

**ENVIRONMENTAL PROTECTION AGENCY****40 CFR Parts 63, 258, 260, 261, 264, 265, 266, 268, 270, 271, and 279****[RCRA-2002-0025; FRL-7916-1]****RIN 2050-AE41****Waste Management System; Testing and Monitoring Activities; Final Rule: Methods Innovation Rule and SW-846 Final Update IIIB****AGENCY:** Environmental Protection Agency (EPA).**ACTION:** Final rule.

**SUMMARY:** The Environmental Protection Agency is amending a variety of testing and monitoring requirements in the Resource Conservation and Recovery Act (RCRA) hazardous and non-hazardous solid waste regulations and for certain Clean Air Act (CAA) regulations that relate to hazardous waste combustors. These amendments allow more flexibility when conducting RCRA-related sampling and analysis by removing from the regulations a requirement to use the methods found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," also known as "SW-846," in conducting various testing and monitoring and by limiting required uses of an SW-846 method to circumstances where the method is the only one capable of measuring the particular property (*i.e.*, the method is used to measure a required method-defined parameter). This action is an important step forward in implementing the use of a performance-based approach, which is part of the Agency's efforts toward Innovating for Better Environmental Results. Additionally, the Agency is making certain other clarifications and technical amendments. These changes

should make it easier and more cost effective to comply with the affected regulations, without compromising human health or environmental protection.

**DATES:** This final rule is effective on July 14, 2005. The incorporation by reference of certain publications listed in the rule is approved by the Director of the Federal Register as of July 14, 2005.

**ADDRESSES:** EPA has established a docket for this action under Docket ID No. RCRA-2002-0025. All documents in the docket are listed in the EDOCKET index at <http://www.epa.gov/edocket>. Although listed in the index, some information is not publicly available, *i.e.*, CBI or other information for which disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically in EDOCKET or in hard copy at the OSWER RCRA Docket, EPA/DC, EPA West, Room B102, 1301 Constitution Ave., NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744. This Docket Facility is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The Docket telephone number is (202) 566-0270.

**FOR FURTHER INFORMATION CONTACT:** For information on this rulemaking, contact Kim Kirkland at: Office of Solid Waste (5307W), U. S. Environmental Protection Agency, 1200 Pennsylvania Avenue, SW., Washington, DC 20460-0002, (703) 308-8855, e-mail address: [kirkland.kim@epa.gov](mailto:kirkland.kim@epa.gov).

**SUPPLEMENTARY INFORMATION:****I. General Information****A. Does This Action Apply to Me?**

You may be covered by this action if you conduct waste sampling and analysis for Resource Conservation and Recovery Act (RCRA)-or National Emission Standards for Hazardous Air Pollutants (NESHAP)-related activities. Covered entities include anyone who generates, treats, stores, or disposes of hazardous or nonhazardous solid waste and is 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 hazardous and nonhazardous 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 your regulatory authority.

**B. How Do I Obtain Copies of SW-846?**

The Third Edition of SW-846, as amended by Final Updates I, II, IIA, IIB, III, IIIA, and IIIB will be available in pdf format on the Internet at <http://www.epa.gov/SW-846>. A paper copy of Final Update IIIB is also located in the docket for this rule (see section I.A 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, phone (202) 512-1800, toll free (866) 512-1800, fax orders (202) 512-2250, and online: <a href="http://bookstore.gpo.gov">http://bookstore.gpo.gov</a> .	—Paper copies of the SW-846, Third Edition, basic manual and of certain updates, including Final Updates, I, II, IIA, IIB, III, and IIIB and Draft Update IVA. The 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, III, and IIIA. —Individual paper copies of the SW-846, Third Edition, basic manual and of certain updates, including Final Updates I, II, IIA, IIB, III, IIIA, and IIIB and Draft Updates IVA and IVB. —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: <a href="http://www.epa.gov/SW-846">http://www.epa.gov/SW-846</a> .....	—Integrated version of SW-846, Third Edition, as amended by Final Updates I, II, IIA, IIB, III, IIIA, and IIB (pdf electronic copy). —Draft Update IVA (pdf electronic copy). —Draft Update IVB (pdf electronic copy).

### C. What Is the Legal Authority for This Action?

We are promulgating the part 258, 260, 261, 264–266, 268, 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, as amended. We are promulgating the part 63 regulation under the authority of sections 112 and 114 of the Clean Air Act.

### D. How Is the Rest of This Preamble Organized?

#### II. Summary of Today's Rule

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  - C. Public Comments Regarding Impacts From Removal of Required Uses of SW-846 Methods
- #### IV. Regulatory Revisions Involving Removal of SW-846 Requirements
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- #### VI. Action to Withdraw the Reactivity Interim Guidance from SW-846 Chapter Seven and Remove Required SW-846 Reactivity Analyses and Threshold Levels from Conditional Delistings
- #### VII. Clarifications to Corrosivity and Ignitability Hazardous Waste Characteristics
- A. Revision to § 261.22(a)(2) to Clarify that SW-846 Method 1110A Is the SW-846 Standardized Version of the NACE Standard Specified for Corrosivity Characteristic Testing
  - B. Revisions to § 261.21(a)(1) to Remove an Unnecessary Referral to Method Equivalency Petitions; and an Explanation regarding the Decision to Not Revise the Regulation to Include the Updated ASTM Standards and References to Methods 1010A and 1020B as Proposed
- #### VIII. Availability of Final Update IIIB and Status of Final Update IV to SW-846
- #### IX. Addition of Method 25A to §§ 264.1034(c)(1)(ii) and (iv) and 265.1034(c)(1)(ii) and (iv)
- #### X. 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
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- #### XIII. Statutory and Executive Order Reviews
- A. Executive Order 12866: Regulatory Planning and Review
  - B. Paperwork Reduction Act

- C. Regulatory Flexibility Act
- D. Unfunded Mandates Reform Act
- E. Executive Order 13132: Federalism
- F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments
- G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks
- H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use
- I. National Technology Transfer and Advancement Act
- J. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations
- K. Congressional Review Act

## II. Summary of Today's Rule

On October 30, 2002 (67 FR 66251–66301), the Environmental Protection Agency (EPA) proposed to amend the testing and monitoring requirements under the hazardous and nonhazardous solid waste regulations, and a testing requirement under the Clean Air Act (CAA) in the National Emission Standards for Hazardous Air Pollutants (NESHAP) for hazardous waste combustors. EPA is finalizing those regulatory revisions at this time. Some of the public comments are summarized and addressed in the sections to follow, and a background document containing our responses to all public comments can be found in the docket to this rule, RCRA–2002–0025. After consideration of all comments and for the reasons summarized in today's rule, we are finalizing the following actions:

1. Reforming 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 method-defined parameter). This will allow more flexibility in RCRA-related sampling and analysis by removing unnecessary required uses of SW-846.
2. Withdrawing the cyanide and sulfide reactivity guidance from sections 7.3.3 and 7.3.4 of SW-846 Chapter Seven and withdrawing required uses of reactive cyanide and sulfide methods and threshold levels from conditional delistings.
3. Amending the regulations for the ignitability and corrosivity hazardous waste characteristics. As part of this, we are clarifying in § 261.22(a)(2) that SW-846 Method 1110A, "Corrosivity Toward Steel," is the "standardized" (as described in § 261.22(a)(2)) SW-846 method that is required to be used to determine the characteristic of corrosivity for steel. We are also removing the unnecessary reference to equivalency petitions in the ignitability

characteristic at § 261.21(a)(1). However, regarding the methods required for the determination of flash point under the characteristic of ignitability, the Agency decided not to replace the standard test methods ASTM D 3278–78 and D 93–79 with the latest versions of those methods.

4. Incorporating by reference Update IIIB to SW-846, which includes the revised Chapter Seven, and eleven revised methods, including method revisions to remove a requirement to use the SW-846 Chapter Nine, "Sampling Plan."

5. Adding 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. Removing 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.

7. Removing from the regulations unnecessary references to SW-846, which do not affect the intent of the RCRA regulation.

This rule does not add any additional requirements to the regulations. Instead, this rule removes the requirement to use SW-846, and it clarifies what the Agency believes should be considered during the selection of other appropriate methods. Our purpose for the regulatory revisions 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, where you find that a specific SW-846 method yields data that is suitably effective for demonstrating compliance in the particular matrix being analyzed, you can still use the SW-846 methods.

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

Typically, the hazardous and nonhazardous solid waste RCRA regulations for testing and monitoring activities 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 of the RCRA regulations leave the how (*i.e.*, which test method to use) up to the regulated community. Some RCRA regulations, however, specify the use of methods from the EPA publication

“Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” also known as “SW-846.”

Initially, EPA 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, the Agency 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 required in order to comply with the RCRA regulations. Since that time, EPA 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, and EPA also decided that some of the SW-846 requirements were not necessary.

The regulatory requirement to use SW-846 in general (e.g., as in the delisting regulations at § 260.22 prior to this final rule) did not identify specific SW-846 methods. Rather, this requirement typically included the regulation of many different analytes which could be determined by many different methods. Almost every update to SW-846 includes at least one method that may be applicable to one or more of these general analytical requirements. Therefore, whenever SW-846 was updated to revise or add methods, EPA had to incorporate by reference all of the new and revised methods into the RCRA regulations as part of a rulemaking. EPA issued the updates as a proposed rule, requested public comment, and then promulgated the update in a final rule. This lengthy process delayed the timely use of the new analytical technologies.

On October 30, 2002 (67 FR 66251–66301), EPA proposed to remove from the regulations a requirement to use a method found in SW-846, except when that method is the only one capable of measuring the particular property. At that time, we described our reasons for wanting to remove this requirement from the regulations, including the Agency’s desire to fully implement a performance-based measurement system (PBMS) in the RCRA program. Specifically, we noted that such a change would: (1) Allow the regulated community more flexibility in method use during RCRA-required testing; (2) stimulate the development and timely use of innovative and more cost-effective monitoring technologies and approaches in the RCRA program; (3) allow more efficient and timely releases of SW-846 methods by decoupling most of the methods from required uses in the

RCRA regulations; and (4) make the RCRA program more effective by focusing on measurement objectives rather than on measurement technologies. As noted, the Agency proposed 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, or MDP). For example, to determine whether the levels of hazardous constituents in a particular waste stream are equal to or greater than the toxicity characteristic (TC) levels specified in § 261.24, waste generators must test their waste using SW-846 Method 1311, the “Toxicity Characteristic Leaching Procedure,” or “TCLP.” If levels in the waste are greater than or equal to the TC levels, the waste is a hazardous waste and is subject to the RCRA hazardous waste regulations. This is the only reliable method for determining whether TC levels are met. Thus, testing of any material to determine whether it meets the Toxicity Characteristic levels must be done using the TCLP. EPA describes the measurement obtained from the TCLP, as well as from certain other methods, as a required “method-defined parameter.”

We requested public comment on the proposed revisions to the RCRA regulations, although not to the method-defined parameters, and received comments on the proposed action from over 20 different commenters, which included representatives of Federal Government agencies, State Government agencies, industry, waste generation and management entities, and analytical laboratories. The majority (86%) of the commenters generally supported, with comment, the MIR action and EPA’s efforts to allow more flexibility in method selection when conducting RCRA-related sampling and analysis. Regarding the positive comments, one commenter, a state agency representative, applauded EPA for recognizing that regulating does not have to be prescriptive. Another commenter, a representative of analytical laboratories, believed that the additional flexibility will result in data quality improvements. Two representatives of waste generation or management entities concurred with EPA that the majority of the MIR revisions should make it easier and more cost effective to comply with RCRA-related regulations.

For the most part, the negative public comments may have reflected a misunderstanding of certain important aspects and premises of the MIR, which we are clarifying in our responses to

those comments. With respect to other negative comments, the Agency expects that the discussion below will further clarify the purposes and premises of the MIR, and will clarify options for dealing with the inherent flexibility of this approach. Also, the Agency will continue to provide training on the concepts of this rule to further clarify its intent and support its implementation. You will find a background document containing our complete responses to all relevant public comments in the docket to this rule, docket number RCRA–2002–0025, at the location listed above under **ADDRESSES**. Some of the public comments are also addressed within this preamble to the final rule.

Based on our review of the public comments regarding the October 30, 2002 proposed rule, we are proceeding with publication of this final rule, which finalizes the proposed revisions to the RCRA regulations. That is, this rule removes unnecessary required uses of SW-846 in general and it removes any unnecessary required uses of specific SW-846 methods. Other reliable methods can now be used by the regulated public for compliance with the affected regulations. This action also encourages the timely use of new and innovative methods outside of SW-846 in that, for most sampling and analysis scenarios, it will not be necessary to submit an equivalency petition when using a non-SW-846 method. However, some regulations will still require use of a specific SW-846 method when that method is for determination of a RCRA-required method-defined parameter (MDP); in those cases, a regulated entity has to submit an equivalency petition and receive approval of that petition from the Agency before an alternative method can be used.

This final rule will allow the Agency to make final updates to SW-846 available in a more timely manner. For example, soon after publication of this document, we will announce the availability of Final Update IV (see section VIII of this document). The methods of Final Update IV did not have to go through the rulemaking process because, with publication of this final rule, SW-846 is no longer required in general by any existing RCRA regulation and none of the new or revised methods in Update IV are specifically required by any RCRA regulation for the analysis of method-defined parameters (MDPs). However, we did solicit and consider public comments on the methods through **Federal Register** notices, see 63 FR 25430–25438, May 8, 1998 (Draft

Update IVA), and 65 FR 70678–70681, November 27, 2000 (Draft Update IVB).

#### *A. Public Comments Regarding How To Determine if a Method Is Appropriate*

In section III.A of the preamble to the October 30, 2002 proposed rule, we discussed our proposed revisions to remove the requirement to use SW–846 methods by adding regulatory language allowing the use of appropriate methods such as those found in SW–846 or other reliable sources. In the preamble of the proposed rule, we provided guidance on how to determine if a method is appropriate for its analytical purpose. Specifically, we mentioned that 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 also proposed to retain mention of the SW–846 methods in the regulations as guidance and as examples of methods that could be appropriate.

In the proposed rule preamble, we gave two primary considerations in selecting an appropriate method, which together serve as our general definition of an appropriate method. As done in the preamble to the proposed rule, the text to follow explains each of these concepts and identifies other guidance that may be helpful to the regulated community.

1. Appropriate methods are reliable and accepted as such in the scientific community.

2. Appropriate methods generate effective data.

Regarding the first consideration, we noted that methods which are reliable and accepted in the scientific community might include those published by the Agency or other government entities using techniques that have documented reliability. SW–846 methods, for example, 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 other 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. For instance, to qualify for recognition as having developed a voluntary consensus standard (*e.g.*, analytical method) under the National Technology Transfer & Advancement Act of 1995 (NTTAA), an organization must produce standards by consensus, observe the principles of openness and

balance of interests, and provide due process, including an appeals process.

Regarding the second consideration in the identification of appropriate methods—generation of effective data—we described in the preamble to the proposed rule examples of tools that might be used in this determination. *This consideration is project-specific* and therefore the tools and criteria will be different for each analytical effort. As stated in the proposed rule preamble, effective data are data of sufficiently known and appropriate quality to be used in making 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 quality objectives for the project as established through a systematic planning process). Effective data meet the quality objectives set by the project planners for the specific project. The quality objectives 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), Sampling and Analysis Plan (SAP), or other appropriate systematic planning document. Sampling and analysis documentation should be sufficient to confirm that the data are effective and that the selected method is appropriate.

Quality objectives 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 quality objective 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 quality objective may be specified in a regulation, a permit, a corrective action agreement, or other regulatory or enforcement document. Sometimes you must consider a quality objective regulatory specification when selecting an appropriate method. For example, the RCRA comparable fuels’ provisions include quality objectives in lieu of naming the use of specific methods (see 63 FR 33781, June 19, 1998). You can find guidance on the development of formal data quality objectives (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 may also use other scientifically valid systematic planning processes for developing quality objectives based on specific project needs.

In the project planning document, 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 just focus 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. In addition, guidance on determining and demonstrating the appropriateness of a selected measurement method for a particular application may be found in ASTM D 6956–03, “Standard Guide for Demonstrating and Assessing Whether a Chemical Analytical Measurement

System Provides Analytical Results Consistent with Their Intended Use.”

Finally, EPA noted in the proposed rule preamble that 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.

We requested and received public comment on the above considerations and on the proposal to allow the use of appropriate methods such as those found in SW-846 or other reliable sources. One supportive commenter believed the Agency had provided sufficient guidance in the preamble to the proposed rule on how to identify appropriate methods. As discussed below, a few commenters requested additional guidance regarding the selection of appropriate methods or had questions regarding the approach.

One commenter requested that an appropriate method definition be codified in the regulations. The Agency believes that codification of an appropriate method definition would be both very difficult and contrary to the intent and purpose of this rule, given the project-specific nature of “appropriate method selection” and the wide variety of data collection objectives that may be encountered. In the paragraphs above, the Agency has provided the key generic considerations for appropriate method selection, which together serve as our general definition for an appropriate method, and identified guidance sources, in the hope that this information will assist readers of this rule during the selection of appropriate methods, regardless of whether the methods are from SW-846 or other sources. In addition, since publication of the proposed rule, ASTM International published D 6956-03, “Standard Guide for Demonstrating and Assessing Whether a Chemical Analytical Measurement System Provides Analytical Results Consistent with Their Intended Use.” This guidance document is not required by any EPA program, but may be useful to the regulated community during the selection of appropriate methods and during the evaluation of analytical results. The document can be obtained from ASTM by visiting its Web site at <http://www.ASTM.org> or by writing to: ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West

Conshohocken, PA 19418-2959. EPA also plans to continue to provide training to affected entities on the concepts of this rule and to support its implementation. When using any appropriate method, you should be able to determine the analyte of concern (e.g., the regulated constituent to be measured), in the matrix of concern (e.g., the physical substance which might contain the regulated constituent), at the level of concern (e.g., the regulated level of or the action level for the analyte).

One commenter was concerned that the regulated public might use other methods that do not meet the QC criteria in the SW-846 methods. The Agency does not believe that this should be a concern. The performance data and QC criteria given in the SW-846 methods are only examples, and are not requirements for analysis. The SW-846 example criteria may not be appropriate for every analytical purpose. Establishing QC criteria is a project planning issue and not a method issue. Methods should be adapted into standard operating procedures (SOPs) to meet QC criteria from systematic planning documents, not the other way around. Some analytical applications may require more or less stringent QC criteria than that given as examples in the SW-846 methods, and it would be contrary to promoting a PBMS approach if all analyses using any methods are expected to conform to the example criteria published in SW-846 methods. Sometimes, even when using an SW-846 method, it may not be necessary to fully meet its example performance criteria because project-specific quality objectives may not require evaluation of the same performance indicators or the criteria may not be appropriate to the specific application. In keeping with a PBMS approach and the goals of this rule, performance criteria should be determined on a project-specific basis during the planning stage.

Another commenter was concerned that some regulated entities might use methods that were not originally developed for environmental purposes, and thus data validity may be suspect. Provided that the method is appropriate based on the factors discussed above and in the proposed rule preamble, we do not believe that this should be a concern. If the data are suspect or otherwise not of sufficient quality for their intended use, then the method is not appropriate, regardless of its source, and thus the data are not acceptable for demonstrating compliance. Regardless of the original purpose or source of a method, it can be an appropriate method if it generates effective data,

e.g., the data quality objectives and performance criteria are met. Even an SW-846 method may not be appropriate for a particular application if it does not generate effective data. In addition, the application of method technologies from other disciplines promotes the use of innovative approaches and technologies, which may benefit RCRA-related analyses. Finally, many of the analytical techniques used today in environmental analyses were initially developed for other purposes.

One commenter agreed with EPA’s approach to appropriate method selection, but had comments regarding the data quality objectives approach. The commenter believed that the DQO approach can be expensive and is not usually used during small analytical projects. In response, the Agency notes that, when data are being used in decision making involving two clearly alternative conditions (e.g., compliance vs. noncompliance with a regulatory standard), the Agency’s recommended systematic planning tool is the DQO process. While there is no regulatory obligation to use the DQO process, it is the recommended planning approach for many EPA data collection activities. However, the DQO process may be too complicated for some projects and is not the only way to generate quality data through systematic planning. It is presented here in the MIR only as an example of an approach involving systematic planning. However, at a minimum, the Agency recommends that some form of systematic planning be implemented for every data collection effort in order to generate effective data, and notes that such systematic planning should also involve consideration of cost. Systematic planning is a common sense approach, designed to ensure that the level of detail in planning is commensurate with the importance and intended use of the work and the available resources.

One commenter supported EPA’s proposed flexibility, but thought that EPA should continue to use SW-846 as the primary vehicle for making recommendations regarding procedures that will meet minimum quality objectives for RCRA analyses. Thus, one would not be required to use SW-846 methods, but could choose to use them and be confident that they are appropriate sampling and analysis procedures, provided that they can be demonstrated to meet project quality objectives. Another commenter believed that it would be unrealistic for a regulated entity to agree to the use of other methods if EPA has not approved them. The commenter believed that such approval would guarantee

acceptance of the data, provided that the method was properly followed.

First, it should be noted that there are no "PBMS methods." PBMS is a regulatory approach where what has to be accomplished is specified, rather than how the monitoring is to be conducted. Under such a system, regulated entities are permitted to employ any method that is technically adequate to accomplish the compliance demonstration. Regarding EPA's approval of PBMS, EPA has already stated its objective to employ the performance approach in its regulatory and other monitoring programs to the extent feasible. On October 6, 1997 (62 FR 52098–52100), EPA published in the **Federal Register** its intent to adopt PBMS agency-wide. Subsequently, on May 8, 1998 (63 FR 25430–25438), EPA published in the **Federal Register** a notice of intent and request for comment regarding its plans to reform implementation of RCRA-related monitoring by formally adopting PBMS and by removing unnecessary required uses of methods from the RCRA regulations (part of PBMS).

EPA also believes that method selection should be a project-specific decision and therefore cannot recommend or approve any methods—even SW-846 methods—as always being appropriate for any given application. For that very reason, with this rule, EPA removed the requirement to use SW-846 methods, except when the methods are the only ones capable of measuring a particular property. Relying on the fact that a method is contained in SW-846 does not guarantee that the method will always generate effective data under any situation. If the SW-846 method is not an appropriate method for its intended application, following it exactly could generate erroneous data and could fail to demonstrate compliance with the RCRA requirements.

Second, EPA does not agree with the recommendation that it categorically state that any method is always an effective means of demonstrating compliance (with the exception of methods for the analysis of method-defined parameters) since the Agency has no way of knowing that a particular method is going to yield valid data in all potential situations and it goes counter to the performance approach which requires that regulated entities demonstrate compliance using data of known and documented quality. The Agency believes that it is up to the individual regulated entity to decide which methods are appropriate to use for any given compliance demonstration and that this determination should be initiated during the project planning

stage. When considering method selection, the analytical performance indicators are key to the specific project goals that should be considered. Examples of analytical performance indicators that might be addressed include method sensitivity and selectivity, precision, bias, and reproducibility. The data user may even choose to revise method selection if additional information gathered during the project indicate that the initial selection was not appropriate. Therefore, method selection is a project-specific activity implemented by the regulated entity, and EPA's only concern is that the generated data be effective for its purpose, regardless of the method selection. The Agency does recommend that a regulated entity seek assistance from its regulating authority should the regulated entity have concerns regarding the use of any particular method. EPA also notes that guidance regarding demonstrating the performance of a given analytical method can be found in EPA-published guidance documents (some of which are listed above) and documents published by other Agencies (e.g., ASTM).

One commenter was concerned regarding how method performance would be demonstrated under PBMS. The commenter claimed that implementation of a PBMS approach is very difficult and that, for it to work, there must be a "reference method" to be used as a benchmark against which to measure other methods.

EPA notes that the RCRA program does not use reference methods. Many different methods produce effective data for a particular project, which are not necessarily "equivalent," but all could be "applicable." For example, there are many analytical methodologies that can be used in analyzing a particular metal species (e.g., ICAP, AA). In selecting a particular method for metal analysis, the analyst will consider analytical costs, accuracy and sensitivity needed, freedom from potential interferences, amount of sample required for an analysis, reagents to be used, and other factors in the overall process to select a method that will yield effective data at the lowest cost to the user. These factors should be considered when evaluating any method, including those published in SW-846, and the user needs to conduct the appropriate verifications to demonstrate the appropriateness of any method that is selected against its intended application. There are a number of approaches that can be used to demonstrate that a method is valid for a particular use. These include: use of appropriate reference standards, analysis of spiked samples, comparison

of results to results generated using a method that employs a fundamentally different measurement process and would not be subject to the same potential interferences, etc. For further guidance in demonstrating method validity, see the previously cited ASTM document D 6956–03, "Standard Guide for Demonstrating and Assessing Whether a Chemical Analytical Measurement System Provides Analytical Results Consistent with their Intended Use."

#### *B. Public Comments Regarding Other Approaches*

As explained in section III.B of the proposed rule preamble, EPA 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 determining whether a waste is hazardous for the toxicity characteristic (the TC). It generates an extract (the leachate) which is subject to a determinative analysis for comparison with the TC regulatory limits. However, the TCLP procedure does not require specific analytical methods for the leachate determinative analysis, nor does it specify the use of even SW-846 methods in general for such analysis of the leachate. It allows method flexibility similar to that proposed by this rule by stating in section 7.2.14: "The TCLP extract shall be prepared and analyzed according to appropriate analytical methods."

Nevertheless, in the proposed rule preamble, the Agency requested the public's opinion on two alternative approaches that we considered during development of this rulemaking.

1. As a variation to the "appropriate method" approach described above, should we remove mention of SW-846 methods as examples of potentially appropriate methods from the subject regulations?

2. In lieu of the "appropriate method" approach, should we instead add specific measures of required measurement system performance or data quality objectives to each regulation, such as done in the comparable fuel rulemaking, and not mention or require the use of an appropriate method (including any SW-846 methods)? In the proposed MIR, we did not select this approach because it

might require significant regulatory changes with difficult to quantify impacts.

Most of the commenters preferred that EPA retain mention of SW-846 in the regulations as examples of potentially appropriate methods. However, some of these commenters appeared to believe that, by mentioning SW-846 methods as examples, it meant that such methods will always be appropriate for every data collection effort addressed by the regulation, and thus the performance of other candidate methods should be compared with the performance of the similar SW-846 method. One commenter wanted the Agency to legally recognize that the SW-846 methods are appropriate methods under the RCRA regulations.

The Agency strongly disagrees with commenters that SW-846 methods should be identified as always appropriate. As explained in section III.A of this rule, the determination of an appropriate method should be made on a project-specific basis and involves consideration of various project-specific objectives and criteria. As noted, an appropriate method might be one published by EPA in a different manual from SW-846 or might be a method published by a different government agency, a voluntary standards setting organization, or other well-known scientific sources. Whether a method is contained in SW-846 is not a primary criterion for determining if a method is appropriate. For example, there is a common misconception that the different SW-846 methods for sample extraction all have the same extraction efficiency, which is not the case at all, since the methods were intended to be appropriate for different applications. Methods found in other publications may be more appropriate based on the project-specific considerations.

Regarding the addition of performance criteria to the regulations, a few commenters did prefer that such criteria be added to the regulations. However, these commenters did not provide suggestions regarding how to best resolve those instances when such an approach might result in requiring use of methods which are more accurate or sensitive than necessary (with the result that monitoring costs may increase unnecessarily) or in other cases would not yield data of a sufficient quality to definitively determine if a facility is in compliance with a regulatory or permit level. Given these impact issues and the project-specific nature of what determines an appropriate method, it would be contrary to the purpose of this rulemaking and very difficult to develop

and implement performance criteria and definitions that would be universally applicable. EPA therefore decided against adding criteria at this time to all of the regulations. We strongly believe that the appropriate method determination should be made on a project-specific basis by those familiar with the purpose of the analysis and should not be dictated by regulatory definition. EPA believes that generic performance criteria assigned by EPA would not assure consistent application of PBMS, but rather might discourage a PBMS application and flexibility in method selection and use. However, to further evaluate this issue, the Agency's Forum on Environmental Measurements (FEM) has formed an Action Team to address issues related to implementation of the performance approach. It is anticipated that the Action Team will address issues related to data quality and data quality documentation for use by all Agency programs.

In conclusion, as a result of consideration of all comments, we decided to not add performance criteria to the regulations. In addition, unlike the proposal, we decided to not include any references to SW-846 or "using appropriate methods such as those found in \* \* \* SW-846" in the regulatory provisions because those references to SW-846 were unnecessary and, based on public comment, the regulated community may continue to believe that SW-846 methods will always be most appropriate.

#### *C. Public Comments Regarding Impacts From Removal of Required Uses of SW-846 Methods*

In the preamble to the proposed rule, we summarized the expected impacts on the regulated entities and the states, and requested public comment on the assumptions made in the analysis. We also requested public comment on the impact of this rule and how we might promote its successful implementation. The paragraphs to follow summarize our impact assumptions and provide our responses to some of the public comments regarding these topics.

As a result of this final rule, you can use any appropriate analytical test method in demonstrating compliance with the RCRA regulations, except for those regulatory provisions involving method-defined parameters. We believe that this action will not significantly or adversely impact the regulated community or other potentially affected parties because the Agency is not adding any additional regulatory requirements to the RCRA regulations, but rather is clarifying and expanding

the flexibility that regulated entities have had in selecting appropriate methods to employ to demonstrate compliance whether or not such methods were described in SW-846. By making it clear that one may use any appropriate method, regulated entities may be able to cut the cost of compliance monitoring by using less expensive methods. Regulated entities may continue to use SW-846 methods to demonstrate compliance when it is appropriate to do so, 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.

Thus, as we noted in section III.C of the proposed rule preamble, the primary impact of this rule will be better analytical results (e.g., due to paying better attention to method performance). The Agency also anticipates a tendency toward lower costs during compliance with the affected RCRA regulations because project planners may identify methods that are potentially less costly to use. Meanwhile, EPA also will continue to provide training and utilize our pool of Agency technical experts to serve the public by answering questions regarding the use of test methods during RCRA-related compliance activities.

Also, a demonstration that another method is appropriate is already allowed within RCRA-related sampling and analysis and will not involve much more than what regulated entities already should be doing. For example, as the regulated entity, you should already be setting method performance goals in your Quality Assurance Project Plan (QAPP), Sampling and Analysis Plan (SAP), or other systematic planning document and then evaluating compliance with those goals based on data quality indicators, including when using SW-846 methods.

Regarding public concerns about the comparability of data generated by different methods for the same purpose, we noted in the proposed rule preamble that this practice is not new because some regulations already allow the use of more than one method. We also do not believe 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 data quality objectives of the project, then results from both methods will be acceptable for demonstrating compliance. In addition, for situations where trends or comparability are to be



determined, measurement quality objectives should be selected for use in selecting methods to be used that will ensure that, for whatever desired level of difference one desires to determine, the data will be suitable for the purpose. This has always been EPA's approach in comparing data by different methods, and it is not affected or changed by this rule.

Some commenters preferred a more prescriptive approach in the regulations because method-specific requirements remove the burden of method-selection as it is believed that this translates into lower costs and greater agreement between permit writers and other project participants who may not have method-selection expertise. Because of consequences of this approach, the Agency believes it is undesirable. A major problem with the prescriptive-or mandated-methods approach is that it can lead to data of poor quality which can result in an incorrect assessment of compliance. Another problem is that the regulated community may not systematically plan their data collection efforts and thus not fully understand their project-specific goals. Method-selection decisions should be project specific and thus, specific methods should not be required in the regulations.

Some commenters also expressed concern regarding the impact of this rule on existing RCRA permits. RCRA permits are typically effective up to ten years. This rule will only effect new or reissued permits, and only to allow more flexibility in method selection. Therefore, RCRA permits will not be adversely impacted by this action.

Finally, this rule does not add new information collection or reporting requirements for regulated entities. Section 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.

One commenter agreed, regarding impact of the rule, that the MIR will greatly benefit those situations where repeated analyses are needed, such as for a RCRA corrective action or for a WAP for a hazardous waste treatment, storage, or disposal facility (TSDF). However, the commenter also believed that smaller entities involved in waste analyses, such as small quantity generators (SQGs) will probably not benefit from the MIR. For the reasons given above, EPA believes that the

impact of this rule will not be significant for any generator, including small quantity generators (SQGs), largely because the flexibility of method selection will provide better analytical results at a lower cost. Project planners and laboratories used by SQGs will identify methods that are potentially less costly and yet provide effective data. EPA believes that the regulated community will choose appropriate methods based on cost and data quality advantages, and therefore all regulated entities, including SQGs, could benefit from this rule.

One other commenter believed that if PBMS is adopted, prior approval by the State or other regulator of the method should be mandatory. The commenter argued that State reviewers are more familiar with SW-846 methods and data indicators and that a state's unfamiliarity with other methods might mean the State may not perform a timely review of the data.

As explained in the previous section, EPA believes that method approval prior to use would be contrary to the intent and philosophy of the performance concept and would negate the positive impacts of this rule. However, as also noted, the regulated community can consult with their regulating authority during the identification of performance goals and the selection of appropriate methods. EPA appreciates the commenter's concern regarding potentially negative impacts on the timely review of data. It is true some delay in data review may occur if the reviewer is not familiar with the procedure. Nevertheless, review of data should not be a new step in the process since effected entities should already be reviewing data indicators from the SW-846 methods during RCRA-related sampling and analysis. Once the reviewer and user become more familiar with a new method, less time will be needed to perform an equally thorough review. In the end, we believe the benefits of modifying the rules will far outweigh these potential impacts on data review time through the improvement of data effectiveness and a decrease in other costs. To help mitigate any potential negative impacts, we will continue to provide training and our staff are available to assist you during all stages of the process.

Some commenters expressed a concern that this action will impose an additional resource 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 within their programs. If a State believes that adoption may be too burdensome on their resources, then they need not adopt the revised regulations. Nevertheless, we encourage the adoption of these or similar revisions by authorized States in order to promote the national adoption of the performance approach in environmental regulations, permits, and monitoring. In addition, if States choose to adopt these revisions, the impact should not be significant since they already conduct method selection and data quality reviews to determine compliance with their testing and monitoring regulations.

Some commenters expressed a need for communication and training to assist in implementation of the MIR. We agree and the Agency plans to continue to provide education and training to States, EPA Regions, and the regulated community regarding the implementation of this rule, through such mechanisms as workshops, fact sheets, and Internet training modules. Over the past seven years, OSW has 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. The Agency plans to expand its performance approach training program and offer other courses on the evaluation of data and permit writing from a PBMS and effective data standpoint. These communication and training efforts will help ensure consistency in implementation of this and other Agency performance-based rules by the States, Regions, and regulated community and help limit any associated costs.

#### **IV. Regulatory Revisions Involving Removal of SW-846 Requirements**

In section IV of the proposed rule preamble, EPA listed and discussed each of the proposed regulatory revisions which removed the requirement to use SW-846 methods and stated that appropriate methods may be used. We requested public comment on these individual regulatory section revisions (e.g., comments regarding any impacts on implementation of each affected regulation that we may have overlooked) and in general did not receive any significant negative comments regarding the removal of the SW-846 requirements from any of the regulations. We are therefore finalizing the removal of the requirement to use SW-846 in those regulatory sections.



In addition, we are finalizing revisions to three conditional delistings in part 261, appendix IX, which were not included in the proposed rule, but which, like those delistings that were included in the proposal, unnecessarily require the use of SW-846 methods. We announced our intent to revise these delistings in a memorandum to the facilities and to the relevant EPA Regional offices. We gave the entities three weeks to comment on the revisions. One of the affected companies did not respond to the memorandum, while the other two companies responded, but did not have comments regarding the revisions.

Therefore, we decided to proceed with finalizing the revisions to these three delistings. The revisions to the conditional delistings are very similar to the other conditional delistings. We did not receive negative comments regarding the general removal of required uses of SW-846 in any of the conditional delistings listed in the proposed rule. We believe that these revisions are fully consistent with EPA's original intent to make such changes to any conditional delisting, or other regulations, which unnecessarily required the use of SW-846 methods for analyses other than for required MDPs.

The additional conditional delistings revised by this final rule are found in Table 1 of appendix IX of part 261 and address delisted wastes at the following facilities:

- Bekaert Corp., Dyersburg, TN
- OxyVinyls, L.P., Deer Park, TX
- Tokusen USA, Inc., Conway, AR

In addition, since publication of the proposed MIR, the Office of **Federal Register** (OFR) revised its format for incorporation by reference. Specifically,

the OFR requires that the MDP methods incorporated by reference at § 260.11 be specifically mentioned in the relevant sections of the regulations, and not just include referrals to § 260.11. Therefore, in the conditional exclusion listings of part 261, appendix IX, we included a listing of the method-defined parameter methods to replace our proposed language stating that the methods listed in § 260.11 must be used without substitution when required. Those methods must be used as applicable to the particular delisting.

Finally regarding the conditional delistings, we are taking this opportunity to make several editorial corrections to Tables 1, 2 and 3 of appendix IX of part 261, which in no way substantially change or remove any requirements. We are removing repeats of the Bekaert Corp., Dyersburg, TN, conditional delisting from Tables 2 and 3 of appendix IX of part 261 because those entries were added to the tables in error. The Bekaert Corp. conditional delisting is for an F006 waste, which is from a non-specific source, and therefore the delisting only belongs in Table 1, which lists wastes excluded from non-specific sources (i.e., "F" coded listed wastes). Tables 2 and 3 of appendix IX of part 261 are meant to only list the conditional delistings of wastes excluded from specific sources (Table 2, i.e., "K" coded listed wastes) or from commercial chemical products, off-specification species, container residues, and soil residues thereof (Table 3, i.e., "P" and "U" coded listed wastes). Similarly, we are removing the OxyVinyls, Deer Park, TX, delisting from Table 1 and adding it to Table 2 of appendix IX. This is necessary because the OxyVinyls' delisting

addresses K017, K019, and K020 wastes and was incorrectly placed in Table 1. Since these are changes that do not affect the implementation of the regulations, or add new or remove existing regulatory requirements, the Agency is providing notice of the changes without opportunity for comment.

Table 2 lists the regulatory revisions finalized by this rule to remove the requirement to use SW-846 methods and allow the flexibility to use other appropriate methods. As noted in the previous section of this preamble, the proposed references to "using appropriate methods such as those found in \* \* \* SW-846" is not being included in the final regulation because the Agency decided that those references to SW-846 were unnecessary and because the regulated community may continue to believe that SW-846 methods will always be most appropriate. Finally, we corrected our proposed revision to § 261.35(b)(2)(iii)(B) by adding the relevant data from Table 1 of Method 8290 to the regulatory text so that Method 8290 (which contained the table but is not an MDP method) no longer has to be incorporated by reference. In the proposed rule, § 261.35(b)(2)(iii)(B) read as follows: "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." In the final rule, we copied the relevant data from Table 1 directly into § 261.35(b)(2)(iii)(B) and so it is no longer necessary to mention Method 8290.

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

Regulation	Affected topic or program
§ 260.22(d)(1)(i) .....	Petitions to exclude waste from a particular facility.
Appendix IX to part 261 .....	Wastes excluded under §§ 260.20 and 260.22.
§§ 261.35(b)(2)(iii)(A) and (B) .....	Deletion of certain waste codes following equipment cleaning.
§ 261.38(c)(7) .....	Comparable/syngas fuel exclusion.
§§ 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.
§§ 265.1084(a)(3)(iii) and (b)(3)(iii), and 265.1084(a)(3)(ii)(C), (b)(3)(ii)(C), and (c)(3)(i) .....	Air emission control requirements for tanks, surface impoundments, and containers.
§§ 266.100(d)(1)(ii) and (g)(2), and 266.102(b)(1) .....	Hazardous wastes burned in boilers and industrial furnaces (BIFs).
§ 266.106(a) .....	Control of metal emissions at BIFs.
§§ 266.112(b)(1) and (b)(2)(i) .....	Residues from burning of wastes in BIFs.
Appendix IX, part 266 .....	Methods Manual for BIF regulations.
§§ 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.

This rule also revises the incorporation by reference of SW-846 in § 260.11 so that the paragraph only

includes SW-846 methods that are required for method-defined parameters. Therefore, for each section where we

removed the requirement to use only SW-846 methods, we also removed the SW-846 incorporation by reference.

Prior to this rule, all methods of SW-846 were incorporated by reference at § 260.11 “when used” within the RCRA regulations. All of SW-846 had to be incorporated by reference because some RCRA regulations required in general the SW-846 methods, *e.g.*, the delisting regulations at § 260.22(d)(1)(i). The required methods had to be incorporated by reference because their full text is too lengthy for publishing directly in the regulations and the methods are readily available to the public in the SW-846 manual. As a result of this rule, we are limiting the requirement to use SW-846 methods to when the methods analyze required method-defined parameters. Therefore, we revised § 260.11 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.

It is important to note that, while a method is listed in § 260.11 because it is used for analysis of a method-defined parameter, it also may be used for non-mandatory purposes. In those cases where the method is required by a specific regulation and is listed in 260.11, it is a method-defined parameter. For example, Method 9010C, “Total and Amenable Cyanide: Distillation,” and Method 9012B, “Total and Amenable Cyanide (Automated Colorimetric, with Off-line Distillation)” are required under § 268.44, the universal treatment standards of the land disposal restrictions regulations, and are listed in § 260.11 as required by § 268.44. In that case, the methods cannot be substituted. However, in other circumstances, these two methods may be used when they are not required by

their regulations (*e.g.*, during delistings) and in those cases they will only be considered appropriate methods and not MDPs. 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.

The SW-846 methods that remain as incorporated by reference in § 260.11 are listed in Table 3. The final list is different from that proposed in that Methods 3542 (“Extraction of Semivolatile Analytes Collected Using Method 0010 (Modified Method 5 Sampling Train)”) and 5041A (“Analysis for Desorption of Sorbent Cartridges from Volatile Organic Sampling Train (VOST)”) are no longer included. The methods were removed because they are currently not used as method-defined parameters under the RCRA program.

TABLE 3.—SW-846 METHODS TO REMAIN IN § 260.11

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

Please note that we are not adding any new methods to § 260.11—each method listed in Table 3 is already a part of SW-846 and was incorporated by reference during previous rulemakings. For each method retained as incorporated by reference, we are listing in § 260.11 the promulgated version of the method which was last incorporated by reference and thus which must be used during regulatory compliance.

In addition, since proposal of this rule, the Office of Federal Register (OFR) has revised the format of incorporation by reference sections within the Federal regulations, for instance, to include information regarding those regulatory sections or parts that specify use of the methods. We revised § 260.11(a) to reflect this new format.

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

In section V of the preamble to the proposed rule, the Agency proposed to correct inaccurate references to SW-846 (some of which are logical outgrowths to the revision to § 260.11), and to clarify method selection flexibility in the RCRA regulations. We did not receive any negative comments regarding that

section of the proposed rule and thus are finalizing the editorial corrections, as proposed.

In addition, we are correcting certain regulations so that they include the

appropriate suffix of the SW-846 MDP method required by them. As a result of these corrections, the method number in the regulation includes the suffix and

matches the respective method number and suffix listed in § 260.11.

Table 4 lists and summarizes the editorial corrections to the RCRA regulations made by this final rule.

TABLE 4.—CORRECTIONS, CLARIFICATIONS OR REMOVALS

Regulation	Text correction, clarification, or removal
§ 258.28(c)(1)—Liquids restrictions .....	Correction to add “incorporated by reference in § 260.11” after “Paint Filter Liquids Test,” and addition of the suffix “B” to the method number “9095.”
Appendix I to part 258—Constituents for detection monitoring	Removal of footnote 1 to the table, which contains unnecessary references to SW-846.
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 (µg/L)” columns, removing footnotes 1, 5 and 6 and revising and renumbering the remaining footnotes, as appropriate.
§ 260.21(d)—Petitions for equivalent methods .....	Clarification that equivalent methods will be added to § 260.11, instead of just added to SW-846.
§ 260.22(d)(1)(i)—Petitions to amend part 261 to exclude a waste produced at a particular facility.	Removal of unnecessary reference 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.	Removal of unnecessary references to SW-846.
§ 261.22(a)(1)—Characteristic of corrosivity .....	Addition of the suffix “C” to method number “9040.”
Appendix I to part 261—Representative sampling methods ...	Removal of unnecessary references to SW-846.
Appendix II to part 261—Method 1311 Toxicity Characteristic Leaching Procedure (TCLP).	Removal of text in Appendix II to part 261; appendix reserved.
Appendix III to part 261—Chemical analysis test methods .....	Removal of text in Appendix III to part 261; appendix reserved.
§§ 264.190(a) and 265.190(a)—Applicability .....	Addition of the suffix “B” to method number “9095.”
§ 264.314(c) and § 265.314(d)—Special requirements for bulk and containerized liquids.	Addition of the suffix “B” to method number “9095.”
§§ 264.1034(f) and 265.1034(f)—Test methods and procedures.	Clarification that direct measurement is allowed to resolve disagreements regarding concentration estimates, and removal of unnecessary references to SW-846.
Appendix IX to part 264—Ground-water monitoring list .....	Clarification regarding the use of other appropriate methods by removing the “Suggested Methods” and “PQLs (µg/L)” columns and removing footnotes 1, 5 and 6 and revising and renumbering the subsequent footnotes, as appropriate.
§ 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 BIF Methods Manual on June 13, 1997 and clarification in existing guidance regarding use of other appropriate methods and SW-846.
§ 268.40(b) and table—Applicability of treatment standards ...	Addition of the suffix “B” to method number “1310,” addition of the suffix “C” to method number “9010,” and addition of the suffix “B” to method number “9012.”
§ 268.44, table—Variance from a treatment standard .....	Addition of the suffix “C” to method number “9010” and the addition of the suffix “B” to method number “9012.”
§ 268.48, table—Universal treatment standards .....	Addition of the suffix “C” to method number “9010” and addition of the suffix “B” to method number “9012.”
Appendix IX to part 268—Extraction Procedure (EP) Toxicity Test Method and Structural Integrity Test (Method 1310).	Addition of the suffix “B” to method number “1310.”

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

In section VI of the preamble to the proposed rule, the Agency proposed 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. EPA proposed these actions based on conclusions it reached and announced in an April 21, 1998 memorandum, a copy of which is available in the docket to this rulemaking, in which EPA addressed concerns about the

effectiveness of the reactivity analysis procedures (see the proposed rule preamble for details regarding the content of this memo and its history). (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. To summarize, EPA concluded that the guidance had the following significant problems:

(1) The test conditions evaluate a single pH condition and not the range of pH conditions (2 to 12.5) specified in the reactivity 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.

EPA received comments from eleven different commenters regarding this topic. You will find a background document containing our complete responses to all relevant public comments in the docket to this rule, docket number RCRA-2002-0025, at the location listed above under **ADDRESSES**. Three commenters supported the removal of the reactivity test procedures, stating that they believed

the test and guidance is flawed and that appropriate waste classifications can be made in the absence of guidance. On the other hand, three other commenters opposed the removal of the reactivity test procedures. One of these commenters stated that there are a number of concerns about the technical reasons for removal of the procedures, and believed that these warrant reconsideration of the proposed deletion of the guidance. In reviewing these concerns, the Agency found that the commenter may be misreading the Agency's basis for deletion of the guidance from SW-846. The commenter was concerned both about the impact of certain pH testing conditions and the use of Henry's Law in the guidance. However, these topics were not the reasons for withdrawing the guidance from SW-846. The Agency will investigate the commenter's concerns regarding pH testing conditions and Henry's Law as it develops revised guidance. Another one of the commenters asserted that the narrative criteria alone can be used for classification of high concentration cyanide wastes, but that additional guidance is needed for classifying lower level cyanide-bearing wastes. The other commenter understood the difficulties associated with the reactivity method guidance, but believed that the regulated community needed something other than the "honor system" to classify these reactive wastes.

The remaining five commenters had general concerns about making the reactivity characteristic determinations, but did not specifically support or oppose deletion of the tests or threshold levels. Four commenters out of the total of eleven commenters requested that EPA replace the deleted tests with other method guidance.

In response to all comments, the Agency is currently reviewing several test methods for possible inclusion in SW-846 as methods for characterizing cyanide-bearing wastes. However, the Agency still believes it inappropriate to retain the reactive cyanide and reactive sulfide methods in SW-846 for the reasons presented in the proposed rule preamble and listed above. Regarding the characteristic of reactivity, regulated parties have always been responsible for complying with the regulation at § 261.23—Characteristic of reactivity, which does not require any particular test methods for the characterization. Therefore, generators and other persons can use other appropriate methods or process knowledge in determining whether a particular waste is hazardous due to its reactivity.

## VII. Clarifications to Corrosivity and Ignitability Hazardous Waste Characteristics

In sections VII.A and VII.B of the preamble to the proposed rule, the Agency proposed revisions to the corrosivity characteristic and the ignitability characteristic testing requirements. The proposed revisions included changes to references to ASTM standards and SW-846 methods. We considered these revisions to be non-substantive updates of the methods presently used in the regulations and we believed the revisions would not affect which wastes are determined to be hazardous based on the characteristics. We requested public comment on each of the proposed revisions. Significant comments and our responses are provided below.

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

In section VII.A of the preamble to the proposed rule, EPA addressed proposed revisions to the corrosivity characteristic testing requirements, which included a clarification to § 261.22(a)(2). Section 261.22(a)(2) defines the hazardous waste characteristic of corrosivity for a liquid which corrodes steel. The required test method 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 of the 1980 regulations, NACE Standard TM-01-69 describes a simple immersion test to determine the rate of corrosion. However, the procedure described in the background document, in fact, was not completely standardized because it was designed to test the suitability of metals for a variety of uses. As a result, a comment was submitted at that time which expressed concern with the incomplete standardization of the NACE Standard which allowed variation in test conditions. EPA agreed and, in response to the 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 (now Method 1110A as of Update IIIB), "Corrosivity Toward Steel." Therefore, in the proposed MIR, we proposed adding 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.

Three commenters addressed this section of the proposed MIR. Two of these commenters explicitly supported the clarification in § 261.22(a)(2) that SW-846 Method 1110A, "Corrosivity Toward Steel," is the standardized version of the NACE Standard TM-01-69. The other commenter did not comment on the proposed revision, but instead requested that EPA address a unrelated concern regarding the content of Method 1110A. None of the commenters disagreed with the Agency statement that the revisions were non-substantive.

Regarding SW-846 Method 1110A, the commenter believed that the method significantly differed from the corresponding Department of Transportation (DOT) corrosivity method. Specifically, Method 1110A suggests that a 24-hour test duration be used, while the DOT method indicates use of a longer test period. The commenter requested that EPA either clarify this difference or amend the regulations to allow the use of DOT's comparable corrosivity characteristic procedure, as set out in 49 CFR 173.137(c)(2), as an alternative test method for corrosivity under the hazardous waste regulations.

First, EPA notes that the test duration time in Method 1110A was not addressed or proposed for revision by the MIR. The MIR only proposed to clarify that Method 1110A is "the test method \* \* \* standardized \* \* \* in SW-846" for the corrosivity characteristic determination. The commenter does not appear to disagree with the proposed clarification. Because the Agency did not take comment, or even raise an issue, with the test duration time, we believe it inappropriate to address this provision in this final rule. Nevertheless, the Agency plans to evaluate the commenter's concerns to determine if future regulatory changes are warranted.

Therefore, in response to the comments submitted, the Agency is finalizing the regulatory revision whereby Method 1110A will be specified in § 261.22(a)(2). It is not necessary to also reference the NACE Standard TM-01-69 in the regulatory text. The NACE method was used to

initially develop Method 1110A and the two methods are not identical.

*B. Revisions to § 261.21(a)(1) To Remove an Unnecessary Referral to Method Equivalency Petitions; and an Explanation Regarding the Decision To Not Revise the Regulation To Include the Updated ASTM Standards and References to Methods 1010A and 1020B as Proposed*

In section VII.B of the preamble to the proposed rule, the Agency addressed proposed revisions to the ignitability characteristic testing requirements in § 261.21(a)(1). Section 261.21(a)(1) of the RCRA regulations defines the hazardous waste characteristic of ignitability as a liquid which has a flash point less than 60 °C (140 °F) as determined by the use of ASTM Standard D 93–79 or D 93–80 (Pensky-Martens Closed Cup Tester) or ASTM Standard D 3278–78 (Setaflash Closed Cup Tester). Since publication of the regulation, the ASTM Standard has been revised. However, before proposing to replace the ASTM Standard now in the regulation with the newer versions D 93–99c and D 3278–96, EPA compared the newer versions of the test protocol with the older versions of the protocol and found only non-substantive differences. Therefore, EPA proposed and requested comment on replacing the older versions of the ASTM Standard in § 261.21(a)(1) with the more recent versions. In addition, although ASTM Standard D 93–00 is newer than D 93–99c, EPA proposed that D 93–99c replace D 93–80 because EPA found that D 93–00 differed in a possibly substantial manner from D 93–80 and, if it were to be specified instead of D 93–99c, characteristic results may be significantly affected. Specifically, we found that the D 93–00 version specifies different sample container volumes for different sample types. It requires that all matrices, except residual fuel oil, be collected in containers not more than 85% or less than 50% full. This 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. The Agency requested comment on this evaluation.

Finally, the Agency proposed to revise § 261.21(a)(1) to clarify that the ASTM standards for ignitability characteristic determinations are used and referenced by SW–846 Methods 1010A and 1020B. The Agency believed these revisions to § 261.21(a)(1) to be non-substantive and that the changes would not affect which wastes are

determined to be hazardous based on the characteristic.

Five commenters addressed this section of the proposed MIR. Two commenters supported EPA's proposal to update the references to ASTM standards in § 261.21(a)(1). Two other commenters had general concerns about the ignitability characteristic and the ASTM standards, but did not appear to specifically support or oppose the replacements. Only one commenter commented on revising § 261.21(a)(1) to clarify that the ASTM standards for the ignitability characteristic are used and referenced by SW–846 Methods 1010A and 1020B. The commenter supported the regulatory revision.

Regarding ASTM Standards D 93–99c and D 93–00, the two commenters that supported updating the references agreed with EPA that D 93–99c and D 93–00 could yield different results and therefore, different conclusions as to whether or not a waste would be identified as hazardous. The two commenters that disagreed with the Agency's conclusion regarding D 93–00 maintained that the potential to lose volatile compounds also existed in the 1999 version. One of these commenters noted that an even newer version than D 93–00 was now available from ASTM, namely D 93–02. The commenter recommended that the Agency study that standard for any significant differences.

The Agency has considered all of the comments and decided to retain the existing ASTM regulatory standards and not replace them with the newer versions at this time. The Agency agrees with the commenter who suggested that EPA further study and review the new versions of the ASTM standards. Both newer versions of D 93 require that certain ASTM sampling procedures be used, which are unnecessarily prescriptive and often inapplicable to hazardous waste collection. The newer version of D 93 may also promote potential problems with requirements for sampling and automated test equipment. As a result, the Agency believes that a more detailed evaluation is warranted. In addition, the Agency believes that, although the newer versions of D 93 allows for automated test equipment, including the use of an electric igniter which may save time, a rigorous comparison of the electrical igniter versus the flame igniter should be conducted.

In addition, the Agency decided to not finalize the addition of references to Methods 1010A and 1020B in the regulations as proposed, but rather Methods 1010A and 1020B were revised as part of Final Update IIIB (final today

as part of this rule, see section VIII), whereby all method text was replaced with direct references to the ASTM standards listed in § 261.21(a)(1).

Finally, as proposed regarding § 261.21(a)(1), we are removing that portion 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 specific test method(s). Also, this revision is consistent with similar sections on testing in part 261 and other parts of the RCRA regulations.

**VIII. Availability of Final Update IIIB and Status of Final Update IV to SW–846**

SW–846 is a guidance document that changes over time as new information and data are developed. On October 30, 2002, we proposed to revise several methods and chapters of SW–846 and release these revisions as Update IIIB 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 announced the availability of Draft Update IVA and IVB, respectively, which we published for guidance purposes only.

As part of this rule, we are finalizing Update IIIB. The Methods Team Web site at <http://www.epa.gov/SW-846> has been revised to remove Proposed Update IIIB and include an integrated electronic version of SW–846 which incorporates the final version of that update. In the near future after publication of this rule, Draft Updates IVA and IVB will be replaced by Final Update IV and its availability will be announced by a **Federal Register** notice.

The revised methods of Update IIIB are used for method-defined parameters and thus, any required uses of those methods will remain in the RCRA regulations. Therefore, we revised § 260.11 to include the Update IIIB methods.

In the proposed rule preamble, we also requested comments on certain parts of the Update IIIB methods and chapters. We did not consider comments on the other sections or parts of the methods or chapters because those portions were not proposed for revision. Most of the comments concerned the removal of the reactivity guidance methods from Chapter Seven and updating the ASTM standards. Those comments are addressed in previous sections of this preamble. The

Agency received a few other comments regarding the documents contained in Proposed Update IIIB. The docket to this rule (RCRA–2002–0025) contains a background document with our responses to all the comments submitted. The responses also identify any revisions made to the methods due to the comments.

Table 5 provides a listing of the four chapters and eleven methods in Final

Update IIIB. The method numbers in the table reflect the appropriate method revision letter suffix (e.g., A, B, C, etc.). These suffixes were not always reflected in the RCRA regulations themselves, e.g., the regulations cited the method number without a suffix. The relevant regulations revised by today's rule do reflect the latest suffix. Accordingly, this final rule identifies the latest promulgated version of the methods that

remain as incorporated by reference at § 260.11 in the RCRA regulations. During compliance with those regulations, the regulated community must only use the latest promulgated revision of the methods as indicated in § 260.11, *i.e.*, the regulated community must only use the version of the method cited by § 260.11.

TABLE 5.—FINAL UPDATE IIIB METHODS AND CHAPTERS

Chapters or method number	Method or chapter title
Chapter Five .....	Miscellaneous Test Methods.
Chapter Six .....	Properties.
Chapter Seven .....	Characteristics Introduction and Regulatory Definitions.
Chapter Eight .....	Methods for Determining Characteristics.
1010A .....	(Referral to) Pensky-Martens Closed Cup Method for Determining Ignitability.
1020B .....	(Referral to) Setaflash Closed Cup Method for Determining Ignitability.
1110A .....	Corrosivity Toward Steel.
1310B .....	Extraction Procedure (EP) Toxicity Test Method and Structural Integrity Test.
9010C .....	Total and Amenable Cyanide: Distillation.
9012B .....	Total and Amenable Cyanide (Automated Colorimetric, with Off-line Distillation).
9040C .....	pH Electrometric Measurement.
9045D .....	Soil and Waste pH.
9060A .....	Total Organic Carbon.
9070A .....	n-Hexane Extractable Material (HEM) for Aqueous Samples.
9095B .....	Paint Filter Liquids Test.

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

In section IX of the preamble to the proposed rule, the Agency proposed to revise §§ 264.1034(c)(1)(ii) and (iv) and §§ 265.1034(c)(1)(ii) and (iv) to allow the 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. All comments supported these revisions and therefore we finalized these changes, as proposed.

#### **X. 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**

In section X of the preamble to the proposed rule, the Agency proposed to remove the requirements for analytical DQOs (e.g., 80% upper confidence limit) for feedstream analyses found in §§ 63.1208(b)(8)(i) and (ii) that were previously promulgated in the National Emission Standards for Hazardous Air

Pollutants (NESHAP) for Hazardous Waste Combustors on September 30, 1999. All comments supported these revisions and therefore we are finalizing these changes, as proposed.

#### **XI. Status of the RCRA Waste Sampling Draft Technical Guidance**

In section XI of the preamble to the proposed rule, we announced the availability of a stand-alone sampling guidance document entitled, “RCRA Waste Sampling Draft Technical Guidance.” We intended to replace the original sampling guidance version of Chapter Nine found in EPA publication SW–846 with this new document. We requested comment on the guidance. The Agency received a number of comments which are still under review and consideration. This additional review of the document will help us improve the guidance and ensure that it is most useful in its final form. Therefore, we are not at this time issuing a final version of the sampling guidance. Once we complete our review and evaluation of the comments, we will revise the document as appropriate and announce its availability in the **Federal Register**.

#### **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 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 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 Rule*

Today's rule affects many aspects of the RCRA Program and is promulgated pursuant to both HSWA and non-HSWA statutory authority. Therefore, the Agency added 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 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, the states, and the regulated community, without compromising human health or environmental protection. Therefore, EPA strongly encourages authorized states to amend their programs and seek authorization for today's rule.

#### *C. Abbreviated Authorization Procedures*

EPA considers today's rule to be a minor rulemaking and is adding it to the list of minor or routine rulemakings in Table 1 to § 271.21. Placement in this table will enable states to use the abbreviated procedures located in § 271.21(h) when they seek authorization for today's changes. These abbreviated procedures were established in the HWIR-media rulemaking (see 63 FR 65927, November 30, 1998).

### **XIII. Statutory and Executive Order Reviews**

#### *A. Executive Order 12866: Regulatory Planning and Review*

Under Executive Order 12866 (58 FR 51735, October 4, 1993), we must determine whether a 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 entitlements, 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 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. 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 rule. However, the Office of Management and Budget (OMB) previously approved the information collection requirements contained in some of the existing regulations being revised by this rule, under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.*, and 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 email at [farmer.sandy@epa.gov](mailto: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.

#### *C. Regulatory Flexibility Act*

The Regulatory Flexibility Act 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 final 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 rule on small entities." 5 U.S.C. sections 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 rule is specifically intended to reduce economic burden for all entities. The action will provide greater flexibility and utility to all affected 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. If the methods are appropriate, such entities can continue to use the methods previously specified in the regulations before today instead of choosing the option to use other appropriate methods

from other reliable sources. We have therefore concluded that today's final rule will relieve regulatory burden for small entities.

#### *D. Unfunded Mandates Reform Act*

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA or the Act), Public Law 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 rule does not contain a Federal mandate. The rule imposes no enforceable duty on any State, local or tribal governments. This 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 the requirement to use SW-846 methods and allow the use of other appropriate methods—that is, clarify allowed flexibility in method selection for meeting RCRA-related testing and monitoring requirements. Under RCRA, regardless of the method used—the one previously specified in the regulation

before today or another 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 rule is not subject to the requirements of sections 202, 203 and 205 of UMRA.

#### *E. Executive Order 13132: Federalism*

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 final 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 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.

#### *F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments*

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 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 rulemaking. As stated above, this rule does not propose any new regulatory requirements and Indian tribal governments need not adopt it. It does not impose any direct compliance costs on tribal governments.

*G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks*

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 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 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 rule is intended to provide increased flexibility in the use of methods for RCRA-related testing and monitoring, and thus is not subject to Executive Order 13045.

*H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use*

This 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 rule is not likely to have any adverse energy effects.

*I. National Technology Transfer and Advancement Act*

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 ("NTTAA"), Public Law No. 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 rule increases flexibility in the use of methods for RCRA-related testing and monitoring and does not itself identify or require the use of new methods or other technical standards. In fact, this rule, may increase the use of available voluntary consensus standards for some RCRA applications, provided that such methods are appropriate for the regulatory application.

*J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations*

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 action does not raise environmental justice concerns. The impact of this rule 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.

*K. Congressional Review Act*

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides

that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a "major rule" as defined by 5 U.S.C. 804(2). This rule will be effective July 14, 2005.

**List of Subjects**

*40 CFR Part 63*

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

*40 CFR Part 258*

Environmental protection, Incorporation by reference, 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, Incorporation by reference, Reporting and recordkeeping requirements.

*40 CFR Part 264*

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

*40 CFR Part 265*

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

*40 CFR Part 266*

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

## 40 CFR Part 268

Environmental protection, Hazardous waste, Incorporation by reference, 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: May 16, 2005.

**Stephen L. Johnson,**  
Administrator.

■ For the reasons set out in the preamble, EPA amends title 40, chapter I, of the Code of Federal Regulations as follows:

# 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 9095B (Paint Filter Liquids Test), included in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods” (EPA Publication SW-846) which is incorporated by reference. A suffix of “B” in the method number indicates revision two (the method has been revised twice). Method 9095B is dated November 2004. This incorporation by reference was approved by the Director of the Federal Register pursuant to 5 U.S.C. 552(a) and 1 CFR part 51. This material is incorporated as it exists on the date of approval and a notice of any change in this material will be published in the **Federal Register**. A copy may be inspected at the Library, U.S. Environmental Protection Agency, 1200 Pennsylvania Ave., NW. (3403T), Washington, DC 20460, [libraryhq@epa.gov](mailto:libraryhq@epa.gov); or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

\* \* \* \* \*

■ 5. Appendix I to part 258 is revised to read as follows:

### Appendix I to Part 258—Constituents for Detection Monitoring

Common name <sup>1</sup>	CAS RN <sup>2</sup>
<b>Inorganic Constituents:</b>	
(1) Antimony .....	(Total)
(2) Arsenic .....	(Total)
(3) Barium .....	(Total)
(4) Beryllium .....	(Total)
(5) Cadmium .....	(Total)
(6) Chromium .....	(Total)
(7) Cobalt .....	(Total)
(8) Copper .....	(Total)
(9) Lead .....	(Total)
(10) Nickel .....	(Total)
(11) Selenium .....	(Total)
(12) Silver .....	(Total)
(13) Thallium .....	(Total)
(14) Vanadium .....	(Total)
(15) Zinc .....	(Total)
<b>Organic Constituents:</b>	
(16) Acetone .....	67-64-1
(17) Acrylonitrile 1 .....	107-13-1
(18) Benzene .....	71-43-2
(19) Bromochloromethane .....	74-97-5
(20) Bromodichloromethane .....	75-27-4
(21) Bromoform; Tribromomethane .....	75-25-2
(22) Carbon disulfide .....	75-15-0
(23) Carbon tetrachloride .....	56-23-5

Common name <sup>1</sup>	CAS RN <sup>2</sup>
(24) Chlorobenzene .....	108-90-7
(25) Chloroethane; Ethyl chloride .....	75-00-3
(26) Chloroform; Trichloromethane .....	67-66-3
(27) Dibromochloromethane; Chlorodibromomethane .....	124-48-1
(28) 1,2-Dibromo-3-chloropropane; DBCP .....	96-12-8
(29) 1,2-Dibromoethane; Ethylene dibromide; EDB .....	106-93-4
(30) o-Dichlorobenzene; 1,2-Dichlorobenzene .....	95-50-1
(31) p-Dichlorobenzene; 1,4-Dichlorobenzene .....	106-46-7
(32) trans-1, 4-Dichloro-2-butene .....	110-57-6
(33) 1,1-Dichloroethane; Ethylidene chloride .....	75-34-3
(34) 1,2-Dichloroethane; Ethylene dichloride .....	107-06-2
(35) 1,1-Dichloroethylene; 1,1-Dichloroethene; Vinylidene chloride .....	75-35-4
(36) cis-1,2-Dichloroethylene; cis-1,2-Dichloroethene .....	156-59-2
(37) trans-1, 2-Dichloroethylene; trans-1,2-Dichloroethene .....	156-60-5
(38) 1,2-Dichloropropane; Propylene dichloride .....	78-87-5
(39) cis-1,3-Dichloropropene .....	10061-01-5
(40) trans-1,3-Dichloropropene .....	10061-02-6
(41) Ethylbenzene .....	100-41-4
(42) 2-Hexanone; Methyl butyl ketone .....	591-78-6
(43) Methyl bromide; Bromomethane .....	74-83-9
(44) Methyl chloride; Chloromethane .....	74-87-3
(45) Methylene bromide; Dibromomethane .....	74-95-3
(46) Methylene chloride; Dichloromethane .....	75-09-2
(47) Methyl ethyl ketone; MEK; 2-Butanone .....	78-93-3
(48) Methyl iodide; Iodomethane .....	74-88-4
(49) 4-Methyl-2-pentanone; Methyl isobutyl ketone .....	108-10-1
(50) Styrene .....	100-42-5
(51) 1,1,1,2-Tetrachloroethane .....	630-20-6
(52) 1,1,2,2-Tetrachloroethane .....	79-34-5
(53) Tetrachloroethylene; Tetrachloroethene; Perchloroethylene .....	127-18-4
(54) Toluene .....	108-88-3
(55) 1,1,1-Trichloroethane; Methylchloroform .....	71-55-6
(56) 1,1,2-Trichloroethane .....	79-00-5
(57) Trichloroethylene; Trichloroethene .....	79-01-6
(58) Trichlorofluoromethane; CFC-11 .....	75-69-4
(59) 1,2,3-Trichloropropane .....	96-18-4
(60) Vinyl acetate .....	108-05-4
(61) Vinyl chloride .....	75-01-4
(62) Xylenes .....	1330-20-7

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

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

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

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

Common name <sup>1</sup>	CAS RN <sup>2</sup>	Chemical abstracts service index name <sup>3</sup>
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

Common name <sup>1</sup>	CAS RN <sup>2</sup>	Chemical abstracts service index name <sup>3</sup>
Beryllium .....	(Total) .....	Beryllium
alpha-BHC .....	319-84-6 .....	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1 $\alpha$ ,2 $\alpha$ ,3 $\beta$ ,4 $\alpha$ ,5 $\beta$ ,6 $\beta$ )-
beta-BHC .....	319-85-7 .....	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1 $\alpha$ ,2 $\beta$ ,3 $\alpha$ ,4 $\beta$ ,5 $\alpha$ ,6 $\beta$ )-
delta-BHC .....	319-86-8 .....	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1 $\alpha$ ,2 $\alpha$ ,3 $\alpha$ ,4 $\beta$ ,5 $\alpha$ ,6 $\beta$ )-
gamma-BHC; Lindane .....	58-89-9 .....	Cyclohexane, 1,2,3,4,5,6- hexachloro-, (1 $\alpha$ ,2 $\alpha$ , 3 $\beta$ , 4 $\alpha$ ,5 $\alpha$ ,6 $\beta$ )-
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-
Bis(2-chloro-1-methylethyl) ether; 2,2'-Dichlorodiisopropyl ether; DCIP, See footnote 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 .....	See footnote 5 ..	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 .....	Benzenecetic 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; DBCP .....	96-12-8 .....	Propane, 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; .....	75-35-4 .....	Ethene, 1,1-dichloro-
Vinylidene chloride 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-, 2 $\alpha$ ,3 $\beta$ ,6 $\beta$ ,6 $\alpha$ ,7 $\beta$ ,7 $\alpha$ )-

Common name <sup>1</sup>	CAS RN <sup>2</sup>	Chemical abstracts service index name <sup>3</sup>
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, alpha-dimethyl
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, (3alpha,5alpha,6beta,9beta, 9alpha)-
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-, (1alpha, 2beta,2alpha,3alpha,6alpha,6abeta,7beta,7alpha)-
Endrin aldehyde .....	7421-93-4 .....	1,2,4-Methenocyclo-penta[cd]pentalene-5-carboxaldehyde,2,2a,3,3,4,7-hexachlorodecahydro-(1alpha,2beta,2alpha,4beta,4abeta,5beta,6abeta,6bbeta,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]phenyl]-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-heptachlor-1a,1b,5,5a,6,6a,-hexahydro-,(1alpha,1bbeta,2alpha,5alpha,5abeta,6beta,6alpha)
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-(1alpha, 4alpha, 4abeta,5beta,8beta,8abeta)-
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'-(2,2,2,2-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

Common name <sup>1</sup>	CAS RN <sup>2</sup>	Chemical abstracts service index name <sup>3</sup>
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
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 footnote 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, 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-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 footnote 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 footnote 8 ..	Benzene, dimethyl-
Zinc .....	(Total) .....	Zinc

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



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

<sup>3</sup>CAS index names are those used in the 9th Cumulative Index.

<sup>4</sup>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)].

<sup>5</sup>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).

<sup>6</sup>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).

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

<sup>8</sup>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 revised to read as follows:

#### § 260.11 References.

(a) When used in parts 260 through 270 of this chapter, the following publications are incorporated by reference. These incorporations by reference were approved by the Director of the Federal Register pursuant to 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist on the date of approval and a notice of any change in these materials will be published in the **Federal Register**. Copies may be inspected at the Library, U.S. Environmental Protection Agency, 1200 Pennsylvania Ave., NW. (3403T), Washington, DC 20460, [libraryhq@epa.gov](mailto:libraryhq@epa.gov); or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

(b) The following materials are available for purchase from the American Society for Testing and Materials, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959.

(1) ASTM D-93-79 or D-93-80, "Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester," IBR approved for § 261.21.

(2) ASTM D-1946-82, "Standard Method for Analysis of Reformed Gas by Gas Chromatography," IBR approved for § 264.1033, 265.1033.

(3) ASTM D 2267-88, "Standard Test Method for Aromatics in Light Naphthas and Aviation Gasolines by Gas Chromatography," IBR approved for § 264.1063.

(4) ASTM D 2382-83, "Standard Test Method for Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter

(High-Precision Method)," IBR approved for § 264.1033, 265.1033.

(5) ASTM D 2879-92, "Standard Test Method for Vapor Pressure—Temperature Relationship and Initial Decomposition Temperature of Liquids by Isotenoscope," IBR approved for § 265.1084.

(6) ASTM D-3278-78, "Standard Test Methods for Flash Point for Liquids by Setaflash Closed Tester," IBR approved for § 261.21(a).

(7) ASTM E 168-88, "Standard Practices for General Techniques of Infrared Quantitative Analysis," IBR approved for § 264.1063.

(8) ASTM E 169-87, "Standard Practices for General Techniques of Ultraviolet-Visible Quantitative Analysis," IBR approved for § 264.1063.

(9) ASTM E 260-85, "Standard Practice for Packed Column Gas Chromatography," IBR approved for § 264.1063.

(10) ASTM E 926-88, "Standard Test Methods for Preparing Refuse-Derived Fuel (RDF) Samples for Analyses of Metals," Test Method C—Bomb, Acid Digestion Method.

(c) The following materials are available for purchase from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161; or for purchase from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, (202) 512-1800.

(1) "APTI Course 415: Control of Gaseous Emissions," EPA Publication EPA-450/2-81-005, December 1981, IBR approved for § 264.1035, 265.1035, 270.24, 270.25.

(2) Method 1664, Revision A, n-Hexane Extractable Material (HEM; Oil and Grease) and Silica Gel Treated n-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, PB99-121949, IBR approved for part 261, appendix IX.

(3) The following methods as published in the test methods compendium known as "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, Third Edition. 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). A suffix of "D" in the method number indicates revision four (the method has been revised four times).

(i) Method 0010, dated September 1986 and in the Basic Manual, IBR approved for part 261, appendix IX.

(ii) Method 0020, dated September 1986 and in the Basic Manual, IBR approved for part 261, appendix IX.

(iii) Method 0030, dated September 1986 and in the Basic Manual, IBR approved for part 261, appendix IX.

(iv) Method 1320, dated September 1986 and in the Basic Manual, IBR approved for part 261, appendix IX.

(v) Method 1311, dated September 1992 and in Update I, IBR approved for part 261, appendix IX, and §§ 261.24, 268.7, 268.40.

(vi) Method 1330A, dated September 1992 and in Update I, IBR approved for part 261, appendix IX.

(vii) Method 1312 dated September 1994 and in Update II, IBR approved for part 261, appendix IX.

(viii) Method 0011, dated December 1996 and in Update III, IBR approved for part 261, appendix IX, and part 266, appendix IX.

(ix) Method 0023A, dated December 1996 and in Update III, IBR approved for part 261, appendix IX, part 266, appendix IX, and § 266.104.

(x) Method 0031, dated December 1996 and in Update III, IBR approved for part 261, appendix IX.

(xi) Method 0040, dated December 1996 and in Update III, IBR approved for part 261, appendix IX.

(xii) Method 0050, dated December 1996 and in Update III, IBR approved for part 261, appendix IX, part 266, appendix IX, and § 266.107.

(xiii) Method 0051, dated December 1996 and in Update III, IBR approved for part 261, appendix IX, part 266, appendix IX, and § 266.107.

(xiv) Method 0060, dated December 1996 and in Update III, IBR approved for part 261, appendix IX, § 266.106, and part 266, appendix IX.

(xv) Method 0061, dated December 1996 and in Update III, IBR approved for part 261, appendix IX, § 266.106, and part 266, appendix IX.

(xvi) Method 9071B, dated April 1998 and in Update IIIA, IBR approved for part 261, appendix IX.

(xvii) Method 1010A, dated November 2004 and in Update IIIB, IBR approved for part 261, appendix IX.

(xviii) Method 1020B, dated November 2004 and in Update IIIB, IBR approved for part 261, appendix IX.

(xix) Method 1110A, dated November 2004 and in Update IIIB, IBR approved for § 261.22 and part 261, appendix IX.

(xx) Method 1310B, dated November 2004 and in Update IIIB, IBR approved for part 261, appendix IX.

(xxi) Method 9010C, dated November 2004 and in Update IIIB, IBR approved for part

261, appendix IX and §§ 268.40, 268.44, 268.48.

(xxii) Method 9012B, dated November 2004 and in Update IIIB, IBR approved for part 261, appendix IX and §§ 268.40, 268.44, 268.48.

(xxiii) Method 9040C, dated November 2004 and in Update IIIB, IBR approved for part 261, appendix IX and § 261.22.

(xxiv) Method 9045D, dated November 2004 and in Update IIIB, IBR approved for part 261, appendix IX.

(xxv) Method 9060A, dated November 2004 and in Update IIIB, IBR approved for part 261, appendix IX, and §§ 264.1034, 264.1063, 265.1034, 265.1063.

(xxvi) Method 9070A, dated November 2004 and in Update IIIB, IBR approved for part 261, appendix IX.

(xxvii) Method 9095B, dated November 2004 and in Update IIIB, IBR approved, part 261, appendix IX, and §§ 264.190, 264.314, 265.190, 265.314, 265.1081, 268.32.

(d) The following materials are available for purchase from the National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101, Quincy, MA 02269-9101.

(1) "Flammable and Combustible Liquids Code" (1977 or 1981), IBR approved for §§ 264.198, 265.198.

(2) [Reserved]

(e) The following materials are available for purchase from the American Petroleum Institute, 1220 L Street, Northwest, Washington, DC 20005.

(1) API Publication 2517, Third Edition, February 1989, "Evaporative Loss from External Floating-Roof Tanks," IBR approved for § 265.1084.

(2) [Reserved]

(f) The following materials are available for purchase from the Environmental Protection Agency, Research Triangle Park, NC.

(1) "Screening Procedures for Estimating the Air Quality Impact of Stationary Sources, Revised", October 1992, EPA Publication No. EPA-450/R-92-019, IBR approved for part 266, appendix IX.

(2) [Reserved]

(g) The following materials are available for purchase from the Organisation for Economic Co-operation and Development, Environment Directorate, 2 rue Andre Pascal, 75775 Paris Cedex 16, France.

(1) OECD Green List of Wastes (revised May 1994), Amber List of Wastes and Red List of Wastes (both revised May 1993) as set forth in Appendix 3, Appendix 4 and Appendix 5, respectively, to the OECD Council Decision C(92)39/FINAL (Concerning the Control of Transfrontier Movements of Wastes Destined for Recovery Operations), IBR approved for 262.89 of this chapter.

(2) [Reserved]

## 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; 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, 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 93-79 or D 93-80 (incorporated by reference, see § 260.11), or a Setaflash Closed Cup Tester, using the test method specified in ASTM Standard D 3278-78 (incorporated by reference, see § 260.11).

\* \* \* \* \*

■ 14. Section 261.22 is amended by revising paragraphs (a)(1) and (2) to read as follows:

### § 261.22 Characteristic of corrosivity.

(a) \* \* \*

(1) It is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5, as determined by a pH meter using Method 9040C in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11 of this chapter.

(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 Method 1110A 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 an appropriate method.

(B) "Not detected" means at or below the following lower method calibration limits (MCLs): The 2,3,7,8-TCDD-based MCL—0.01 parts per trillion (ppt), sample weight of 1000 g, IS spiking

level of 1 ppt, final extraction volume of 10–50 µL. For other congeners—multiply the values by 1 for TCDF/PeCDD/PeCDF, by 2.5 for HxCDD/HxCDF/HpCDD/HpCDF, and by 5 for OCDD/OCDF.

\* \* \* \* \*

■ 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 plan shall be followed and retained at the facility excluding the waste.

\* \* \* \* \*

■ 17. Appendix I to part 261 is amended by revising paragraphs four and five to read as follows:

**Appendix I to Part 261—Representative Sampling Methods**

\* \* \* \* \*

Containerized liquid waste—“COLIWASA.”

Liquid waste in pits, ponds, lagoons, and similar reservoirs.—“Pond Sampler.”

\* \* \* \* \*

**Appendices II and III to Part 261 [Removed and Reserved]**

■ 18. Part 261 is amended by removing and reserving Appendices II and III.

■ 19. 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 “Bekaert Corp., Dyersburg, TN,” under the “Waste description” column, by revising paragraph (4)(B);

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

■ e. In the entry for “BMW Manufacturing Corporation, Greer, South Carolina,” under the “Waste description” column, by revising the introductory text of paragraph (2);

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

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

■ h. In the entry for “Envirite of Pennsylvania (formerly Envirite Corporation), York, Pennsylvania,” under the “Waste description” column, by revising paragraph (2);

■ i. 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);

■ j. In the entry for “McDonnell Douglas Corporation, Tulsa, Oklahoma,” under the “Waste description” column, by revising paragraph (3);

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

■ l. By removing the entry for “OxyVinyls, L.P., Deer Park, TX;”

■ m. In the entry for “Rhodia, Houston, Texas,” under the “Waste description” column, by revising the introductory text of paragraph (3);

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

■ o. In the entry for “Texas Eastman, Longview, Texas,” under the “Waste description” column, by revising paragraph 3;

■ p. In the entry for “Tokusen USA, Inc., Conway, AR,” under the “Waste description” column, by revising paragraph (2)(C), the introductory text of paragraph (3), and paragraphs (3)(A)(ii), (3)(B), and (3)(C)(ii);

■ q. 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 to Part 261—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. As applicable to the method-defined parameters of concern, analyses requiring use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B.</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. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. 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:</p> <p>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, Tetrachlorethylene—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 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>
Arkansas Department of Pollution Control and Ecology.	Vertac Superfund site, Jacksonville, Arkansas.	

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

Facility	Address	Waste description
		(1) <i>Testing</i> : Sample collection and analyses (including quality control (QC) procedures) must be performed according to appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. * * * * *
		(3) * * *
		(C) <i>Chlorinated dioxins and furans</i> : 2,3,7,8-Tetrachlorodibenzo-p-dioxin equivalents, $4 \times 10^{-7}$ 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 a measurement system that achieves practical quantitation limits of 15 parts per trillion (ppt) for the tetra- and penta-homologs, and 37 ppt for the hexa- and hepta-homologs. * * * * *
		* * * * *
Bekaert Corp. ....	Dyersburg, TN .....	* * * * *
		(4) * * *
		(A) * * *
		(B) The sample for the annual testing shall be a representative composite sample for all constituents listed in paragraph (1). * * * * *
Bethlehem Steel Corporation .....	Sparrows Point, Maryland .....	(1) <i>Testing</i> : Sample collection and analyses (including quality control (QC) procedures) must be performed using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. 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 using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. 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 .....	* * * * *

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

Facility	Address	Waste description
		(3) <i>Verification Testing Requirements:</i> DuraTherm must perform sample collection and analyses, including quality control procedures, using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. 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, using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. 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 .....	* * * * * (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. * * * * *
* * *	* * *	* * *
Geological Reclamation Oper- ations and Systems, Inc.	Morrisville, Pennsylvania .....	* * * * * (1) <i>Testing:</i> Sample collection and analyses, including quality control (QC) procedures, must be performed using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. * * * * *
* * *	* * *	* * *
McDonnell Douglas Corporation	Tulsa, Oklahoma .....	* * * * *

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

Facility	Address	Waste description
		(3) <i>Verification Testing Requirements:</i> Sample collection and analyses, including quality control procedures, must be performed using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. 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.
		* * * * *
		* * * * *
Occidental Chemical .....	Ingleside, Texas .....	(3) <i>Verification Testing Requirements:</i> Sample collection and analyses, including quality control procedures, must be performed using appropriate methods. As applicable to the method-defined parameters of concern, any analyses requiring use of SW-846 methods incorporated by reference in 40 CFR 260.11 must use those methods without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. 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).
		* * * * *
		* * * * *
Rhodia .....	Houston, Texas .....	(3) <i>Verification Testing Requirements:</i> Rhodia must perform sample collection and analyses, including quality control procedures, using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. 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).
		* * * * *
		* * * * *
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 using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B.</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 using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. 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.</p> <p>Maximum Allowable Solids Treatment Residue EP Leachate Concentrations (mg/L)</p> <p>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 using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. 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 supersede 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.e., 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 using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. 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):</p> <p>Benz(a)anthracene—<math>1 \times 10^{-7}</math>, Benzo(a)pyrene—<math>4 \times 10^{-4}</math>, Chloroform—0.07, Chrysene—0.002, Dibenz(a,h)anthracene—<math>9 \times 10^{-6}</math>, 1,2-Dichloroethane—0.06, Dichloromethane—0.06, Indeno(1,2,3-cd)pyrene—0.002, Polychlorinated biphenyls—<math>1 \times 10^{-4}</math>, 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.e., 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. 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>(3) <i>Verification Testing Requirements:</i> Sample collection and analyses, including quality control procedures, must be performed using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. If EPA judges the incineration process to be effective under the operating conditions used during the initial verification testing described in Condition Texas Eastman may replace the testing required in Condition (4) with the testing required in Condition (5) below. Texas Eastman must, however, continue to test as specified in Condition (4) until notified by EPA in writing that testing in Condition (4) may be replaced by the testing described in Condition (5).</p> <p>* * * * *</p>
Tokusen USA, Inc.	Conway, AR	<p>(2) * * *</p> <p>(B) * * *</p>

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

Facility	Address	Waste description
		(C) If constituent levels in a sample exceed any of the delisting levels set in Paragraph (1), Tokusen must retreat the batches of waste used to generate the representative sample until it meets the levels. Tokusen must repeat the analyses of the treated waste.
		(D) * * *
		(3) <i>Verification Testing Requirements:</i> Tokusen must perform sample collection and analyses, including quality control procedures, using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. If EPA judges the process to be effective under the operating conditions used during the initial verification testing, Tokusen may replace the testing required in Paragraph (3)(A) with the testing required in Paragraph (3)(B). Tokusen 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).
		(A) * * *
		(i) * * *
		* * * * *
		(ii) Make two composites of representative grab samples collected.
		* * * * *
		(B) <i>Subsequent Verification Testing:</i> Following written notification by EPA, Tokusen may substitute the testing conditions in (3)(B) for (3)(A). Tokusen must continue to monitor operating conditions, and analyze representative samples each quarter of operation during the first year of waste generation, using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. The samples must represent the waste generated during the quarter.
		(C) * * *
		(i) * * *
		(ii) Following cancellation of the quarterly testing, Tokusen must continue to test a representative composite sample for all constituents listed in Paragraph (1) annually (by twelve months after final exclusion), using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B.
		* * * * *
		* * * * *
		* * * * *
		(1) <i>Verification Testing Requirements:</i> Sample collection and analyses, including quality control procedures must be performed using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CDfr 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. 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).
		* * * * *
Tyco Printed Circuit Group, Melbourne Division.	Melbourne, Florida .....	

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

Facility	Address	Waste description
*	*	*
■ 20. Appendix IX to part 261 is amended in Table 2:	by revising the introductory text of paragraph (1);	description” column, by revising the introductory paragraph and by revising paragraph (1)(A), the introductory text of paragraph (2) and by revising paragraph (3);
■ a. By removing the entry for “Bekaert Corp., Dyersburg, TN”;	■ h. 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);	■ n. In the entry for “Oxy Vinyls, Deer Park, Texas,” under the “Waste description” column, by revising the introductory text of paragraph (3);
■ b. In the entry for “Bethlehem Steel Corp., Steelton, PA,” under the “Waste description” column, by revising paragraphs (1) and (2);	■ i. In the entry for “Envirite of Pennsylvania (formerly Envirite Corporation), York, Pennsylvania,” under the “Waste description” column, by revising paragraph (2);	■ o. By adding the entry for “OxyVinyls, L.P., Deer Park, TX,” after the entry for “Oxy Vinyls, Deer Park, Texas;”
■ c. In the entry for “Bethlehem Steel Corp., Johnston, PA,” under the “Waste description” column, by revising paragraphs (1) and (2);	■ j. In the entry for “Heritage Environmental Services, LLC, at the Nucor Steel Facility, Crawfordsville, Indiana,” under the “Waste Description” column, by revising paragraph (2);	■ p. In the entry for “Roanoke Electric Steel Corp., Roanoke, VA,” under the “Waste description” column, by revising paragraphs (1)(A), (1)(B), and (2);
■ d. 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);	■ k. In the entry for “Marathon Oil Co., Texas City, TX,” under the “Waste description” column, by revising the introductory text of paragraph (1);	■ q. 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 “CF&I Steel Corporation, Pueblo, Colorado,” under the “Waste description” column, by revising paragraphs (1) and (2);	■ l. 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);	The revisions read as follows:
■ f. 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);	■ m. In the entry for “Occidental Chemical Corporation, Delaware City, Delaware,” under the “Waste	<b>Appendix IX to Part 261—Wastes Excluded Under §§ 260.20 and 260.22</b>
■ g. In the entry for “Conversion Systems, Inc., Horsham, Pennsylvania,” under the “Waste description” column,		* * * * *

TABLE 2.—WASTES EXCLUDED FROM SPECIFIC SOURCES

Facility	Address	Waste description
*	*	*
Bethlehem Steel Corp .....	Steelton, PA .....	(1) <i>Testing:</i> (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 using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW–846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW–846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. 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.

TABLE 2.—WASTES EXCLUDED FROM SPECIFIC SOURCES—Continued

Facility	Address	Waste description
Bethlehem Steel Corp .....	Johnstown, PA .....	<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 using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. 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 exceeds 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 subtitle C of RCRA.</p> <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 using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. 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 using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. 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 retreated until it meets these levels 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
BF Goodrich Intermediates Company, Inc.	Calvert City, Kentucky .....	<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 using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. 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> <p>* * * * *</p>
CF&I Steel Corporation .....	Pueblo, Colorado .....	<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&amp;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 using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. CF&amp;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>

TABLE 2.—WASTES EXCLUDED FROM SPECIFIC SOURCES—Continued

Facility	Address	Waste description
		<p>(B) <i>Subsequent Testing</i>: CF&amp;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&amp;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 using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. 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 re-treated or managed and disposed in accordance with Subtitle C of RCRA.</p>
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. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B.</p> <p>* * * * *</p> <p>(3) <i>Verification Testing Requirements</i>: Sample collection and analyses, including quality control procedures, must be performed using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. 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 by Condition (3)(B).</p> <p>* * * * *</p>
Conversion Systems, Inc. ....	Horsham, Pennsylvania .....	* * * * *

TABLE 2.—WASTES EXCLUDED FROM SPECIFIC SOURCES—Continued

Facility	Address	Waste description
		(1) <i>Verification Testing Requirements:</i> Sample collection and analyses, including quality control procedures, must be performed using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B.
DOE-RL .....	Richland, Washington .....	<p>* * * * *</p> <p>(1) <i>Testing:</i> Sample collection and analyses (including quality control (QC) procedures) must be performed using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. 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. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. All total constituent concentrations must be equal to or less than the following levels (ppm):</p> <p>Inorganic Constituents, 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, Organic Constituents, 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 (formerly must be tested for leachable cyanide. If the leachable cyanide levels Corporation) (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>



TABLE 2.—WASTES EXCLUDED FROM SPECIFIC SOURCES—Continued

Facility	Address	Waste description
		(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 $12 \pm 0.05$ standard units and for the mercury determinative analysis of the leachate using an appropriate method. The constituent concentrations measured must be less than the delisting levels established in Paragraph (1). * * * * *
		* * * * *
Marathon Oil Co .....	Texas City, TX .....	(1) <i>Testing</i> : Sample collection and analyses (including quality control (QC) procedures) must be performed using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. 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). * * * * *
		* * * * *
Occidental Chemical Corp., Muscle Shoals Plant.	Sheffield, Alabama .....	Retorted wastewater treatment sludge from the mercury cell process in chlorine production (EPA Hazardous Plant 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 using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. This testing program must meet the following conditions for the exclusion to be valid: (1) * * * (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. * * * * * (2) * * * (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. * * * * *

TABLE 2.—WASTES EXCLUDED FROM SPECIFIC SOURCES—Continued

Facility	Address	Waste description
Occidental Chemical Corporation	Delaware City, Delaware .....	<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 using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. 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>(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 using appropriate methods, and as applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B: * * *</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 exceed 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>
OxyVinyls .....	Deer Park, Texas .....	<p>(3) <i>Verification Testing Requirements:</i> Sample collection and analyses, including quality control procedures, must be performed using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. If EPA judges the incineration process to be effective under the operating conditions used during the initial verification testing, OxyVinyls may replace the testing required in Condition (3)(A) with the testing required in Condition (3)(B). OxyVinyls 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>

TABLE 2.—WASTES EXCLUDED FROM SPECIFIC SOURCES—Continued

Facility	Address	Waste description
OxyVinyls, L.P. ....	Deer Park, TX .....	<p style="text-align: center;">* * * * *</p> <p>Incinerator Offgas Scrubber Water (EPA Hazardous Waste Nos. K017, K019 and K020) generated at a maximum annual rate of 919,990 cubic yards per calendar year after April 22, 2004, and disposed in accordance with the TPDES permit. For the exclusion to be valid, OxyVinyls must implement a testing program that meets the following Paragraphs:</p> <p>(1) <i>Delisting Levels:</i> All total concentrations for those constituents must not exceed the following levels (mg/kg) in the incinerator offgas scrubber water. Incinerator offgas treatment scrubber water (i) Inorganic Constituents Antimony—0.0204; Arsenic—0.385; Barium—2.92; Beryllium—0.166; Cadmium—0.0225; Chromium—5.0; Cobalt—13.14; Copper—418.00; Lead—5.0; Nickel—1.13; Mercury—0.0111; Vanadium—0.838; Zinc—2.61 (ii) Organic Constituents Acetone—1.46; Bromoform—0.481; Bromomethane—8.2; Bromodichloromethane—0.0719; Chloroform—0.683; Dibromochloromethane—0.057; Iodomethane—0.19; Methylene Chloride—0.029; 2,3,7,8—TCDD equivalents as TEQ—0.0000926</p> <p>(2) <i>Waste Management:</i> (A) OxyVinyls must manage as hazardous all incinerator offgas treatment scrubber water generated, until it has completed initial verification testing described in Paragraphs (3)(A) and (B), as appropriate, and valid analyses show that paragraph (1) is satisfied. (B) Levels of constituents measured in the samples of the incinerator offgas treatment scrubber water that do not exceed the levels set forth in Paragraph (1) are non-hazardous. OxyVinyls can manage and dispose the non-hazardous incinerator offgas treatment scrubber water according to all applicable solid waste regulations. (C) If constituent levels in a sample exceed any of the delisting levels set in Paragraph (1), OxyVinyls must collect one additional sample and perform the expedited analyses to confirm if the constituent exceeds the delisting level. If this sample confirms the exceedance, OxyVinyls must, from that point forward, treat the waste as hazardous until it is demonstrated that the waste again meets the levels set in Paragraph (1). OxyVinyls must notify EPA of the exceedance and resampling analytical results prior to disposing of the waste. (D) If the waste exceeds the levels in paragraph (1) OxyVinyls must manage and dispose of the waste generated under Subtitle C of RCRA from the time that it becomes aware of any exceedance. (E) Upon completion of the Verification Testing described in Paragraphs 3(A) and (B) as appropriate and the transmittal of the results to EPA, and if the testing results meet the requirements of Paragraph (1), OxyVinyls may proceed to manage its incinerator offgas treatment scrubber water as non-hazardous waste. If subsequent verification testing indicates an exceedance of the Delisting Levels in Paragraph (1), OxyVinyls must manage the incinerator offgas treatment scrubber water as a hazardous waste until two consecutive quarterly testing samples show levels below the Delisting Levels.</p> <p>(3) <i>Verification Testing Requirements:</i> OxyVinyls must perform sample collection and analyses, including quality control procedures, using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. If EPA judges the process to be effective under the operating conditions used during the initial verification testing, OxyVinyls may replace the testing required in Paragraph (3)(A) with the testing required in Paragraph (3)(B). OxyVinyls 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).</p>

TABLE 2.—WASTES EXCLUDED FROM SPECIFIC SOURCES—Continued

Facility	Address	Waste description
		<p>(A) <i>Initial Verification Testing:</i> After EPA grants the final exclusion, OxyVinyls must do the following: (i) Within 60 days of this exclusion becoming final, collect four samples, before disposal, of the incinerator offgas treatment scrubber water. (ii) The samples are to be analyzed and compared against the delisting levels in Paragraph (1) (iii). Within sixty (60) days after the exclusion becomes final, OxyVinyls will report initial verification analytical test data, including analytical quality control information for the first sixty (30) days of operation after this exclusion becomes final of the incinerator offgas treatment scrubber water. If levels of constituents measured in the samples of the incinerator offgas treatment scrubber water that do not exceed the levels set forth in Paragraph (1) and are also non-hazardous in two consecutive quarters after the first thirty (30) days of operation after this exclusion, OxyVinyls can manage and dispose of the incinerator offgas treatment scrubber water according to all applicable solid water regulations after reporting the analytical results to EPA.</p> <p>(B) <i>Subsequent Verification Testing:</i> Following written notification by EPA, OxyVinyls may substitute the testing conditions in Paragraph (3)(B) for (3)(A). OxyVinyls must continue to monitor operating conditions, and analyze representative samples of each quarter of operation during the first year of waste generation. The samples must represent the waste generated during the quarter. After the first year of analytical sampling verification sampling can be performed on a single annual composite sample of the incinerator offgas treatment scrubber water. The results are to be compared to the delisting levels in Condition (1).</p> <p>(C) <i>Termination of Testing:</i> (i) After the first year of quarterly testing, if the Delisting Levels in Paragraph (1) are being met, OxyVinyls may then request that EPA stop requiring quarterly testing. After EPA notifies OxyVinyls in writing, the company may end quarterly testing. (ii) Following cancellation of the quarterly testing, OxyVinyls must continue to test a representative sample for all constituents listed in Paragraph (1) annually.</p> <p>(4) <i>Changes in Operating Conditions:</i> If OxyVinyls significantly changes the process described in its petition or starts any processes that generate(s) the waste that may or could significantly affect the composition or type of waste generated as established under Paragraph (1) (by illustration, but not limitation, changes in equipment or operating conditions of the treatment process), it must notify EPA in writing; OxyVinyls may no longer handle the wastes generated from the new process as nonhazardous until the wastes meet the delisting levels set in Paragraph (1) and it has received written approval to do so from EPA.</p> <p>(5) <i>Data Submittals:</i> OxyVinyls must submit the information described below. If OxyVinyls fails to submit the required data within the specified time or maintain the required records on-site for the specified time, EPA, at its discretion, will consider this sufficient basis to reopen the exclusion as described in Paragraph 6. OxyVinyls must:</p> <p>(A) Submit the data obtained through Paragraph 3 to the Section Chief, EPA Region 6 Corrective Action and Waste Minimization Section, 1445 Ross Avenue, Dallas, Texas 75202–2733, Mail Code, (6PD–C) within the time specified.</p> <p>(B) Compile records of operating conditions and analytical data from Paragraph (3), summarized, and maintained on-site for a minimum of five years.</p> <p>(C) Finish these records and data when EPA or the State of Texas request them for inspection.</p>

TABLE 2.—WASTES EXCLUDED FROM SPECIFIC SOURCES—Continued

Facility	Address	Waste description
		<p>(D) Send along with all data a signed copy of the following certification statement, to attest to the truth and accuracy of the data submitted: Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations (pursuant to the applicable provisions of the Federal Code, which include, but may not be limited to, 18 U.S.C. 1001 and 42 U.S.C. 6928), I certify that the information contained in or accompanying this document is true, accurate and complete. As to the (those) identified section(s) of this document for which I cannot personally verify its (their) truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete. If any of this information is determined by EPA in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of waste will be void as if its never had effect or to the extent directed by EPA and that the company will be liable for any actions taken in contravention of the company's RCRA and CERCLA obligations premised upon the company's reliance on the void exclusion.</p> <p>(6) <i>Reopener:</i> (A) If, anytime after disposal of the delisted waste OxyVinyls possesses or is otherwise made aware of any environmental data (including but not limited to leachate data or groundwater monitoring data) or any other data relevant to the delisted waste indicating that any constituent identified for the delisting verification testing is at a level higher than the delisting level allowed by the Regional Administrator or his delegate in granting the petition, then the facility must report the data, in writing, to the Regional Administrator or his delegate within 10 days of first possessing or being made aware of that data.</p> <p>(B) If the annual testing of the waste does not meet the delisting requirements in Paragraph 1, OxyVinyls must report the data, in writing, to the Regional Administrator or his delegate within 10 days of first possessing or being made aware of that data.</p> <p>(C) If OxyVinyls fails to submit the information described in paragraphs (5), (6)(A) or (6)(B) or if any other information is received from any source, the Regional Administrator or his delegate will make a preliminary determination as to whether the reported information requires EPA action to protect human health or the environment. Further action may include suspending, or revoking the exclusion, or other appropriate response necessary to protect human health and environment.</p> <p>(D) If the Regional Administrator or his delegate determines that the reported information does require action by EPA's Regional Administrator or his delegate will notify the facility in writing of the actions the Regional Administrator or his delegate believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing the facility with an opportunity to present information as to why the proposed EPA action is not necessary. The facility shall have 10 days from the date of the Regional Administrator or his delegate's notice to present such information.</p> <p>(E) Following the receipt of information from the facility described in paragraph (6)(D) or (of no information is presented under paragraph (6)(D)) the initial receipt of information described in paragraphs (5), (6)(A) or (6)(B), the Regional Administrator or his delegate will issue a final written determination describing EPA actions that are necessary to protect human health or the environment. Any require action described in the Regional Administrator or his delegate's determination shall become effective immediately, unless the Regional Administrator or his delegate provides otherwise.</p> <p>(7) <i>Notification Requirements:</i> OxyVinyls must do the following before transporting the delisted waste. Failure to provide this notification will result in a violation of the delisting petition and a possible revocation of the decision.</p> <p>(A) Provide a one-time written notification to any State Regulatory Agency to which or through which it will transport the delisted waste described above for disposal, 60 days before beginning such activities.</p> <p>(B) Update the one-time written notification if it ships the delisted waste into a different disposal facility.</p> <p>(C) Failure to provide this notification will result in a violation of the delisting variance and a possible revocation of the decision.</p>

TABLE 2.—WASTES EXCLUDED FROM SPECIFIC SOURCES—Continued

Facility	Address	Waste description
* * *	* * *	* * *
Roanoke Electric Steel Corp .....	Roanoke, VA .....	<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 using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. 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 using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. 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 for 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 0.063 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>(1) <i>Testing:</i> Sample collection and analyses (including quality control (QC) procedures) must be performed using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B.</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>

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.
*	*	*

\* \* \* \* \*

**Appendix IX to Part 261 [Amended]**

■ 21. Appendix IX to part 261 is amended in Table 3 by removing the entry for “Bekaert Corp., Dyersburg, TN”.

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

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

**Authority:** 42 U.S.C. 6905, 6912(a), 6924, 6925, 6927, 6928(h), and 6974.

**Subpart J—Tank Systems**

■ 23. Section 264.190 is amended by revising paragraph (a) to read as follows:

**§ 264.190 Applicability.**

\* \* \* \* \*

(a) Tank systems that are used to store or treat hazardous waste which contains no free liquids and are situated inside a building with an impermeable floor are exempted from the requirements in § 264.193. To demonstrate the absence or presence of free liquids in the stored/treated waste, the following test must be used: Method 9095B (Paint Filter Liquids Test) as described in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication SW-846, as incorporated by reference in § 260.11 of this chapter.

\* \* \* \* \*

**Subpart N—Landfills**

■ 24. Section 264.314 is amended by revising paragraph (c) to read as follows:

**§ 264.314 Special requirements for bulk and containerized liquids.**

\* \* \* \* \*

(c) To demonstrate the absence or presence of free liquids in either a containerized or a bulk waste, the following test must be used: Method 9095B (Paint Filter Liquids Test) as described in “Test Methods for Evaluating Solid Waste, Physical/

Chemical Methods,” EPA Publication SW-846, as incorporated by reference in § 260.11 of this chapter.

\* \* \* \* \*

**Subpart AA—Air Emission Standards for Process Vents**

■ 25. 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/m<sup>3</sup> (@ 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/m<sup>3</sup> (@ 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 9060A (incorporated by reference under 40 CFR 260.11) of “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication SW-846, or analyzed for its individual organic constituents.

\* \* \* \* \*

(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 direct measurement as specified at paragraph (d)(1) of this section.

**Subpart BB—Air Emission Standards for Equipment Leaks**

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

**§ 264.1063 Test methods and procedures.**

\* \* \* \* \*

(d) \* \* \*

(2) Method 9060A (incorporated by reference under 40 CFR 260.11) of “Test Methods for Evaluating Solid Waste,”

EPA Publication SW-846, for computing total organic concentration of the sample, or analyzed for its individual organic constituents; or

\* \* \* \* \*

# **Subpart EE—Hazardous Waste Munitions and Explosives Storage**

■ 27. Appendix IX to part 264 is revised as follows:

# **Appendix IX to Part 264—Ground-Water Monitoring List**

## **GROUND-WATER MONITORING LIST**

Common name <sup>1</sup>	CAS RN <sup>2</sup>	Chemical abstracts service index name <sup>3</sup>
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
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 $\alpha$ ,4 $\alpha$ ,4a $\beta$ ,5 $\alpha$ ,8 $\alpha$ ,8a $\beta$ )-
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 .....	Benzo[a]anthracene
Benzo[b]fluoranthene .....	205-99-2 .....	Benzo[b]fluoranthene
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
Benzy alcohol .....	100-51-6 .....	Benzenemethanol
Beryllium .....	(Total) .....	Beryllium
alpha-BHC .....	319-84-6 .....	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1 $\alpha$ ,2 $\alpha$ ,3 $\beta$ ,4 $\beta$ ,5 $\beta$ ,6 $\beta$ )-
beta-BHC .....	319-85-7 .....	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1 $\alpha$ ,2 $\beta$ ,3 $\alpha$ ,4 $\beta$ ,5 $\alpha$ ,6 $\beta$ )-
delta-BHC .....	319-86-8 .....	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1 $\alpha$ ,2 $\alpha$ ,3 $\alpha$ ,4 $\beta$ ,5 $\alpha$ ,6 $\beta$ )-
gamma-BHC; Lindane .....	58-89-9 .....	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1 $\alpha$ ,2 $\alpha$ ,3 $\beta$ ,4 $\alpha$ ,5 $\alpha$ ,6 $\beta$ )-
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 .....	Benzenecetic acid, 4-chloro- $\alpha$ -(4-chlorophenyl)- $\alpha$ -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 acids .....	94-75-7 .....	Acetic acid, (2,4-dichlorophenoxy)-



## GROUND-WATER MONITORING LIST—Continued

Common name <sup>1</sup>	CAS RN <sup>2</sup>	Chemical abstracts service index name <sup>3</sup>
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; 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-
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 .....	Benzenethanamine, 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,5αβ,6α,9α,9αβ)-
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,5αα,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,2αβ,3α,6α,6αβ,7β, 7αα)-
Endrin aldehyde .....	7421-93-4 .....	1,2,4- Methenocyclopenta[cd] pentalene-5-carboxaldehyde, 2,2a,3,3,4,7-hexachlorodecahydro-, (1α,2β,2αβ,4β,4αβ, 5β,6αβ,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]phenyl]-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-

## GROUND-WATER MONITORING LIST—Continued

Common name <sup>1</sup>	CAS RN <sup>2</sup>	Chemical abstracts service index name <sup>3</sup>
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,1β,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-
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'-(2,2,2,2-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 footnote 4 ..	1,1'-Biphenyl, chloro derivatives
Polychlorinated dibenzo-p-dioxins; PCDDs .....	See footnote 5 ..	Dibenzo[b,e][1,4]dioxin, chloro derivatives
Polychlorinated dibenzofurans; PCDFs .....	See footnote 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

## GROUND-WATER MONITORING LIST—Continued

Common name <sup>1</sup>	CAS RN <sup>2</sup>	Chemical abstracts service index name <sup>3</sup>
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-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; Perchloroethylene; Tetrachloroethene .....	127-18-4 .....	Ethene, tetrachloro-
2,3,4,6-Tetrachlorophenol .....	58-90-2 .....	Phenol, 2,3,4,6-tetrachloro-
Tetraethyl dithiopyrophosphate; Sulfotep .....	3689-24-5 .....	Thiodiphosphoric acid ((HO) <sub>2</sub> P(S)) <sub>2</sub> 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

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

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

<sup>3</sup> CAS index names are those used in the 9th Cumulative Index.

<sup>4</sup> 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).

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

<sup>6</sup> 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

■ 28. 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 J—Tank Systems

■ 29. Section 265.190 is amended by revising paragraph (a) to read as follows:

#### § 265.190 Applicability.

\* \* \* \* \*

(a) Tank systems that are used to store or treat hazardous waste which contains no free liquids and are situated inside a building with an impermeable floor are exempted from the requirements in § 265.193. To demonstrate the absence or presence of free liquids in the stored/ treated waste, the following test must be used: Method 9095B (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11 of this chapter.

\* \* \* \* \*

### Subpart N—Landfills

■ 30. Section 265.314 is amended by revising paragraph (d) to read as follows:

#### § 265.314 Special requirements for bulk and containerized liquids.

\* \* \* \* \*

(d) To demonstrate the absence or presence of free liquids in either a containerized or a bulk waste, the following test must be used: Method 9095B (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Waste, Physical/ Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11 of this chapter.

\* \* \* \* \*

## Subpart AA—Air Emission Standards for Process Vents

■ 31. 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/m<sup>3</sup> (@ 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/m<sup>3</sup> (@ 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 9060A (incorporated by reference under § 260.11 of this chapter) of “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication SW-846; or analyzed for its individual organic constituents.

\* \* \* \* \*

(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 direct measurement as specified at paragraph (d)(1) of this section.

## Subpart BB—Air Emission Standards for Equipment Leaks

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

### § 265.1063 Test methods and procedures.

\* \* \* \* \*

(d) \* \* \*

(2) Method 9060A (incorporated by reference under § 260.11 of this chapter) of “Test Methods for Evaluating Solid Waste,” EPA Publication SW-846 or analyzed for its individual organic constituents; or

\* \* \* \* \*

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

■ 33. 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 9095B (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.

■ 34. 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 acceptable sample collection and handling procedures for a total volatile organic constituent concentration may be found 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 for the total concentration of volatile organic constituents, or using one or more methods when the individual organic compound concentrations are identified and summed and the summed waste concentration 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  $1.8 \times 10^{-6}$  atmospheres/gram-mole/m<sup>3</sup>] at 25 degrees Celsius. 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. Other test methods may be used if they meet the requirements in paragraph (a)(3)(iii)(A) or (B) of this section and provided 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  $1.8 \times 10^{-6}$  atmospheres/gram-mole/ $m^3$ ] at 25 degrees Celsius, is met.

(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 acceptable sample collection and handling procedures for a total volatile organic constituent concentration may be found 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 for the total concentration of volatile organic constituents, or using one or more methods when the individual organic compound concentrations are identified

and summed and the summed waste concentration 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  $1.8 \times 10^{-6}$  atmospheres/gram-mole/ $m^3$ ] at 25 degrees Celsius. 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 chapter, 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. 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. Other test methods may be used if they meet the requirements in paragraph (a)(3)(iii)(A) or (B) of this section and provided 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  $1.8 \times 10^{-6}$  atmospheres/gram-mole/ $m^3$ ] at 25 degrees Celsius, is met.

(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 acceptable sample collection and handling procedures may be found 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

■ 35. 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, 6934 and 6937.

#### Subpart H—Hazardous Waste Burned in Boilers and Industrial Furnaces

■ 36. 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; and

\* \* \* \* \*

(g) \* \* \*

(2) Sample and analyze the hazardous waste as necessary to document that the waste contains economically significant

amounts of the metals and that the treatment recovers economically significant amounts of precious metal; and

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

**§ 266.102 Permit standards for burners.**

(b) \* \* \* (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. 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.

■ 38. 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.

■ 39. 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 of 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. For polychlorinated dibenzo-p-dioxins and polychlorinated dibenzo-furans, 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) \* \* \* (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, 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), 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 dibenzo-furans, 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 this 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.

■ 40. Appendix IX of part 266 is amended to:

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

The revisions read as follows:

**Appendix IX to Part 266—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 Bevill 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/Cl<sub>2</sub> emission sampling train, you must use appropriate methods. For the determination of carbonyl compounds by high-performance liquid chromatography, you must use appropriate methods. 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 whichever is the most recent version between of SW-846 Method 0023A (incorporated by reference, in § 260.11) as identified, or OAQPS Method 23 of appendix A to part 60. In this method, individual congeners or homologues<sup>1</sup> 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.

\* \* \* \* \*

<sup>1</sup> The term "congener" refers to any one particular member of the same chemical family; e.g., there are 75 congeners of chlorinated dibenzo-p-dioxins. The term "homologue" refers to a group of structurally related chemicals that have the same degree

of chlorination. For example, there are eight homologues of CDs, monochlorinated through octachlorinated. Dibenzo-p-dioxins and dibenzofurans that are chlorinated at the 2,3,7, and 8 positions are denoted as "2378" congeners, except when 2,3,7,8-TCDD is uniquely referred to: e.g., 1,2,3,7,8-PeCDF and 2,3,4,7,8-PeCDF are both referred to as "2378-PeCDFs."

\* \* \* \* \*

### 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.

\* \* \* \* \*

#### 10.5 Implementation Procedures

\* \* \* \* \*

(1) \* \* \*

• Follow appropriate guidelines for preparing test plans and waste analysis plans for the following tests:

\* \* \* \* \*

(2) \* \* \*

—Follow appropriate sampling and analytical procedures such as those described in 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, 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.

\* \* \* \* \*

#### 10.6 Precompliance Procedures

\* \* \* \* \*

(1) \* \* \*

• Follow appropriate procedures 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 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.

\* \* \* \* \*

## PART 268—LAND DISPOSAL RESTRICTIONS

■ 41. The authority citation for part 268 continues to read as follows:

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

## Subpart D—Treatment Standards

■ 42. Section 268.40 is amended by revising paragraph (b) and footnote 7 of the table "Treatment Standards for Hazardous Wastes" to read as follows:

### § 268.40 Applicability of treatment standards.

\* \* \* \* \*

(b) For wastewaters, compliance with concentration level standards is based on maximums for any one day, except for D004 through D011 wastes for which the previously promulgated treatment standards based on grab samples remain in effect. For all nonwastewaters, compliance with concentration level standards is based on grab sampling. For wastes covered by the waste extract standards, the test Method 1311, the Toxicity Characteristic Leaching Procedure found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11, must be used to measure compliance. An exception is made for D004 and D008, for which either of two test methods may be used: Method 1311, or Method 1310B, the Extraction Procedure Toxicity Test. For wastes covered by a technology standard, the wastes may be land disposed after being treated using that specified technology or an equivalent treatment technology approved by the Administrator under the procedures set forth in § 268.42(b).

\* \* \* \* \*

### Treatment Standards for Hazardous Wastes

\* \* \* \* \*

<sup>7</sup> Both Cyanides (Total) and Cyanides (Amenable) for nonwastewaters are to be analyzed using Method 9010C or 9012B, found in "Test Methods" for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in 40 CFR 260.11, with a sample size of 10 grams and a distillation time of one hour and 15 minutes.

\* \* \* \* \*

■ 43. Section 268.44 is amended by revising footnote 4 of the table "Wastes Excluded From the Treatment Standards Under § 268.40" to read as follows:

### § 268.44 Variance from a treatment standard.

\* \* \* \* \*

### Table—Wastes Excluded From the Treatment Standards Under § 268.40

\* \* \* \* \*

(<sup>4</sup>)—Cyanide nonwastewaters are analyzed using SW-846 Method 9010C or 9012B, as incorporated by reference in § 260.11 of this

chapter, sample size 10 grams, distillation time, 1 hour and 15 minutes.

■ 44. Section 268.48 is amended by revising footnote 4 of the table “Universal Treatment Standards” to read as follows:

**§ 268.48 Universal treatment standards.**

**Universal Treatment Standards**

4 Both Cyanides (Total) and Cyanides (Amenable) for nonwastewaters are to be analyzed using Method 9010C or 9012B, found in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication SW-846, as incorporated by reference in 40 CFR 260.11, with a sample size of 10 grams and a distillation time of one hour and 15 minutes.

■ 45. Appendix IX to part 268 is revised as follows:

**Appendix IX to Part 268—Extraction Procedure (EP) Toxicity Test Method and Structural Integrity Test (Method 1310B)**

**Note:** The EP (Method 1310B) is published in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication SW-846, as incorporated by reference in § 260.11 of this chapter.

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

■ 46. 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**

■ 47. 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.

(iv) An approximate quantification of the hazardous constituents identified in the waste, within the precision produced by appropriate analytical methods.

■ 48. 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 waste.**

(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.

**Subpart F—Special Forms of Permits**

■ 49. 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.

(D) An approximate quantification of the hazardous constituents identified in the waste, within the precision produced by appropriate analytical methods.

■ 50. 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.

(ii) An approximate quantification of the hazardous constituents identified in the hazardous waste, within the precision produced by appropriate analytical methods.

**PART 271—REQUIREMENTS FOR AUTHORIZATION OF STATE HAZARDOUS WASTE PROGRAMS**

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

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

■ 52. Section 271.1(j) is amended by adding the following entries 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
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TABLE 1.—REGULATIONS IMPLEMENTING THE HAZARDOUS AND SOLID WASTE AMENDMENTS OF 1984—Continued

Promulgation date	Title of regulation	Federal Register reference	Effective date
July 14, 2005 .....	Process Vent and Equipment Leak Organic Air Emission Standards for Owners and of Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities.	[Insert FR page citation of publication date].	July 14, 2005.
July 14, 2005 .....	Burning of Hazardous Waste in Boilers and Industrial Furnaces.	[Insert FR page citation of publication date].	July 14, 2005.
July 14, 2005 .....	Air Emission Standards Tanks, Surface Impoundments, Containers.	[Insert FR page citation of publication date].	July 14, 2005.

\* \* \* \* \*

■ 53. Section 271.21 is amended by adding the following entries 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 § 271.21

Title of regulation	Promulgation date	Federal Register reference
Office of Solid Waste Testing and Monitoring Activities, Methods Innovation Rule.	July 14, 2005 .....	[Insert FR page citation of publication date].
Process Vent and Equipment Leak Organic Air Emission Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities.	July 14, 2005 .....	[Insert FR page citation of publication date].
Burning of hazardous waste in boilers and industrial furnaces .....	July 14, 2005 .....	[Insert FR page citation of publication date].
Air Emissions Standards for Tanks, Surface Impoundments, and Containers.	July 14, 2005 .....	[Insert FR page citation of publication date].

**PART 279—STANDARDS FOR THE MANAGEMENT OF USED OIL**

■ 54. 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**

■ 55. 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 showing 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**

■ 56. 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 showing that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in appendix VIII of part 261 of this chapter).

\* \* \* \* \*

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

■ 57. 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 showing that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in appendix VIII of part 261 of this chapter).

\* \* \* \* \*

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

■ 58. 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 showing that the used oil does not contain significant

concentrations of halogenated hazardous constituents listed in appendix VIII of part 261 of this chapter).  
\* \* \* \* \*  
[FR Doc. 05–10197 Filed 6–13–05; 8:45 am]  
**BILLING CODE 6560–50–P**