethane; CFC-11	75-69-4	Methane, trichlorofluoro-
2,4,5-Trichlorophenol	95-95-4	Phenol, 2,4,5-trichloro-
2,4,6-Trichlorophenol	88-06-2	Phenol, 2,4,6-trichloro-
1,2,3-Trichloropropane	96-18-4	Propane, 1,2,3-trichloro-
O,O,O-Triethyl phosphorothioate	126-68-1	Phosphorothioic acid, O,O,O-triethyl ester
sym-Trinitrobenzene	99-35-4	Benzene, 1,3,5-trinitro-
Vanadium	(Total)	Vanadium
Vinyl acetate	108-05-4	Acetic acid, ethenyl ester
Vinyl chloride; Chloroethene	75-01-4	Ethene, chloro-
Xylene (total)	See Note 8	Benzene, dimethyl-
Zinc	(Total)	Zinc

¹ Common names are those widely used in government regulations, scientific publications, and commerce; synonyms exist for many chemicals.

² Chemical Abstracts Service registry number. Where "Total" is entered, all species in the ground water that contain this element are included.

³ CAS index names are those used in the 9th Cumulative Index.

⁴ This substance is often called Bis(2-chloroisopropyl) ether, the name Chemical Abstracts Service applies to its noncommercial isomer, Propane, 2,2'-oxybis[2-chloro-(CAS RN 39638-32-9)].

⁵ Chlordane: This entry includes alpha-chlordane (CAS RN 5103-71-9), beta-chlordane (CAS RN 5103-74-2), gamma-chlordane (CAS RN 5566-34-7), and constituents of chlordane (CAS RN 57-74-9 and CAS RN 12789-03-6).

⁶ Polychlorinated biphenyls (CAS RN 1336-36-3); this category contains congener chemicals, including constituents of Aroclor-1016 (CAS RN 12674-11-2), Aroclor-1221 (CAS RN 11104-28-2), Aroclor-1232 (CAS RN 11141-16-5), Aroclor-1242 (CAS RN 53469-21-9), Aroclor-1248 (CAS RN 12672-29-6), Aroclor-1254 (CAS RN 11097-69-1), and Aroclor-1260 (CAS RN 11096-82-5).

⁷ Toxaphene: This entry includes congener chemicals contained in technical toxaphene (CAS RN 8001-35-2), *i.e.*, chlorinated camphene.

⁸ Xylene (total): This entry includes o-xylene (CAS RN 96-47-6), m-xylene (CAS RN 108-38-3), p-xylene (CAS RN 106-42-3), and unspecified xylenes (dimethylbenzenes) (CAS RN 1330-20-7).

PART 260—HAZARDOUS WASTE MANAGEMENT SYSTEM: GENERAL

7. The authority citation for part 260 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6921-6927, 6930, 6934, 6935, 6937, 6938, 6939, and 6974.

Subpart B—Definitions

8. Section 260.11 is amended by revising paragraphs (a)(1) and (2) and (a)(11) to read as follows:

§ 260.11 References.

(a) * * *

(1) "ASTM Standard Test Methods for Flash Point of Liquids by Small Scale Closed-Cup Apparatus," ASTM Standard D 3278-96, available from American Society for Testing and Materials, at 100 Barr Harbor Drive, West Conshohocken, PA 19428, <http://www.astm.org>, or from Global Engineering Documents, 15 Iverness Way East, Englewood, CO 80112, 1-800-854-7179, <http://global.ihs.com>.

(2) "ASTM Standard Test Methods for Flash-Point by Pensky-Martens Closed Cup Tester," ASTM Standard D 93-99c, available from American Society for Testing and Materials, at 100 Barr Harbor Drive, West Conshohocken, PA 19428, <http://www.astm.org>, or from Global Engineering Documents, 15 Iverness Way East, Englewood, CO 80112, 1-800-854-7179, <http://global.ihs.com>.

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(11) The following methods found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, Third Edition, as grouped and identified by date (found in bottom right corner of method) and promulgated updated version: Methods 0010, 0020, 0030, and 1320, dated September 1986 and in the Basic Manual; Methods 1311 and 1330, dated July 1992 and in Update I; Method 1312 dated September 1994 and in Update II; Methods 0011, 0023, 0031, 0040, 0050, 0051, 0060, 0061, 3542, and 5041, dated December 1996 and in Update III; Method 9071 dated April 1998 and in Update IIIA; Methods 1010, 1020, 1110, 1310, 9010, 9012, 9040, 9045, 9060, 9070, and 9095, dated [to be determined at publication of final rule] and in Update IIIB. The Third Edition of SW-846 and Updates I, II, IIA, IIB, III, and IIIB (document number 955-001-00000-1) are available from the Superintendent of Documents, U.S. Government Printing Office,

Washington, DC 20402, (202) 512-1800. Update IIIA is available through EPA's Methods Information Communication Exchange (MICE) Service. MICE can be contacted by phone at (703) 676-4690. Copies of the Third Edition of SW-846 and its updates are also available from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA 22161, (703) 605-6000 or (800) 553-6847. The above methods are also available on the Internet at <http://www.epa.gov/SW-846/>. Copies of the methods incorporated by reference may be inspected at the Library, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; or at the Office of the Federal Register, 800 North Capitol Street, NW, Suite 700, Washington, DC.

* * * * *

Subpart C—Rulemaking Petitions

9. Section 260.21 is amended by revising paragraph (d) to read as follows:

§ 260.21 Petitions for equivalent testing or analytical methods.

* * * * *

(d) If the Administrator amends the regulations to permit use of a new testing method, the method will be incorporated by reference in § 260.11 and added to "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC 20460.

10. Section 260.22 is amended by revising paragraph (d)(1)(i) to read as follows:

§ 260.22 Petitions to amend part 261 to exclude a waste produced at a particular facility.

* * * * *

(d) * * *

(1) * * *

(i) Does not contain the constituent or constituents (as defined in Appendix VII of part 261 of this chapter) that caused the Administrator to list the waste, by using appropriate methods such as those found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, or other reliable sources; or

* * * * *

PART 261—IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

11. The authority citation for part 261 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6921, 6922, 6924(y), and 6938.

Subpart A—General

12. Section 261.3 is amended by revising paragraph (a)(2)(v) introductory text to read as follows:

§ 261.3 Definition of hazardous waste.

(a) * * *

(2) * * *

(v) Rebuttable presumption for used oil. Used oil containing more than 1000 ppm total halogens is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in subpart D of part 261 of this chapter. Persons may rebut this presumption by demonstrating that the used oil does not contain hazardous waste (for example, by using appropriate methods such as those found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, or other reliable sources to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in appendix VIII of part 261 of this chapter).

* * * * *

Subpart C—Characteristics of Hazardous Waste

13. Section 261.21 is amended by revising paragraph (a)(1) to read as follows:

§ 261.21 Characteristic of ignitability.

(a) * * *

(1) It is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume and has flash point less than 60 °C (140 °F), as determined by a Pensky-Martens Closed Cup Tester, using the test method specified in ASTM Standard D 93-99c (incorporated by reference, see § 260.11) which is used and referenced by Method 1010 of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846 (incorporated by reference, see § 260.11), or a Small Scale Closed-Cup Apparatus, using the test method specified in ASTM Standard D 3278-96 (incorporated by reference, see § 260.11) which is used and referenced by Method 1020 of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846 (incorporated by reference, see § 260.11).

* * * * *

14. Section 261.22 is amended by revising paragraph (a)(2) introductory text to read as follows:

§ 261.22 Characteristic of corrosivity.

(a) * * *

(2) It is a liquid and corrodes steel (SAE 1020) at a rate greater than 6.35 mm (0.250 inch) per year at a test temperature of 55 °C (130 °F) as determined by the test method specified in NACE (National Association of Corrosion Engineers) Standard TM-01-69 as standardized as Method 1110 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, and as incorporated by reference in § 260.11 of this chapter.

* * * * *

Subpart D—Lists of Hazardous Wastes

15. Section 261.35 is amended by revising paragraphs (b)(2)(iii)(A) and (B) to read as follows:

§ 261.35 Deletion of certain hazardous waste codes following equipment cleaning and replacement.

* * * * *

(b) * * *

(2) * * *

(iii) * * *

(A) Rinses must be tested by using appropriate methods such as Method 8290 of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (EPA Publication SW-846) or appropriate methods from other reliable sources.

(B) "Not detected" means at or below the lower method calibration limit (MCL) in SW-846 Method 8290, Table 1. Other appropriate methods from other reliable sources may be used provided that these criteria are met.

* * * * *

16. Section 261.38 is amended by revising paragraph (c)(7) introductory text to read as follows:

§ 261.38 Comparable/Syngas Fuel Exclusion.

* * * * *

(c) * * *

(7) Waste analysis plans. The generator of a comparable/syngas fuel

shall develop and follow a written waste analysis plan which describes the procedures for sampling and analysis of the hazardous waste to be excluded. The waste analysis plan should be developed in accordance with appropriate guidance such as found in the applicable sections of the "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (EPA Publication SW-846) or other reliable sources. The plan shall be followed and retained at the facility excluding the waste.

* * * * *

17. Appendix III to part 261 is revised to read as follows:

Appendix III to Part 261—Chemical Analysis Test Methods

Note: Examples of appropriate analytical procedures to determine whether a sample contains a given toxic constituent are provided in Chapter Two, "Choosing the Correct Procedure," found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846. Prior to final sampling and analysis method selection, the individual should consult the specific section or method described in SW-846, if used, for additional guidance on which methods should be employed for a specific sample analysis situation.

16. Appendix IX to part 261 is amended in Table 1:

a. In the entry for "Aptus, Inc., Coffeyville, Kansas," under the "Waste description" column, by revising paragraphs (2), (3), and (4);

b. In the entry for "Arkansas Department of Pollution Control and Ecology, Vertac Superfund site, Jacksonville, Arkansas," under the "Waste description" column, by revising the introductory text of paragraph (1) and by revising paragraph (3)(C);

c. In the entry for "Bethlehem Steel Corporation, Sparrows Point, Maryland," under the "Waste description" column, by revising the introductory text of paragraph (1);

d. In the entry for "BMW Manufacturing Corporation, Greer, South Carolina," under the "Waste

description" column, by revising the introductory text of paragraph (2);

e. In the entry for "DuraTherm, Incorporated, San Leon, Texas," under the "Waste description" column, by revising the introductory text of paragraph (3);

f. In the entry for "Eastman Chemical Company, Longview, Texas," under the "Waste description" column, by revising the introductory text of paragraph (3);

g. In the entry for "Envirite of Pennsylvania (formerly Envirite Corporation), York, Pennsylvania, under the "Waste description" column, by revising paragraph (2);

h. In the entry for "Geological Reclamation Operations and Waste Systems, Inc., Morrisville, PA," under the "Waste description" column by revising the introductory text of paragraph (1);

i. In the entry for "McDonnell Douglas Corporation, Tulsa, Oklahoma," under the "Waste description" column by revising paragraph (3);

j. In the entry for "Occidental Chemical, Ingleside, Texas," under the "Waste description" column, by revising the introductory text of paragraph (3);

k. In the entry for "Rhodia, Houston, Texas," under the "Waste description" column, by revising the introductory text of paragraph (3);

l. In the entry for "Syntex Agribusiness, Springfield, MO," under the "Waste description" column, by revising paragraphs (2), (3), (4), (5), and (6);

m. In the entry for "Texas Eastman, Longview, Texas," under the "Waste description" column, by revising paragraph 3;

n. In the entry for "Tyco Printed Circuit Group, Melbourne Division, Melbourne, Florida," under the "Waste description" column, by revising the introductory text of paragraph 1.

The revisions read as follows:

Appendix IX—Wastes Excluded Under §§ 260.20 and 260.22

TABLE 1.—WASTES EXCLUDED FROM NON-SPECIFIC SOURCES

Facility	Address	Waste description
Aptus, Inc.	Coffeyville, Kansas	* * * * *
		(1) * * *

TABLE 1.—WASTES EXCLUDED FROM NON-SPECIFIC SOURCES—Continued

Facility	Address	Waste description
		<p>(2) A minimum of four grab samples must be taken from each hopper (or other container) of kiln residue generated during each 24 hour run; all grabs collected during a given 24 hour run must then be composited to form one composite sample. A minimum of four grab samples must also be taken from each hopper (or other container) of spray dryer/baghouse residue generated during each 24 hour run; all grabs collected during a given 24 hour run must then be composited to form one composite sample. Prior to the disposal of the residues from each 24 hour run, a TCLP leachate test must be performed on these composite samples and the leachate analyzed for the TC toxic metals, nickel, and cyanide. If arsenic, chromium, lead or silver TC leachate test results exceed 1.6 ppm, barium levels exceed 32 ppm, cadmium or selenium levels exceed 0.3 ppm, mercury levels exceed 0.07 ppm, nickel levels exceed 10 ppm, or cyanide levels exceed 6.5 ppm, the wastes must be retreated to achieve these levels or must be disposed in accordance with subtitle C of RCRA. Analyses must be performed according to appropriate methods such as those found in EPA Publication SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution).</p> <p>(3) Aptus must generate, prior to the disposal of the residues, verification data from each 24 hour run for each treatment residue (i.e., kiln residue, spray dryer/baghouse residue) to demonstrate that the maximum allowable treatment residue concentrations listed below are not exceeded. Samples must be collected as specified in Condition (2). Analyses must be performed according to appropriate methods such as those found in EPA Publication SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution). Any residues which exceed any of the levels listed below must be retreated or must be disposed of as hazardous. Kiln residue and spray dryer/ baghouse residue must not exceed the following levels: Aldrin—0.015 ppm; Benzene—9.7 ppm; Benzo(a)pyrene—0.43 ppm; Benzo(b)fluoranthene—1.8 ppm; Chlordane—0.37 ppm; Chloroform—5.4 ppm; Chrysene—170 ppm; Dibenz(a,h)anthracene—0.083 ppm; 1,2-Dichloroethane—4.1 ppm; Dichloromethane—2.4 ppm; 2,4-Dichlorophenol—480 ppm; Dichlorvos—260 ppm; Disulfaton—23 ppm; Endosulfan I—310 ppm; Fluorene—120 ppm; Indeno(1,2,3,cd)-pyrene—330 ppm; Methyl parathion—210 ppm; Nitrosodiphenylamine—130 ppm; Phenanthrene—150 ppm; Polychlorinated biphenyls—0.31 ppm; Tetrachloroethylene—59 ppm; 2,4,5-TP (silvex)—110 ppm; 2,4,6-Trichlorophenol—3.9 ppm.</p> <p>(4) Aptus must generate, prior to disposal of residues, verification data from each 24 hour run for each treatment residue (i.e., kiln residue, spray dryer/baghouse residue) to demonstrate that the residues do not contain tetra-, penta-, or hexachlorodibenzo-p-dioxins or furans at levels of regulatory concern. Samples must be collected as specified in Condition (2). The TCDD equivalent levels for the solid residues must be less than 5 ppt. Any residues with detected dioxins or furans in excess of this level must be retreated or must be disposed of as acutely hazardous. For this analysis, Aptus must use appropriate methods such as Method 8290 found in EPA Publication SW-846, a high resolution gas chromatography and high resolution mass spectroscopy (HRGC/HRMS) analytical method, or use appropriate methods found in other reliable sources. For tetra- and penta-chlorinated dioxin and furan homologs, the maximum practical quantitation limit must not exceed 15 ppt for the solid residues. For hexachlorinated dioxin and furan homologs, the maximum practical quantitation limit must not exceed 37 ppt for the solid residues.</p> <p>* * * * *</p>
Arkansas Department of Pollution Control and Ecology.	Vertac Superfund site, Jacksonville, Arkansas.	<p>* * * * *</p> <p>(1) <i>Testing:</i> Sample collection and analyses (including quality control (QC) procedures) must be performed according to appropriate methods such as those found in EPA Publication SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution).</p> <p>* * * * *</p> <p>(3) * * *</p>

TABLE 1.—WASTES EXCLUDED FROM NON-SPECIFIC SOURCES—Continued

Facility	Address	Waste description
		(C) <i>Chlorinated dioxins and furans</i> : 2,3,7,8-Tetrachlorodibenzo-p-dioxin equivalents, 4×10^7 ppm. The petitioned by-product must be analyzed for the tetra-, penta-, hexa-, and heptachlorodibenzo-p-dioxins, and the tetra-, penta-, hexa-, and heptachlorodibenzofurans to determine the 2,3,7,8-tetra-chlorodibenzo-p- dioxin equivalent concentration. The analysis must be conducted using appropriate methods such as SW-846 Method 8290, a high resolution gas chromatography/high resolution mass spectrometry method, or other appropriate methods found in other reliable sources, and must achieve practical quantitation limits of 15 parts per trillion (ppt) for the tetra- and penta-homologs, and 37 ppt for the hexa- and hepta-homologs. * * * * *
Bethlehem Steel Corporation	Sparrows Point, Maryland ..	* * * * * (1) <i>Testing</i> : Sample collection and analyses (including quality control (QC) procedures) must be performed according to appropriate methods such as those found in EPA Publication SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution). If EPA judges the stabilization process to be effective under the conditions used during the initial verification testing, BSC may replace the testing required in Condition (1)(A) with the testing required in Condition (1)(B). BSC must continue to test as specified in Condition (1)(A) until and unless notified by EPA in writing that testing in Condition (1)(A) may be replaced by Condition (1)(B) (to the extent directed by EPA). * * * * *
BMW Manufacturing Corporation	Greer, South Carolina	* * * * * (2) <i>Verification Testing Requirements</i> : Sample collection and analyses, including quality control procedures, must be performed according to appropriate methods such as those found in EPA Publication SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution). Methods must meet Performance Based Measurement System Criteria in which the Data Quality Objectives are to demonstrate that representative samples of the BMW Sludge meet the delisting levels in Condition (1). * * * * *
DuraTherm, Incorporated	San Leon, Texas	* * * * * (3) <i>Verification Testing Requirements</i> : DuraTherm must perform sample collection and analyses, including quality control procedures, according to appropriate methods such as those found in EPA Publication SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution). If EPA judges the process to be effective under the operating conditions used during the initial verification testing, DuraTherm may replace the testing required in Paragraph (3)(A) with the testing required in Paragraph (3)(B). DuraTherm must continue to test as specified in Paragraph (3)(A) until and unless notified by EPA in writing that testing in Paragraph (3)(A) may be replaced by Paragraph (3)(B). * * * * *
Eastman Chemical Company	Longview, Texas	* * * * * (3) <i>Verification Testing Requirements</i> : Eastman must perform sample collection and analyses, including quality control procedures, according to appropriate methods such as those found in EPA Publication SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution). After completion of the initial verification period, Eastman may replace the testing required in Condition (3)(A) with the testing required in Condition (3)(B). Eastman must continue to test as specified in Condition (3)(A) until and unless notified by EPA in writing that testing in Condition (3)(A) may be replaced by Condition (3)(B). * * * * *
Envirite of Pennsylvania (formerly Envirite Corporation).	York, Pennsylvania	* * * * *

TABLE 1.—WASTES EXCLUDED FROM NON-SPECIFIC SOURCES—Continued

Facility	Address	Waste description
		(2) Each batch of treatment residue must be tested for leachable cyanide. If the leachable cyanide levels (using the EP Toxicity test without acetic acid adjustment) exceed 1.26 ppm, the waste must be retreated or managed and disposed as a hazardous waste under 40 CFR Parts 262 to 265 and the permitting standards of 40 CFR Part 270. * * * * *
Geological Reclamation Operations and Systems, Inc..	Morrisville, Pennsylvania	* * * * * <p>(1) <i>Testing:</i> Sample collection and analyses, including quality control (QC) procedures, must be performed according to appropriate methods such as those found in EPA Publication SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution).</p> * * * * *
McDonnell Douglas Corporation	Tulsa, Oklahoma	* * * * * <p>(3) <i>Verification Testing Requirements:</i> Sample collection and analyses, including quality control procedures, must be performed according to appropriate methods such as those found in EPA Publication SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution). McDonnell Douglas must stabilize the previously unstabilized waste from the bottom portion of the northwest lagoon of the surface impoundment (which was closed as a landfill) using fly ash, kiln dust or similar accepted materials in batches of 500 cubic yards or less. McDonnell Douglas must analyze one composite sample from each batch of 500 cubic yards or less. A minimum of four grab samples must be taken from each waste pile (or other designated holding area) of stabilized waste generated from each batch run. Each composited batch sample must be analyzed, prior to disposal of the waste in the batch represented by that sample, for constituents listed in Condition (1). There are no verification testing requirements for the stabilized wastes in the upper portions of the northwest lagoon, the entire northeast lagoon, and the entire south lagoon of the surface impoundments which were closed as a landfill.</p> * * * * *
Occidental Chemical	Ingleside, Texas	* * * * * <p>(3) <i>Verification Testing Requirements:</i> Sample collection and analyses, including quality control procedures, must be performed according to appropriate methods such as those found in EPA Publication SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution). If EPA judges the incineration process to be effective under the operating conditions used during the initial verification testing, Occidental Chemical may replace the testing required in Condition (3)(A) with the testing required in Condition (3)(B). Occidental Chemical must continue to test as specified in Condition (3)(A) until and unless notified by EPA in writing that testing in Condition (3)(A) may be replaced by Condition (3)(B).</p> * * * * *
Rhodia	Houston, Texas	* * * * * <p>(3) <i>Verification Testing Requirements:</i> Rhodia must perform sample collection and analyses, including quality control procedures, according to appropriate methods such as those found in EPA Publication SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution). If EPA judges the process to be effective under the operating conditions used during the initial verification testing, Rhodia may replace the testing required in Condition (3)(A) with the testing required in Condition (3)(B). Rhodia must continue to test as specified in Condition (3)(A) until and unless notified by EPA in writing that testing in Condition (3)(A) may be replaced by Condition (3)(B).</p> * * * * *
Syntex Agribusiness	Springfield, MO	* * * * *

TABLE 1.—WASTES EXCLUDED FROM NON-SPECIFIC SOURCES—Continued

Facility	Address	Waste description
		<p>(2) Four grab samples of wastewater must be composited from the volume of filtered wastewater collected after each eight hour run and, prior to disposal the composite samples must be analyzed for the EP toxic metals, nickel, and cyanide. If arsenic, chromium, lead, and silver EP leachate test results exceed 0.61 ppm; barium levels exceed 12 ppm; cadmium and selenium levels exceed 0.12 ppm; mercury levels exceed 0.02 ppm; nickel levels exceed 6.1 ppm; or cyanide levels exceed 2.4 ppm, the wastewater must be retreated to achieve these levels or must be disposed in accordance with all applicable hazardous waste regulations. Analyses must be performed according to appropriate methods such as those found in EPA Publication SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution).</p> <p>(3) One grab sample must be taken from each drum of kiln and cyclone ash generated during each eight hour run; all grabs collected during a given eight hour run must then be composited to form one composite sample. A composite sample of four grab samples of the separator sludge must be collected at the end of each eight hour run. Prior to the disposal of the residues from each eight hour run, an EP leachate test must be performed on these composite samples and the leachate analyzed for the EP toxic metals, nickel, and cyanide (using a distilled water extraction for the cyanide extraction) to demonstrate that the following maximum allowable treatment residue concentrations listed below are not exceeded. Analyses must be performed according to appropriate methods such as those found in EPA Publication SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution). Any residues which exceed any of the levels listed below must be retreated to achieve these levels or must be disposed in accordance with all applicable hazardous waste regulations. Maximum Allowable Solids Treatment Residue EP Leachate Concentrations (mg/L), Arsenic—1.6, Barium—32, Cadmium—0.32, Chromium—1.6, Lead—1.6, Mercury—0.065, Nickel—16, Selenium—0.32, Silver—1.6, Cyanide—6.5.</p> <p>(4) If Syntex stabilizes any of the kiln and cyclone ash or separator sludge, a Portland cement-type stabilization process must be used and Syntex must collect a composite sample of four grab samples from each batch of stabilized waste. An MEP leachate test must be performed on these composite samples and the leachate analyzed for the EP toxic metals, nickel, and cyanide (using a distilled water extraction for the cyanide leachate analysis) to demonstrate that the maximum allowable treatment residue concentrations listed in Condition (3) are not exceeded during any run of the MEP extraction. Analyses must be performed according to appropriate methods such as those found in EPA Publication SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution). Any residues which exceed any of the levels listed in Condition (3) must be retreated to achieve these levels or must be disposed in accordance with all applicable hazardous waste regulations. (If the residues are stabilized, the analyses required in this condition supercede the analyses required in Condition (3).)</p>

TABLE 1.—WASTES EXCLUDED FROM NON-SPECIFIC SOURCES—Continued

Facility	Address	Waste description
		<p>(5) Syntex must generate, prior to disposal of residues, verification data from each eight hour run from each treatment residue (<i>i.e.</i>, kiln and cyclone ash, separator sludge, and filtered wastewater) to demonstrate that the maximum allowable treatment residue concentrations listed below are not exceeded. Samples must be collected as specified in Conditions (2) and (3). Analyses must be performed according to appropriate methods such as those found in EPA Publication SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution). Any solid or liquid residues which exceed any of the levels listed below must be retreated to achieve these levels or must be disposed in accordance with Subtitle C of RCRA. Maximum Allowable Wastewater Concentrations (ppm): Benz(a)anthracene—1×10^{-4}; Benzo(a)pyrene—4×10^{-5}; Benzo(b)fluoranthene—2×10^{-4}; Chloroform—0.07; Chrysene—0.002; Dibenz(a,h)anthracene—9×10^{-6}; 1,2-Dichloroethane—0.06; Dichloromethane—0.06; Indeno(1,2,3-cd)pyrene—0.002; Polychlorinated biphenyls—1×10^{-4}; 1,2,4,5-Tetrachlorobenzene—0.13; 2,3,4,6-Tetrachlorophenol—12; Toluene—120; Trichloroethylene—0.04; 2,4,5-Trichlorophenol—49; 2,4,6-Trichlorophenol—0.02; Maximum Allowable Solid Treatment Residue Concentrations (ppm): Benz(a)anthracene—1.1; Benzo(a)pyrene—0.43; Benzo(b)fluoranthene—1.8; Chloroform—5.4; Chrysene—170; Dibenz(a,h)anthracene—0.083; Dichloromethane—2.4; 1,2-Dichloroethane—4.1; Indeno(1,2,3-cd)pyrene—330; Polychlorinated biphenyls—0.31; 1,2,4,5-Tetrachlorobenzene—720; Trichloroethylene—6.6; 2,4,6-Trichlorophenol—3.9.</p> <p>(6) Syntex must generate, prior to disposal of residues, verification data from each eight hour run for each treatment residue (<i>i.e.</i>, kiln and cyclone ash, separator sludge, and filtered wastewater) to demonstrate that the residues do not contain tetra-, penta-, or hexachlorodibenzo-p-dioxins or furans at levels of regulatory concern. Samples must be collected as specified in Conditions (2) and (3). The TCDD equivalent levels for wastewaters must be less than 2 ppq and less than 5 ppt for the solid treatment residues. Any residues with detected dioxins or furans in excess of these levels must be retreated or must be disposed as acutely hazardous. For this analysis, Syntex must use appropriate methods, such as SW-846 Method 8290, a high resolution gas chromatography and high resolution mass spectroscopy (HRGC/HRMS) analytical method, or use appropriate methods found in other reliable sources. For tetra- and pentachlorinated dioxin and furan homologs, the maximum practical quantitation limit must not exceed 15 ppt for solids and 120 ppq for wastewaters. For hexachlorinated homologs, the maximum practical quantitation limit must not exceed 37 ppt for solids and 300 ppq for wastewaters.</p> <p>* * * * *</p>
Texas Eastman	Longview, Texas	<p>* * * * *</p> <p>3. <i>Verification Testing Requirements:</i> Sample collection and analyses, including quality control procedures, must be performed according to appropriate methods such as those found in EPA Publication SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution). If EPA judges the incineration process to be effective under the operating conditions used during the initial verification testing described in Paragraph 4 below, Texas Eastman may replace the testing required in Paragraph 4 with the testing required in Paragraph 5 below. Texas Eastman must, however, continue to test as specified in Paragraph 4 until notified by EPA in writing that testing in Paragraph 4 may be replaced by the testing described in Paragraph 5.</p> <p>* * * * *</p>
Tyco Printed Circuit Group, Melbourne Division.	Melbourne, Florida	* * * * *

TABLE 1.—WASTES EXCLUDED FROM NON-SPECIFIC SOURCES—Continued

Facility	Address	Waste description
<p>(1) <i>Verification Testing Requirements:</i> Sample collection and analyses, including quality control procedures must be performed according to appropriate methods such as those found in EPA Publication SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution). Methods must meet Performance Based Measurement System Criteria in which the Data Quality Objectives are to demonstrate that representative samples of the Tyco Sludge meet the delisting levels in Condition (3).</p> <p>* * * * *</p>		
17. Appendix IX to part 261 is amended in Table 2:		
a. In the entry for “Bethlehem Steel Corp., Steelton, PA,” under the “Waste description” column by revising paragraphs (1) and (2);	by revising the introductory text of paragraph (1);	l. In the entry for “Occidental Chemical Corporation, Delaware City, Delaware,” under the “Waste description” column by revising the introductory paragraph and by revising paragraph (1)(A), the introductory text of paragraph (2) and by revising paragraph (3);
b. In the entry for “Bethlehem Steel Corp., Johnston, PA,” under the “Waste description” column by revising paragraphs (1) and (2);	g. In the entry for “DOE-RL, Richland, Washington,” under the “Waste description” column by revising the introductory text of paragraph (1) and by revising paragraph (3);	m. In the entry for “Oxy Vinyls, Deer Park, Texas,” under the “Waste description” column by revising the introductory text of paragraph (3);
c. In the entry for “BF Goodrich Intermediates Company, Inc., Calvert City, Kentucky,” under the “Waste description” column by revising the introductory paragraph and by revising paragraphs (1)(B) and (3);	h. In the entry for “Envirite of Pennsylvania (formerly Envirite Corporation), York, Pennsylvania, under the “Waste description” column, by revising paragraph (2);	n. In the entry for “Roanoke Electric Steel Corp., Roanoke, Virginia,” under the “Waste description” column by revising paragraphs (1)(A), (1)(B), and (2);
d. In the entry for “CF&I Steel Corporation, Pueblo, Colorado,” under the “Waste description” column by revising paragraphs (1) and (2);	i. In the entry for “Heritage Environmental Services, LLC, at the Nucor Steel Facility, Crawfordsville, Indiana,” under the “Waste Description” column by revising paragraph (2);	o. In the entry for “USX Steel Corporation, USS Division, Southworks Plant, Gary Works, Chicago, Illinois,” under the “Waste description” column by revising the introductory text of paragraph (1) and by revising paragraphs (1)(A) and (2).
e. In the entry for “Chaparral Steel Midlothian L.P., Midlothian, Texas,” under the “Waste description” column by revising paragraph (1) and the introductory text of paragraph (3);	j. In the entry for “Marathon Oil Co., Texas City, Texas,” under the “Waste description” column by revising the introductory text of paragraph (1);	The revisions read as follows:
f. In the entry for “Conversion Systems, Inc., Horsham, Pennsylvania,” under the “Waste description” column	k. In the entry for “Occidental Chemical Corp, Muscle Shoals Plant, Sheffield, Alabama,” under the “Waste description” column by revising the introductory paragraph and by revising paragraphs (1)(A) and (3);	Appendix IX—Wastes Excluded Under §§ 260.20 and 260.22
		* * * * *

TABLE 2.—WASTES EXCLUDED FROM SPECIFIC SOURCES

Facility	Address	Waste description
Bethlehem Steel Corp	Steelton, PA	* * * * *
<p>(1) <i>Testing:</i></p> <p>(A) <i>Initial Testing:</i> During the first four weeks of operation of the full-scale treatment system, Bethlehem must collect representative grab samples of each treated batch of the CSEAFD and composite the grab samples daily. The daily composites, prior to disposal, must be analyzed for the EP leachate concentrations of all the EP toxic metals, nickel and cyanide (using distilled water in the cyanide extractions). Analyses must be performed according to appropriate methods such as those found in SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution). Bethlehem must report the analytical test data obtained during this initial period no later than 90 days after the treatment of the first full-scale batch.</p>		

TABLE 2.—WASTES EXCLUDED FROM SPECIFIC SOURCES—Continued

Facility	Address	Waste description
		<p>(B) <i>Subsequent Testing</i>: Bethlehem must collect representative grab samples from every treated batch of CSEAFD generated daily and composite all of the grab samples to produce a weekly composite sample. Bethlehem then must analyze each weekly composite sample for the EP leachate concentrations of all the EP toxic metals and nickel. Analyses must be performed according to appropriate methods such as those found in SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution). The analytical data, including all quality control information, must be compiled and maintained on site for a minimum of three years. These data must be furnished upon request and made available for inspection by any employee or representative of EPA or the State of Pennsylvania.</p> <p>(2) <i>Delisting Levels</i>: If the EP extract concentrations resulting from the testing in condition (1)(A) or (1)(B) for chromium, lead, arsenic, or silver exceed 0.315 mg/L; for barium exceeds 6.3 mg/l; for cadmium or selenium exceed 0.063 mg/l; for mercury exceeds 0.0126 mg/l; for nickel exceeds 3.15 mg/l; or for cyanide exceeds 4.42 mg/L; the waste must either be re-treated or managed and disposed in accordance with sub-title C of RCRA.</p> <p>* * * * *</p>
Bethlehem Steel Corp	Johnstown, PA	<p>* * * * *</p> <p>(1) <i>Testing</i>:</p> <p>(A) <i>Initial Testing</i>: During the first four weeks of operation of the full-scale treatment system, Bethlehem must collect representative grab samples of each treated batch of the CSEAFD and composite the grab samples daily. The daily composites, prior to disposal, must be analyzed for the EP leachate concentrations of all the EP toxic metals, nickel, and cyanide (using distilled water in the cyanide extractions). Analyses must be performed according to appropriate methods such as those found in SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution). Bethlehem must report the analytical test data obtained during this initial period no later than 90 days after the treatment of the first full-scale batch.</p> <p>(B) <i>Subsequent Testing</i>: Bethlehem must collect representative grab samples from every treated batch of CSEAFD generated daily and composite all of the grab samples to produce a weekly composite sample. Bethlehem then must analyze each weekly composite sample for the EP leachate concentrations of all the EP toxic metals and nickel. Analyses must be performed according to appropriate methods such as those found in SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution). The analytical data, including all quality control information, must be compiled and maintained on site for a minimum of three years. These data must be furnished upon request and made available for inspection by any employee or representative of EPA or the State of Pennsylvania.</p> <p>(2) If the EP extract concentrations resulting from the testing in condition (1)(A) or (1)(B) for chromium, lead, arsenic, or silver exceed 0.315 mg/l; for barium exceed 6.3 mg/l; for cadmium or selenium exceed 0.063 mg/l; for mercury exceed 0.0126 mg/l, for nickel exceed 3.15 mg/l; or for cyanide exceed 4.42 mg/l; the waste must either be retreated until it meets these levels or managed and disposed in accordance with sub-title C of RCRA.</p> <p>* * * * *</p>
BF Goodrich Intermediates Company, Inc.	Calvert City, Kentucky	* * * * *

TABLE 2.—WASTES EXCLUDED FROM SPECIFIC SOURCES—Continued

Facility	Address	Waste description
		<p>Brine purification muds and saturator insolubles (EPA, Hazardous Waste No. K071) after August 18, 1989. This exclusion is conditional upon the collection and submission of data obtained from BFG's full-scale treatment system because BFG's original data was based on data presented by another petitioner using an identical treatment process. To ensure that hazardous constituents are not present in the waste at levels of regulatory concern once the full-scale treatment facility is in operation, BFG must implement a testing program. All sampling and analyses (including quality control procedures) must be performed according to appropriate methods such as those found in SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution). This testing program must meet the following conditions for the exclusion to be valid:</p> <p>(1) * * *</p> <p>(B) Collect representative grab samples from every batch of treated mercury brine purification muds and treated saturator insolubles on a daily basis and composite the grab samples to produce two separate weekly composite samples (one of the treated mercury brine muds and one of the treated saturator insolubles). Prior to disposal of the treated batches, two weekly composite samples must be analyzed for the EP leachate concentrations of all the EP toxic metals (except mercury), nickel, and cyanide (using distilled water in the cyanide extractions). BFG must report the analytical test data, including all quality control data, obtained during this initial period no later than 90 days after the treatment of the first full-scale batch.</p> <p>(2) * * *</p> <p>(3) If, under condition (1) or (2), the EP leachate concentrations for chromium, lead, arsenic, or silver exceed 0.316 mg/l; for barium exceeds 6.31 mg/l; for cadmium or selenium exceed 0.063 mg/l; for mercury exceeds 0.0126 mg/l, for nickel exceeds 3.16 mg/l; or for cyanide exceeds 4.42 mg/l; the waste must either be retreated until it meets these levels or managed and disposed of in accordance with subtitle C of RCRA.</p> <p>* * * * *</p>
CF&I Steel Corporation	Pueblo, Colorado	<p>* * * * *</p> <p>(1) <i>Testing:</i></p> <p>(A) <i>Initial Testing:</i> During the first four weeks of operation of the full-scale treatment system, CF&I must collect representative grab samples of each treated batch of the CSEAFD and composite the grab samples daily. The daily composites, prior to disposal, must be analyzed for the EP leachate concentrations of all the EP toxic metals, nickel, and cyanide (using distilled water in the cyanide extractions). Analyses must be performed according to appropriate methods such as those found in SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution). CF&I must report the analytical test data obtained during this initial period no later than 90 days after the treatment of the first full-scale batch.</p> <p>(B) <i>Subsequent Testing:</i> CF&I must collect representative grab samples from every treated batch of CSEAFD generated daily and composite all of the grab samples to produce a weekly composite sample. CF&I then must analyze each weekly composite sample for the EP leachate concentrations of all of the EP toxic metals and nickel. Analyses must be performed according to appropriate methods such as those found in SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution). The analytical data, including all quality control information, must be compiled and maintained on site for a minimum of three years. These data must be furnished upon request and made available for inspection by any employee or representative of EPA or the State of Colorado.</p> <p>(2) <i>Delisting levels:</i> If the EP extract concentrations determined in conditions (1)(A) or (1)(B) for chromium, lead, arsenic, or silver exceed 0.315 mg/l; for barium exceeds 6.3 mg/l; for cadmium or selenium exceed 0.063 mg/l; for mercury exceeds 0.0126 mg/l; for nickel exceeds 3.15 mg/l; or for cyanide exceeds 4.42 mg/l; the waste must either be retreated or managed and disposed in accordance with Subtitle C of RCRA.</p> <p>* * * * *</p>

TABLE 2.—WASTES EXCLUDED FROM SPECIFIC SOURCES—Continued

Facility	Address	Waste description
Chaparral Steel Midlothian, L.P	Midlothian, Texas	<p>* * * * *</p> <p>(1) <i>Delisting Levels</i>: All concentrations for the constituent total lead in the approximately 2,500 cubic yards (500,000 gallons) per calendar year of raw leachate from Landfill No. 3, storm water from the baghouse area, and other K061 wastewaters that is transferred from the storage tank to nonhazardous management must not exceed 0.69 mg/l (ppm). Constituents must be measured in the waste by appropriate methods such as those found in SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution).</p> <p>(3) <i>Verification Testing Requirements</i>: Sample collection and analyses, including quality control procedures, must be performed according to appropriate methods such as those found in SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution). Chaparral Steel must analyze one composite sample from each batch of untreated wastewater transferred from the hazardous waste storage tank to non-hazardous waste management. Each composited batch sample must be analyzed, prior to non-hazardous management of the waste in the batch represented by that sample, for the constituent lead as listed in Condition (1). Chaparral may treat the waste as specified in Condition (2). If EPA judges the treatment process to be effective during the operating conditions used during the initial verification testing, Chaparral Steel may replace the testing requirement in Condition (3)(A) with the testing requirement in Condition (3)(B). Chaparral must continue to test as specified in (3)(A) until and unless notified by EPA or designated authority that testing in Condition (3)(A) may be replaced with by Condition (3)(B).</p> <p>* * * * *</p>
Conversion Systems, Inc	Horsham, Pennsylvania	<p>* * * * *</p> <p>(1) <i>Verification Testing Requirements</i>: Sample collection and analyses, including quality control procedures, must be performed according to appropriate methods such as those found in SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution).</p> <p>* * * * *</p>
DOE-RL	Richland, Washington	<p>* * * * *</p> <p>(1) <i>Testing</i>: Sample collection and analyses (including quality control (QC) procedures) must be performed according to appropriate methods such as those found in SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution). If EPA judges the treatment process to be effective under the operating conditions used during the initial verification testing, DOE may replace the testing required in Condition (1)(A) with the testing required in Condition (1)(B). DOE must continue to test as specified in Condition (1)(A) until notified by EPA in writing that testing in Condition (1) (A) may be replaced by Condition (1)(B).</p> <p>* * * * *</p> <p>(2) * * *</p> <p>(3) <i>Delisting Levels</i>: All total constituent concentrations in the waste samples must be measured using appropriate methods such as those found in "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods," U.S. EPA Publication SW-846, or other reliable sources (with the exception of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution). All total constituent concentrations must be equal to or less than the following levels (ppm):</p> <p><i>Inorganic Constituents</i>: Ammonium—10.0; Antimony—0.06; Arsenic—0.5; Barium—20.0; Beryllium—0.04; Cadmium—0.05; Chromium—1.0; Cyanide—2.0; Fluoride—40.0; Lead—0.15; Mercury—0.02; Nickel—1.0; Selenium—0.5; Silver—2.0; Vanadium—2.0; Zinc—100.0.</p>

TABLE 2.—WASTES EXCLUDED FROM SPECIFIC SOURCES—Continued

Facility	Address	Waste description
		<p><i>Organic Constituents:</i> Acetone—40.0; Benzene—0.05; Benzyl alcohol—100.0; 1-Butyl alcohol—40.0; Carbon tetrachloride—0.05; Chlorobenzene—1.0; Chloroform—0.1; Cresol—20.0; 1,4-Dichlorobenzene—0.75; 1,2-Dichloroethane—0.05; 1,1-Dichloroethylene—0.07; Di-n-octyl phthalate—7.0; Hexachloroethane—0.06; Methyl ethyl ketone—200.0; Methyl isobutyl ketone—30.0; Naphthalene—10.0; Tetrachloroethylene—0.05; Toluene—10.0; Tributyl phosphate—0.2; 1,1,1-Trichloroethane—2.0; 1,1,2-Trichloroethane—0.05; Trichloroethylene—0.05; Vinyl Chloride—0.02.</p> <p>* * * * *</p>
Envirite of Pennsylvania (formerly Envirite Corporation).	York, Pennsylvania	<p>* * * * *</p> <p>(2) Each batch of treatment residue must be tested for leachable cyanide. If the leachable cyanide levels (using the EP Toxicity test without acetic acid adjustment) exceed 1.26 ppm, the waste must be re-treated or managed and disposed as a hazardous waste under 40 CFR Parts 262 to 265 and the permitting standards of 40 CFR Part 270.</p> <p>* * * * *</p>
Heritage Environmental Services, LLC, at the Nucor Steel facility.	Crawfordsville, Indiana	<p>* * * * *</p> <p>(2) <i>Verification Testing:</i> On a monthly basis, Heritage or Nucor must analyze two samples of the waste using the TCLP, SW-846 Method 1311, with an extraction fluid of pH 12 ± 0.05 standard units and for the mercury determinative analysis of the leachate using an appropriate method such as Method 7470 found in EPA Publication SW-846, or use an appropriate method found in other reliable sources. The constituent concentrations measured must be less than the delisting levels established in Paragraph (1).</p> <p>* * * * *</p>
Marathon Oil Co	Texas City, TX	<p>* * * * *</p> <p>(1) <i>Testing:</i> Sample collection and analyses (including quality control (QC) procedures) must be performed according to appropriate methods such as those found in SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution). If EPA judges the treatment process to be effective under the operating conditions used during the initial verification testing, Marathon may replace the testing required in Condition (1)(A) with the testing required in Condition (1)(B). Marathon must continue to test as specified in Condition (1)(A), including testing for organics in Conditions (3)(B) and (3)(C), until and unless notified by EPA in writing that testing in Condition (1)(A) may be replaced by Condition (1)(B), or that testing for organics may be terminated as described in (1)(C) (to the extent directed by EPA).</p> <p>* * * * *</p>
Occidental Chemical Corp., Muscle Shoals Plant.	Sheffield, Alabama	<p>* * * * *</p> <p>Retorted wastewater treatment sludge from the mercury cell process in chlorine production (EPA Hazardous Waste No. K106) after September 19, 1989. This exclusion is conditional upon the submission of data obtained from Occidental's full-scale retort treatment system because Occidental's original data were based on a pilot-scale retort system. To ensure that hazardous constituents are not present in the waste at levels of regulatory concern once the full-scale treatment facility is in operation, Occidental must implement a testing program. All sampling and analyses (including quality control procedures) must be performed according to appropriate methods such as those found in SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution). This testing program must meet the following conditions for the exclusion to be valid:</p> <p>(1) * * *</p>

TABLE 2.—WASTES EXCLUDED FROM SPECIFIC SOURCES—Continued

Facility	Address	Waste description
		<p>(A) Collect representative grab samples from every batch of retorted material and composite the grab samples to produce a weekly composite sample. The weekly composite samples, prior to disposal or recycling, must be analyzed for the EP leachate concentrations of all the EP toxic metals (except mercury), nickel, and cyanide (using distilled water in the cyanide extractions). Occidental must report the analytical test data, including all quality control data, obtained during this initial period no later than 90 days after the treatment of the first full-scale batch.</p> <p>* * *</p> <p>(2) * * *</p> <p>(3) If, under condition (1) or (2), the EP leachate concentrations for chromium, lead, arsenic, or silver exceed 1.616 mg/l; for barium exceeds 32.3 mg/l; for cadmium or selenium exceed 0.323 mg/l; for mercury exceeds 0.065 mg/l, for nickel exceeds 16.15 mg/l; or for cyanide exceeds 22.61 mg/l; the waste must either be retreated until it meets these levels or managed and disposed of in accordance with subtitle C of RCRA.</p> <p>* * * * *</p>
Occidental Chemical Corporation	Delaware City, Delaware	<p>* * * * *</p> <p>Sodium chloride treatment muds (NaCl-TM), sodium chloride saturator cleanings (NaCl-SC), and potassium chloride treatment muds (KCl-TM) (all classified as EPA Hazardous Waste No. K071) generated at a maximum combined rate (for all three wastes) of 1,018 tons per year. This exclusion was published on April 29, 1991 and is conditioned upon the collection of data from Occidental's full-scale brine treatment system because Occidental's request for exclusion was based on data from a laboratory-scale brine treatment process. To ensure that hazardous constituents are not present in the waste at levels of regulatory concern once the full-scale treatment system is in operation, Occidental must implement a testing program for the petitioned waste. All sampling and analyses (including quality control (QC) procedures) must be performed according to appropriate methods such as those found in SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution). This testing program must meet the following conditions for the exclusion to be valid:</p> <p>(1) * * *</p> <p>(A) Collect representative grab samples from each batch of the three treated wastestreams (sodium chloride saturator cleanings (NaCl-SC), sodium chloride treatment muds (NaCl-TM) and potassium chloride treatment muds (KCl-TM)) on an as generated basis and composite the samples to produce three separate weekly composite samples (of each type of K071 waste). The three weekly composite samples, prior to disposal, must be analyzed for the EP leachate concentrations of all the EP toxic metals (except mercury), nickel, and cyanide (using distilled water in the cyanide extractions). Occidental must report the waste volumes produced and the analytical test data, including all quality control data, obtained during this initial period, no later than 90 days after the treatment of the first full-scale batch.</p> <p>* * *</p> <p>(2) <i>Subsequent Testing:</i> After the first four weeks of full-scale treatment operations, Occidental must do the following; all sampling and analyses (including quality control procedures) must be performed according to appropriate methods such as those found in SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution):</p> <p>* * *</p> <p>(3) If, under conditions (1) or (2), the EP leachate concentrations for chromium, lead, arsenic, or silver exceed 0.77 mg/l; for barium exceeds 15.5 mg/l; for cadmium or selenium exceed 0.16 mg/l; for mercury exceeds 0.031 mg/l, or for nickel or total cyanide exceeds 10.9 mg/l; the waste must either be retreated or managed and disposed of in accordance with all applicable hazardous waste regulations.</p> <p>* * * * *</p>
Oxy Vinyls	Deer Park, Texas	* * * * *

TABLE 2.—WASTES EXCLUDED FROM SPECIFIC SOURCES—Continued

Facility	Address	Waste description
		<p>(3) <i>Verification Testing Requirements:</i> Sample collection and analyses, including quality control procedures, must be performed according to appropriate methods such as those found in SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution). If EPA judges the incineration process to be effective under the operating conditions used during the initial verification testing, Oxy Vinyls may replace the testing required in Condition (3)(A) with the testing required in Condition (3)(B). Oxy Vinyls must continue to test as specified in Condition (3)(A) until and unless notified by EPA in writing that testing in Condition (3)(A) may be replaced by Condition (3)(B).</p> <p>* * * * *</p>
Roanoke Electric Steel Corp	Roanoke, VA	<p>* * * * *</p> <p>(1) * * *</p> <p>(A) <i>Initial Testing:</i> During the first four weeks of operation of the full-scale treatment system, Roanoke must collect representative grab samples of each treated batch of the CSEAFD and composite the grab samples daily. The daily composites, prior to disposal, must be analyzed for the EP leachate concentrations of all the EP toxic metals, nickel and cyanide (using distilled water in the cyanide extractions). Analyses must be performed according to appropriate methods such as those found in SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution). Roanoke must report the analytical test data obtained during this initial period no later than 90 days after the treatment of the first full-scale batch.</p> <p>(B) <i>Subsequent Testing:</i> Roanoke must collect representative grab samples from every treated batch of CSEAFD generated daily and composite all of the grab samples to produce a weekly composite sample. Roanoke then must analyze each weekly composite sample for all of the EP toxic metals and nickel. Analyses must be performed according to appropriate methods such as those found in SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution). The analytical data, including all quality control information, must be compiled and maintained on site for a minimum of three years. These data must be furnished upon request and made available for inspection by any employee or representative of EPA or the State of Virginia.</p> <p>(2) <i>Delisting levels:</i> If the EP extract concentrations for chromium, lead, arsenic, or silver exceed 0.315 mg/l; for barium exceeds 6.3 mg/l; for cadmium or selenium exceed 0.63 mg/l; for mercury exceeds 0.0126 mg/l, for nickel exceeds 3.15 mg/l, or for cyanide exceeds 1.26 mg/l; the waste must either be re-treated or managed and disposed in accordance with subtitle C of RCRA.</p> <p>* * * * *</p>
USX Steel Corporation, USS Division, Southworks Plant, Gary Works.	Chicago, Illinois	<p>* * * * *</p> <p>(1) <i>Testing:</i> Sample collection and analyses (including quality control (QC) procedures) must be performed according to appropriate methods such as those found in SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution).</p> <p>(A) <i>Initial Testing:</i> During the first four weeks of operation of the full-scale treatment system, USX must collect representative grab samples of each treated batch of the CSEAFD and composite the grab samples daily. The daily composites, prior to disposal, must be analyzed for the EP leachate concentrations of all the EP toxic metals, nickel, and cyanide (using distilled water in the cyanide extractions). USX must report the analytical test data, including quality control information, obtained during this initial period no later than 90 days after the treatment of the first full-scale batch.</p> <p>* * *</p>

TABLE 2.—WASTES EXCLUDED FROM SPECIFIC SOURCES—Continued

Facility	Address	Waste description
		(2) <i>Delisting levels:</i> If the EP extract concentrations for chromium, lead, arsenic, or silver exceed 0.315 mg/l; for barium exceeds 6.3 mg/l; for cadmium or selenium exceed 0.063 mg/l; for mercury exceeds 0.0126 mg/l; for nickel exceeds 3.15 mg/l; or for cyanide exceeds 4.42 mg/l, the waste must either be re-treated until it meets these levels or managed and disposed in accordance with subtitle C of RCRA.

* * * * *

PART 264—STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

20. The authority citation for part 264 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6924, and 6925.

Subpart AA—Air Emissions Standards for Process Vents

21. Section 264.1034 is amended by revising paragraphs (c)(1)(ii), (c)(1)(iv), (d)(1)(iii) and (f) to read as follows:

§ 264.1034 Test methods and procedures.

* * * * *

(c) * * *

(1) * * *

(ii) Method 18 or Method 25A in 40 CFR part 60, appendix A, for organic content. If Method 25A is used, the organic HAP used as the calibration gas must be the single organic HAP representing the largest percent by volume of the emissions. The use of Method 25A is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.

* * * * *

(iv) Total organic mass flow rates shall be determined by the following equation:

(A) For sources utilizing Method 18.

$$E_h = Q_{2sd} \left\{ \sum_{i=1}^n C_i MW_i \right\} [0.0416] [10^{-6}]$$

Where:

E_h = Total organic mass flow rate, kg/h;

Q_{2sd} = Volumetric flow rate of gases entering or exiting control device, as determined by Method 2, dscm/h;

n = Number of organic compounds in the vent gas;

C_i = Organic concentration in ppm, dry basis, of compound i in the vent gas, as determined by Method 18;

MW_i = Molecular weight of organic compound i in the vent gas, kg/kg-mol;

0.0416 = Conversion factor for molar volume, kg-mol/m³ (@ 293 K and 760 mm Hg);

10^{-6} = Conversion from ppm

(B) For sources utilizing Method 25A.

$E_h = (Q)(C)(MW)(0.0416)(10^{-6})$

Where:

E_h = Total organic mass flow rate, kg/h;

Q = Volumetric flow rate of gases entering or exiting control device, as determined by Method 2, dscm/h;

C = Organic concentration in ppm, dry basis, as determined by Method 25A;

MW = Molecular weight of propane, 44;

0.0416 = Conversion factor for molar volume, kg-mol/m³ (@ 293 K and 760 mm Hg);

10^{-6} = Conversion from ppm.

* * * * *

(d) * * *

(1) * * *

(iii) Each sample shall be analyzed and the total organic concentration of the sample shall be computed using Method 9060 (incorporated by reference under § 260.11) of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846; or analyzed for individual organic constituents by using

appropriate methods such as Method 8260 of EPA Publication SW-846, or using appropriate methods from other reliable sources.

* * * * *

(f) When an owner or operator and the Regional Administrator do not agree on whether a distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation manages a hazardous waste with organic concentrations of at least 10 ppmw based on knowledge of the waste, the dispute may be resolved by using appropriate methods such as Method 8260 of "Test Methods for Evaluating Solid Waste" (EPA Publication SW-846) or by using appropriate methods from other reliable sources.

Subpart BB—Air Emission Standards for Equipment Leaks

22. Section 264.1063 is amended by revising paragraph (d)(2) to read as follows:

§ 264.1063 Test methods and procedures.

* * * * *

(d) * * *

(2) Method 9060 (incorporated by reference under § 260.11) of "Test Methods for Evaluating Solid Waste," EPA Publication SW-846, or analyzed for its individual organic constituents by using appropriate methods such as Method 8260 of EPA Publication SW-846 or using appropriate methods from other reliable sources; or

* * * * *

23. Appendix IX to part 264 is revised as follows:

Appendix IX to Part 264—Ground-Water Monitoring List

GROUND-WATER MONITORING LIST

Common name ¹	CAS RN ²	Chemical abstracts service index name ³
Acenaphthene	83-32-9	Acenaphthylene, 1,2-dihydro-
Acenaphthylene	208-96-8	Acenaphthylene
Acetone	67-64-1	2-Propanone
Acetophenone	98-86-2	Ethanone, 1-phenyl-
Acetonitrile; Methyl cyanide	75-05-8	Acetonitrile
2-Acetylaminofluorene; 2-AAF	53-96-3	Acetamide, N-9H-fluoren-2-yl-
Acrolein	107-02-8	2-Propenal

GROUND-WATER MONITORING LIST—Continued

Common name ¹	CAS RN ²	Chemical abstracts service index name ³
Acrylonitrile	107-13-1	2-Propenenitrile
Aldrin	309-00-2	1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro- (1 α ,4 α , 4a β ,5 α ,8 α ,8a β)-
Allyl chloride	107-05-1	1-Propene, 3-chloro-
4-Aminobiphenyl	92-67-1	[1,1'-Biphenyl]-4-amine
Aniline	62-53-3	Benzenamine
Anthracene	120-12-7	Anthracene
Antimony	(Total)	Antimony
Aramite	140-57-8	Sulfurous acid, 2-chloroethyl 2-[4-(1,1-dimethylethyl)phenoxy]-1-methylethyl ester
Arsenic	(Total)	Arsenic
Barium	(Total)	Barium
Benzene	71-43-2	Benzene
Benzo[a]anthracene; Benzanthracene	56-55-3	Benz[a]anthracene
Benzo[b]fluoranthene	205-99-2	Benz[e]acephenanthrylene
Benzo[k]fluoranthene	207-08-9	Benzo[k]fluoranthene
Benzo[ghi]perylene	191-24-2	Benzo[ghi]perylene
Benzo[a]pyrene	50-32-8	Benzo[a]pyrene
Benzyl alcohol	100-51-6	Benzenemethanol
Beryllium	(Total)	Beryllium
alpha-BHC	319-84-6	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1 α ,2 α ,3 β ,4 α ,5 β ,6 β)-
beta-BHC	319-85-7	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1 α ,2 β ,3 α ,4 β ,5 α ,6 β)-
delta-BHC	319-86-8	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1 α ,2 α ,3 α ,4 β ,5 α ,6 β)-
gamma-BHC; Lindane	58-89-9	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1 α ,2 α ,3 β ,4 α ,5 α ,6 β)-
Bis(2-chloroethoxy)methane	111-91-1	Ethane, 1,1'-[methylenebis (oxy)]bis [2-chloro-
Bis(2-chloroethyl)ether	111-44-4	Ethane, 1,1'-oxybis[2-chloro-
Bis(2-chloro-1-methylethyl) ether; 2,2'-Dichlorodiisopropyl ether	108-60-1	Propane, 2,2'-oxybis[1-chloro-
Bis(2-ethylhexyl) phthalate	117-81-7	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl)ester
Bromodichloromethane	75-27-4	Methane, bromodichloro-
Bromoform; Tribromomethane	75-25-2	Methane, tribromo-
4-Bromophenyl phenyl ether	101-55-3	Benzene, 1-bromo-4-phenoxy-
Butyl benzyl phthalate; Benzyl butyl phthalate	85-68-7	1,2-Benzenedicarboxylic acid, butyl phenylmethyl ester
Cadmium	(Total)	Cadmium
Carbon disulfide	75-15-0	Carbon disulfide
Carbon tetrachloride	56-23-5	Methane, tetrachloro-
Chlordane	57-74-9	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a- hexahydro-
p-Chloroaniline	106-47-8	Benzenamine, 4-chloro-
Chlorobenzene	108-90-7	Benzene, chloro-
Chlorobenzilate	510-15-6	Benzenoacetic acid, 4-chloro- α -(4-chlorophenyl)- α -hydroxy-, ethyl ester
p-Chloro-m-cresol	59-50-7	Phenol, 4-chloro-3-methyl-
Chloroethane; Ethyl chloride	75-00-3	Ethane, chloro-
Chloroform	67-66-3	Methane, trichloro-
2-Chloronaphthalene	91-58-7	Naphthalene, 2-chloro-
2-Chlorophenol	95-57-8	Phenol, 2-chloro-
4-Chlorophenyl phenyl ether	7005-72-3	Benzene, 1-chloro-4-phenoxy-
Chloroprene	126-99-8	1,3-Butadiene, 2-chloro-
Chromium	(Total)	Chromium
Chrysene	218-01-9	Chrysene
Cobalt	(Total)	Cobalt
Copper	(Total)	Copper
m-Cresol	108-39-4	Phenol, 3-methyl-
o-Cresol	95-48-7	Phenol, 2-methyl-
p-Cresol	106-44-5	Phenol, 4-methyl-
Cyanide	57-12-5	Cyanide
2,4-D; 2,4-Dichlorophenoxyacetic acid	94-75-7	Acetic acid, (2,4-dichlorophenoxy)-
4,4'-DDD	72-54-8	Benzene 1,1'-(2,2-dichloroethyldiene) bis[4-chloro-
4,4'-DDE	72-55-9	Benzene, 1,1'-(dichloroethenyldiene) bis[4-chloro-
4,4'-DDT	50-29-3	Benzene, 1,1'-(2,2,2-trichloroethyldiene) bis[4-chloro-
Diallate	2303-16-4	Carbamothioic acid, bis(1-methylethyl)-, S- (2,3- dichloro-2-propenyl) ester
Dibenz[a,h]anthracene	53-70-3	Dibenz[a,h]anthracene
Dibenzofuran	132-64-9	Dibenzofuran
Dibromochloromethane; Chlorodibromomethane	124-48-1	Methane, dibromochloro-
1,2-Dibromo-3-chloropropane; DBCP	96-12-8	Propane, 1,2-dibromo-3-chloro-
1,2-Dibromoethane; Ethylene dibromide	106-93-4	Ethane, 1,2-dibromo-
Di-n-butyl phthalate	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester
o-Dichlorobenzene	95-50-1	Benzene, 1,2-dichloro-
m-Dichlorobenzene	541-73-1	Benzene, 1,3-dichloro-
p-Dichlorobenzene	106-46-7	Benzene, 1,4-dichloro-
3,3'-Dichlorobenzidine	91-94-1	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-

GROUND-WATER MONITORING LIST—Continued

Common name ¹	CAS RN ²	Chemical abstracts service index name ³
trans-1,4-Dichloro-2-butene	110-57-6	2-Butene, 1,4-dichloro-, (E)-
Dichlorodifluoromethane	75-71-8	Methane, dichlorodifluoro-
1,1-Dichloroethane	75-34-3	Ethane, 1,1-dichloro-
1,2-Dichloroethane; Ethylene dichloride	107-06-2	Ethane, 1,2-dichloro-
1,1-Dichloroethylene; Vinylidene chloride	75-35-4	Ethene, 1,1-dichloro-
trans-1,2-Dichloroethylene	156-60-5	Ethene, 1,2-dichloro-, (E)-
2,4-Dichlorophenol	120-83-2	Phenol, 2,4-dichloro-
2,6-Dichlorophenol	87-65-0	Phenol, 2,6-dichloro-
1,2-Dichloropropane	78-87-5	Propane, 1,2-dichloro-
cis-1,3-Dichloropropene	10061-01-5	1-Propene, 1,3-dichloro-, (Z)-
trans-1,3-Dichloropropene	10061-02-6	1-Propene, 1,3-dichloro-, (E)-
Dieldrin	60-57-1	2,7:3,6-Dimethanonaphth [2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1α,2β,2α,3β,6β,6α,7β,7α)-
Diethyl phthalate	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester
O,O-Diethyl O-2-pyrazinyl phosphorothioate; Thionazin	297-97-2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
Dimethoate	60-51-5	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester
p-(Dimethylamino)azobenzene	60-11-7	Benzenamine, N,N-dimethyl-4- (phenylazo)-
7,12-Dimethylbenz[a]anthracene	57-97-6	Benz[a]anthracene, 7,12- dimethyl-
3,3'-Dimethylbenzidine	119-93-7	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-
alpha, alpha-Dimethylphenethylamine	122-09-8	Benzeneethanamine, α,α-dimethyl-
2,4-Dimethylphenol	105-67-9	Phenol, 2,4-dimethyl-
Dimethyl phthalate	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester
m-Dinitrobenzene	99-65-0	Benzene, 1,3-dinitro-
4,6-Dinitro-o-cresol	534-52-1	Phenol, 2-methyl-4,6-dinitro-
2,4-Dinitrophenol	51-28-5	Phenol, 2,4-dinitro-
2,4-Dinitrotoluene	121-14-2	Benzene, 1-methyl-2,4-dinitro-
2,6-Dinitrotoluene	606-20-2	Benzene, 2-methyl-1,3-dinitro-
Dinoseb; DNBP; 2-sec-Butyl-4,6-dinitrophenol	88-85-7	Phenol, 2-(1-methylpropyl)-4,6-dinitro-
Di-n-octyl phthalate	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl ester
1,4-Dioxane	123-91-1	1,4-Dioxane
Diphenylamine	122-39-4	Benzenamine, N-phenyl-
Disulfoton	298-04-4	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl]ester
Endosulfan I	959-98-8	6,9-Methano-2,4,3- benzodioxathiepin, 6,7,8,9,10,10-hexachloro- 1,5,5a,6,9,9a-hexahydro-, 3-oxide, (3α,5aβ,6α,9α,9aβ)-
Endosulfan II	33213-65-9	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro- 1,5,5a,6,9,9a-hexahydro-, 3-oxide, (3α,5aα,6β,9β,9aα)-
Endosulfan sulfate	1031-07-8	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3,3-dioxide
Endrin	72-20-8	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1α,2β,2α,3α,6α, 6aβ,7β, 7aα)-
Endrin aldehyde	7421-93-4	1,2,4-Methenocyclopenta[cd]pentalene-5-carboxaldehyde,2,2a,3,3,4,7-hexachlorodecahydro-, (1α,2β,2aβ,4β,4aβ,5β,6aβ, 6bβ,7R*)-
Ethylbenzene	100-41-4	Benzene, ethyl-
Ethyl methacrylate	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester
Ethyl methanesulfonate	62-50-0	Methanesulfonic acid, ethyl ester
Famphur	52-85-7	Phosphorothioic acid, O-[4-[(dimethylamino)sulfonyl]pheny l]-O,O-dimethyl ester
Fluoranthene	206-44-0	Fluoranthene
Fluorene	86-73-7	9H-Fluorene
Heptachlor	76-44-8	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-
Heptachlor epoxide	1024-57-3	2,5-Methano-2H-indeno[1,2-b]oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a,-hexahydro-, (1α,1bβ,2α,5α,5aβ,6β,6aα)
Hexachlorobenzene	118-74-1	Benzene, hexachloro-
Hexachlorobutadiene	87-68-3	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-
Hexachlorocyclopentadiene	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-
Hexachloroethane	67-72-1	Ethane, hexachloro-
Hexachlorophene	70-30-4	Phenol, 2,2'-methylenebis[3,4,6-trichloro-
Hexachloropropene	1888-71-7	1-Propene, 1,1,2,3,3,3-hexachloro-
2-Hexanone	591-78-6	2-Hexanone
Indeno(1,2,3-cd)pyrene	193-39-5	Indeno[1,2,3-cd]pyrene
Isobutyl alcohol	78-83-1	1-Propanol, 2-methyl-
Isodrin	465-73-6	1,4,5,8-Dimethanonaphthalene,1,2,3,4,1 0,10- hexachloro- 1,4,4a,5,8,8a hexahydro-(1α,4α,4aβ,5β,8β,8aβ)-
Isophorone	78-59-1	2-Cyclohexen-1-one, 3,5,5-trimethyl-

GROUND-WATER MONITORING LIST—Continued

Common name ¹	CAS RN ²	Chemical abstracts service index name ³
Isosafrole	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-
Kepone	143-50-0	1,3,4-Metheno-2H-cyclobuta- [cd]pentalen-2-one, 1,1a,3,3a,4,5,5a,5b,6- decachlorooctahydro-
Lead	(Total)	Lead
Mercury	(Total)	Mercury
Methacrylonitrile	126-98-7	2-Propenenitrile, 2-methyl-
Methapyrilene	91-80-5	1,2-Ethanediamine, N,N-dimethyl-N'-2- pyridinyl- N'-(2- thienylmethyl)-
Methoxychlor	72-43-5	Benzene, 1,1'-(2,2,2, trichloroethylidene)bis [4-methoxy-
Methyl bromide; Bromomethane	74-83-9	Methane, bromo-
Methyl chloride; Chloromethane	74-87-3	Methane, chloro-
3-Methylcholanthrene	56-49-5	Benz[j]aceanthrylene, 1,2- dihydro-3-methyl-
Methylene bromide; Dibromomethane	74-95-3	Methane, dibromo-
Methylene chloride; Dichloromethane	75-09-2	Methane, dichloro-
Methyl ethyl ketone; MEK	78-93-3	2-Butanone
Methyl iodide; Iodomethane	74-88-4	Methane, iodo-
Methyl methacrylate	80-62-6	2-Propenoic acid, 2-methyl-, methyl ester
Methyl methanesulfonate	66-27-3	Methanesulfonic acid, methyl ester
2-Methylnaphthalene	91-57-6	Naphthalene, 2-methyl-
Methyl parathion; Parathion methyl	298-00-0	Phosphorothioic acid, O,O- dimethyl O-(4-nitrophenyl) ester
4-Methyl-2-pentanone; Methyl isobutyl ketone	108-10-1	2-Pentanone, 4-methyl-
Naphthalene	91-20-3	Naphthalene
1,4-Naphthoquinone	130-15-4	1,4-Naphthalenedione
1-Naphthylamine	134-32-7	1-Naphthalenamine
2-Naphthylamine	91-59-8	2-Naphthalenamine
Nickel	(Total)	Nickel
o-Nitroaniline	88-74-4	Benzenamine, 2-nitro-
m-Nitroaniline	99-09-2	Benzenamine, 3-nitro-
p-Nitroaniline	100-01-6	Benzenamine, 4-nitro-
Nitrobenzene	98-95-3	Benzene, nitro-
o-Nitrophenol	88-75-5	Phenol, 2-nitro-
p-Nitrophenol	100-02-7	Phenol, 4-nitro-
4-Nitroquinoline 1-oxide	56-57-5	Quinoline, 4-nitro-, 1-oxide
N-Nitrosodi-n-butylamine	924-16-3	1-Butanamine, N-butyl-N-nitroso-
N-Nitrosodiethylamine	55-18-5	Ethanamine, N-ethyl-N-nitroso-
N-Nitrosodimethylamine	62-75-9	Methanamine, N-methyl-N-nitroso-
N-Nitrosodiphenylamine	86-30-6	Benzenamine, N-nitroso-N-phenyl-
N-Nitrosodipropylamine; Di-n-propylnitrosamine	621-64-7	1-Propanamine, N-nitroso-N- propyl-
N-Nitrosomethylethylamine	10595-95-6	Ethanamine, N-methyl-N-nitroso-
N-Nitrosomorpholine	59-89-2	Morpholine, 4-nitroso-
N-Nitrosopiperidine	100-75-4	Piperidine, 1-nitroso-
N-Nitrosopyrrolidine	930-55-2	Pyrrolidine, 1-nitroso-
5-Nitro-o-toluidine	99-55-8	Benzenamine, 2-methyl-5-nitro-
Parathion	56-38-2	Phosphorothioic acid, O,O- diethyl-O-(4-nitrophenyl) ester
Polychlorinated biphenyls; PCBs	See Note 4	1,1'-Biphenyl, chloro derivatives
Polychlorinated dibenzo-p-dioxins; PCDDs	See Note 5	Dibenzo[b,e][1,4]dioxin, chloro derivatives
Polychlorinated dibenzofurans; PCDFs	See Note 6	Dibenzofuran, chloro derivatives
Pentachlorobenzene	608-93-5	Benzene, pentachloro-
Pentachloroethane	76-01-7	Ethane, pentachloro-
Pentachloronitrobenzene	82-68-8	Benzene, pentachloronitro-
Pentachlorophenol	87-86-5	Phenol, pentachloro-
Phenacetin	62-44-2	Acetamide, N-(4-ethoxyphenyl)
Phenanthrene	85-01-8	Phenanthrene
Phenol	108-95-2	Phenol
p-Phenylenediamine	106-50-3	1,4-Benzenediamine
Phorate	298-02-2	Phosphorodithioic acid, O,O- diethyl S- [(ethylthio)methyl] ester
2-Picoline	109-06-8	Pyridine, 2-methyl-
Pronamide	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1- dimethyl-2-propynyl)-
Propionitrile; Ethyl cyanide	107-12-0	Propanenitrile
Pyrene	129-00-0	Pyrene
Pyridine	110-86-1	Pyridine
Safrole	94-59-7	1,3-Benzodioxole, 5-(2- propenyl)-
Selenium	(Total)	Selenium
Silver	(Total)	Silver
Silvex; 2,4,5-TP	93-72-1	Propanoic acid, 2-(2,4,5- trichlorophenoxy)-
Styrene	100-42-5	Benzene, ethenyl-
Sulfide	18496-25-8	Sulfide
2,4,5-T; 2,4,5 Trichlorophenoxyacetic acid	93-76-5	Acetic acid, (2,4,5-2,4,5-trichlorophenoxy)-
2,3,7,8-TCDD; 2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6	Dibenzo[b,e][1,4]dioxin, 2,3,7,8-tetrachloro-
1,2,4,5-Tetrachlorobenzene	95-94-3	Benzene, 1,2,4,5-tetrachloro-
1,1,1,2-Tetrachloroethane	630-20-6	Ethane, 1,1,1,2-tetrachloro-

GROUND-WATER MONITORING LIST—Continued

Common name ¹	CAS RN ²	Chemical abstracts service index name ³
1,1,2,2-Tetrachloroethane	79-34-5	Ethane, 1,1,2,2-tetrachloro-
Tetrachloroethylene; Perchloroethylene; Tetrachloroethene	127-18-4	Ethene, tetrachloro-
2,3,4,6-Tetrachlorophenol	58-90-2	Phenol, 2,3,4,6-tetrachloro-
Tetraethyl dithiopyrophosphate; Sulfotepp	3689-24-5	Thiodiphosphoric acid ([[(HO) ₂ P(S)] ₂ O), tetraethyl ester
Thallium	(Total)	Thallium
Tin	(Total)	Tin
Toluene	108-88-3	Benzene, methyl-
o-Toluidine	95-53-4	Benzenamine, 2-methyl-
Toxaphene	8001-35-2	Toxaphene
1,2,4-Trichlorobenzene	120-82-1	Benzene, 1,2,4-trichloro-
1,1,1-Trichloroethane; Methylchloroform	71-55-6	Ethane, 1,1,1-trichloro-
1,1,2-Trichloroethane	79-00-5	Ethane, 1,1,2-trichloro-
Trichloroethylene; Trichloroethene	79-01-6	Ethene, trichloro-
Trichlorofluoromethane	75-69-4	Methane, trichlorofluoro-
2,4,5-Trichlorophenol	95-95-4	Phenol, 2,4,5-trichloro-
2,4,6-Trichlorophenol	88-06-2	Phenol, 2,4,6-trichloro-
1,2,3-Trichloropropane	96-18-4	Propane, 1,2,3-trichloro-
O,O,O-Triethyl phosphorothioate	126-68-1	Phosphorothioic acid, O,O,O- triethyl ester
sym-Trinitrobenzene	99-35-4	Benzene, 1,3,5-trinitro-
Vanadium	(Total)	Vanadium
Vinyl acetate	108-05-4	Acetic acid, ethenyl ester
Vinyl chloride	75-01-4	Ethene, chloro-
Xylene (total)	1330-20-7	Benzene, dimethyl-
Zinc	(Total)	Zinc

¹ Common names are those widely used in government regulations, scientific publications, and commerce; synonyms exist for many chemicals.

² Chemical Abstracts Service registry number. Where "Total" is entered, all species in the ground water that contain this element are included.

³ CAS index names are those used in the 9th Cumulative Index.

⁴ Polychlorinated biphenyls (CAS RN 1336-36-3); this category contains congener chemicals, including constituents of Aroclor-1016 (CAS RN 12674-11-2), Aroclor-1221 (CAS RN 11104-28-2), Aroclor-1232 (CAS RN 11141-16-5), Aroclor-1242 (CAS RN 53469-21-9), Aroclor-1248 (CAS RN 12672-29-6), Aroclor-1254 (CAS RN 11097-69-1), and Aroclor-1260 (CAS RN 11096-82-5).

⁵ This category contains congener chemicals, including tetrachlorodibenzo-p-dioxins (see also 2,3,7,8-TCDD), pentachlorodibenzo-p-dioxins, and hexachlorodibenzo-p-dioxins.

⁶ This category contains congener chemicals, including tetrachlorodibenzofurans, pentachlorodibenzofurans, and hexachlorodibenzofurans.

PART 265—INTERIM STATUS STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

24. The authority citation for part 265 continues to read as follows:

Authority: 42 U.S.C. 6905, 6906, 6912, 6922, 6923, 6924, 6925, 6935, 6936 and 6937, unless otherwise noted.

Subpart AA—Air Emission Standards for Process Vents

25. Section 265.1034 is amended by revising paragraphs (c)(1)(ii), (c)(1)(iv), (d)(1)(iii) and (f) to read as follows:

§ 265.1034 Test methods and procedures.

(c) * * *

(1) * * *

(ii) Method 18 or Method 25A in 40 CFR part 60, appendix A, for organic content. If Method 25A is used, the organic HAP used as the calibration gas must be the single organic HAP representing the largest percent by volume of the emissions. The use of Method 25A is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero

calibration gas when the instrument is zeroed on the most sensitive scale.

* * * * *

(iv) Total organic mass flow rates shall be determined by the following equation:

(A) For sources utilizing Method 18.

$$E_h = Q_{2sd} \left\{ \sum_{i=1}^n C_i MW_i \right\} [0.0416] [10^{-6}]$$

Where:

E_h = Total organic mass flow rate, kg/h;

Q_{2sd} = Volumetric flow rate of gases

entering or exiting control device, as determined by Method 2, dscm/h;

n = Number of organic compounds in the vent gas;

C_i = Organic concentration in ppm, dry basis, of compound i in the vent gas, as determined by Method 18;

MW_i = Molecular weight of organic compound i in the vent gas, kg/kg-mol;

0.0416 = Conversion factor for molar volume, kg-mol/m³ (@ 293 K and 760 mm Hg);

10^{-6} Conversion from ppm

(B) For sources utilizing Method 25A.

$E_h = (Q)(C)(MW)(0.0416)(10^{-6})$

Where:

E_h = Total organic mass flow rate, kg/h;

Q = Volumetric flow rate of gases entering or exiting control device, as determined by Method 2, dscm/h;

C = Organic concentration in ppm, dry basis, as determined by Method 25A;

MW = Molecular weight of propane, 44; 0.0416 = Conversion factor for molar volume, kg-mol/m³ (@ 293 K and 760 mm Hg);

10^{-6} = Conversion from ppm.

* * * * *

(d) * * *

(1) * * *

(iii) Each sample shall be analyzed and the total organic concentration of the sample shall be computed using Method 9060 (incorporated by reference under § 260.11) of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846; or analyzed for its individual organic constituents by using appropriate methods such as Method 8260 of EPA Publication SW-846, or using appropriate methods from other reliable sources.

* * * * *

(f) When an owner or operator and the Regional Administrator do not agree on

whether a distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation manages a hazardous waste with organic concentrations of at least 10 ppmw based on knowledge of the waste, the dispute may be resolved using an appropriate method such as Method 8260 of "Test Methods for Evaluating Solid Waste" (EPA Publication SW-846) or using appropriate methods from other reliable sources.

Subpart BB—Air Emission Standards for Equipment Leaks

26. Section 265.1063 is amended by revising paragraph (d)(2) to read as follows:

§ 265.1063 Test methods and procedures.

* * * * *

(d) * * *

(2) Method 9060 (incorporated by reference under § 260.11) of "Test Methods for Evaluating Solid Waste," EPA Publication SW-846 or analyzed for its individual organic constituents by using appropriate methods such as Method 8260 of EPA Publication SW-846 or using appropriate methods from other reliable sources; or

* * * * *

Subpart CC—Air Emission Standards for Tanks, Surface Impoundments, and Containers

27. Section 265.1081 is amended by revising the definition "Waste stabilization process" to read as follows:

§ 265.1081 Definitions.

* * * * *

Waste stabilization process means any physical or chemical process used to either reduce the mobility of hazardous constituents in a hazardous waste or eliminate free liquids as determined by Test Method 9095 (Paint Filter Liquids Test) in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11. A waste stabilization process includes mixing the hazardous waste with binders or other materials, and curing the resulting hazardous waste and binder mixture. Other synonymous terms used to refer to this process are "waste fixation" or "waste solidification." This does not include the adding of absorbent materials to the surface of a waste, without mixing, agitation, or subsequent curing, to absorb free liquid.

28. Section 265.1084 is amended by revising paragraphs (a)(3)(ii)(C),

(a)(3)(iii), (b)(3)(ii)(C), (b)(3)(iii), and (c)(3)(i) to read as follows:

§ 265.1084 Waste determination procedures.

(a) * * *

(3) * * *

(ii) * * *

(C) All samples shall be collected and handled in accordance with written procedures prepared by the owner or operator and documented in a site sampling plan. This plan shall describe the procedure by which representative samples of the hazardous waste stream are collected such that a minimum loss of organics occurs throughout the sample collection and handling process, and by which sample integrity is maintained. A copy of the written sampling plan shall be maintained on-site in the facility operating records. An example of an acceptable sampling plan includes a plan incorporating sample collection and handling procedures in accordance with the guidance found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, or in Method 25D in 40 CFR part 60, appendix A.

(iii) Analysis. Each collected sample shall be prepared and analyzed in accordance with Method 25D in 40 CFR part 60, appendix A, or using one or more other appropriate methods from other reliable sources. If Method 25D in 40 CFR part 60, appendix A is not used, then one or more methods should be chosen that are appropriate to ensure that the waste determination accounts for and reflects all organic compounds in the waste with Henry's law constant values at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X) [which can also be expressed as 1.8×10^{-6} atmospheres/gram-mole/m³] at 25 degrees Celsius. Examples of other methods from other reliable sources which might be appropriate include Method 8260 or 8270 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846; or Method 624, 625, 1624, or 1625 of 40 CFR part 136, appendix A. At the owner or operator's discretion, the owner or operator may adjust test data obtained by any appropriate method to discount any contribution to the total volatile organic concentration that is a result of including a compound with a Henry's law constant value of less than 0.1 Y/X at 25 degrees Celsius. To adjust these data, the measured concentration of each individual chemical constituent contained in the waste is multiplied by the appropriate constituent-specific adjustment factor (f_{m25D}). If the owner or

operator elects to adjust test data, the adjustment must be made to all individual chemical constituents with a Henry's law constant value greater than or equal to 0.1 Y/X at 25 degrees Celsius contained in the waste. Constituent-specific adjustment factors (f_{m25D}) can be obtained by contacting the Waste and Chemical Processes Group, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711. In addition to the requirement to reflect all organic compounds in the waste with Henry's law constant values greater than or equal to 0.1 Y/X [which can also be expressed as 1.8×10^{-6} atmospheres/gram-mole/m³] at 25 degrees Celsius, other appropriate methods include:

(A) Any EPA standard method that has been validated in accordance with "Alternative Validation Procedure for EPA Waste and Wastewater Methods", 40 CFR part 63, appendix D.

(B) Any other analysis method that has been validated in accordance with the procedures specified in Section 5.1 or Section 5.3, and the corresponding calculations in Section 6.1 or Section 6.3, of Method 301 in 40 CFR part 63, appendix A. The data are acceptable if they meet the criteria specified in Section 6.1.5 or Section 6.3.3 of Method 301. If correction is required under section 6.3.3 of Method 301, the data are acceptable if the correction factor is within the range 0.7 to 1.30. Other sections of Method 301 are not required.

* * * * *

(b) * * *

(3) * * *

(ii) * * *

(C) All samples shall be collected and handled in accordance with written procedures prepared by the owner or operator and documented in a site sampling plan. This plan shall describe the procedure by which representative samples of the hazardous waste stream are collected such that a minimum loss of organics occurs throughout the sample collection and handling process, and by which sample integrity is maintained. A copy of the written sampling plan shall be maintained on-site in the facility operating records. An example of an acceptable sampling plan includes a plan incorporating sample collection and handling procedures in accordance with the guidance found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, or in Method 25D in 40 CFR part 60, appendix A.

(iii) Analysis. Each collected sample shall be prepared and analyzed in accordance with Method 25D in 40 CFR part 60, appendix A, or using one or

more appropriate methods from other reliable sources. When the owner or operator is making a waste determination for a treated hazardous waste that is to be compared to an average VO concentration at the point of waste origination or the point of waste entry to the treatment system, to determine if the conditions of § 264.1082(c)(2)(i) through (c)(2)(vi) of this part, or § 265.1083(c)(2)(i) through (c)(2)(vi) of this subpart are met, then the waste samples shall be prepared and analyzed using the same method or methods as were used in making the initial waste determinations at the point of waste origination or at the point of entry to the treatment system. If Method 25D in 40 CFR part 60, appendix A is not used, then one or more methods should be chosen that are appropriate to ensure that the waste determination accounts for and reflects all organic compounds in the waste with Henry's law constant values at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X) [which can also be expressed as 1.8×10^{-6} atmospheres/gram-mole/m³] at 25 degrees Celsius. Examples of other methods from other reliable sources which might be appropriate include Method 8260 or 8270 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846; or Method 624, 625, 1624, or 1625 of 40 CFR part 136, appendix A. At the owner or operator's discretion, the owner or operator may adjust test data obtained by any appropriate method to discount any contribution to the total volatile organic concentration that is a result of including a compound with a Henry's law constant value less than 0.1 Y/X at 25 degrees Celsius. To adjust these data, the measured concentration of each individual chemical constituent in the waste is multiplied by the appropriate constituent-specific adjustment factor (f_{m25D}). If the owner or operator elects to adjust test data, the adjustment must be made to all individual chemical constituents with a Henry's law constant value greater than or equal to 0.1 Y/X at 25 degrees Celsius contained in the waste. Constituent-specific adjustment factors (f_{m25D}) can be obtained by contacting the Waste and Chemical Processes Group, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711. In addition to the requirement to reflect all organic compounds in the waste with Henry's law constant values greater than or equal to 0.1 Y/X [which can also be expressed as 1.8×10^{-6} atmospheres/

gram-mole/m³] at 25 degrees Celsius, other appropriate methods include:

(A) Any EPA standard method that has been validated in accordance with "Alternative Validation Procedure for EPA Waste and Wastewater Methods", 40 CFR part 63, appendix D.

(B) Any other analysis method that has been validated in accordance with the procedures specified in Section 5.1 or Section 5.3, and the corresponding calculations in Section 6.1 or Section 6.3, of Method 301 in 40 CFR part 63, appendix A. The data are acceptable if they meet the criteria specified in Section 6.1.5 or Section 6.3.3 of Method 301. If correction is required under section 6.3.3 of Method 301, the data are acceptable if the correction factor is within the range 0.7 to 1.30. Other sections of Method 301 are not required.

(c) * * *

(3) * * *

(i) Sampling. A sufficient number of samples shall be collected to be representative of the waste contained in the tank. All samples shall be collected and handled in accordance with written procedures prepared by the owner or operator and documented in a site sampling plan. This plan shall describe the procedure by which representative samples of the hazardous waste are collected such that a minimum loss of organics occurs throughout the sample collection and handling process and by which sample integrity is maintained. A copy of the written sampling plan shall be maintained on-site in the facility operating records. An example of an acceptable sampling plan includes a plan incorporating sample collection and handling procedures in accordance with the guidance found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, or in Method 25D in 40 CFR part 60, appendix A.

* * * * *

PART 266—STANDARDS FOR THE MANAGEMENT OF SPECIFIC HAZARDOUS WASTES AND SPECIFIC TYPES OF HAZARDOUS WASTE MANAGEMENT FACILITIES

29. The authority citation for part 266 continues to read as follows:

Authority: 42 U.S.C. 1006, 2002(a), 3001–3009, 3014, 6905, 6906, 6912, 6922, 6924–6927 and 6937.

Subpart H—Hazardous Waste Burned in Boilers and Industrial Furnaces

30. Section 266.100 is amended by revising paragraphs (d)(1)(ii) and (g)(2) to read as follows:

§ 266.100 Applicability.

* * * * *

(d) * * *
(1) * * *

(ii) Sample and analyze the hazardous waste and other feedstocks as necessary to comply with the requirements of this paragraph by using appropriate methods such as those found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, or other reliable sources. The owner or operator shall use the best available method for the particular determination; and

* * * * *

(g) * * *

(2) Sample and analyze the hazardous waste as necessary to document that the waste is burned for recovery of economically significant amounts of precious metal, by using appropriate methods such as those found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, or other reliable sources. The owner or operator shall use the best available method for the particular determination; and

* * * * *

31. Section 266.102 is amended by revising paragraph (b)(1) to read as follows:

§ 266.102 Permit standards for burners.

* * * * *

(b) Hazardous waste analysis. (1) The owner or operator must provide an analysis of the hazardous waste that quantifies the concentration of any constituent identified in appendix VIII of part 261 of this chapter that may reasonably be expected to be in the waste. Such constituents must be identified and quantified if present, at levels detectable by using appropriate analytical procedures such as those found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, or other reliable sources. The owner or operator shall use the best available method for the particular determination. The appendix VIII, part 261 constituents excluded from this analysis must be identified and the basis for their exclusion explained. This analysis will be used to provide all information required by this subpart and §§ 270.22 and 270.66 of this chapter and to enable the permit writer to prescribe such permit conditions as necessary to protect human health and the environment. Such analysis must be included as a portion of the part B permit application, or, for facilities operating under the interim status standards of this subpart, as a portion of

the trial burn plan that may be submitted before the part B application under provisions of § 270.66(g) of this chapter as well as any other analysis required by the permit authority in preparing the permit. Owners and operators of boilers and industrial furnaces not operating under the interim status standards must provide the information required by §§ 270.22 or 270.66(c) of this chapter in the part B application to the greatest extent possible.

* * * * *

32. Section 266.106 is amended by revising paragraph (a) to read as follows:

§ 266.106 Standards to control metals emissions.

(a) *General.* The owner or operator must comply with the metals standards provided by paragraphs (b), (c), (d), (e), or (f) of this section for each metal listed in paragraph (b) of this section that is present in the hazardous waste at detectable levels by using appropriate analytical procedures such as those found in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods” (EPA Publication SW-846) or other reliable sources.

* * * * *

33. Section 266.112 is amended by revising paragraph (b)(1), introductory text, and paragraph (b)(2)(i) to read as follows:

§ 266.112 Regulation of residues.

* * * * *

(b) * * *

(1) *Comparison of waste-derived residue with normal residue.* The waste-derived residue must not contain appendix VIII, part 261 constituents (toxic constituents) that could reasonably be attributable to the hazardous waste at concentrations significantly higher than in residue generated without burning or processing of hazardous waste, using the following procedure. Toxic compounds that could reasonably be attributable to burning or processing the hazardous waste (constituents of concern) include toxic constituents in the hazardous waste, and the organic compounds listed in appendix VIII of this part that may be generated as products of incomplete combustion. Sampling and analyses shall be conducted by using appropriate methods such as those found in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication SW-846, or other reliable sources. For polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans, analyses must be performed to determine specific congeners and homologues, and the results converted

to 2,3,7,8-TCDD equivalent values using the procedure specified in section 4.0 of appendix IX of this part.

* * * * *

(2) *Comparison of waste-derived residue concentrations with health-based limits—(i) Nonmetal constituents.* The concentration of each nonmetal toxic constituent of concern (specified in paragraph (b)(1) of this section) in the waste-derived residue must not exceed the health-based level specified in appendix VII of this part, or the level of detection (which must be determined by using appropriate analytical procedures such as those contained in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication SW-846, or other reliable sources), whichever is higher. If a health-based limit for a constituent of concern is not listed in appendix VII of this part, then a limit of 0.002 micrograms per kilogram or the level of detection (which must be determined by using appropriate analytical procedures such as those found in EPA Publication SW-846 or other reliable sources), whichever is higher, must be used. The levels specified in appendix VII of this part (and the default level of 0.002 micrograms per kilogram or the level of detection for constituents as identified in Note 1 of appendix VII of this chapter) are administratively stayed under the condition, for those constituents specified in paragraph (b)(1) of this section, that the owner or operator complies with alternative levels defined as the land disposal restriction limits specified in § 268.43 of this chapter for F039 nonwastewaters. In complying with those alternative levels, if an owner or operator is unable to detect a constituent despite documenting use of best good-faith efforts as defined by applicable Agency guidance or standards, the owner or operator is deemed to be in compliance for that constituent. Until new guidance or standards are developed, the owner or operator may demonstrate such good-faith efforts by achieving a detection limit for the constituent that does not exceed an order of magnitude above the level provided by § 268.43 of this chapter for F039 nonwastewaters. In complying with the § 268.43 of this chapter F039 nonwastewater levels for polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans, analyses must be performed for total hexachlorodibenzo-p-dioxins, total hexachlorodibenzofurans, total pentachlorodibenzo-p-dioxins, total pentachlorodibenzofurans, total tetrachlorodibenzo-p-dioxins, and total tetrachlorodibenzofurans. Note to

paragraph (b)(2)(i): The administrative stay, under the condition that the owner or operator complies with alternative levels defined as the land disposal restriction limits specified in § 268.43 of this chapter for F039 nonwastewaters, remains in effect until further administrative action is taken and notice is published in the **Federal Register** and the Code of Federal Regulations.

* * * * *

34. Appendix IX of part 266 is amended to:

- a. Revise sections 1.0 and section 3.0,
- b. Revise the first paragraph of section 4.0,
- c. Revise paragraph (2) of section 10.3,
- d. Revise the fifth bullet of paragraph (1) of section 10.5,
- e. Revise the third dash text under the second bullet of paragraph (2) of section 10.5,
- f. Revise the third and fifth bullets of paragraph (5) of section 10.5,
- g. Revise the fourth bullet of paragraph (1) of section 10.6,
- h. Revise the third and fourth bullets of paragraph (5) of section 10.6.

The revisions read as follows:

Appendix IX—Methods Manual for Compliance with the BIF Regulations

* * * * *

Section 1.0 Introduction

This document presents required methods for demonstrating compliance with U.S. Environmental Protection Agency regulations for boilers and industrial furnaces (BIFs) burning hazardous waste (see 40 CFR part 266, subpart H). The methods included in this document are:

1. Performance Specifications for Continuous Emission Monitoring (CEM) of Carbon Monoxide, Oxygen, and Hydrocarbons in Stack Gases.
2. Procedures for Estimating the Toxicity Equivalency of Chlorinated Dibenzo-p-dioxin and Dibenzofuran Congeners.
3. Hazardous Waste Combustion Air Quality Screening Procedures (HWCAQSP).
4. Simplified Land Use Classification Procedure for Compliance with Tier I and Tier II Limits.
5. Statistical Methodology for Beville Residue Determinations.
6. Procedures for Determining Default Values for Air Pollution Control System Removal Efficiencies.
7. Procedures for Determining Default Values for Partitioning of Metals, Ash, and Total Chloride/Chlorine.
8. Alternate Methodology for Implementing Metals Controls.
 - a. Sampling and analytical methods for multiple metals, hexavalent chromium, HCl and chlorine, polychlorinated dibenzo-p-dioxins and dibenzofurans, and aldehydes and ketones can be found in “Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods” (EPA Publication SW-846). Additional methods referenced in

subpart H of part 266 but not included in this document can be found in 40 CFR parts 60 and 61, and SW-846.

b. The CEM performance specifications of section 2.0, the relevant sampling Methods 0011, 0023A, 0050, 0051, 0060, and 0061 of SW-846, incorporated by reference in § 260.11, and the toxicity equivalency procedure for dioxins and furans of section 4.0 are required procedures for determining compliance with BIF regulations. For the determination of chloride from HCl/Cl₂ emission sampling train, you must use appropriate methods such as Method 9057 of SW-846 or other appropriate methods from other reliable sources. For the determination of carbonyl compounds by high-performance liquid chromatography, you must use appropriate methods such as Method 8315 of SW-846 or other appropriate methods from other reliable sources. The CEM performance specifications are interim. The finalized CEM performance specifications will be published in 40 CFR parts 60 and 61.

* * * * *

Section 3.0 Sampling and Analytical Methods

Note: The sampling and analytical methods to the BIF manual are published in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846.

Section 4.0 Procedure for Estimating the Toxicity Equivalency of Chlorinated Dibenzo-p-Dioxin and Dibenzofuran Congeners

PCDDs and PCDFs must be determined using the most recent version of SW-846 Method 0023A, as identified and incorporated by reference in § 260.11. In this method, individual congeners or homologues¹ are measured and then summed to yield a total PCDD/PCDF value. No toxicity factors are specified in the method to compute risks from such emissions.

* * * * *

Section 10.0—Alternative Methodology for Implementing Metals Controls

* * * * *

10.3 Basis

* * * * *

(2) The metal concentrations in the collected kiln dust can be accurately and representatively measured (by using appropriate procedures such as those found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (EPA Publication SW-846) or other reliable sources).

* * * * *

10.5 Implementation Procedures

* * * * *

(1) * * *

• Follow appropriate guidelines such as those described in SW-846 or other reliable sources for preparing test plans

and waste analysis plans for the following tests:

* * * * *

(2) * * *

—Follow appropriate sampling and analytical procedures such as those described in SW-846 or other reliable sources and the waste analysis plan as they pertain to the condition and accessibility of the dust.

* * * * *

(5) * * *

• Follow the sampling, compositing, and analytical procedures described in this method and in other appropriate methods such as those found in SW-846 or other reliable sources, as they pertain to the condition and accessibility of the kiln dust.

* * *

• Samples must be collected at least once every 8 hours, and a daily composite must be prepared according to appropriate procedures such as those found in SW-846 or other reliable sources.

* * * * *

10.6 Precompliance Procedures

* * * * *

(1) * * *

• Follow appropriate procedures such as those described in SW-846 or other reliable sources for preparing waste analysis plans for the following tasks:

* * * * *

(5) * * *

• Follow the sampling, compositing, and analytical procedures described in this method and in other appropriate methods such as those found in SW-846 or other reliable sources as they pertain to the condition and accessibility of the kiln dust.

• Samples must be collected at least once every 8 hours, and a daily composite must be prepared according to appropriate procedures such as those found in SW-846 or other reliable sources.

* * * * *

PART 270—EPA ADMINISTERED PERMIT PROGRAMS: THE HAZARDOUS WASTE PERMIT

35. The authority citation for part 270 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912, 6924, 6925, 6927, 6939, and 6974.

Subpart B—Permit Application

36. Section 270.19 is amended by revising paragraphs (c)(1)(iii) and (iv) to read as follows:

§ 270.19 Specific part B information requirements for incinerators.

* * * * *

(c) * * *

(1) * * *

(iii) An identification of any hazardous organic constituents listed in part 261, appendix VIII, of this chapter, which are present in the waste to be burned, except that the applicant need not analyze for constituents listed in part 261, appendix VIII, of this chapter which would reasonably not be expected to be found in the waste. The constituents excluded from analysis must be identified and the basis for their exclusion stated. The waste analysis must rely on appropriate analytical techniques such as those found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, or other reliable sources.

(iv) An approximate quantification of the hazardous constituents identified in the waste, within the precision produced by appropriate analytical methods such as those found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, or other reliable sources.

* * * * *

37. Section 270.22 is amended by revising paragraph (a)(2)(ii)(B) to read as follows:

§ 270.22 Specific part B information requirements for boilers and industrial furnaces burning hazardous wastes.

* * * * *

(a) * * *

(2) * * *

(ii) * * *

(B) Results of analyses of each waste to be burned, documenting the concentrations of nonmetal compounds listed in appendix VIII of part 261 of this chapter, except for those constituents that would reasonably not be expected to be in the waste. The constituents excluded from analysis must be identified and the basis for their exclusion explained. The analysis must rely on appropriate analytical techniques such as those found in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA Publication SW-846, or other reliable sources.

* * * * *

Subpart F—Special Forms of Permits

38. Section 270.62 is amended by revising paragraphs (b)(2)(i)(C) and (D) to read as follows:

§ 270.62 Hazardous waste incinerator permits.

* * * * *

(b) * * *

(2) * * *

(i) * * *

(C) An identification of any hazardous organic constituents listed in part 261, appendix VIII of this chapter, which are present in the waste to be burned, except that the applicant need not analyze for constituents listed in part 261, appendix VIII, of this chapter which would reasonably not be expected to be found in the waste. The constituents excluded from analysis must be identified, and the basis for the exclusion stated. The waste analysis must rely on appropriate analytical techniques such as those found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, or other reliable sources.

(D) An approximate quantification of the hazardous constituents identified in the waste, within the precision produced by appropriate analytical methods such as those found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA

Publication SW-846, or other reliable sources.

* * * * *

39. Section 270.66 is amended by revising paragraphs (c)(2)(i) and (ii) to read as follows:

§ 270.66 Permits for boilers and industrial furnaces burning hazardous waste.

* * * * *

(c) * * *

(2) * * *

(i) An identification of any hazardous organic constituents listed in appendix VIII, part 261, of this chapter that are present in the feed stream, except that the applicant need not analyze for constituents listed in appendix VIII that would reasonably not be expected to be found in the hazardous waste. The constituents excluded from analysis must be identified and the basis for this exclusion explained. The waste analysis must be conducted in accordance with appropriate analytical techniques such as those found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, or other reliable sources.

(ii) An approximate quantification of the hazardous constituents identified in the hazardous waste, within the precision produced by appropriate analytical methods such as those found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, or other source.

* * * * *

PART 271—REQUIREMENTS FOR AUTHORIZATION OF STATE HAZARDOUS WASTE PROGRAMS

40. The authority citation for part 271 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a) and 6926.

41. Section 271.1(j) is amended by adding the following entry to Table 1 in chronological order by date of publication in the **Federal Register**, to read as follows:

§ 271.1 Purpose and scope.

(j) * * *

TABLE 1.—REGULATIONS IMPLEMENTING THE HAZARDOUS AND SOLID WASTE AMENDMENTS OF 1984

Promulgation date	Title of regulation	Federal Register reference	Effective date
[Date of publication of final rule in the Federal Register (FR)].	Process Vent and Equipment Leak Organic Air Emission Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities.	[FR page numbers]	[Date of publication of final rule].
[Date of publication of final rule in the Federal Register (FR)].	Burning of Hazardous Waste in Boilers and Industrial Furnaces.	[FR page numbers]	[Date of publication of final rule].
[Date of publication of final rule in the Federal Register (FR)].	Air Emission Standards Tanks, Surface Impoundments, and Containers.	[FR page numbers]	[Date of publication of final rule].

42. Section 271.21 is amended by adding the following entry to Table 1 in chronological order by date of

publication in the **Federal Register**, to read as follows:

§ 271.21 Procedures for revision of State programs.

* * * * *

TABLE 1 TO SEC. 271.21

Title of regulation	Promulgation date	Federal Register reference
Office of Solid Waste Testing and Monitoring Activities, Methods Innovation Rule.	[Date of publication of final rule in the Federal Register (FR)].	[FR page numbers].
Process Vent and Equipment Leak Organic Air Emission Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities.	[Date of publication of final rule in the Federal Register (FR)].	[FR page numbers].
Burning of hazardous waste in boilers and industrial furnaces.	[Date of publication of final rule in the Federal Register (FR)].	[FR page numbers].
Air Emissions Standards for Tanks, Surface Impoundments, and Containers.	[Date of publication of final rule in the Federal Register (FR)].	[FR page numbers].

PART 279—STANDARDS FOR THE MANAGEMENT OF USED OIL

43. The authority citation for part 279 continues to read as follows:

Authority: Sections 1006, 2002(a), 3001 through 3007, 3010, 3014, and 7004 of the Solid Waste Disposal Act, as amended (42 U.S.C. 6905, 6912(a), 6921 through 6927, 6930, 6934, and 6974); and sections 101(37)

and 114(c) of CERCLA (42 U.S.C. 9601(37) and 9614(c)).

Subpart B—Applicability

44. Section 279.10 is amended by revising paragraph (b)(1)(ii) introductory text to read as follows:

§ 279.10 Applicability.

* * * * *

(b) * * *

(1) * * *

(ii) Rebuttable presumption for used oil. Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in subpart D of part 261 of this chapter. Persons may rebut this presumption by demonstrating that the used oil does not contain hazardous waste (for example, by using an appropriate analytical method such as those found in “Test Methods for Evaluating Solid Waste, Chemical/Physical Methods,” EPA Publication SW-846, or other reliable sources to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in appendix VIII of part 261 of this chapter).

* * * * *

Subpart E—Standards for Used Oil Transporter and Transfer Facilities

45. Section 279.44 is amended by revising the introductory text of paragraph (c) to read as follows:

§ 279.44 Rebuttable presumption for used oil.

* * * * *

(c) If the used oil contains greater than or equal to 1,000 ppm total halogens, it

is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in subpart D of part 261 of this chapter. The owner or operator may rebut the presumption by demonstrating that the used oil does not contain hazardous waste (for example, by using an appropriate analytical method such as those found in “Test Methods for Evaluating Solid Waste, Chemical/Physical Methods,” EPA Publication SW-846, or other reliable sources to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in Appendix VIII of part 261 of this chapter).

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Subpart F—Standards for Used Oil Processors and Re-Refiners

46. Section 279.53 is amended by revising paragraph (c) introductory text to read as follows:

§ 279.53 Rebuttable presumption for used oil.

* * * * *

(c) If the used oil contains greater than or equal to 1,000 ppm total halogens, it is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in subpart D of part 261 of this chapter. The owner or operator may rebut the presumption by demonstrating that the used oil does not contain hazardous waste (for example, by using an appropriate analytical method such as those found in “Test Methods for Evaluating Solid Waste, Chemical/

Physical Methods,” EPA Publication SW-846, or other reliable sources to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in Appendix VIII of part 261 of this chapter).

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Subpart G—Standards for Used Oil Burners Who Burn Off-Specification Used Oil for Energy Recovery

47. Section 279.63 is amended by revising paragraph (c) introductory text to read as follows:

§ 279.63 Rebuttable presumption for used oil.

* * * * *

(c) If the used oil contains greater than or equal to 1,000 ppm total halogens, it is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in subpart D of part 261 of this chapter. The owner or operator may rebut the presumption by demonstrating that the used oil does not contain hazardous waste (for example, by using an appropriate analytical method such as those found in “Test Methods for Evaluating Solid Waste, Chemical/Physical Methods,” EPA Publication SW-846, or other reliable sources to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in Appendix VIII of part 261 of this chapter).

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