WEST VIRGINIA
SECRETARY OF STATE
BETTY IRELAND
ADMINISTRATIVE LAW DIVISION

Form #3

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OFFICE WEST VIRGINIA SECRETARY OF STATE

NOTICE OF AGENCY APPROVAL OF A PROPOSED RULE
AND
FILING WITH THE LEGISLATIVE RULE-MAKING REVIEW COMMITTEE

AGENCY: Dept. of Environmental Protection, Office of Waste Mgt. TITLE NUMBER: 33

CITE AUTHORITY: Section 22-18-06

AMENDMENT TO AN EXISTING RULE: YES X NO ____

IF YES, SERIES NUMBER OF RULE BEING AMENDED: 20

TITLE OF RULE BEING AMENDED: "Hazardous Waste Management Rule"

IF NO, SERIES NUMBER OF RULE BEING PROPOSED: ____

TITLE OF RULE BEING PROPOSED: ____

THE ABOVE PROPOSED LEGISLATIVE RULE HAVING GONE TO A PUBLIC HEARING OR A PUBLIC COMMENT PERIOD IS HEREBY APPROVED BY THE PROMULGATING AGENCY FOR FILING WITH THE SECRETARY OF STATE AND THE LEGISLATIVE RULE-MAKING REVIEW COMMITTEE FOR THEIR REVIEW.

Stephanie R. Timmermeyer
Authorized Signature

QUESTIONNAIRE

(Please include a copy of this form with each filing of your rule: Notice of Public Hearing or Comment Period; Proposed Rule, and if needed, Emergency and Modified Rule.)

DATE: July 28, 2005

TO: LEGISLATIVE RULE-MAKING REVIEW COMMITTEE

FROM: *(Agency Name, Address & Phone No.)* WV Department of Environmental Protection
Division of Water and Waste Management
610 57th Street, SE
Charleston, WV 25304
Telephone: 304-926-0465

LEGISLATIVE RULE TITLE: Hazardous Waste Management Rule 33 CSR 20

1. Authorizing statute(s) citation W.Va. Code §§22-18-6.

2. a. Date filed in State Register with Notice of Hearing or Public Comment Period:

   June 15, 2005.

   b. What other notice, including advertising, did you give of the hearing?

   c. Date of Public Hearing(s) or Public Comment Period ended:

   July 21, 2005.

   d. Attach list of persons who appeared at hearing, comments received, amendments, reasons for amendments.

   Attached Sign-in Sheet.

   Number of comments received. No Comments

e. Date you filed in State Register the agency approved proposed Legislative Rule following public hearing: (be exact)

July 28, 2005.

f. **Name, title, address and phone/fax/email numbers** of agency person(s) to receive *all written correspondence* regarding this rule: (Please type)

Carroll Cather
Environmental Resource Specialist III
Division of Water and Waste Management
601 57th Street
Charleston, WV 25301-1401
Telephone: 304-926-0465
Fax: 304-926-0484
Email: ccather@dep.state.wv.us.

g. **IF DIFFERENT FROM ITEM 'f'**, please give **Name, title, address and phone number(s)** of agency person(s) who wrote and/or has responsibility for the contents of this rule: (Please type)

3. If the statute under which you promulgated the submitted rules requires certain findings and determinations to be made as a condition precedent to their promulgation:

a. Give the date upon which you filed in the State Register a notice of the time and place of a hearing for the taking of evidence and a general description of the issues to be decided.

Not applicable.

b. Date of hearing or comment period.

c. On what date did you file in the State Register the findings and determinations required together with the reasons therefore?

d. Attach findings and determinations and reasons:

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BRIEFING DOCUMENT

Rule Title: "Hazardous Waste Management Rule" 33 CSR 20

A. AUTHORITY: **WV Code §22-18-6**

B. SUMMARY OF RULE:

This rule regulates the generation, treatment, storage and disposal of hazardous waste. The rule proposed for 2005 adopts and incorporates by reference one year of federal regulations pertaining to hazardous waste management as set forth in 40 CFR parts 260 through 279. The federal regulations became effective on July 1, 2005.

C. STATEMENT OF CIRCUMSTANCES WHICH REQUIRE RULE:

This rule is proposed to adopt changes to federal hazardous waste management regulations into the State hazardous waste management rule, enabling the State hazardous waste program to maintain consistency with the federal program. The changes to the 40 CFR federal regulations include the following areas: "Hazardous Waste – Nonwastewaters From Production of Dyes , Pigments, and Food, Drug and Cosmetic Colorants: Mass Loading-Based Listing; Final Rule. This rule adds [a new hazardous waste (K181) to the list of hazardous wastes in 40 CFR 261.32. K181 is hazardous nonwastewaters generated from the production of certain dyes, pigments, and food, drug and cosmetic colorants] and revises [the Uniform Hazardous Waste Manifest regulations and the manifest and continuation sheet forms used to track hazardous waste from the generator to the site of disposition].

D. FEDERAL COUNTERPART REGULATIONS - INCORPORATION BY REFERENCE/DETERMINATION OF STRINGENCY:

W.Va. Code Section §22-1-3 in conjunction with W.Va. Code Section §22-1-3a requires, in part, the Secretary of the Department of Environmental Protection, to determine if a new or amended environmental provision should be the same in substance as a counterpart federal regulation. If the new rule should be the same in substance, as the counterpart federal regulation, then the Secretary shall incorporate by reference, to the greatest extent possible, the federal counterpart rule.

The proposed amendments to the rule will adopt additional federal counterpart regulations by reference, and these amendments are no more stringent than the federal counterpart regulations.

E. CONSTITUTIONAL TAKINGS DETERMINATION:

In accordance with §22-1A-1 and 3(c), the Secretary has determined that this rule will not result in taking of private property within the meaning of the Constitutions of West Virginia and the United States of America.

F. CONSULTATION WITH THE ENVIRONMENTAL PROTECTION ADVISORY COUNCIL:

At the June 8, 2005 meeting, the Environmental Protection Advisory Council reviewed and discussed this proposed rule. The Council's comments are contained in the attached minutes.

APPENDIX B

FISCAL NOTE FOR PROPOSED RULES

Rule Title: Title 33, Series 20, Hazardous Waste Management

Type of Rule: XX **Legislative** _____ **Interpretive** _____ **Procedural**

Agency Department of Environmental Protection

Address Office of Waste Management

601 57th Street, SE

Charleston, WV 25304

1. Effect of Proposed Rule

	ANNUAL		FISCAL YEAR		
	INCREASE	DECREASE	CURRENT	NEXT	THEREAFTER
ESTIMATED TOTAL COST	$ 0	$ 0	$ 0	$ 0	$ 0
PERSONAL SERVICES					
CURRENT EXPENSE					
REPAIRS & ALTERATIONS					
EQUIPMENT					
OTHER					

2. Explanation of above estimates:

This amendment will adopt by reference federal regulations in effect as of July 1, 2005 consisting of two changes. The first is the addition of one listed hazardous waste (K181) and the second is modification of the hazardous waste manifest and accompanying forms. These amendments are not projected to require additional operating expenses above the current level.

3. Objectives of these rules:

The objective of this rule is to stay in compliance with federal guidelines when implementing the State program. The consistency achieved in these revisions assures the State of maintaining its authorization status and, in turn, the continued receipt of federal funds that are vitally needed to implement the program.

4. **Explanation of Overall Economic Impact of Proposed Rule.**

A. Economic Impact on State Government.

Not anticipated to be appreciable.

B. Economic Impact on Political Subdivisions; Specific Industries, Specific groups of Citizens.

Not anticipated to be appreciable.

C. Economic Impact on Citizens/Public at Large.

N/A

TITLE 33
LEGISLATIVE RULES
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF WASTE MANAGEMENT

SERIES 20
HAZARDOUS WASTE MANAGEMENT RULE

§33-20-1. Scope and Authority.

1.1. Scope and Purpose. -- The purpose of this rule is to provide for the regulation of the generation, treatment, storage, and disposal of hazardous waste to the extent necessary for the protection of the public health and safety and the environment.

1.2. Authority. -- This rule is promulgated pursuant to the West Virginia Hazardous Waste Management Act, W. Va. Code, §22-18-6.

1.3. Filing Date. -- ~~May 23, 2005.~~

1.4. Effective Date. -- ~~June 1, 2005.~~

1.5. Incorporation by Reference. -- Whenever either federal statutes or regulations or state statutes or rules are incorporated by reference into this rule, the reference is to that statute or regulation in effect on July 1, ~~2004~~ 2005, unless otherwise noted in the text of this rule. This incorporation by reference is not intended to replace or abrogate federal authorities granted the Resource Conservation and Recovery Act of 1976.

1.5.a. In applying the federal requirements incorporated by reference throughout this rule, the following exceptions or substitutions apply, unless the context clearly requires otherwise or the referenced rule cannot be delegated to the state:

1.5.a.1. "Office of Waste Management, West Virginia Department of Environmental Protection" will be substituted for "Environmental Protection Agency."

1.5.a.2. "Director of the Office of Waste Management, West Virginia Department of Environmental Protection" will be substituted for "Administrator," "Regional Administrator," and "Director." In those sections that are not adopted by reference or that are not delegable to the state, "Administrator", "Regional Administrator", and "Director" will have the meaning defined in 40 CFR § 260.10.

1.5.a.3. Whenever the regulations require publication in the "Federal Register" compliance will be accomplished by publication in the "West Virginia Register," a part of the "State Register" created pursuant to the provisions of W. Va. Code, §29A-2-2 for those areas applicable and delegable to the state.

1.5.a.4. Whenever in the federal regulation reference is made to the Resource Conservation and Recovery Act of 1976 §3010, as amended (42 U.S.C. § 6930), the reference is to section 4. The notification requirements of the Resource Conservation and Recovery Act of 1976 §§ 3010 remain in effect and will be satisfied by compliance with section 4.

1.6. Cross Reference. -- Whenever a reference is cited in a provision incorporated by reference which cross reference was not incorporated by reference, the provisions of the applicable state law and rules, if any, control to the extent of any conflict or inconsistency. Where state rules are present and there is a question, the state rules govern. Where there are no state rules present, federal regulations govern. For example, cross reference to 40 CFR part 264 subpart O -- Incinerators, which was not incorporated by reference, would need to be referenced to the applicable West Virginia Department of Environmental Protection, Office of Air Quality rule, 45 CSR 25, "To Prevent and Control Air Pollution from Hazardous Waste Treatment, Storage, or Disposal Facilities."

1.7. Inconsistencies with the West Virginia Code. -- In the event a provision of the Code of Federal Regulations incorporated by reference herein includes a section which is inconsistent with the West Virginia Code, the West Virginia Code controls to the extent federal law does not preempt the state law. In the event a provision of the Code of Federal Regulations incorporated by reference herein is beyond the scope of authority granted the Department of Environmental Protection pursuant to statute, or is in excess of the statutory authority, the provision will be and remain effective only to the extent authorized by the West Virginia Code.

1.8. Provisions Applied Prospectively. -- The provisions of this rule are to be applied prospectively. All orders, determinations, demonstrations, rules, permits, certificates, licenses, waivers, bonds, authorizations and privileges which have been issued, made, granted, approved or allowed to become effective by the Director, and which are in effect on the date this rule becomes effective, will continue in effect according to their terms unless modified, suspended or revoked in accordance with the law.

1.9. This rule references the provisions of the West Virginia Department of Environmental Protection, Office of Air Quality rule, 45 CSR 25, "To Prevent and Control Air Pollution from Hazardous Waste Treatment, Storage, or Disposal Facilities" that is in effect on the date that this rule becomes effective.

§33-20-2. Hazardous Waste Management System: General.

2.1. 40 CFR Part 260. -- The provisions of 40 CFR part 260 are hereby adopted and incorporated by reference with the modifications, exceptions and additions set forth in this section.

2.1.a. The definitions of terms used in this rule will have the meaning ascribed to them in 40 CFR parts 260, 261, 262, 263, 264, 265, 266, 267, 268, 270, 273 and 279 with the exceptions, modifications and additions set forth in this section.

2.1.a.1. "Full regulation" means those rules applicable to generators of greater than one thousand (1000) kilograms of non-acutely hazardous waste in a calendar month and/or who treat, store or dispose of hazardous waste at their facility.

2.2. 40 CFR § 260.2. B -- The provisions of 40 CFR § 260.2 are excepted from incorporation by reference. Availability of information provided under this rule is controlled by the provisions of W. Va. Code, §22-18-12.

2.3. 40 CFR § 260.21(d). B -- The provisions of 40 CFR § 260.21(d) are excepted from incorporation by reference.

2.4. Petitions for Waste Exclusions.

2.4.a. Any person seeking to exclude a waste at a particular generating facility from 40 CFR § 261.3 or 40 CFR part 261, subpart D, as incorporated by this rule, may petition the Director for an exclusion following the procedures established in 40 CFR § 260.20 and 40 CFR § 260.22. The Department of Environmental Protection will utilize EPA guidance in evaluating delisting petitions.

2.4.b. An initial non-refundable fee of $1,000.00 must accompany all petitions submitted under this rule. The petitioner must execute an agreement with the Director providing for the recovery of all reasonable costs incurred by the Department of Environmental Protection attributable to the review and investigation of the petition in excess of the initial fee submitted with the petition.

2.4.b.1. Recoverable costs will be determined by the number of hours worked under the agreement by the primary Department of Environmental Protection employee multiplied by 2.5 times the hourly rate of that employee and then adding direct expenses incurred by that employee. Costs related to independent contractors retained by the Department of Environmental Protection to assist in the review and investigation of petitions will be included as direct expenses.

2.4.b.2. Within thirty (30) calendar days of receiving a petition under this section, the

Department of Environmental Protection will send the petitioner an itemized list of estimated costs it expects to incur as a result of reviewing and investigating the petition. The list will include anticipated outside contractor costs.

2.4.b.3. If, upon review of the itemized list of estimated costs submitted by the Department of Environmental Protection, the petitioner determines not to continue the petition process, the petitioner, if he wishes to withdraw the petition, must submit a certified letter to the Director withdrawing the petition. If the letter is submitted within ten (10) days of the date of receipt of the Department of Environmental Protection's list of estimated costs, the petitioner will not be liable for any costs incurred in excess of the initial application fee.

2.4.c. Where the Administrator of the EPA has granted a petition to exclude hazardous waste from 40 CFR § 261.3 or 40 CFR part 261, subpart D, pursuant to 40 CFR § 260.22, the Director will accept the determination and amend this rule accordingly, provided:

2.4.c.1. Petitioner submits a copy of the petition submitted to the Administrator, including all demonstrative information and a copy of the Administrator's approval granting the exclusion pursuant to 40 CFR § 260.20(e); and

2.4.c.2. No scientifically supportable reasons for denying the petition are advanced which had not been presented to the Administrator.

2.5. Petitions to amend the regulations to include additional wastes as universal wastes.

2.5.a. Persons desiring to include a waste as a universal waste must petition the Director for an inclusion after having received approval from the Administrator of the Environmental Protection Agency. The petition will include:

2.5.a.1. A copy of the petition submitted to the Administrator of the Environmental Protection Agency pursuant to 40 CFR §260.23, including all demonstration information;

2.5.a.2. A copy of the Administrator's approval granting the petition under 40 CFR § 260.23 and 40 CFR § 260.20 and 40 CFR part 273; and

2.5.a.3. Any additional information which may be required for the Director to evaluate the petition.

2.5.b. Within one hundred and twenty (120) days of the filing of the petition the Director will decide whether to approve or to deny the petition and so advise the petitioner. Where a decision to deny a petition is made, the Director will notify the petitioner of the action in writing, setting forth the reasons therefor.

2.5.c. The Director will not deny a petition to include a waste as a universal waste that has been approved by the Administrator unless scientifically supportable reasons for the denial are advanced which had not been presented to the Administrator.

2.5.d. Any person may petition the Director to include a waste as a universal waste as follows:

2.5.d.1. Submit a petition to the Director demonstrating that regulation under the universal waste regulations of 40 CFR part 273 is appropriate for the waste or category of waste; will improve management practices for the waste or category of waste; and will improve implementation of the Hazardous Waste Program. The petition must also include information required by 40 CFR § 260.20(b), and include as many of the factors listed in 40 CFR § 273.81 as are appropriate for the waste or category of waste addressed in the petition.

2.5.d.2. The Director will grant or deny a petition using the factors listed in 40 CFR § 273.81. The decision will be based on the weight of evidence showing that regulation under 40 CFR part 273 is appropriate for the waste or category of waste, will improve management practices for the waste or category of waste, and will improve implementation of the Hazardous Waste Program.

2.5.d.3. The decision of the Director will be in writing and state the reasons to either grant or deny the petition. Any petitioner aggrieved by the decision of the Director may appeal the decision to the Environmental Quality Board in accordance with the provisions of W.Va. Code § 22-18-20.

§33-20-3. Identification and Listing of Hazardous Waste.

3.1. 40 CFR Part 261. -- The provisions of 40 CFR part 261 are hereby adopted and incorporated by reference with the modifications, exceptions and additions set forth in this section.

3.1.a. In order for a mixture of a waste and one or more hazardous wastes identified in 40 CFR § 261.3(a)(2)(iv) to be exempt from the definition of hazardous waste, the owner or operator must comply with the following:

3.1.a.1. Provide a certification in writing to the Director that groundwater monitoring complying with either 40 CFR part 265, subpart F or which is approved by the Director, is or will be in place at the wastewater treatment facility identified in 40 CFR § 261.3(a)(2)(iv). A time schedule for the installation of groundwater monitoring must be included. This requirement does not apply to wastewater treatment units or containers.

3.1.a.2. Before claiming an exemption, the owner or operator of each wastewater treatment facility receiving mixtures of wastes under 40 CFR § 261.3(a)(2)(iv) must notify the Director of the receipt of the wastes on a form prescribed by the Director.

3.1.a.3. Annually submit to the Director a list of hazardous wastes that are expected to be present in the mixture to be exempted.

3.2. The provisions of 40 CFR § 261.5 (f)(3)(iv) and (v) and 40 CFR § 261.5(g)(3)(iv) and (v) are excepted from incorporation by reference. Conditionally exempt small quantity generators must notify the Director of their hazardous waste activity in accordance with section 4.

§33-20-4. Notification of Hazardous Waste Activity Regulations.

4.1. Applicability. Any person that engages in a hazardous waste activity in the State of West Virginia must notify the Director of these activities when that activity begins, unless those activities are exempted from the requirements of this rule.

4.1.a. Any person as described in subsection 4.1 that has notified the EPA or is subject to the requirements to notify EPA as specified in volume 45, number 39 of the Federal Register, dated February 26, 1980, pages 12746 through 12754, is subject to the provision of section 4.

4.1.b. The purpose of section 4 is to provide a means for the State of West Virginia to utilize the information provided by all who complied with the notification requirements of EPA as described in subdivision 4.1.a or all who initiated hazardous waste activities subsequent to the requirements of EPA as referenced above in subdivision 4.1.a to notify the Director of their hazardous waste activities.

4.2. Notification. Any person that notified EPA of hazardous waste activities as referenced above in subsection 4.1. must provide a copy of that notification to the Director.

4.2.a. Any person involved in hazardous waste activities that did not comply with the notification requirements of EPA, as referenced above in subsection 4.1, but is subject to those requirements must notify the Director in writing of his hazardous waste activities within thirty (30) days of the effective date of this rule. Notification may be accomplished by the use of EPA Form 8700-12 or the provision of the same information in any other manner selected by the notifier.

4.2.b. Any person exempted from the federal notification requirements as specified in 40 CFR §§ 261.6(b) and 261.5, but subject to West Virginia notification requirements, must notify the Director in writing of his hazardous waste

activities on the date of initiation of these activities. Notification may be accomplished by use of EPA Form 8700-12 or the provision of the same information in any other manner selected by the notifier.

4.2.c. One notification form is required for each generator.

4.2.d. A notification form is required for each storage, treatment, disposal, or other facility. However, if one facility site includes more than one storage, treatment, or disposal activity, only one notification form for the entire facility site is required.

4.2.e. Generators that store, treat, or dispose of hazardous waste on-site must file a notification form for generation activities as well as storage, treatment, and disposal activities, unless those activities are exempted from the requirements of this rule.

4.2.f. New generators and those initiating activities subsequent to the EPA notification period referenced in subdivision 4.1.a must comply with the EPA identification number requirements and must provide a copy of their application for an EPA identification number to the Administrator.

§33-20-5. Standards Applicable to Generators of Hazardous Waste.

5.1. 40 CFR Part 262. -- The provisions of 40 CFR part 262 are hereby adopted and incorporated by reference with the modifications, exceptions and additions contained in this section.

5.2. 40 CFR § 262.10(g). -- The provisions of 40 CFR § 262.10(g) will be excepted from incorporation.

5.2.a. A person who generates a hazardous waste as defined by 40 CFR part 261 is subject to the compliance requirements and penalties prescribed in W. Va. Code, §22-18-1 et seq. if he or she does not comply with the requirements of this rule. This rule in no way abrogates the enforcement authority of the Resource Conservation and Recovery Act of 1976 § 3008.

5.2.b. All references to 40 CFR § 262.10(g) will be deemed references to subsection 5.2 and the subdivisions herein, as appropriate.

5.3. 40 CFR § 262.10(j). -- The provisions of 40 CFR § 262.10(j) (1) and (2) including Table 1 will be excepted from incorporation.

5.4. 40 CFR Part 262, Subpart E. -- The provisions of 40 CFR part 262, subpart E -- Exports of Hazardous Waste are hereby adopted and incorporated by reference. The substitution of terms in subdivision 1.5.a. does not apply to the provisions of this subsection. In addition to the requirements contained therein, any person subject to the provisions of subpart E must file with the Director copies of all documentation, manifests, exception reports, annual reports or records, submitted to EPA, the Administrator or the Regional Administrator as required by and within the time frames set forth in subpart E.

5.5. 40 CFR Part 262, Subpart H. -- The provisions of 40 CFR part 262, subpart H -- Transfrontier Shipments of Hazardous Waste for Recovery within the OECD are hereby adopted and incorporated by reference. The substitution of terms in subdivision 1.6.a. does not apply to the provisions of this subsection. In addition to the requirements contained therein, any person subject to the provisions of subpart H must file with the Director copies of all documentation, manifests, exception reports, annual reports or records, submitted to EPA, the Administrator or the Regional Administrator as required by and within the time frames set forth in subpart H.

5.6. 40 CFR Part 262, Subpart I. -- The provisions of 40 CFR part 262, subpart I -- New York State Public Utilities will be excepted from incorporation.

5.7. 40 CFR Part 262, Subpart J. -- The provisions of 40 CFR part 262, subpart J -- University Laboratories XL Project -- Laboratory Environmental Management Standard will be excepted from incorporation.

§33-20-6. Standards Applicable to

Transporters of Hazardous Waste.

6.1. 40 CFR Part 263. -- The provisions of 40 CFR part 263 are hereby adopted and incorporated by reference insofar as those regulations relate to the transportation of hazardous waste by air and water.

6.2. The use of railroads for the transportation of hazardous waste is regulated by the West Virginia Public Service Commission rules, "Rules and Regulations Governing the Transportation of Hazardous Waste by Rail", 150 CSR 11. The use of the state highways for the transportation of hazardous waste is regulated under the West Virginia Division of Highways, "Transportation of Hazardous Wastes Upon the Roads and Highways", 157 CSR 7.

§33-20-7. Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities.

7.1. 45 CSR 25, Office of Air Quality, -- The standards in section 7 apply to owners and operators of all facilities which treat, store, or dispose of hazardous waste except as otherwise provided by law. In addition to the standards in section 7 of this rule, 45 CSR 25, "To Prevent and Control Air Pollution from Hazardous Waste Treatment, Storage, or Disposal Facilities", applies to management facilities which may emit hazardous waste or the constituents thereof to the atmosphere including incineration facilities except as otherwise provided by law. For purposes of section 7, the following persons are considered to be incinerating hazardous waste:

7.1.a. Owners or operators of hazardous waste incinerators; and

7.1.b. Owners or operators of boilers or industrial furnaces used to destroy wastes.

7.2. 40 CFR Part 264. -- The provisions of 40 CFR part 264 are hereby adopted and incorporated by reference with the modifications, exceptions and additions set forth in this section.

7.3. Required Receipt of Identical Notification. -- The provisions of 40 CFR §§ 264.12(a)(1) and (2) are retained by the Environmental Protection Agency; however, the Director of the Office of Waste Management must receive identical notification.

7.4. Releases from Solid Waste Management Unit. -- The provisions of 40 CFR part 264, subpart F -- Releases from solid waste management units are incorporated by reference with the following modifications, exceptions and additions.

7.4.a. For purposes of 40 CFR § 264.92, reference to the "Regional Administrator" will be to the "Environmental Quality Board." The Environmental Quality Board establishes groundwater protection standards pursuant to the authority granted the board in W. Va. Code, §22-12-4.

7.4.b. For purposes of 40 CFR § 264.94 and subparagraphs thereof, the Environmental Quality Board rule on groundwater protection standards, 46 CSR 12 will apply as required pursuant to the authority granted the Environmental Quality Board in W. Va. Code, §22-12-4.

7.4.c. The provisions of 40 CFR § 264.99(g) are incorporated by reference with the following modifications:

7.4.c.1. The Director will specify in the facility permit the frequencies for collecting samples required under 40 CFR § 264.99(g). This frequency will not be less than once every five years.

7.5. Financial Requirement. -- The provisions of 40 CFR part 264, subpart H -- Financial Requirements are adopted and incorporated by reference with the following modifications:

7.5.a. The provisions of 40 CFR §§ 264.149 and 264.150 are excepted from incorporation by reference.

7.6. Provisions Relating to Incinerators. -- The provisions of 40 CFR §§ 264.341, 264.342, 264.343, 264.344, 264.345 and 264.347(a)

relating to incinerators are excepted from incorporation by reference. Consult the rules of the Office of Air Quality regarding emissions from incinerators. The Office of Air Quality retains its authority to enforce the air monitoring items listed in 40 CFR §264.347(a) related to incinerating hazardous waste. The Office of Waste Management retains its authority to enforce 40 CFR §§ 264.347(b)(c)(d).

7.6.a. Consult the Office of Air Quality, 45 CSR 25, "To Prevent and Control Air Pollution from Hazardous Waste Treatment, Storage, or Disposal Facilities."

7.7. 40 CFR Part 264, Subparts AA, BB, CC and 40 CFR § 264.1080(f); and 40 CFR § 264.1080(g). -- The provisions of 40 CFR § 264.1080(f); and 40 CFR § 264.1080(g) are hereby adopted and incorporated by reference and the remaining provisions of 40 CFR part 264, subparts AA, BB, and CC are excepted from incorporation by reference. Consult the rules of the Office of Air Quality regarding air emissions from process vents, equipment leaks, tanks, surface impoundments and containers.

§33-20-8. Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities.

8.1. 40 CFR Part 265. -- The provisions of 40 CFR part 265 are adopted and incorporated by reference with the modifications, exceptions and additions set forth in this section.

8.2. 40 CFR §§ 265.12(a), 265.149 and 265.150. -- The provisions of 40 CFR §§ 265.12(a)(1) and (2), 265.149, and 265.150 are excepted from incorporation by reference. The Director of the Office of Waste Management must receive identical notification.

8.3. 40 CFR §§265.341, 265.345, 265.347 (a), 265.352. -- The provisions of 40 CFR §§ 265.341, 265.345, 265.347(a) and 265.352 relating to incinerators are excepted from incorporation by reference. Consult the rules of the Office of Air Quality regarding emissions from incinerators. The Office of Air Quality retains its authority to enforce the air monitoring items listed in 40 CFR §265.347(a) related to incinerating hazardous waste. The Office of Waste Management retains its authority to enforce 40 CFR §§ 265.347(b)(c)(d).

8.4. Thermal Treatment. -- The provisions of 40 CFR Part 265, Subpart P -- Thermal Treatment are incorporated by reference except for the provisions of 40 CFR § 265.375 and 40 CFR § 265.383 which are excepted from incorporation by reference. Consult the rules of the Office of Air Quality regarding emissions from thermal treatment units.

8.5. 40 CFR Part 265 Subparts AA, BB, CC and 40 CFR § 265.1080(f); and 40 CFR § 265.1080(g). -- The provisions of 40 CFR § 265.1080(f); and 40 CFR § 265.1080(g) are hereby adopted and incorporated by reference and the remaining provisions of 40 CFR part 265, subparts AA, BB, and CC are excepted from incorporation by reference. Consult the rules of the Office of Air Quality regarding air emission standards for process vents and air emmission standards for equipment leaks, and air emission standards for tanks, surface impoundments and containers.

§33-20-9. Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities.

40 CFR Part 266. -- The provisions of 40 CFR part 266 are hereby adopted and incorporated by reference. Consult the rules of the Office of Air Quality regarding Subpart H of this part.

§33-20-10. Land Disposal Restrictions.

10.1. 40 CFR Part 268. -- The provisions of 40 CFR part 268 are hereby adopted and incorporated by reference with the modifications, exceptions and additions set forth in this section.

10.2. 40 CFR §§ 268.5, 268.6, 268.10 - .13, 268.42(b) and 268.44. -- The provisions of 40 CFR §§ 268.5, 268.6, 268.10, 268.11, 268.12, 268.13, 268.42(b) and 268.44 are excepted from incorporation by reference.

10.3. Definition of Administrator in 40 CFR

§ 268.40(b). The term "Administrator" in 40 CFR § 268.40(b) will retain its meaning as defined in 40 CFR § 260.10.

§33-20-11. The Hazardous Waste Permit Program.

11.1. 40 CFR Part 270. -- The provisions of the 40 CFR part 270 are hereby adopted and incorporated by reference with the modifications, exceptions and additions set forth in this section.

11.2. 40 CFR § 270.2 Definitions.

11.2.a. Definition of "RCRA permit". -- For purposes of this section, the term "RCRA permit" means "West Virginia Hazardous Waste Management Permit". The following additional requirements will apply to obtain a Hazardous Waste Management Permit in West Virginia. All references in 40 CFR part 270 to 40 CFR part 124 will be deemed to be references to the applicable provisions of subsections 11.4 through 11.17. To the extent of any inconsistency with 40 CFR part 270, the specific provisions contained herein will control.

11.3. Application Fees.

11.3.a. Any person who applies for a permit for the construction or operation of a hazardous waste management facility, or both, must submit as part of the application a money order or cashier's check payable to "The Hazardous Waste Management Fund" of the state treasury. Persons required to obtain a permit-by-rule pursuant to this rule are not required to pay a permit application fee.

11.3.b. The fee will be determined by the schedule set forth in table 1. If the cumulative total of application fees imposed under this section equals or exceeds fifty thousand dollars ($50,000) then the person required to pay the fees may, at the person's option, elect to submit the fee payments in installments over a three year period. The installments submitted to the Department of Environmental Protection may not be less frequent than annually and the amount submitted annually may not be less than one-third of the total amount due.

11.3.c. The fee for permit renewal is the same as for an initial permit.

11.4. Pre-application Public Meeting and Notice

11.4.a. Applicability. The requirements of this subsection will apply to West Virginia Hazardous Waste Management Part B permit applicants seeking initial permits for hazardous waste management units. The requirements of this section will also apply to West Virginia Hazardous Waste Management Part B permit applicants seeking renewal of permits for those units, when the renewal application is proposing a significant change in facility operations. For the purposes of this section, a "significant change" is any change that would qualify as a Class 3 permit modification (See 40 CFR § 270.42 for a description of permit modifications). The requirements of this section do not apply to permit modifications under 40 CFR § 270.42 or to applications that are submitted for the sole purpose of conducting post-closure activities or post-closure activities and corrective action at a facility.

11.4.b. Prior to the submission of a West Virginia Hazardous Waste Management Part B permit application for a facility, the applicant must hold at least one meeting with the public in order to solicit questions from the community and inform the community of proposed hazardous waste management activities. The applicant must post a sign-in sheet or otherwise provide a voluntary opportunity for attendees to provide their names and addresses.

11.4.c. The applicant must submit a summary of the meeting, along with the list of attendees and their addresses developed under subsection 11.4.b, and copies of any written comments or materials submitted at the meeting, to the permitting agency as a part of the Part B application, in accordance with 40 CFR § 270.14(b).

11.4.d. The applicant must provide public notice of the pre-application meeting at least thirty (30) days prior to the meeting. The applicant must maintain, and provide to the permitting agency

upon request, documentation of the notice.

11.4.d.1. The applicant must provide public notice in all of the following forms:

11.4.d.1.A. A newspaper advertisement. The applicant must publish a notice, fulfilling the requirements in paragraph 11.4.d.2, in a newspaper of general circulation in the county or equivalent jurisdiction that hosts the proposed location of the facility. In addition, the Director will instruct the applicant to publish the notice in newspapers of general circulation in adjacent counties or equivalent jurisdictions, where the Director determines that publication is necessary to inform the affected public. The notice must be published as a display advertisement.

11.4.d.1.B. A visible and accessible sign. The applicant must post a notice on a clearly marked sign at or near the facility, fulfilling the requirements in paragraph 11.5.d.2. If the applicant places the sign on the facility property, then the sign must be large enough to be readable from the nearest point where the public would pass by the site.

11.4.d.1.C. A broadcast media announcement. The applicant must broadcast a notice, fulfilling the requirements in paragraph 11.4.d.2, at least once on at least one local radio station or television station. The applicant may employ another medium with prior approval of the Director.

11.4.d.1.D. A notice to the permitting agency. The applicant must send a copy of the newspaper notice to the permitting agency and the Director will forward copies to the appropriate units of State and local government having jurisdiction over the area where the facility is, or is proposed to be, located; and to each state agency having any authority under state law with respect to the construction or operation of the facility.

11.4.d.2. The notices required under paragraph 11.4.d.1. must include:

11.4.d.2.A. The date, time, and location of the meeting;

11.4.d.2.B. A brief description of the purpose of the meeting;

11.4.d.2.C. A brief description of the facility and proposed operations, including the address or a map (e.g., a sketched or copied street map) of the facility location;

11.4.d.2.D. A statement encouraging people to contact the facility at least seventy-two (72) hours before the meeting if they need special access to participate in the meeting; and

11.4.d.2.E. The name, address, and telephone number of a contact person for the applicant.

11.5. Public Notice Requirements at the Application Stage.

11.5.a. Applicability. The requirements of this subsection apply to all West Virginia Hazardous Waste Management Part B permit applicants seeking initial permits for hazardous waste management units. The requirements of this section also apply to Hazardous Waste Management Part B permit applicants seeking renewal of permits for these units upon the expiration of the existing permit. The requirements of this section do not apply to permit modifications under 40 CFR § 270.42 or permit applications submitted for the sole purpose of conducting post-closure activities or post-closure activities and corrective action at a facility.

11.5.b. Notification. The Director will provide public notice as required in subsection 11.5 when a Part B permit application has been submitted. The Director will provide public notice to:

11.5.b.1. The applicant;

11.5.b.2. All persons on a mailing list developed under subparagraph 11.11.d.1.D; and

11.5.b.3. The appropriate units of state and local government having jurisdiction over the area where the facility is proposed to be located; and to each state agency having any

authority under state law with respect to the construction or operation of the facility, that a Part B permit application has been submitted to the Director and is available for review.

11.5.b.4. Any person otherwise entitled to receive notice under subdivision 11.5.b may waive the right to receive notice for any classes and categories of permits.

11.5.c. The notice will be published within a reasonable period of time after the application is received by the Director. The notice must include:

11.5.c.1. The name and telephone number of the applicant's contact person;

11.5.c.2. The name and telephone number of the permitting agency's contact office, and a mailing address to which information, opinions, and inquiries must be directed throughout the permit review process;

11.5.c.3. An address to which people can write in order to be put on the facility mailing list;

11.5.c.4. The location where copies of the permit application and any supporting documents can be viewed and copied;

11.5.c.5. A brief description of the facility and proposed operations, including the address or a map (e.g., a sketched or copied street map) of the facility location on the front page of the notice; and

11.5.c.6. The date that the application was submitted.

11.5.d. Concurrent with the notice required under subdivision 11.5.b, the Director must place the permit application and any supporting documents in a location accessible to the public in the vicinity of the facility or at the permitting agency's office.

11.6. Information Repository.

11.6.a. Applicability. The requirements of this section apply to all applicants seeking West Virginia Hazardous Waste Management Permits for hazardous waste management units.

11.6.b. The Director will assess the need, on a case-by-case basis, for an information repository. When assessing the need for an information repository, the Director will consider a variety of factors, including: the level of public interest; the type of facility; the presence of an existing repository; and the proximity to the nearest copy of the administrative record. If the Director determines, at any time after submittal of a permit application, that there is a need for a repository, then the Director will notify the facility that it must establish and maintain an information repository.

11.6.c. The information repository must contain all documents, reports, data, and information deemed necessary by the Director to fulfill the purposes for which the repository is established. The Director will have the discretion to limit the contents of the repository.

11.6.d. The information repository will be located and maintained at a site chosen by the facility. If the Director finds the site unsuitable for the purposes and persons for which it was established, due to problems with the location, hours of availability, access, or other relevant considerations, then the Director will specify a more appropriate site.

11.6.e. The Director will specify requirements for informing the public about the information repository. At a minimum, the Director will require the facility to provide a written notice about the information repository to all individuals on the facility mailing list.

11.6.f. The facility owner/operator must be responsible for maintaining and updating the repository with appropriate information throughout a time period specified by the Director. The Director will close the repository at his or her discretion, based on the factors in subdivision 11.6.b.

11.7. Application for a Permit.

11.7.a. Any person who requires a permit under this rule must complete, sign, and submit to the Director an application for each permit required under this rule. Applications are not required for hazardous waste permits by rule pursuant to 40 CFR § 270.60. The Director will not begin the processing of a permit until the applicant has fully complied with the application requirements for that permit. Permit applications must comply with the signature and certification requirements of 40 CFR § 270.11.

11.7.b. The Director will review for completeness every application. Each application submitted by a new hazardous waste management facility, will be reviewed for completeness by the Director within 30 days of its receipt. Each application submitted by an existing hazardous waste management facility (both Part A and Part B of the application), will be reviewed for completeness within 60 days of receipt. Upon completing the review, the Director will notify the applicant in writing whether the application is complete. If the application is incomplete, the Director will list the information necessary to make the application complete. When the application is for an existing hazardous waste management facility, the Director will specify in the notice of deficiency a date for submitting the necessary information. The Director will notify the applicant that the application is complete upon receiving this information. After the application is completed, the Director will request additional information from the applicant but only when necessary to clarify, modify or supplement previously submitted material. Request for additional information will not render an application incomplete.

11.7.c. If the applicant fails or refuses to correct deficiencies in the application, the permit will be denied and appropriate enforcement actions will be taken under the applicable statutory provisions of WV Code §22-18-1 et seq.

11.7.d. If the Director decides that a site visit is necessary for any reason in conjunction with the processing of an application, he or she will notify the applicant and a date will be scheduled.

11.7.e. The effective date of an application is the date on which the Director notifies the applicant that the application is complete as provided for in subdivision 11.7.b.

11.7.f. For each application the Director will, no later than the effective date of the application, prepare and mail to the applicant a project decision schedule. The schedule will specify target dates by which the Director intends to:

11.7.f.1. Prepare a draft permit;

11.7.f.2. Give public notice;

11.7.f.3. Complete the public comment period, including any public hearing;

11.7.f.4. Issue a final permit.

11.8. Modification, Revocation and Reissuance, or Termination of Permits.

11.8.a. Permits will be modified, revoked and reissued, or terminated either at the request of an interested person (including the permittee) or upon the Director's initiative. However, permits will only be modified, revoked and reissued, or terminated for the reasons specified in 40 CFR §§ 270.41 or 270.43. All requests must be in writing and must contain facts or reasons supporting the request.

11.8.b. If the Director decides the request is not justified, he or she will send the requester a brief written response giving a reason for the decision. Denials of requests for modification, revocation and reissuance, or termination are not subject to public notice, comment, or hearings. Denials by the Director may be appealed to the Environmental Quality Board in accordance with section 15.

11.8.b.1. If the Director initially decides to modify or revoke and reissue a permit under 40 CFR §§ 270.41 or 270.42 (c), he or she will prepare a draft permit under section 11.9 incorporating the proposed changes. The Director may request additional information and, in the case of a modified permit, may require the

submission of an updated application. In the case of a revoked and reissued permit, the Director will require the submission of a new application.

11.8.b.2. In a permit modification under this section, only those conditions to be modified will be reopened when a new draft permit is prepared. When a permit is revoked and reissued under this section, the entire permit is reopened During any revocation and reissuance proceeding the permittee must comply with all conditions of the existing permit until a new final permit is reissued.

11.8.b.3. "Classes 1 and 2 Modifications" as defined in 40 CFR §§ 270.42 (a) and (b) are not subject to the requirements of this section.

11.8.c. If the Director decides to terminate a permit under 40 CFR § 270.43, he or she will issue a Notice of Intent to Terminate. A Notice of Intent to Terminate is a type of draft permit which follows the same procedures as any draft permit prepared under subsection 11.9

11.9. Draft Permits.

11.9.a. Once an application is complete, the Director will decide whether to prepare a draft permit or to deny the application.

11.9.b. If the Director decides to deny the permit application, he or she will issue a Notice of Intent to Deny. A Notice of Intent to Deny the permit application is a type of draft permit which follows the same procedures as any draft permit prepared under this section. If the Director's final decision is that the initial decision to deny the permit application was incorrect, he or she will withdraw the Notice of Intent to Deny and proceed to prepare a draft permit.

11.9.c. If the Director decides to issue a draft permit, he or she will prepare a draft permit that contains the following information:

11.9.c.1. All conditions under 40 CFR §§ 270.30 and 270.32;

11.9.c.2. All compliance schedules under 40 CFR § 270.33;

11.9.c.3. All monitoring requirements under 40 CFR § 270.31; and,

11.9.c.4. Standards for treatment, storage, and/or disposal and other permit conditions under 40 CFR § 270.30.

11.9.d. All draft permits prepared by the Director under this section will be accompanied by a fact sheet and will be based on the administrative record, publicly noticed and made available for public comment.

11.10. Fact Sheet

11.10.a. A fact sheet will be prepared for every draft permit for a hazardous waste management facility, which the Director finds is the subject of wide-spread public interest or raises major issues. The fact sheet will briefly set forth the principal facts and the significant factual, legal, and methodological and policy questions considered in preparing the draft permit. The Director will send the fact sheet to the applicant and to anyone who requests it.

11.10.b. The fact sheet will include when applicable:

11.10.b.1. A brief description of the type of facility or activity which is the subject of the draft permit;

11.10.b.2. The type and quantity of waste, fluids, or pollutants which are proposed to be or are being treated, stored, disposed of, injected, emitted, or discharged;

11.10.b.3. A brief summary of the basis for the draft permit conditions including references to applicable statutory or regulatory provisions and appropriate supporting references to the administrative record;

11.10.b.4. Reasons why any requested variances or alternatives to required standards do or do not appear justified;

11.10.b.5. A description of the

process for reaching a final decision on a draft permit including:

11.10.b.5.A. The beginning and the ending dates of the comment period and the address where comments will be received;

11.10.b.5.B. Procedures for requesting a hearing and the nature of that hearing; and

11.10.b.5.C. Any other procedures by which the public participates in the final decision.

11.10.b.6. Name and telephone number of a person to contact for additional information.

11.11. Public Notice of Permit Actions and Public Comment Period.

11.11.a. Scope. The Director will give public notice if the following actions have occurred:

11.11.a.1. A draft permit has been prepared; and

11.11.a.2. A hearing has been scheduled.

11.11.b. No public notice is required when a request for permit modification, revocation and reissuance, or termination is denied under subsection 11.8. Written notice of that denial will be given to the requester and to the permittee.

11.11.c. Timing. Public notice of the preparation of a draft permit (including a Notice of Intent to Deny a Permit Application) required under subdivision 11.11.a will allow at least forty-five (45) days for public comment. Public notice of a public hearing will be given at least thirty (30) days before the hearing. (Public notice of the hearing may be given at the same time as public notice of the draft permit and the two notices may be combined.)

11.11.d. Public notice of activities described in subdivision 11.11.a will be given by the following methods:

11.11.d.1. By mailing a copy of a notice to the following persons (any person otherwise entitled to receive notice under this paragraph may waive his or her rights to receive notice for any classes and categories of permits):

11.11.d.1.A. The applicant;

11.11.d.1.B. Any other agency which the Director knows has issued or is required to issue a RCRA, UIC, PSD or other permit under the Clean Air Act or West Virginia Code §22-5-1 et. seq., NPDES, 33 U.S.C. §1344, or sludge management permit for the same facility or activity;

11.11.d.1.C. Federal and state agencies with jurisdiction over fish, shell fish and wildlife resources and over coastal zones management plans, the advisory council on historic preservation, and the state historic preservation office, as applicable;

11.11.d.1.D. Persons on a mailing list developed by:

11.11.d.1.D.1. Including those who request in writing to be on the list;

11.11.d.1.D.2. Soliciting persons for "area lists" from participants in past permit proceedings in that area; and

11.11.d.1.D.3. Notifying the public of the opportunity to be put on the mailing list through periodic publication in the public press and in the publications as regional and state funded newsletters, environmental bulletins, or state law journals. The Director will update the mailing lists from time to time by requesting written indications of continued interest from those listed. The Director will delete from the lists the name of any person who fails to respond to the request.

11.11.d.1.E. To any unit of local government having jurisdiction over the area where the facility is proposed to be located; and

11.11.d.1.F. To each state agency having any authority under state law with respect to the construction or operation of the facility.

11.11.d.2. Publication of a notice in a daily or weekly major local newspaper of general circulation and broadcast over local radio stations;

11.11.d.3. In a manner constituting legal notice to the public under state laws; and

11.11.d.4. Any other method reasonably calculated to give actual notice of the action in question to the person potentially effected by it, including press releases or any other forum or medium to elicit public participation.

11.11.e. All public notices issued under this section will contain the following minimum information:

11.11.e.1. Name and address of the office processing the permit action for which notice is being given;

11.11.e.2. Name and address of the permittee or the permit applicant and, if different, of the facility or activity regulated by the permit;

11.11.e.3. A brief description of the business conducted at the facility or activity described in the permit application or the draft permit;

11.11.e.4. Name, address and telephone number of a person from whom interested persons may obtain further information, including copies of the draft permit, fact sheet and the application; and

11.11.e.5. A brief description of the comment procedures required by subsections 11.12 and 11.13 and the time and place of any hearing that will be held, including a statement of procedures to request a hearing (unless a hearing has already been scheduled) and other procedures by which the public may participate in the final decision.

11.11.e.6. The location of the administrative record, the times that the record will be open for public inspection; and

11.11.e.7. Any additional information considered necessary or proper.

11.11.f. Public notices for hearings. In addition to the general public notice described in subdivision 11.11.e, the public notice of a hearing will contain the following information:

11.11.f.1. Reference to the date of previous public notices relating to the permit;

11.11.f.2. Date, time, and place of the hearing; and

11.11.f.3. A brief description of the nature and purpose of the hearing, including the applicable rules and procedures.

11.11.g. In addition to the general public notice described in subdivision 11.11.e, all persons identified in subparagraphs 11.11.d.1.A, 11.11.d.1.B, and 11.11.d.1.C will be mailed a copy of the fact sheet, the permit application and the draft permit, as applicable.

11.12. Public Comments and Requests for Public Hearings.

During the public comment period provided under subsection 11.11., any interested person may submit written comments on the draft permit and may request a public hearing, if a hearing has not already been scheduled. A request for a public hearing must be in writing and must state the nature of the issues proposed to be raised in the hearing. All comments will be considered in making the final decision and will be answered as provided in subsection 11.16.

11.13. Public Hearings.

11.13.a. The Director will hold a public hearing whenever he or she finds, on the basis of requests, a significant degree of public interest in a draft permit.

11.13.b. The Director will also hold a

public hearing at his or her discretion, whenever, for instance, a hearing might clarify one or more issues involved in the permit decision.

11.13.c. The Director will hold a public hearing whenever he or she receives written notice of opposition to a draft permit and a request for a hearing within forty-five (45) days of public notice under subdivision 11.11.c; whenever possible the Director will schedule a hearing under this section at a location convenient to the nearest population center to the proposed facility.

11.13.d. Public notice of the hearing will be given as specified in subsection 11.11

11.13.e. Whenever a public hearing will be held the Director will designate a presiding officer for the hearing who will be responsible for its scheduling and orderly conduct.

11.13.f. Any person may submit oral or written statements and data concerning the draft permit. Reasonable limits will be set upon the time allowed for oral statements, and the submission of statements in writing will be required. The public comment period under subsection 11.11 will automatically be extended to the close of any public hearing under this section. The hearing officer may also extend the comment period by so stating at the hearing.

11.13.g. A tape recording or written transcript of the hearing will be made available to the public.

11.14. Reopening of the Public Comment Period.

11.14.a. If any data, information, or arguments submitted during the public comment period appear to raise substantial new questions concerning a permit, the Director will take one or more of the following actions:

11.14.a.1. Prepare a new draft permit, appropriately modified, under subsection 11.9.

11.14.a.2. Prepare a revised fact sheet under subsection 11.10. and reopen the comment period.

11.14.a.3. Reopen or extend the comment period under subsection 11.11 to give interested persons an opportunity to comment on the information or arguments submitted.

11.14.b. Comments filed during the reopened comment period must be limited to the substantial new questions that caused its reopening. The public notice under subsection 11.11 will define the scope of the reopening.

11.14.c. Public notice of any of the above actions will be issued under subsection 11.11.

11.15. Issuance and Effective Date of Permit.

11.15.a. After the close of the public comment period on a draft permit, the Director will issue a final permit decision. The Director will notify the applicant and each person who has submitted written comments or requested notice of the final permit decision. The notice will include reference to the procedures for appealing a decision on the permit. For purposes of this section the final permit decision means a final decision to issue, deny, modify, or revoke and reissue, or terminate a permit.

11.15.b. A final permit decision will become effective thirty (30) days after the service of Notice of Decision unless:

11.15.b.1. A later effective date is specified in the decision; or

11.15.b.2. Review is requested or evidentiary hearing is requested; or

11.15.b.3. No comments requested change in the draft permit, in which case the permit will become effective immediately upon issuance.

11.16. Response to Comments.

11.16.a. At the time that any final permit decision is issued, the Director will issue a response to comments. This response will:

11.16.a.1. Specify which provisions, if any, of the draft permit have been changed in

the final permit decision, and the reasons for the change; and

11.16.a.2. Briefly describe and respond to all comments on the draft permit or the permit application raised during the public comment period, or during any hearing.

11.16.b. The response to comments will be available to the public.

11.17. Administrative Record.

11.17.a. The provisions of a draft permit prepared under subsection 11.9 will be based on the administrative records consisting of:

11.17.a.1. The application and any supporting data furnished by the applicant;

11.17.a.2. The draft permit or notice of intent to deny the application or to terminate the permit;

11.17.a.3. The fact sheet;

11.17.a.4. All documents cited in the fact sheet; and

11.17.a.5. Other documents contained in the supporting file for the draft permit.

11.17.b. The Director will base final permit decisions on the administrative record consisting of:

11.17.b.1. Administrative record for the draft permit;

11.17.b.2. All comments received during the public comment period provided under subsection 11.11(including any extension or reopening under subsection 11.14);

11.17.b.3. The tape or transcript of any hearing(s) held under subsection 11.13;

11.17.b.4. Any written material submitted at the hearing;

11.17.b.5. The response to comments required by subsection 11.16 which identified and supports any change made in the draft permit and any new material placed in the record under that subsection;

11.17.b.6. Other documents contained in the supporting file for the permit;

11.17.b.7. An addendum to the fact sheet if needed; and

11.17.b.8. The final permit.

11.17.c. The administrative record will be complete on the date the final permit is issued.

11.17.d. Material readily available at the issuing agency office or published material that is generally available, and that is included in the administrative record under subdivisions 11.17.a and 11.17.b, need not be physically included with the rest of the record as long as it is specifically referred to in the fact sheet or in the addendum to the fact sheet.

11.18. Public Access to Information.

11.18.a. Any records, reports, or information and any permit, permit applications, and related documentation within the Director's possession will be available to the public for inspection and copying; provided, however, that upon a satisfactory showing to the Director that those records, reports, permit documentation, or information, or any part hereof would, if made public, divulge methods or processes or activities entitled to protection as trade secrets, the Director will consider, treat, and protect those records as confidential.

11.18.b. It will be the responsibility of the person claiming any information as confidential under the provisions of this subsection to clearly mark each page containing that information with the word "CONFIDENTIAL" and to submit an affidavit setting forth the reasons that the person believes that the information is entitled to protection.

11.18.c. Any document submitted to the Director which contains information for which

claim of confidentiality is made must be submitted in a sealed envelope marked "CONFIDENTIAL" and addressed to the Director. The document must be submitted in two (2) separate parts. The first part must contain all information which is not deemed by the person preparing the report as confidential and must include appropriate cross-references to the second part which contains data, words, phrases, paragraphs, or pages and appropriate affidavits containing or relating to information which is claimed to be confidential.

11.18.d. No information will be protected as confidential information by the Director unless it is submitted in accordance with the provisions of subdivision 11.18.c and no information which is submitted in accordance with the provision of subdivision 11.18.c will be afforded protection as confidential information unless the Director finds that the protection is necessary to protect trade secrets. The person who submits information claimed to be confidential will receive written notice from the Director as to whether the information has been accepted as confidential or not.

11.18.e. All information which meets the tests of subdivision 11.18.d will be marked with the term "ACCEPTED" and will be protected as confidential information. If the person fails to satisfactorily demonstrate to the Director that information in the form presented meets the criteria of subdivision 11.18.d, the Director will mark the information "REJECTED" and promptly return it to the person who submitted the information. The Director will retain a copy of the information for reference.

11.18.f. Nothing contained herein will be construed to restrict the release of relevant confidential information during situations declared to be emergencies by the Director or his designee.

11.18.g. Nothing in subsection 11.18 will be construed as limiting the disclosure of information by the department to any officer, employee, or authorized representative of the state or federal government concerned with effecting the purposes of this subsection.

11.18.h. Persons interested in obtaining information pursuant to this subsection must submit a request in accordance with the Environmental Quality Board rule 46 CSR 8.

11.19. 40 CFR §270.12. The provisions of 40 CFR §270.12 are excepted from incorporation by reference. Availability of information provided under this rule is controlled by the provision of W. Va. Code, §22-18-12 and subsection 11.18.

11.20. 40 CFR § 270.24. The provisions of 40 CFR § 270.24 are excepted from incorporation by reference. Consult the rules of the Office of Air Quality regarding emissions from process vents.

11.21. 40 CFR §§ 270.60(b) and 270.64. The provisions of 40 CFR §§ 270.60(b) and 270.64 are hereby adopted and incorporated by reference. Consult the rules of the Office of Water Resources and the Environmental Quality Board regarding additional requirements for underground injection wells.

11.22. 40 CFR §270.155. The provisions of 40 CFR §270.155 relating to the administrative appeal of a decision to approve or deny a Remedial Action Plan (RAP) application are hereby modified for the purposes of this rule as follows: Any commenter on the draft RAP or notice of intent to deny, or any participant in any public hearing(s) on the draft RAP, may appeal the Director's decision to approve or deny the RAP application to the Environmental Quality Board under subsections 11.4 through 11.17. Any person who did not file comments, or did not participate in any public hearing(s) on the draft RAP, may petition for administrative review only to the extent of the changes from the draft to the final RAP decision. Appeals of a RAP may be made to the same extent as for final permit decisions under §11. The Director will give public notice of any grant of review of a RAP by the Environmental Quality Board through the same means used to provide notice under subsections 11.4 through 11.17.

§33-20-12. Deed and Lease Disclosure; Notice in Deed to Property.

12.1. Recording Requirement. -- The owner of the property on which a hazardous waste

management facility is located must record, in accordance with state law, a notation on the deed or lease to the facility property -- or on some other instrument that is normally examined during title search -- that will in perpetuity notify any potential purchaser of the property that:

12.1.a. The land has been used to manage hazardous wastes; and

12.1.b. Its use is restricted under 40 CFR § 264.117(c).

12.2. Upon actual transfer of property which contains hazardous wastes that have been stored, treated, or disposed of, the previous owner must notify the Director in writing of the transfer.

12.3. Other Requirements. -- Nothing contained in this section will relieve any person from complying with the requirements on deed and lease disclosures set forth in W.Va. Code, § 22-18-21.

§33-20-13. Universal Waste Rule.

13.1. 40 CFR Part 273. -- The provisions of 40 CFR part 273 are hereby adopted and incorporated by reference with the modifications, exceptions and additions contained in this section.

13.2. 40 CFR §§ 273.20, 273.40, 273.56 -- The provisions of 40 CFR §§ 273.20, 273.40, and 273.56 relating to exports are hereby adopted and incorporated by reference. The substitution of terms in subdivision 1.6.a does not apply to the provisions of this subsection. In addition to the requirements contained therein, any person subject to the provisions of 40 CFR part 273 must file with the Director copies of all documentation, manifests, exception reports, annual reports or records, submitted to EPA, the Administrator or the regional Administrator as required by 40 CFR part 273.

13.3. 40 CFR § 273.70 -- The provisions of 40 CFR § 273.70 Imports are hereby adopted and incorporated by reference. Persons managing universal waste that is imported to West Virginia are subject to the requirements of this rule.

13.4. 40 CFR §§ 273.80 and 273.81 -- The provisions of 40 CFR §§ 273.80 and 273.81 are excepted from incorporation by reference. Consult the provisions of subdivision 2.5.d to petition to include a waste as a universal waste.

§33-20-14. Standards for the Management of Used Oil.

14.1. 40 CFR Part 279. -- The provisions of 40 CFR part 279 are hereby adopted and incorporated by reference with the exception contained in this section. Consult the rules of the Office of Air Quality regarding the burning of used oil.

14.2. 40 CFR § 279.82(b). -- The term EPA at 40 CFR § 279.82(b) will have the meaning of United States Environmental Protection Agency.

§33-20-15. Appeal Rights.

Any person aggrieved or adversely affected by the failure or refusal of the Director to act within a reasonable time on an application for a permit or by the issuance or denial of or by the terms and conditions of a permit granted by the Director under the provisions of this rule, may appeal to the Environmental Quality Board in accordance with the provisions of W. Va. Code §22B-1-1 et seq.

TABLE 1
PERMIT APPLICATION FEE SCHEDULE

STORAGE

EPA CODE ACTIVITY	FEE	FEE
S01 Container	<100 tons capacity $2,500.00	>100 tons capacity $3,750.00
S02 Tank	<100 tons capacity $2,500.00	>100 tons capacity $3,750.00
S04 Surface Impoundment	<1,000 tons capacity $10,000.00	>1,000 tons capacity $12,500.00
S05 Drip Pad	$2,500.00	
S03 Waste Pile	<100 tons capacity $5,000.00	>100 tons capacity $7,500.00
S06 Waste Pile (Containment Bldg.)	<100 tons capacity $5,000.00	>100 tons capacity $7,500.00

DISPOSAL

EPA CODE ACTIVITY	FEE	FEE
D80 Landfill	<1,000 tons/year $15,000.00	>1,000 tons/year $25,000.00
D81 Land Application	<1,000 tons/year $15,000.00	>1,000 tons/year $25,000.00
D83 Surface Impoundment	<1,000 tons/year $15,000.00	>1,000 tons/year $25,000.00

TABLE 1
PERMIT APPLICATION FEE SCHEDULE
(CONTINUED)

TREATMENT

EPA CODE ACTIVITY	FEE	FEE
T01 Tank	<100 tons capacity $2,500.00	>100 tons capacity $3,750.00
T02 Surface Impoundment	<1,000 tons/year $10,000.00	>1,000 tons/year $12,500.00
T03 Incinerator	<1,000 tons/year $5,000.00	>1,000 tons/year $7,500.00
T80 thru T93 Boiler/Industrial Furnace	<1,000 tons/year $5,000.00	>1,000 tons/year $7,500.00
T04 Other	$5,000.00	$7,500.00
T-94 Containment Bldg. Treatment	$5,000.00	$7,500.00

EMERGENCY PERMITS

EPA CODE ACTIVITY	FEE
State and Federal	Nil
Others	$500.00

TABLE 1
PERMIT APPLICATION FEE SCHEDULE
(CONTINUED)

MISCELLANEOUS

EPA CODE ACTIVITY	FEE
Permit Modification under 40 CFR, 270.42 (Class I)	$ 500.00
Permit Modification under 40 CFR, 270.42 (Class II and III) HWIR Staging Pile	$ 1,250.00
Modification under 40 CFR, 270.41	$ 2,500.00
Post-Closure Care Permit	$15,000.00
Closure Plans	$ 1,500.00

Rule 33 CSR 20 Hearing

On Thursday, July 21, 2005 a public hearing on proposed Rule 33 CSR 20 was held at the WVDEP's Charleston Office.

In attendance were Office of Waste Management's Assistant Director Mike Dorsey and ERS III Carroll Cather, also with the Office of Waste Management.

No one else attended the rule meeting.

There were no public comments, oral or written, on proposed rule 33 CSR 20 for 2006.

Rule 33CSR20 Sign In Sheet
July 21, 2005
6:00 pm

Name	Email Address	Telephone Number
Carroll Cather	ccather@wvdep.org	304 926 0499 ext 1317
Mike Dorsey	mdorsey@wvdep.org	926-0499 ext 1278

West Virginia Department of Environmental Protection

ADVISORY COUNCIL MEETING MINUTES

Wednesday - June 8, 2005
601 57th Street, SE, Charleston, WV
Dolly Sods Conference Room – 1st Floor

ATTENDEES:

Advisory Council Members:
Larry Harris
Jackie Hallinan
Rick Roberts
Lisa Dooley
Bill Raney
Karen Price

DEP:
Stephanie R. Timmermeyer, Cabinet Secretary
Karen G. Watson, Assistant General Counsel
Ken Ellison, Director - Division of Land Restoration
Lisa McClung, Director – Division of Water and Waste Management
John Benedict, Director – Division of Air Quality
Mike Zeto, WVDEP
Charlie Sturey, WVDEP
Jessica Greathouse, Chief Communication Officer – WVDEP – Public Information Office
James Martin, Chief, WVDEP - Office of Oil & Gas
Brett Loflin, WV Oil and Gas Conservation Commission
Dave Bassage- WVDEP
Greg Adolpson – WVDEP
Jim Mason – WVDEP
Fred Durham – WVDEP
Jim Mason – WVDEP
Mike Johnson – WVDEP

VISITORS:

Linda Tennant, Spilman, Thomas, Battle
Don Garvin – WVEC
Bob Asplund - Dominion

Karen Watson, WVDEP – Assistant General Counsel, called the meeting to order at 10:00 a.m.

Proposed rules for the 2006 legislative session are as follows:

- **45CSR1 "Control and Reduction of Nitrogen Oxides from Non-Electric Generating Units as a Means to Mitigate Transport of Ozone Precursors"**

  This rule partially fulfills the State's obligations in response to U.S. EPA's final rule, *Findings of Significant Contribution and Rulemaking for Certain States in the Ozone Transport Assessment Group region for Purposes of Reducing Regional Transport of Ozone* 27 Oct 1998, herein referred to as the *NO_x SIP Call*). Essentially, the federal rule requires that large emitters of Nitrogen Oxides (NO_x) significantly reduce emissions and constrains them to set budgets, starting in 2004 and maintaining them thereafter. Flexibility is built in through market-based "cap and trade" provisions which allow sources to buy/sell NO_x emission allowances from /to other program participants. For example, a source which has emitted NO_x in excess of its NO_x allowance allocation may purchase NO_x allowances under the federal NO_x Budget Trading Program to obtain the needed NO_x emission allowances to cover its actual NO_x emissions during an ozone season. Conversely, a source which emits fewer tons of NO_x than its NO_x allowance allocation may either bank or sell (trade) the excess NO_x allowances to another sources which needs them to cover its excess NO_x emissions.

  45CSR1 applies to large fossil fuel-fired stationary sources (large industrial boilers) with heat inputs greater than 250 mmBtu/hr. The Department of Environmental Protection, Division of Air Quality (DAQ) addresses Electric Generation Units (EGUs) in a separate rulemaking, 45CSR26. 45CSR1 also applies to large cement kilns and internal combustion engines which emitted more than one ton per day of NO_x from May 1 through September 30, 1995, although these sources are not subject to the NO_x Budget Trading Program.

  Comments:

  How will this relate to the new rule 40?

  Rule 40 will repeal Rule 1 in 2009.

  Are these kinds of trading effective in lowering NO_x emission?

  Yes, West Virginia has dropped from one of the highest to one of the lowest states.

  If one is testing, how do you see which sources account for improvement?

  Have CEMS on stacks so we can analyze data.

- **45CSR15 – "Emission Standards for Hazardous Air Pollutants Pursuant to 40CFR Part 61"**

  This rule establishes and adopts national emission standards for hazardous air pollutant (NESHAPO) and other regulatory requirements promulgated by the United States Environmental Protection Agency (USEPA) pursuant to 40CFR part 61 and section 112 of the federal clean Air Act, as amended (CAA). This rule codifies general procedures and criteria to implement emission standards for stationary sources that emit (or have the

potential to emit) one or more to the eight substances listed as hazardous air pollutants in 40 CFR §61.01(a). The rule incorporated by reference the NESHAP standards of 40 CFR Parts 61 and 65 (consolidated Federal Air Rule), to the extent referenced in 40CFR part 61, promulgated as of June 1, 2005. The rule also adopts associated appendices, reference methods, performance specifications and other test methods which are appended to these standards and contained in 40 CSR parts 61 and 65. Any person who constructs, reconstructs, modifies or operates any source subject to the provisions of 40 CFR Part 61 must comply with the applicable NESHAPS and this rule.

45CSR15, in conjunction with 45CSR34, establishes general provisions for emission standards for hazardous air pollutants (NESHAP) and other regulatory requirements promulgated by USEPA pursuant to section 112 of the federal Clean Air Act, as amended. 45CSR34 incorporates hazardous air pollutant standards codified by USEPA under 40CFR part 63 whereas 45CSR15, incorporates hazardous air pollutant standards promulgated by USEPA under 40 CFR Part 61.

This revised rule incorporates by reference the following new or revised NESHAP standards promulgated as of June 1, 2005: National Emission Standards for Hazardous Air Pollutants for Asbestos.

No Comments

- **45CSR16 – "Standards of Performance for New Stationary Sources Pursuant to 40CFR Part 60"**

This rule establishes and adopts national standards of performance for new stationary sources and other regulatory requirements promulgated by the United States Environmental Protection Agency (USEPA) pursuant to section 111(b) of the federal Clean Air Act, as amended (CAA). This rule codifies general procedures and criteria to implement standards of performance for new stationary sources set forth in 40 CFR Part 60. The rule incorporates by reference New Sources Performance Standards (NSPS) promulgated as of June 1, 2005. The rule also adopts associated appendices, reference methods, performance specifications and other test methods which are appended to such standards. Any person who constructs, modifies, reconstructs or operates an affected facility after the effective date of any NSPS under 40 CFR Part 60 must comply with the applicable NSPS and this rule.

This revised rule incorporates by reference the following new or revised NSPS standards promulgated as of July 1, 2005: Standards of performance for Industrial-Commercial-Institutional Steam Generating units; Stationary Gas Turbines: Steel Plants; and new and Existing Stationary Sources: Electric Utility Steam Generating Units (CAMR).

No Comments

- **45CSR25 – "To Prevent and Control Air Pollution from Hazardous Waste Treatment Storage or Disposal Facilities."**

  This rule establishes and adopts national standards of performance for new stationary sources and other regulatory requirements promulgated by the United States Environmental Protection Agency (USEPA) pursuant to the Resource Conservation and Recovery Act, as amended (RCRA). This rule codifies general procedures and criteria to implement emission standards set forth in the Code of Federal Regulations as listed in Table 25-A of the rule. The rule also adopts associated appendices, reference methods, performance specifications and other test methods, which are appended to these standards. Any person, who constructs, reconstructs, modifies or operates any hazardous waste treatment, storage, or disposal facility must comply with the West Virginia Hazardous Waste management Program, the codified federal emission standards, and this rule.

  45CSR25 establishes a program of regulation over the treatment, storage, and disposal of hazardous wastes in order to achieve and maintain such levels of air quality as will protect the public health and safety and the environment from the effects of improper, inadequate, or unsound treatment, storage, or disposal of hazardous wastes.

  This revised rule incorporates by reference the following provisions of 40 CFR Part 262 promulgated as of June 1, 2005: National Environmental Performance Track Program.

  Comments:

  What does the term "constituents" mean and how does one decide whether a source has prevented emissions that would cause harm under section 1.1.b of the rule?

  > *Look at the definition of "hazardous waste" and prevention language is meant to set forth overall purpose of the rule.*

  Does the agency consult with DHHR or other public health officials?

  > *No, the agency uses a risk-based approach and has a toxicologist employed. It also looks to EPA.*

- **45CSR33 – "Acid Rain Provisions and Permits"**

  This rule establishes and adopts the general provisions and operating permit program requirements for affected sources under the Acid Rain Program promulgated by the4 United States Environmental Protection Agency (USEPA) undertitle IV of the Clean Air Act, as amended (CAA). The rule also adopts associated appendices, reference methods, performance specifications and other test methods which are appended to these provisions. Under the Acid Rain Program and 45CSR33, no person may construct, modify, or operate or cause to be constructed, modified, or operated, an Acid Rain Source in violation of 40CFR Parts 72 through 77.

Title IV of the CAA requires each state to implement an operating permit system conforming to Title IV and Title V of the CAA, as amended. 45CSR33 incorporates by reference the federal counterpart regulation 40 CFR Parts 72 through 77. USEPA approved West Virginia's Acid Rain Program with its approval of the state's Title V Operating Permit Program on December 15, 1995.

This revised rule incorporates by reference the following revisions to 40CFR Parts 72 through 77 promulgated as of June 1, 2005: Permits Regulation, Sulfur Dioxide Allowance System, Sulfur Dioxide Opt-Ins; continuous Emission Monitoring, Excess Emissions (CAIR & CAMR).

No Comments

- **45CSR34 – "Emission Standards for Hazardous Air Pollutants For Source Categories Pursuant to 40 CFR Part 63**

This rule establishes and adopts national emission standards for hazardous air pollutants (NESHAP) and other regulatory requirements promulgated by the United States Environmental Protection Agency (U.S. EPA) pursuant to section 112 of the federal Clean Air Act, as amended (CAA). This rule codifies general procedures and criteria to implement emission standards for stationary sources that emit, or have the potential to emit, one or more of the hazardous air pollutants set forth in section 112(b) of the CAA. The rule incorporates by reference the NESHAP standards of 40 CFR Parts 63 and 65 (Consolidated Federal Air Rule), to the extent referenced in 40 CFR Part 63, promulgated as of June 1, 2005. The rule also adopts associated appendices, reference methods, performance specifications and other test methods which are appended to these standards and contained in 40 CFR Parts 63 and 65. Any person who constructs, reconstructs, modifies or operates any source subject to the provisions of 40 CFR Part 63 must comply with the applicable NESHAPS and this rule.

45CSR34, in conjunction with 45CSR15, establishes general provisions for emission standards for hazardous air pollutants and other regulatory requirements promulgated by U.S. EPA pursuant to section 112 of the federal Clean Air Act, as amended. 45CSR34 incorporates hazardous air pollutant standards codified by U.S. EPA under 40 CFR Part 63 whereas 45CSR15 incorporates hazardous air pollutant standards promulgated by U.S. EPA under 40 CFR Part 61.

This revised rule incorporates by reference the following new or revised NESHAP standards promulgated as of June 1, 2005: National Environmental Performance Track Program, National Emission Standards for Hazardous Air Pollutants for Source Categories, Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks, Plywood & Composite Wood Products; Effluent Limitations Guidelines and Standards for Timber Products Point Source Category; List of HAPs, Lesser Quantity Designations, Source Category List, Printing, Coating & Dyeing of Fabrics and Other Textiles, Stationary Combustion Turbines, Solvent Extraction for Vegetable Oil Production, Industrial, Commercial, Institutional Boilers and Process Heaters, Secondary Aluminum Production, Coke Ovens: Pushing, Quenching, and Battery Stacks, List of Hazardous Air

Pollutants, Petition Process, Lesser Quantity Designations, Source Category List; Petition to Delist of Ethylene Glycol Monobutyl Ether, Organic Hazardous Air Pollutants from Synthetic Organic Chemical Manufacturing Industry and Other Processes Subject to the Negotiated Regulation for Equipments Leaks, Coke Ovens: Pushing, Quenching, and Battery Stacks, Leather Finishing Operations, Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units, Revision of December 2000 Regulatory Finding on the Emissions of HAPs from Electric Utility Steam Generating Units & Removal of Coal- and Oil-Fired Electric Utility Steam Generating Units from Section 112(c) List, Generic MACT; Ethylene Manufacturing Process Units: Heat Exchange Systems and Waste Operations, Coke Oven Batteries, Miscellaneous Coating Manufacturing, Pharmaceuticals Production, Asphalt Processing & Asphalt Roofing Manufacturing and Iron and Steel Foundries.

No Comments

- **45CSR37 – "Mercury Budget Trading Program to Reduce Mercury Emissions"**

This rule establishes the general provisions and designated representative, permitting, allowance and monitoring provisions for the Mercury (Hg) Budget Trading Program, as a means of reducing national mercury emissions, pursuant to the federal Clean Air Mercury Rule (CAMR) established under Section 111 of the Clean Air Act (CAA) and 40 CFR 60, Subpart HHHH.

This rule partially fulfills the State's obligations in response to the United States Environmental Protection Agency's (U.S. EPA) final rule, *Standards of Performance for New and Existing Stationary Sources: Electric Utility Steam Generating Units* (15 March 2005, at FR XXXXX). The federal rule establishes standards of performance for mercury (Hg) for new and existing coal-fired electric utility steam generating units (utility units). This rule establishes a mechanism by which Hg emissions from new and existing coal-fired utility units are capped at specific nation-wide levels. U.S. EPA has specified that annual Hg emission reductions be implemented in two phases. The first phase of Hg reductions starts in 2010 and the second phase begins in 2018, and continues thereafter. Flexibility is built in through market-based "cap and trade" provisions which allow sources to buy or sell Hg emission allowances from or to other program participants.

45CSR37 applies to coal-fired electric utility steam generating units that have greater than 25 MW_e generating capacity.

Comments:

How will this affect Industrial boilers?

The rule does not cover these sources.

What kind of monitoring is required?

Have to install CEMS.

What happens when there is litigation?

If court remands, we would withdraw the rule.

Does the rule apply to natural gas-fired units?

No, only coal-fired.

Does the rule establish new fees?

No.

John Benedict informed the Council of the following reductions:

Nationally

2010 – 22%
2018 – 69%

WV:

2010 – 43%
2018 – 77%

- **45CSR39 – "Control of Annual Nitrogen Oxide Emissions to Mitigate Interstate Transport of Fine Particulate Matter and Nitrogen Oxides"**

This rule establishes general provisions and the designated representative, permitting, allowance, monitoring, and opt-in provisions for the state CAIR NO_X Annual Trading Program pursuant to the federal Clean Air Interstate Rule (CAIR) under Section 110 of the Clean Air Act (CAA), 40 CFR Part 96, Subparts AA through II, and 40 CFR §51.123 for state implementation plans as a means of mitigating interstate transport of fine particulates and nitrogen oxides (NO_X).

This rule partially fulfills the State's obligations in response to the United States Environmental Protection Agency's (U.S. EPA) final rule, *Rule to Reduce Interstate Transport of Fine Particulate Matter and Ozone (Clean Air Interstate Rule); Revisions to Acid Rain Program; Revisions to the NO_X SIP Call* (12 May 2005, at FR 25162). The federal rule requires that large emitters of NO_X reduce annual emissions through the constraint of set budgets. U.S. EPA is specifying that annual NO_X emission reductions be implemented in two

phases. The first phase of NO_X reductions starts in 2009; the second phase starts in 2015, and continues thereafter. The NO_X emission reduction requirements are based on controls that are known to be highly cost effective for electric generating units. Flexibility is built in through market-based "cap and trade" provisions which allow sources to buy or sell NO_X emission allowances from or to other program participants. Reducing upwind NO_X emissions will assist downwind $PM_{2.5}$ and 8-hour ozone nonattainment areas in achieving the National Ambient Air Quality Standards (NAAQS).

45CSR39 applies to large fossil fuel-fired electric generating units that have greater than 25 MW_e generating capacity. The CAIR NO_X Ozone Season Trading Program requirements are set forth in 45CSR40.

Comments:

How will this affect industrial boilers?

It will not. It only affects electric utilities.

Is there a set-aside provision?

Yes.

Agency should consider using the money to clean up streams impacted by acid rain.

- **45CSR40 – "Control of Ozone Season Nitogen Oxide Emissions to Mitigate Interstate Transport of Ozone and Nit5rogen Oxides"**

This rule establishes the general provisions and the designated representative, permitting, allowance, monitoring, and opt-in provisions for the state CAIR NO_X Ozone Season Trading Program pursuant to the federal Clean Air Interstate Rule (CAIR) under Section 110 of the Clean Air Act (CAA), 40 CFR Part 96, Subparts AAAA through IIII, and 40 CFR §51.123 for state implementation plans as a means of mitigating interstate transport of ozone and nitrogen oxides (NO_X).

This rule partially fulfills the State's obligations in response to the United States Environmental Protection Agency's (U.S. EPA) final rule, *Rule to Reduce Interstate Transport of Fine Particulate Matter and Ozone (Clean Air Interstate Rule); Revisions to Acid Rain Program; Revisions to the NO_X SIP Call* (12 May 2005, at FR 25162). The federal rule requires that large emitters of NO_X reduce ozone season emissions through the constraint of set budgets. U.S. EPA is specifying that ozone season NO_X emission reductions be implemented in two phases. The first phase of ozone season NO_X reductions starts in 2009; the second phase starts in 2015, and continues thereafter. The NO_X emission reduction requirements are based on controls that are known to be highly cost effective for electric generating units and large industrial boilers. Flexibility is built in through market-based "cap and trade" provisions which allow sources to buy or sell NO_X emission

allowances from or to other program participants. Reducing upwind ozone season NO_X emissions will assist downwind 8-hour ozone nonattainment areas in achieving the National Ambient Air Quality Standards (NAAQS).

Because CAIR subsumes the ozone season NO_X SIP Call trading program, existing NO_X SIP Call rules 45CSR1 and 45CSR26 and their ozone season NO_X reduction provisions must be "sunsetted" by January 1, 2009. Therefore, 45CSR40 contains a repeal clause which effectively "sunsets" these rules, meeting the approvability requirement for implementing CAIR.

45CSR40 applies to large fossil fuel-fired electric generating units that have greater than 25 MW_e generating capacity and large fossil fuel-fired industrial boilers with a heat input greater than 250 mmBtu/hr. This rule also applies to affected cement kilns and internal combustion engines, by retaining the NO_X SIP Call ozone season NO_X emission reduction requirements for these sources from 45CSR1. These existing requirements do not provide for inclusion in any cap and trade program for cement kilns and internal combustion engines. The CAIR NO_X Annual Trading Program requirements are set forth in 45CSR39.

No Comments.

- **33CSR41 – "Control of Annual Sulfur Dioxide Emissions to Mitigate Interstate Transport of Fine Particulate Matter and Sulfur Dioxide"**

This rule establishes general provisions and the designated representative, permitting, allowance, monitoring, and opt-in provisions for the state CAIR SO_2 Trading Program pursuant to the federal Clean Air Interstate Rule (CAIR) under Section 110 of the Clean Air Act (CAA), 40 CFR Part 96, Subparts AAA through III, and 40 CFR §51.124 for state implementation plans as a means of mitigating interstate transport of fine particulates and sulfur dioxide (SO_2).

This rule partially fulfills the State's obligations in response to the United States Environmental Protection Agency's (U.S. EPA) final rule, *Rule to Reduce Interstate Transport of Fine Particulate Matter and Ozone (Clean Air Interstate Rule); Revisions to Acid Rain Program; Revisions to the NO_X SIP Call* (12 May 2005, at FR 25162). The federal rule requires that large emitters of SO_2 reduce annual emissions based upon the implementation of retirement ratios for SO_2 allowances allocated under the Acid Rain Program. U.S. EPA is specifying that annual SO_2 emission reductions be implemented in two phases. The first phase of SO_2 reductions starts in 2010 and requires retiring SO_2 allowances at a 2:1 ratio; the second phase starts in 2015 and requires retiring SO_2 allowances at a 2.86:1 ratio, and continues thereafter. The SO_2 emissions reductions requirements are based on controls that are known to be highly cost effective for electric generating units. Flexibility is built in through market-based "cap and trade" provisions which allow sources to buy or sell SO_2 emission allowances from or to other program participants. Reducing upwind SO_2 emissions will assist downwind $PM_{2.5}$ and 8-hour ozone nonattainment areas in achieving the National Ambient Air Quality Standards (NAAQS).

45CSR41 applies to large fossil fuel-fired electric generating units that have greater than 25 MW_e generating capacity.

How was the fiscal note derived?

It is based on how many persons will be necessary to implement the rule.

When will these rules be filed with EPA?

September of 2006 for the CAIR rules and November 2006 for the mercury rule.

- **33CSR1 – "Solid Waste Management Rule"**

This legislative rule establishes requirements for the siting (including location standards), financial assurance, installation, establishment, construction, design, groundwater monitoring, modification, operation, permitting, closure and post-closure care of any solid waste facility that processes, recycles, composts, transfers or disposes of solid waste pursuant to W. Va. Code §22-15-1 et seq. The rule revision will clarify that the State Division of Highways is subject to an exemption from permitting for its construction/demolition wastes associated with highway construction. The rule will also clarify that the beneficial reuse of clean bituminous concrete (asphalt) is not subject to permitting requirements, just as the beneficial reuse of Portland cement is not subject to permitting.

Comments:

Has the agency worked with the Division of Highways on the rule?

Yes.

- **33-CSR20 – "Hazardous Waste Management"**

The purpose of this rule is to provide for the regulation of the generation, treatment, storage, and disposal of hazardous waste to the extent necessary for the protection of the public health and safety and the environment. The rule changes pick up two new federal regulations.

No Comments.

- **35CSR3 – "Coalbed Methane Wells Rule"**

This rule applies to coalbed methane wells. The rule changes are necessary to conform to recent statutory revisions related to spacing. The changes also address new technology allowing for the horizontal drilling of wells.

Comments:

Are operators required to sample both water quality and quantity?

Just quality.

A question was raised about the 100' and 1000' distance requirements from water wells and the agency explained how these provisions work.

A comment was made that landowners are confused by the rule's requirements and some further explanations would be helpful.

- **39CSR1 – "Rules of the Commission"**

The rule is designed to prevent waste, protect correlative rights and to conserve oil and gas in the State of West Virignia and is applicable to all activities subject to the jurisdiction of the Oil and Gas Conservation Commission. Where special field rules apply, the special field rules shall govern to the extent of any conflict. The rule changes are to clarify the agency can enter consent agreements and establish escrow accounts.

No comments.

- **60CSR8 "Environmental Excellence Program Rule"**

This legislative rule establishes the eligibility, procedures, standards and legal documents required for establishing a voluntary environmental excellence program, consisting of incentives to reward facilities that go beyond regulatory requirements.

Comments:

Will the reports that are filed be shared with the public?

Yes, they will be posted on the internet.

Will people pay the $1000 fee?

From pre-comments, most are willing to pay some amount. The administrative fund will cover the agency's operating costs.

A comment was made that there should be more programs like this, where companies are rewarded for good performance.

Lisa McClung, Director of DWWM, presented several rules under the water program that will be filed in the future. One was the concentrated animal feeding operation (CAFO) rule that was withdrawn by the agency in the 2005 session. As soon as EPA repromulgates its rule, the State will need to do so, perhaps by an emergency rule.

Then the new law transferring the authority to adopt water quality standards to the DEP was discussed. A question was raised concerning the public's involvement in the process. Ms. McClung responded that the process would be somewhat different from the agency's normal rulemaking.

Karen Watson then presented a list of bills passed by the Legislature during the 2005 regular session and signed by the Governor as follows:

1. **SB 428. Creating the Revitalization Environmental Action Plan.**

This legislation transfers the litter control and recycling programs from DNR to DEP and transfers the waste tire remediation program from DOH to DEP. The legislation was amended by the House to require the excess funds to be transferred to the state road fund rather than the solid waste reclamation and environmental response fund. SB 428 bill also incorporates the provisions of Senate Bill 42 at 22-15A-12(f) and (k). These provisions provide liability protection on waste tire remediation to bona fide purchasers of property containing waste tires.

2. **SB 603. Higher Education Bill – Brownfield Assistance Centers.**

This legislation creates a provision in W.Va. Code § 18B11-7 that authorizes Marshall University and West Virginia University to each create Brownfield Assistance Centers for the purpose of acquiring and developing property; seeking federal brownfield assistance funds; and providing assistance to municipalities and local governments for brownfields development.

Comments:

The Council discussed the funding mechanisms under the new law.

3. **HB 3354. Oil and Gas Permit Fee Increase.**

This legislation increases the permit fees for shallow wells from $250 to $400; the permit fees for deep wells from $250 to $650; and the reclamation fees for all well activity from $100 to $150. This legislation also includes some technical amendments to the statutes governing oil and gas and coal bed methane drilling and production. As introduced, the legislation increased the permit fees for coal bed methane wells from $250 to $650 but the legislation was amended by the Senate to eliminate this permit fee increase. In total, this legislation will generate approximately $350,000 for the Office of Oil and Gas.

4. **SB 406. Uniform Environmental Covenant Act.**

This legislation clarifies that environmental covenants containing affirmative obligations issued pursuant to the Voluntary Remediation and Redevelopment Act or other federal or state response actions are enforceable and perpetual; provides notice requirements for those placing environmental covenants on real property; and authorizes the department and local governments to enforce environmental covenants.

Comments:

A question was raised as to local governments.

The agency responded that they are included and have authority under the new law.

5. **HB 2723. Environmental Rules Bundle.**

This legislation consolidates the rules proposed by DEP and EQB. The DEP rules include revisions to the air, waste, water and mining programs. The EQB's rule relates to water quality standards. The EQB's rule was amended to eliminate Fill Hollow Creek in Preston County that the Board recommended to be included on the Tier 2.5 list. Tier 2.5 waters are waters of special concern and include naturally reproducing trout streams.

6. **HB 3236. Thin Seam Coal Tax Applicability.**

This legislation clarifies that the special tax on coal production and the special reclamation tax apply to coal produced from thin seams.

7. **HB 2333. Environmental Good Samaritan Act.**

This legislation protect landowners, groups and individuals who volunteer to reclaim abandoned mineral extraction lands and abate water pollution caused by abandoned mine lands from civil and environmental liability provided such activities are approved by the department and implemented in accordance with the plans approved by the department.

8. **HB 3033. Continuation of Special Reclamation Tax.**

This legislation extends the temporary special reclamation tax of seven cents for an additional eighteen months thereby maintaining the total special reclamation tax at fourteen cents per ton of coal produced. The legislation also requires the Secretary to evaluate and consider additional bonding mechanisms, such as full cost bonding and the creation of a water quality trust fund.

9. **SB 154. Beneficial Reuse of Water Treatment Plant Sludge.**

This legislation authorizes the beneficial reuse of water treatment plant sludge and requires the department to develop rules establishing criteria for the beneficial reuse of water treatment plant sludge.

10. **SB 287. Transfer of Rulemaking Authority for Water Quality Standards.**

This legislation transfers the authority to promulgate water quality standards and the authority to grant remining variances from the Environmental Quality Board to the department.

11. **SB 748. Credit for Mitigation.**

This legislation authorizes the secretary to grant credit for mitigation required by the Corps of Engineers pursuant to permit issued under Section 404 of the Clean Water Act when such mitigation satisfies mitigation required by the West Virginia Water Pollution Control Act.

12. SB 700. Creation of the Community Infrastructure Investment Program.

This legislation authorizes department to grant approval for the construction of privately financed water and sewage treatment facilities without the requirement of a certificate of need and convenience from the Public Service Commission provided that the project results in economic development and improvement of water quality. This legislation also authorizes municipal utilities and public service districts to enter into community service agreements with private developers for the purpose of constructing or expanding public utilities. This legislation also requires the secretary to promulgate emergency rules to implement the program.

Comments:

Two members expressed interest in the future rulemaking efforts and any stakeholders group.

13. HB 3356. Increasing authority of the Solid Waste Management.

This legislation requires the SWMB to conduct biannual performance reviews of county and regional solid waste authorities and grants the SWMB with the authority to supersede or exercise the powers granted to county or regional solid waste authorities that operate a solid waste facility

14. SB 455. Financing of Environmental Control Activities.

This Legislation authorizes the public service commission to review and approve the use of environmental control bonds for environmental control activities by certain qualified electric utilities.

The next meeting date was scheduled for September 15, 2005 – 1:00 p.m. – 3:00 p.m. – Trish will contact everyone with room location and agenda.

Karen Watson adjourned the meeting.

APPENDIX B

FISCAL NOTE FOR PROPOSED RULES

Rule Title: Title 33, Series 20, Hazardous Waste Management

Type of Rule: XX **Legislative** _____ **Interpretive** _____ **Procedural**

Agency Department of Environmental Protection

Address Office of Waste Management

601 57th Street, SE

Charleston, WV 25304

1. Effect of Proposed Rule

	ANNUAL		FISCAL YEAR		
	INCREASE	DECREASE	CURRENT	NEXT	THEREAFTER
ESTIMATED TOTAL COST	$ 0	$ 0	$ 0	$ 0	$ 0
PERSONAL SERVICES					
CURRENT EXPENSE					
REPAIRS & ALTERATIONS					
EQUIPMENT					
OTHER					

2. **Explanation of above estimates:**

This amendment will adopt by reference federal regulations in effect as of July 1, 2005 consisting of two changes. The first is the addition of one listed hazardous waste (K181) and the second is modification of the hazardous waste manifest and accompanying forms. These amendments are not projected to require additional operating expenses above the current level.

3. **Objectives of these rules:**

The objective of this rule is to stay in compliance with federal guidelines when implementing the State program. The consistency achieved in these revisions assures the State of maintaining its authorization status and, in turn, the continued receipt of federal funds that are vitally needed to implement the program.

4. **Explanation of Overall Economic Impact of Proposed Rule.**

A. Economic Impact on State Government.

Not anticipated to be appreciable.

B. Economic Impact on Political Subdivisions; Specific Industries, Specific groups of Citizens.

Not anticipated to be appreciable.

C. Economic Impact on Citizens/Public at Large.

N/A

Federal Register

Friday,
March 4, 2005

Part III

Environmental Protection Agency

40 CFR Parts 260, 261, et al.
Hazardous Waste Management System; Modification of the Hazardous Waste Manifest System; Final Rule

LIST OF INDUSTRIES POTENTIALLY AFFECTED BY REVISIONS TO THE RCRA MANIFEST FORM AND CONTINUATION SHEET—Continued

[EPA form 8700–22 & 22a]

Item	SIC	NAICS	Industry or sub-sector identity	Item	SIC	NAICS	Industry or sub-sector identity
17	38	334	Instruments & related products mfg.	40	8221	61131	Colleges & universities.
18	39	339	Miscellaneous manufacturing industries.	41	87	541	Engineering & management services.
19	4111	485	Local and suburban passenger transit.	42	8999	541	Services n.e.c.
20	4173	48849	Terminal service facilities for vehicle transport.	43	95	924 to 925	Environmental quality & housing administration.
21	42	484	Trucking and warehousing	44	9661	92711	Space research & technology.
22	4212	562112	Hazardous waste collection services.	45	9711	92811	National security (e.g. military bases).
23	4491	4883	Marine cargo handling..				

B. How Can I Get Copies of This Document and Other Related Information?

1. *Docket.* EPA has established an official public docket for this action under Docket number RCRA–2001–0032. The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. Although a part of the official docket, the public docket does not include Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. The official public docket is the collection of materials that is available for public viewing at the EPA Docket Center (EPA/DC), EPA West, Room B102, 1301 Constitution Ave., NW., Washington, DC. The EPA Docket Center Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, except legal holidays. The telephone number for the Reading Room is (202) 566–1742 and the telephone number for the EPA Docket Center is (202) 566–0270.

2. *Electronic Access.* You may access this **Federal Register** document electronically through the EPA Internet under the "Federal Register" listings at *http://www.epa.gov/fedrgstr/*. This Federal Register also may be accessed from EPA's main manifest web page at *http://www.epa.gov/epaoswer/hazwaste/gener/manifest/index.htm*. An electronic version of the public docket is available through EPA's electronic public docket and comment, EPA Dockets. You may use EPA Dockets at *http://www.epa.gov/edocket/* to view public comments, access the index listing of the contents of the official public docket, and access those documents in the public docket that are available electronically. Although not all docket materials may be available electronically, you may still access any of the publicly available docket materials through the docket facility identified above. Once in the system, select "search," then key in the appropriate docket identification number.

Outline

the mailing address already required on the form. We are also finalizing the proposed changes to the manifest form acquisition requirements, and providing more guidance and information on the particulars of the Registry process by which EPA will authorize entities adhering to the new federal printing specification to print and distribute manifests.

In addition, with respect to the proposed rejected waste and residue fields and procedures, we accepted the numerous comments asking EPA to allow users to mark up the original manifest in some instances when they forward rejected waste shipments to alternate facilities or return shipments to generators, rather than always require treatment, storage, and disposal facilities (TSDFs) to initiate a new manifest. We also adjusted the rejected waste proposal to explain that the TSDFs that initiate new manifests for purposes of forwarding rejected waste or residue shipments bear the limited liability of an "offeror" with respect to the forwarded wastes, and not the more extensive liabilities of RCRA generators. We discuss these and other changes from the proposed rule in the following section.

II. Detailed Discussion of the Final Rule

A. *Standardization of the Hazardous Waste Manifest.* As we explained in the May 22, 2001 proposed rule (see 66 FR 28240 at 28243), the adoption of the Uniform Manifest in 1984 did not entirely eliminate the problems with lack of consistency and uniformity that have existed since the inception of the manifest program. Many problems arise from states' varying use of available optional fields, users' different understandings about what information to enter in the current data fields, and different copy distribution systems and submission requirements among authorized state programs. All of these differences have forced waste handlers to expend considerable effort and incur significant paperwork burden in order to comply with the varying state manifest requirements. We received many strongly positive comments endorsing our proposal to further standardize the manifest format and procedures, effectively reducing the burden on waste handlers.

Standardization of the manifest form involves three related measures that we included in the proposed rule. First, the proposed rule discussed eliminating or consolidating several of the existing data fields whose waste transportation or data tracking functions were neither essential nor appeared justified by the burden they caused to the manifest system. Second, the proposed rule discussed adding several new fields that EPA, states, or stakeholders believed were necessary to improve the effectiveness of the manifest for tracking waste. Third, the proposed rule addressed eliminating or reducing the number of optional fields for use by the states. The Uniform Manifest adopted in 1984 included eleven such optional fields. The states varying implementation of these optional fields on state-specific formats resulted in generators, transporters and TSDFs having to stock a variety of states' manifest forms and remain cognizant of the differences in states' requirements. We will explain how the final rule addresses each of these three proposed measures.

B.1. *Elimination or Consolidation of Existing Data Elements—Introduction.* In the NPRM, we proposed to remove nine data elements from the Uniform Manifest form. All but one of these nine items appear in what is known as the "state optional" or upper right area of the current manifest, rather than being among the items that are designated as mandatory fields. The nine data elements that we proposed to remove or consolidate with other spaces on the manifest were:

VIII. Item A State Manifest Document Number,
IX. Item B State Generator's ID,
X. Item C State Transporter's ID,
XI. Item D Transporter's Phone,
XII. Item E State Transporter's ID,
XIII. Item F Transporter's Phone,
XIV. Item G State Facility's ID,
XV. Item H Facility's Phone, and
XVI. Item J Additional Descriptions for Materials.

In short, the proposed rule would have removed all of the fields currently designated as "state optional," except for current optional Item I, which is reserved for collecting RCRA waste code information, and current Item J, which collects data on handling codes. With regard to Item I, we proposed to retain, enlarge and make mandatory the optional data element for collecting waste codes. Section II.F.6 of this preamble includes a discussion of the final rule's treatment of waste code information. With respect to Item J, we proposed to standardize the information to be entered here around the hazardous waste management method codes entered for hazardous waste reporting purposes.

The proposal to remove the other nine data elements was grounded on several factors: (1) A desire to reduce the time spent completing the manifest; (2) the recognition that several of the nine elements were redundant with each other; (3) the recognition that a few states were using several of the optional fields as tools for "niche" data reporting, sometimes in ways that were not contemplated by EPA or DOT in 1984 when we decided to include the optional fields on the manifest; and (4) the recognition that all shareholders prefer that the manifest remain a one-page format that collects the most essential waste shipment information. Thus, the addition of several new tracking fields to the form will of necessity require space to be freed up on the form for this new information, and require us to remove items that appear less essential for tracking waste shipment and management information.

We received several comments endorsing the proposal to eliminate all nine of these "optional" fields as a way of reducing burden and variability in the manifest system. These commenters pointed out that the data involved consisted largely of state ID Numbers, facility phone numbers, or other static information that emergency responders or waste handlers could obtain elsewhere. These comments were balanced by other comments suggesting that most of the fields we proposed to remove provided some useful contact information that should be entered on the form for the benefit of emergency responders, state agency personnel, or in some instances, other waste handlers. However, we clearly could not retain all of these data elements and still accommodate any changes to the form that would add or delineate in more detail other waste tracking information that stakeholders urged us to adopt as part of the manifest revision effort, unless we were willing to expand the manifest to a two-page document. Given that the current one-page manifest already entails preparing and filing between four and eight copies, and the concerns that have been raised by users with Continuation Sheets that can be separated and misplaced during transit, we do not believe that a two-page format would be an acceptable outcome. We believe that it is essential to retain the manifest's one-page format, and this choice necessitates that additions to the form be offset with deletions. Thus, in making final decisions on what fields to eliminate, the Agency relied heavily on the numerous comments on this subject, but had to exercise its judgment in determining which data elements were most essential to the transportation and tracking functions of the manifest, which data elements avoided duplication with data collected elsewhere, and which data elements

greatly inconvenienced if they must at times resort to their internal contact lists rather than the Uniform Manifest to obtain a transporter's current phone number. Therefore, today's final rule removes the transporter phone number data elements from the revised manifest form.

6. *Proposed Removal of State Facility's ID Field.* Item G is an optional field on the existing Uniform Manifest, used to record a State Facility ID number. We proposed to remove this data element in May 2001 based on our belief that it produced duplicate information already provided by the EPA ID Number in Item 10 of the existing form. Designated facilities with EPA ID Numbers already are identified uniquely on the manifest and in RCRA databases (*e.g.*, RCRAInfo). While commenters suggested it was convenient to use these numbers to ensure compliance with state licensing requirements, we did not receive comment that refuted our argument concerning redundancy. While permitted states may issue their own facility identification numbers, it is not necessary to burden waste handlers or the revised, standardized manifest form, with a requirement to enter duplicative facility identifiers. Therefore, this final rule removes the State Facility ID data element from the revised manifest form.

7. *Proposed Removal of Facility's Phone Field.* The existing manifest form designates Item H as an optional data element where users can record the designated facility's phone number. The NPRM proposed to remove this data element from the revised form because we believed that users could obtain this contact information through means other than the manifest. However, we received a substantial number of comments from waste handlers and authorized states urging EPA to retain this data field. We learned from these commenters that generators, transporters and agency personnel use this information to address discrepancies, exceptions or other issues that arise from shipments of waste moving in commerce. Resolving discrepancies and exceptions are important waste tracking functions served by the manifest, and the comments persuaded us that the facility's phone number facilitates the performance of these critical tracking functions. Therefore, the revised manifest form retains space for entering the facility's phone number. The revised manifest will include this space in the Designated Facility's Name and Site Address field as a mandatory data element.

8. *Proposed Consolidation of Additional Descriptions and Special Handling Fields.* In the May 2001 NPRM, we proposed to remove Item J (Additional Descriptions for Materials Listed Above) from the manifest and to consolidate this information with that of existing Item 15 (Special Handling Instructions and Additional Information). Today's rule creates a combined data element, Special Handling Instructions and Additional Information, which appears as Item 14 on the revised manifest form. We proposed to consolidate these two data elements to create space on the revised form to accommodate the new International Shipments field and expanded discrepancy space, and because stakeholders previously had petitioned EPA to combine these two information fields.[1]

Comments on this proposal reflected a variety of views. While commenters did not object *per se* to our proposal to consolidate these two data elements, we received several comments expressing concerns about the amount of space allotted to the field, as well as many comments concerning the type of information that individual states might require in this block. Comments from generators, waste industry members and states stressed the need for more space on the revised manifest for the Special Handling and Additional Information field than we originally proposed. Industry commenters expressed the concern that the field, as proposed, would leave waste handlers too little space to enter waste profile information, bar codes depicting waste information, or information already required in this space by existing federal and state programs. State commenters echoed this concern, and one state (New York) added that the proposed field would not allow the state to track parameters such as the specific gravity of wastes (used to convert waste volume units to units of mass) or the ultimate handling code for wastes processed by multiple TSDFs. Industry comments also voiced strongly and frequently the concern that the revised Special Handling and Additional Information field would become a "catch-all" for entering various types of information. These commenters worried that eliminating many of the current "state optional" fields from the form would result in state programs requiring waste handlers to enter this information instead in Item 14 of the revised form. These commenters urged EPA to explicitly restrict the information that state agencies could require in this block, so that the anticipated paperwork burden reductions under the revised form would not be diminished.

In response to these comments, today's revised manifest form includes Item 14 as proposed, but with minor modifications. Because we accepted comments suggesting that EPA not include a third Transporter block on the revised form, and accepted also the comment that the proposed form provided too much space for the new International Shipment field, we were able to create additional space for purposes of Item 14.

More significantly, we are limiting the scope of information that users may enter in this field. Due to today's changes to other manifest form data elements, some of the previously required information in the "Special Handling" field of the Uniform Manifest will no longer need to be entered in Item 14. For example, the revised form includes a new International Shipment field, which tracks imports and exports of hazardous waste. Thus, it will not be necessary to enter export shipments' port of exit information in the revised form's Special Handling and Additional Information Block, nor will it be necessary for transporters to sign and date the manifest here to indicate when a waste shipment has left the U.S. Moreover, the revised form has space to enter up to six RCRA waste codes for each waste stream identified in Item 9b of the new form. Today's rule also clarifies that no more than six waste codes may be entered for each waste stream (*see* Section II.F.3 of this preamble), which should eliminate the need to enter additional RCRA waste codes in this block.

Under today's final rule, EPA is limiting the use of new Item 14 primarily to waste handlers to record their site-specific or shipment-specific information. This will allow waste handlers to supply information to facilitate the proper management or tracking of waste materials as required by their companies' business processes. With regard to the "Special Handling" aspect of this Item, we expect waste handlers to continue to use this field to enter waste profile numbers, container codes, Emergency Response Guide numbers, bar codes or other site-specific or company-specific tracking information. We anticipate that waste handlers may use the "Additional

[1] The manifest reform effort began in 1990 with the filing of a rulemaking petition by the Association of State and Territory Solid Waste Management Officials (ASTSWMO). The petition requested, among other things, greater standardization of the manifest form, including the consolidation of these two elements. For further information about this petition, see RCRA Docket F–2000–UWMP–FFFFF.

Generator Site Address field in the proposed rule form, we highlighted the issue and solicited comment on its merits. Originally, we refrained from including the Site Address field in the proposed rule form because we wanted to avoid introducing duplicative data elements to the manifest form. At that time, we thought that the manifest already included the site-specific Generator ID number, and we believed that this site-specific number, in tandem with the generator's mailing address, was sufficient to identify a generator site by location.

Comments on this issue, however, persuaded us to include the Generator's Site Address field on the revised form. This issue was of great interest to the authorized states who identified the addition of the generator site address as a priority issue during the development of the proposed rule. Our state agency partners advised us that the mailing address for a company's corporate offices could be in a different state from the site address where waste shipments actually initiated. Thus, manifest copies could be routed erroneously to the state corresponding to the mailing address, rather than to the state responsible for overseeing the generation site. In addition, these states suggested that the EPA Generator ID number was not always a reliable site-specific identifier of generation, and that the Generator's Site Address on the manifest would be a more reliable indicator of the origin of a waste shipment in a manifest system that purports to track waste from "cradle-to-grave." Furthermore, a site address is necessary in those instances where shipments must be returned to the generator. Although industry commenters tended to oppose the proposal to add a Generator's Site Address field to the form, some agreed it would be useful for returning shipments.

After considering these comments, we have decided to include the Generator's Site Address field on the manifest. We retained the current requirement to enter a generator's mailing address, because we believe that the generators should be able to designate a corporate office where signed copies of the manifest are collected and managed. We do not believe that requiring generators to enter their site address overburdens them since they only have to do so when this location differs from their mailing address. To ensure that the new field's limited use is understood clearly by waste handlers, the field's caption contains distinct text explicitly stating that the site address should only be entered when it is different from the mailing address.

3. *Addition of Emergency Response Phone Number Field.* Because the hazardous waste manifest is also a "shipping paper" under DOT's Hazardous Materials Regulations (HMRs), it must include information specified in the HMRs for shipping papers. As we explained in the proposed rule, DOT currently requires an Emergency Response Phone Number on the shipping paper for most shipments of hazardous materials (*See* 49 CFR 172.604). Without discrete space provided for this regulatory requirement on the manifest, generators have complied by entering the emergency responder's phone number in either the margin of the form, the Generator's Phone Number field, the Special Handling field, or in the spaces designated for DOT shipping descriptions.

The Emergency Response Phone Number field provides vital information for emergency responders to use in the event of an accident or other serious incident that occurs while a hazardous materials shipment is en route to its destination. The phone number must belong to the generator or other agency or organization that accepts responsibility for providing detailed information about the shipment. Additionally, the number must correspond to a phone that is monitored 24 hours per day while the waste is in transportation. The person assigned to this phone must have either personal knowledge or immediate access to a person with knowledge of the material being shipped, as well as comprehensive emergency response, spill cleanup and incident mitigation information about the material. To communicate the importance of this information, EPA proposed in the NPRM to add a specific data element to record this information. Also, to ensure that there would be neither redundancy in the recording of phone numbers nor ambiguity about which phone was intended for emergency response purposes, we proposed to eliminate the two optional Transporter Phone Number fields. We are finalizing this approach in today's final rule. Therefore, under today's revised manifest form, the manifest will continue to require the phone numbers of the generator and the designated TSDF (so that exceptions and discrepancies can be resolved) to be entered, and it will now require as well the phone number designated for the vital emergency response functions. The revised manifest form will not provide space for entering additional transporter phone numbers.

The use of the Emergency Response Phone Number field (Item 3) is appropriate for those cases in which the listed phone number applies to every item of waste material listed in Item 9b of the manifest. However, there may be instances (*e.g.*, consolidated shipments) where more than one emergency response number may apply to the various waste items listed on the manifest, because specific listed items may be associated with different emergency response numbers. In these cases, DOT regulations specify that the applicable emergency response numbers should appear immediately following the shipping descriptions under Item 9b. See 49 CFR 172.604(a)(3). Therefore, in order to maintain consistency with the applicable DOT regulations, today's rule also clarifies that Item 3 is to be used for entering emergency response phone information only when there is one Emergency Response Phone Number that applies to all the waste materials described in Item 9b. Otherwise, the phone number associated with each specific material should be entered after the description of the material in Item 9b.

4. *Addition of International Shipments Field.* In the May 22, 2001 NPRM, we proposed to revise the manifest form by adding an explicit field for recording information on transboundary shipments of hazardous wastes. These shipments involve imports and exports of hazardous waste to and from the U.S. under bilateral agreements or other arrangements with foreign governments, waste importers and waste exporters. Current regulations require hazardous waste exporters to record the waste's port of exit on the form; transporters exporting waste must sign and date the manifest to indicate when the shipment left U.S. territory and leave a copy of the manifest with U.S. Customs officials.

While these hazardous waste export requirements already apply to exporters and transporters, the current Uniform Manifest does not reserve any specific space for collecting this data. In order to comply with existing regulations, exporters enter the port of exit and transporters provide the date and signature for a shipment leaving the U.S. in the Special Handling and Additional Information field of the current form. In several cases, transporters found to be out of compliance with the current requirements have alleged that their violations resulted partly from a lack of clarity on the manifest form as to how and where they should enter the information.

To alleviate this problem and reduce the complexity and burden of completing the manifest, we proposed

Comments on the proposed rule did not support including a third Transporter field. Upon viewing the draft of the revised form, commenters became aware that no space was available to accommodate non-essential data elements. We received several comments from industry and state commenters suggesting that a third Transporter block should not be included on the revised form, since a third transporter was not used often enough to warrant taking up valuable space that could be better allocated toward shipping descriptions or other data elements that commenters regarded as more critical. We agree with these comments and have accepted the suggestions to exclude the third Transporter item from the revised form. Today's final rule withdraws both the third Transporter item and the corresponding signature space for the third transporter from the revised manifest form.

D. *Reduction or Elimination of "Optional" Field Designations.* Another facet of manifest form standardization deals with the degree to which the form will continue to provide state optional fields for use by authorized states. In the 1984 Uniform Manifest Rule, EPA announced the availability of eleven such fields that states could select from and require waste generators to complete. These optional fields were established based on state agency consultations and were intended to collect information commonly required by authorized state programs. The eleven state optional fields were displayed primarily in the form's upper right portion. The left-hand side of the form included the mandatory federal data elements supporting RCRA mandated and federally required core transportation-related and waste shipment routing functions. Neither the federal transportation laws nor RCRA 3003 mandated the establishment of these optional fields, and EPA and DOT could have established a manifest that did not allow for such state variations. However, at the time the Uniform Manifest Rule was initially developed, EPA and DOT were convinced that including optional fields would be acceptable. If these types of information needs could be accommodated on the manifest form, then it would not be necessary for the states to require waste handlers and facilities to submit separate reports containing this information.

While this policy may have seemed beneficial in 1984, we now have had almost twenty years of experience with the Uniform Manifest and the coexistence on the form of mandatory federal elements and state optional fields. Over the course of the negotiated manifest reform rulemaking activity in the early 1990s and continuing through the development of our proposed rule in May 2001, we have consistently heard strong complaints from manifest users about the current system. Users have told us that the current manifest system is burdensome because it allows too much variability among the manifests codified in state statutes or regulations and distributed by the various states. Thus, it became a goal of this rulemaking to reduce or eliminate this variability, if this could be done practically and could be accomplished without undue disruption to the authorized states' RCRA programs.

In Section II.B., we explained our final decisions on action we took to remove several of the data elements on the current manifest. We removed several optional fields that were either duplicative or nonessential, while retaining several others and designating them as mandatory for future purposes in the revised form. In total, we eliminated nine of the current optional fields; we also revised § 271.10(h)(1) by removing the provisions in this section that correspond to those nine optional fields. Whether these fields were eliminated or designated mandatory, they will no longer cause burdensome variability under the newly revised form.

In our May 2001 proposed rule notice, we proposed to retain two optional fields on the revised form. We knew from years of experience with the manifest system that states considered RCRA Waste Codes (current Item I) and Handling Codes (current Item K) two of the most valuable fields on the form. States used these codes to track waste generation and management trends, to facilitate the completion of or verify annual or biennial report submissions, and to support state assessments that are levied for waste generation or management activities. Our intention at the time of the proposal was to expand waste code information space and to standardize any handling codes that users entered to describe waste management processes. We proposed to retain these elements as optional fields. However, we requested comments on whether handling codes should be made mandatory in all the states, and on additional ways to integrate manifest data collection with the RCRA biennial reporting process.

The comments on this issue were strong and nearly unanimous. Nearly every commenter urged EPA to finalize the rule with mandatory waste codes and handling codes, rather than retaining their current optional field designations. Commenters further explained that completing a manifest that was consistent across states would reduce their compliance burden because they would not have to spend time determining which of the optional fields were used by each state. The Agency was impressed that commenters identified standardization as a preeminent goal. Commenters urged us to go further than our proposed rule by adopting a truly standardized manifest that eliminates all optional field designations.

EPA agrees with the comments urging us to eliminate all optional field designations from the manifest form. Therefore, EPA declares that all fields set out in this final rule's revised form are mandatory. You can find additional discussion of the standardization of handling code and waste code reporting on the manifest in Sections II.E.5. and II.F.6. of this preamble. When the revised form is in use among the states, there will no longer be optional fields to determine and complete.

E.1. *Proposed Standardization of Handling Codes-Introduction.* In the May 2001 NPRM, EPA proposed to standardize the Handling Codes information field on the revised manifest. On the current form, Handling Codes is a state optional field, to be entered in Item K of the Uniform Manifest. As we explained in the proposed rule preamble (see 66 FR 28240 at 28256), authorized states currently implement the Handling Codes field in a variety of ways. Some states require handling codes as set out in Appendix I, Table 2 under 40 CFR Parts 264 and 265, while other states require processing codes assigned for purposes of the RCRA Biennial Report. Other states have developed their own process codes, which have special meaning in the states' databases and determine how states assess waste management fees. Stakeholders identified variability in the states' use and meaning of handling codes as an issue under the current manifest system, particularly for the generators and TSDFs that were subject to multiple states' handling code requirements.

Moreover, during meetings on the development of the proposed rule, industry members and states both urged EPA to standardize the handling codes and harmonize them with RCRA Biennial Report process codes. This would not only eliminate variability among the states on what codes would be entered, but it also would help integrate manifest data collection with the biennial reporting process. Ultimately, including the process codes

Code	Hazardous waste report management method code group	Corresponding codes from 1999 hazardous waste report*
H082	Adsorption	M082, M092, M103
H083	Air or steam stripping	M083
H101	Sludge treatment and/or dewatering	M101, M102, M109
H103	Absorption	M103
H111	Stabilization or chemical fixation prior to disposal at another site	M111
H112	Macro-encapsulation prior to disposal at another site	M112, NEW
H121	Neutralization only	M121
H122	Evaporation	M122
H123	Settling or clarification	M123
H124	Phase separation	M124
H129	Other treatment	M078, M079, M085, M089, M094, M099, M119, M125, M129
	Disposal	
H131	Land treatment or application (to include on-site treatment and/or stabilization)	M131
H132	Landfill or surface impoundment that will be closed as landfill (to include on-site treatment and/or stabilization).	M132, M133
H134	Deepwell or underground injection (with or without treatment)	M134
H135	Discharge to sewer/POTW or NPDES (with prior storage—with or without treatment)	M135, M136
	Storage and Transfer	
H141	Storage, bulking, and/or transfer off site—no treatment/recovery (H010–H129), fuel blending (H061), or disposal (H131–H135) at this site.	M141

*For clarification only. Use the Hazardous Waste Report Management Method codes in the left column only (*i.e.*, codes beginning H___).

5. *Designation of Process Codes as Mandatory.* While we proposed to retain the revised handling codes as an optional field for use by states, we also requested comment on whether to deem Hazardous Waste Report Management Method Codes a mandatory field. At that time, we were wary of imposing new reporting burdens on those waste handlers in states that did not require handling codes. On the other hand, we were aware that much of the manifest use burden arose not so much from completing individual data elements, but from determining what elements were required in individual states and by complying with state-specific information and instructions. The great majority of commenters expressed a strong desire to designate the handling codes mandatory for use in all states. Because most states which currently require the codes will continue to require them, the commenters did not see any reason to maintain the optional status. The commenters also believed that making one set of codes mandatory would reduce the burden associated with completing the manifest; rather than having the regulated community learn several different coding systems, one set of codes would be used in every state. This change would increase consistency in manifest requirements and likely reduce paperwork burdens. Therefore, today's final rule mandates the entry of the Hazardous Waste Report Management Method Codes on the manifest. In addition, EPA has re-designated the Hazardous Waste Report Management Method Code field as Item 19 (rather than Block B) in the revised form and placed it in the bottom section of the form among the data elements that designated facilities must complete.

6. *Party Responsible for Completing Item 19.* The majority of commenters supported our proposal to identify the designated TSDF as the party responsible for completing Item 19. TSDFs often determine waste management methods on a day-by-day basis, (*e.g.*, TSDFs may use fuel blending on a waste stream on one day and solvent recovery the next). Consequently, many commenters argued that generators could not be expected to foresee the management method the TSDF would choose for a particular shipment of waste. On the other hand, several commenters were concerned that the generator would continue to be held responsible for the disposal of the waste, yet the generator would lose control of the waste's disposal if TSDFs entered this information.

Today's rule finalizes the requirement for TSDFs to complete Item 19 as proposed. While generators must ensure their wastes are disposed of at authorized facilities, their responsibility does not extend to controlling the disposal process. In most instances, the disposal firm is an independent contractor. Therefore, we believe it is appropriate for TSDFs to enter the process code reflecting their management of the waste, rather than requiring the generator to enter this information.

F.1. *Proposed Standardization of RCRA Waste Code Fields—Introduction.* In the May 2001 NPRM, we proposed: (1) To redesignate the block for entering RCRA waste numbers as Block A and to title this block "Waste Codes;" (2) to expand the space provided for entering waste codes to accommodate up to six codes for each material identified with a distinct DOT description; (3) to designate the top three spaces in Block A for the entry of federal waste codes, and the bottom three spaces for state waste codes; and, (4) to establish a toxicity-based hierarchical approach for determining the ordering of waste codes on the new Waste Codes field. The purpose of the hierarchical approach was to ensure that waste codes suggesting the presence of high toxicity wastes would appear first on the form, so that manifest users and emergency responders would be alerted to their presence. Finally, EPA proposed to retain RCRA waste codes as an optional field for states. At the time of the proposal, we did not want to impose additional reporting burdens on waste handlers operating in states that did not require waste code data.

2. *Comment Analysis.* We received many comments from authorized states and from industry on the proposal to expand the waste code field and the

limited somewhat when a hazardous waste is described by a non-redundant state waste code that identifies that a waste is regulated uniquely or subject to a differential fee imposed by a state hazardous waste program. In such a case, the state waste code must appear among the 6 waste codes that describe such a waste. We also are finalizing the waste code space on the revised form without any partitions between individual digits or characters, since commenters indicated that the inclusion of partitions actually could frustrate reporting these data legibly.

4. *Final Rule Determinations—Entering State Waste Codes.* In addition to commenting on the number of waste codes users may enter in Item 13 of the revised form, commenters suggested that the RCRA hazardous waste manifest should only include information on federally regulated RCRA wastes. Other commenters expressed the view that this rule should affirm that states may require users to enter state waste codes on the revised form, so long as no corresponding federal code exists that describes the same waste. Other commenters expressed the same or similar point of view, suggesting that redundant state waste codes should not be entered on the form.

We continue to believe, as we first indicated with the first Uniform Manifest Rule in 1984, that it is preferable to include federal and state waste codes on the RCRA manifest. Including both types of codes avoids the need for hazardous waste handlers to develop separate recording systems to report their involvement with state regulated wastes. However, in this final rule, we clarify in Item 13 of the form instructions and in § 271.10(h)(1) that state waste codes are to be included on the revised manifest form where they are not redundant with federal waste codes describing the same waste. The federal RCRA waste codes are understood nationwide, so in cases where a state code duplicates entirely a federal code for a RCRA hazardous waste, it serves the burden reduction purposes of this rulemaking to enter only the federal code on the revised manifest. Thus, state waste codes must be entered on the revised form to describe state regulated hazardous wastes for which there is no corresponding federal code, as well as state codes which convey additional information not conveyed by the corresponding federal code. These state codes most often appear in connection with what are known as the "state only" hazardous wastes, that is, wastes which are regulated as hazardous in an authorized state program, but not under the Federal Subtitle C regulations.

However, examples also exist where there may be a federal waste code that corresponds generally to a waste, but the state adopts a unique code or perhaps adds another character to the federal waste code to designate that there are requirements unique to that state that apply to the waste. Since this information is not conveyed by the federal code itself, the state's adoption of a unique code or its addition of another character to the federal code would not be considered redundant with the federal code for purposes of this rule. These state codes must be entered in the space allotted for federal and state waste codes in Item 13 of the revised form. There is no discretion to omit such state codes from Item 13 of the revised form.

As one example, a state may regulate a hazardous waste identified with a federal waste code (*e.g.*, lead wastes, regulated federally for lead levels at or above 5.0 mg/L, and denoted D008), but regulate differently or more extensively than the EPA rules (*e.g.*, a state regulates lead wastes at the 1.0 mg/L level or higher). Similarly, a state may regulate a listed federal hazardous waste, but regulate it for the presence of constituents other than those which gave rise to the federal listing decision. In such cases, a specific state code that identifies the materials that are regulated uniquely by the state in such a manner must be included on the manifest.

As another example, a state may require its generators to add the letter "R" to a federal waste code to indicate that the waste described by the federal code is to be recycled, or may require the letter "C" to be added to a federal code to indicate a waste has been commingled with other generators' wastes. The state may need to know which wastes are recycled or commingled because it assesses a differential waste management fee or applies additional management requirements to the recycled or commingled wastes that are so identified. Again, it is not a redundant state code if the state code or a state-required addition to a federal code serves to distinguish a waste that is regulated uniquely or differently in the state, or to distinguish wastes subject to differential fees or similar requirements based on the nature of the waste or how it is processed.

EPA has made it a focus of this rulemaking to reduce the variability that appeared among the manifest forms that are currently distributed by authorized states. The elimination of optional fields, the standardization of handling codes, and the new registry and acquisition procedures are examples of significant manifest reforms we have adopted to address this issue. Nevertheless, all variability cannot be eliminated. However, we believe that the variability problem has been greatly improved by this rule, in that variability which may have been dispersed among 11 optional fields on the old form has been reduced to variability limited to the reporting of state waste codes. States may develop additional waste codes in response to today's rule in order to designate wastes which qualify for state specific exemptions, wastes which are subject to a differential waste management fee based on how a waste is managed, or wastes which are subject to other state-specific management conditions. While this may have the effect of increasing the number of state-specific waste codes, we believe this is a preferred outcome to allowing varying information to populate other fields of the form.

5. *Final Rule Determination—Waste Code Hierarchy.* Many commenters expressed views about the proposed hierarchy approach. We were most impressed by the significant number of comments assuring us that in the great majority of cases, there really was no need to apply any hierarchical ordering of waste codes. These commenters stated that four to six waste codes would be sufficient in all but a few cases to describe a waste's properties, and with space provided now to show six codes, it was not critical to order them with a hierarchy.

Ordering of waste codes, however, could be more useful for special types of wastes (*e.g.*, lab packs, incinerator ash) for which there are potentially more than six waste codes that could describe the wastes. We examined the comments to determine if there were views expressed suggesting that these complex wastes might benefit from a waste code hierarchy.

After considering all these comments, the final rule abandons the requirement to order waste codes according to any hierarchy. We may have reached a different conclusion if commenters persuaded us that waste code data were being used strategically or critically by emergency responders responding to accidents or by TSDFs determining the acceptability of wastes at their permitted facilities. Rather, we found the comments persuasive on the point that emergency responders rely far more heavily on the DOT hazard classification system and nomenclature when identifying appropriate response actions in emergencies. Likewise, the

Several state agencies provided strong comments discouraging any use of fractions in waste quantities, while one state advised that allowing fractions in bulk shipment descriptions should be extended to non-bulk shipments of acute hazardous wastes. The states opposed to reporting fractional quantities argued that state databases would have to be rewritten to accommodate fractions, and that we could avoid the precision issue by requiring smaller units of measure to describe bulk waste quantities. Industry commenters tended to be split between those that agreed that fractions should not be used on the manifest, and those that believed that generators should decide whether to use whole numbers or fractions. Some commenters raised the concern that prohibiting fractions would result in lower accuracy, although several industry commenters also advised that the accuracy issue would be resolved if smaller units of measure were used in the waste descriptions.

EPA agrees with commenters who pointed out that the issue is not the use of fractions *per se*, but rather quantity reporting precision. This data quality issue is not necessarily resolved by precluding the use of fractions or decimals. However, after considering all the comments, we believe that our earlier direction precluding the use of fractions or decimals remains the more sound guidance for the manifest. Many state databases are not set up to receive data reported as fractions or decimals; states reasonably may have relied upon EPA's earlier guidance recommending against fractions and decimals when they designed their data systems. Moreover, if waste quantities routinely included fractional or decimal entries, we believe that a significant number of errors could result from attempts to interpret the fractions or to determine when and where a decimal point was present. Given the use of carbonless and non-carbon papers to transmit data entries from the top copy of the manifest to lower copies, we do not believe that fractions or decimal points are likely to be transmitted through clearly to the lower copies in the package. The possible misinterpretation of these entries could further reduce the precision of waste quantity reporting on the manifest. Therefore, the manifest instructions included in today's final rule continue to state that waste quantities on the manifest are to be reported as accurately as possible without using fractions or decimals.

While we believe that fractions and decimals should not be entered on the manifest, we also believe that commenters raised a valid point that generators must give greater attention to the appropriateness of the units they select to report waste quantities. We agree with the numerous state and industry commenters who suggested that greater waste quantity reporting precision could be achieved if waste handlers exercised greater care when selecting the units. Bulk shipment quantities (those > 110 gals.) should be reported in units of gallons, liters, pounds, or kilograms. Larger units of measure (e.g., tons, cubic yards, cubic meters) that do not allow for precision when quantities are expressed as whole numbers should not be used on the manifest, except to describe very large bulk quantities, such as the contents of a rail car, barge or tank truck.

However, additional care in the selection of quantity units alone will not resolve all the data quality issues that arise in connection with reporting waste quantity information on the manifest. In our discussions with the authorized states who consulted with EPA during development of this rule, we learned that there is another significant issue affecting the quality of waste quantity data reported on the manifest. According to several authorized states, a significant source of imprecision results from generators routinely reporting container capacities as quantities shipped, regardless of whether the container is in fact full when placed in transportation. In other words, some generators are reporting 55 gallons of waste shipped for every drum included in a shipment, even though the drums may only be partially filled. The same practice is allegedly used for reporting quantities shipped in larger bulk packages, presenting an even greater potential for waste quantities to be misrepresented on the manifest.

Since the manifest system was first announced by EPA in 1980, it has been assumed that generators and TSDFs understood their mutual responsibilities with respect to generators entering quantities shipped and TSDFs verifying the quantities (or reporting discrepancies) at the time of receipt. The manifest system was created to foster accountability for waste shipments among the generators, transporters and TSDFs. The manifest regulations have always required and continue to require generators to enter the actual quantities of wastes shipped and not merely the capacity of the containers selected for shipment. Likewise, the manifest regulations have always placed the responsibility and continue to place responsibility for verifying the actual quantities received on the designated facilities (TSDFs), who are required either to acknowledge that the quantities of wastes indicated as shipped were in fact received, or to report a discrepancy on the form if the quantities received do not match closely the generator's "as shipped" quantities. The underlying purpose of the manifest in ensuring accountability for off-site waste shipments is undermined if generators are not reporting quantities shipped accurately, and if TSDFs are overlooking these inaccuracies when they receive wastes at their facilities. In addition, any future efforts by EPA and the states to streamline the RCRA biennial reporting process by relying more heavily on manifest data will be frustrated if we conclude that waste quantities reported on the manifest are not a reliable source of information on quantities shipped or waste receipts.

EPA is therefore including additional language in the manifest instructions emphasizing the generators' responsibility to report quantities shipped and not simply container capacities. While EPA recognizes that some generators may not be in a position to measure quantities of wastes to a high level of precision, we believe that a good faith effort to estimate quantities shipped as accurately as possible represents a more acceptable standard or practice than simply reporting container capacities. We believe that it is a violation of the current manifest requirements for generators to report container capacities as the quantities shipped, when it is known that a container is not filled to capacity. The clarification in the revised form instructions should remove any doubts that may remain concerning the requirement that generators accurately report actual quantities shipped in Item 11. We will also look to TSDFs to comply with the requirement to report discrepancies on the form when generators fail to report quantities shipped accurately, since generators will likely improve their methods of measurement and the accuracy of their quantity entries when they realize that the receiving facilities are paying close attention to reconciling the quantities reported as shipped and received.

4. *Offerors and the Preparation of Hazardous Waste Shipments and Manifests.* The proposed rule would have added a new definition of "preparer" to the definitions in 40 CFR 260.10. While this new definition was proposed in the context of those using an electronic manifest, the purpose of the definition was to extend to the electronic manifest sufficient flexibility to enable the person performing the steps necessary to prepare a waste shipment for transportation to also

the preparation of the waste shipment (or of the manifest) for transportation, rather than the waste generator.

While the proposed rule discussed the offeror status while dealing with the issue of TSDFs rejecting and re-shipping wastes, we wish to emphasize that the offeror concept is broad enough to cover many waste shipment scenarios. Indeed, the offeror status and signature would be encountered most commonly in connection with the waste pick-up and transportation arrangements made between generators and waste transporters when the transporters service the generators' sites. Since the transporter's personnel frequently will aid generators in preparing their waste shipments for transportation (*e.g.*, selecting packages, labeling containers, filling and closing containers, selecting and affixing placards, completing the manifest or reviewing it for compliance with the HMRs and RCRA), the transporter performing such pre-transportation functions may be an offeror with respect to the shipment. While a generator may certainly sign the generator certification statement in its capacity as the generator, today's rule is intended to clarify that another person, such as a transporter making a waste pick-up and helping with the pre-transportation functions, may sign the certification statement on the manifest in their capacity as an offeror. This person may sign as an offeror if they have performed pre-transportation functions, and can certify that the shipment has been properly described, classified, packed, marked, and labeled, and is in all respects in proper condition for transportation under the applicable international or national regulations. The person preparing the shipment and making the certification is responsible for the proper discharge of the offeror functions they perform and the truth of the certification statement. The offeror is liable in its independent offeror capacity for discharging their offeror responsibilities, regardless of whether or not they may also be viewed as performing these activities "on behalf of" or the agent of the generator, as the generator's independent service contractor, or pursuant to a course of dealing with the generator.

Because we believe that the "offeror" approach and the new regulatory requirements in the HMRs concerning pre-transportation functions deal effectively with the issues we raised in the NPRM with respect to shipment preparers and manifest signatures, we are not finalizing the definition of "preparer" we proposed for inclusion in § 260.10. Nor are we expanding or otherwise modifying the meaning of the language in the Item 16 manifest form instruction enabling one to include the words "on behalf of" in connection with a signature, although it will now apply both to generator and offeror signatures. A preparer who assists with pre-transportation functions under the HMRs, and who can certify to the "shipper's certification" statements in the Generator's/Offeror's Certification, may sign this certification and initiate the manifest as an offeror. The "on behalf of" language is retained in the instruction to the signature item in order to effectuate the limited purpose for which this language was added in 1986, that is, to connote that generator (and now offeror) organizations typically act through their employees or agents, and that the employee/agent signatures bind the organizations they represent.

The term "offeror" thus connotes a status in hazardous materials management distinct from that of a shipper or generator. The offeror's responsibilities are limited to the proper discharge of the pre-transportation functions they perform or certify to being properly performed. While it is true that a generator may often elect to perform the pre-transportation functions, these represent only a subset of the full generator responsibilities set out in 40 CFR part 262. Likewise, when an entity other than a generator (*e.g.*, transporter or TSDF) performs pre-transportation functions as an offeror, it does not thereby assume full generator responsibilities. Rather, it assumes only the more limited responsibilities (for the pre-transportation functions) and the distinct liability that attaches to the offeror status. Therefore, a TSDF that only is offering hazardous waste in transportation after rejecting and staging the waste temporarily at its facility would be subject to the offeror responsibilities for the new movement of the waste, but it would not be subject to the full range of generator requirements. This issue is explained further in section IV.B.3. of this preamble.

H.1. *Delayed Compliance Date for Revised Form—Introduction.* When we proposed the manifest form revisions in May 2001, we were interested in according manifest users and authorized states adequate time to phase-in use of the new form. We realized that waste handlers and states would need some time to become familiar with the new requirements, entities with existing stocks of manifests would want to use up their supplies of the "old forms," and new manifest printers would require time to register with EPA and prepare for printing and distributing the revised manifest. Likewise, state agencies would need sufficient time to amend their regulatory programs and adapt their databases to meet the new form requirements.

Cognizant of these factors, we proposed a "delayed compliance date" to allow time to transition to the new form. Under the proposed approach, the final rule would become effective six months after publication in the **Federal Register**, as is typically the case with RCRA regulations. However, for the first two years after the effective date of this final rule, we proposed that manifest users (*i.e.*, waste handlers) could choose which manifest form to use. They could use either the "old" manifest forms or the "new" manifest form established by this rulemaking. Those using the old manifest forms during the transition period would continue to record state tracking numbers and follow the instructions that accompany those forms. Anyone using the new form during the transition period would be required to comply with the form changes, instructions, and procedures applicable to the new form. At the conclusion of the proposed two year delayed compliance period, the revised form would be the only valid manifest that could be printed, distributed or used.

2. *Comment Analysis.* Commenters generally expressed support for the "delayed compliance date" or transition period approach. State agency commenters supported a phase-in period for the new form, but several cautioned that not every state would be able to make the necessary statutory and regulatory changes by the end of the proposed two-year period. However, several other state commenters claimed that two years was sufficient to implement the new form. In addition, state commenters also expressed concerns about their ability to adapt their tracking data bases to the new form requirements, and in particular, the confusion that would occur during the proposed two-year transition period if both the new form and old form were acceptable.

Industry commenters also supported the proposed transition period. However, their comments revealed a greater concern about the possible delay in achieving the benefits of manifest reform due to the transition period. While most industry commenters supported the two-year period, some desired to shorten the transition period to one year. These commenters argued this would ensure that the new form's benefits would be realized sooner in all states, and it would minimize problems associated with supporting dual

the authority of the hazardous materials transportation laws, regardless of state authorization status. While the new manifest requirements will also take effect as RCRA requirements once the authorized states obtain authorization for their program revisions adopting the new form, the new form and requirements will be applicable in all authorized states under hazardous materials authority in the interim period between the delayed compliance date and the date the states' program revisions are authorized by EPA.

III. Manifest Form Acquisition and Registry

A.1. *Manifest Form Acquisition—Introduction.* The May 2001 NPRM discussed 40 CFR 262.21 (*i.e.*, acquisition hierarchy), which requires generators to look first to the consignment state's manifest requirements (*i.e.*, the state in which the hazardous waste shipment will be transported and subsequently managed). If that state supplies a manifest and requires its use, the generator is required to use that state's manifest for the waste shipment. If, however, the consignment state does not supply a manifest, but the generator's state supplies one and requires its use, then the generator must use the manifest required by its state. If neither the consignment state nor generator state supplies a manifest, the generator can obtain the manifest from any source. In addition, 40 CFR 271.10 requires states to follow the federal format for EPA Manifest form 8700–22, and, if necessary, EPA Form 8700–22A but allows states the option to supplement the federal manifest format, to a limited extent, provided that their manifest complies with the consistency requirements of the Hazardous Materials Transportation Act (49 U.S.C. 1801 *et seq.*). Thus, states are able to print and distribute their own manifests and are afforded some discretion to include state-specific instructions for optional fields, minor formatting variations and variations for copy submission schemes. In May 2001, EPA proposed revisions to these manifest acquisition regulations, limiting the types of information that state agencies could require on the new form.

The following sections discuss the proposed changes to the manifest acquisition system, Registry, printing specifications, copy submissions, and the regulatory changes to 40 CFR 262.21 resulting from today's rule.

2. *Proposed Manifest Acquisition Provisions.* EPA proposed to remove the manifest hierarchy acquisition system and replace it with a standardized acquisition approach. We also proposed to establish a new operational function, called the "Registry," in which we would provide minimal oversight to ensure that the new forms are printed properly. According to the proposed acquisition approach, state agencies could no longer require generators to use their state's manifest, and users could obtain the manifest from a number of sources. State agencies could print the new form, but would have to register with EPA first. Similarly, the new acquisition system would allow waste handlers (generators, transporters and TSDFs) and commercial business form printers to print the form, but they, too, would be required to register with the Agency before doing so. Thus, state agencies, generators and other waste handlers that need the form could register with EPA to print the form themselves or they could obtain manifests from other registered sources.

In general, industry commenters supported the proposed manifest acquisition approach, indicating that it would reduce the administrative burden on certain waste handlers, particularly those who conduct business in multiple states that require use of their state manifest. State agency's comments on the proposed changes to the manifest acquisition system varied. State commenters who supported the proposed changes also suggested that we post certain state-specific information such as state waste codes, state mailing address and state copy submission requirements on an EPA hosted Web site. State commenters who criticized the new manifest acquisition approach did so for several reasons.

First, the proposed approach would remove states' ability to control exclusively the manifest production and distribution system. According to these commenters, the proposed changes would economically disadvantage those states that currently sell blank forms because they will lose the revenue they currently collect from selling manifests.[2]

Following discussions with most of the states that collect fees for selling blank forms, EPA has learned that these states generally use the revenues from selling blank manifests only to recoup their printing costs, and not to fund other components of their waste programs. Some states also have collected fees to offset the costs of processing collected manifest forms (*e.g.*, entering data into tracking databases), and in a few cases, the revenues collected from selling blank forms have been used to offset these processing costs as well as the printing costs. However, in our discussions with the states on manifest form fees, we found that several states no longer collect their processing fee as part of the sale price of the blank forms, but as a distinct charge divorced from the sale of the forms. Other states which collect these fees and consulted with us on the development of this rule also have indicated that they will in the future collect their processing fees by a means not tied to the sale of blank forms. Since most states only are recovering their printing costs when they sell manifests, and the states charging processing fees also have identified other means not tied to selling forms for recovering their processing costs, we do not believe that the proposed acquisition approach for the revised manifest would impact significantly these state program revenues.

The states with manifest tracking programs typically use their manifest data to assess additional waste management fees tied to the amount of waste being generated or managed in the states. The proposed acquisition approach would not impair states' ability to assess and collect these waste management fees, and we are encouraging the use of additional state waste codes as a means to flag state-specific requirements that would have significance to collecting such fees. Thus, if there are limited instances where a state is using revenues from selling blank manifests for other waste program purposes beyond offsetting form printing costs or processing costs, we believe that any reduction in such revenue tied to the proposed acquisition approach could be recouped by adjustments to the waste management fees. After considering these comments and the information we learned from discussing the revenue issue with additional states, we do not believe that the revenue issue raised by commenters is sufficient enough to warrant abandoning or altering the proposed acquisition approach.

As a second key concern, several state commenters argued that the new manifest acquisition approach would result in less net burden reduction than the proposal suggested. These commenters suggested that the proposed acquisition approach provides neither the time and burden savings nor the decreased complexity that we claimed

[2] Public data sources we reviewed in 2003 indicate that 12 state governments (AR, CA, CT, DE, IL, LA, MD, MI, MO, NH, NJ, PA) may collect revenues from direct assessment of fees during distribution of state-printed RCRA manifests, totaling an estimated $1.16 to $2.44 million per year (see "Economics Background Document" for basis of this estimate). However, as of 2004, we estimate there may only be seven states collecting manifest printing and distribution fees.

exports, imports, additional transporters, exception reporting, and/or states requiring additional copies), more than six copies of a manifest may be necessary. In these cases, the generator or transporter must photocopy the most legible copy of the form available to ensure that the extra manifest copies are legible.

In general, industry commenters supported the Registry process, but indicated that EPA should provide greater detail on the Registry and the tracking number system than we provided in the proposal. Commenters also requested that information be provided to the regulated community so that they can be assured that prospective form registrants are granted authorization by EPA to print and distribute manifests forms. One industry comment suggested that EPA provide more information in areas such as: procedures for registering and applying for the unique numbers; information on how to contact the Registry; the mechanism for obtaining manifest numbers; and a verification process by which the public can confirm that waste handlers are authorized to use their assigned numbers, etc. Another commenter recommended that EPA develop a registration application form for the manifest and make it available to waste handlers and states. Industry commenters also suggested that EPA conduct the Registry electronically and by mail so that waste handlers and states could register and obtain unique numbers via the internet.

State comments on the proposed Registry and manifest tracking number system varied. Some state commenters favored the proposed Registry provided that EPA implements procedures which ensure the printing of non-duplicate numbers. A few of these commenters also suggested that EPA post a Registry of printers on the EPA Web site so that they and others could have links to the Web site and could access manifest information easily. Other state commenters supporting the proposed Registry suggested that EPA assign blocks of numbers to entities and make information regarding tracking number assignment for printers available to states. One commenter suggested that EPA should ensure its numbering scheme does not duplicate states' current numbering conventions. However, several state commenters expressed concern that delegating printing responsibility to industry would lead to a hodgepodge of different tracking schemes or other difficulties. Some of these commenters suggested that states control the distribution of blocks of tracking numbers.

We understand that the states want assurance that approved registrants will pre-print a unique tracking number on each manifest. However, EPA does not believe that it or state agencies must have strict control assigning and distributing tracking numbers. We believe our involvement is necessary to some extent, but only should be operational in nature. In other words, we will implement policies and procedures needed to run the Registry, provide the necessary guidance and/or detailed specification for designing the manifest, and set forth procedures for approving or denying form printers' applications.

Commenters also provided suggestions for the form printing specifications. Several commenters suggested that EPA: Include hash marks in Item 14; prohibit the use of corporate logos, advertising or other information not explicitly allowed in the rule; eliminate shading on the form; use a black border to designate sections of the manifest; ensure minimum quality of paper; and, ensure readability of instructions on the back of the manifest. EPA researched state manifests and consulted five commercial printers and four states to identify additional specifications that the Agency should require in today's rule or in guidance. Although EPA generally agrees with the commenters' suggestions, we also recognize, based on our research, that certain printing specifications should be left to the discretion of printers. For these reasons, the final rule leaves a considerable amount of discretion to the registrant in designing its manifest. Refer to section III.B.3 of this preamble for a discussion of the final print specifications.

2 *Final Manifest Registry.* The registration approach being finalized today under § 262.21(a) through (e) reflects our desire to fully evaluate the ability of the registrant to tightly control the use of its tracking numbers and to print an acceptable manifest. In many respects, our final Registry approach resembles the proposed approach. However, we have expanded the proposed approach, keeping commenters' concerns and suggestions in mind. Most notably, the final approach requires a registrant to submit two separate application components to the Agency. This differs from the proposed approach, under which registrants would have submitted a single application to the Agency. EPA revised the proposed approach because we determined that the Agency would not have received enough information in one application submission to effectively evaluate the registrant's printing capabilities. In particular, the Agency would not have received a proof of the manifest for which approval is requested. Because the print specifications being published today leave considerable discretion to the registrant to design its manifest, the Agency believes it is essential that we evaluate and approve samples of the registrant's forms before they are used or sold. Hence, the final Registry approach requires the registrant to submit a fuller description of its printing operations and several samples of its manifest.

Although some commenters favored EPA developing a Registry application form, we have chosen not to do so. We believe that discussions given in today's final rule detailing the application process, supplemented by posting Registry information on the EPA Web site, are prescriptive enough for registrants to provide sufficient information. We also do not anticipate receiving a substantial number of applications. Because on these factors, we do not believe an application form is warranted.

Section 262.21(a)(1) provides that the registrant may not print, or have printed, the manifest for use or distribution unless it has received approval by EPA to do so under § 262.21(c) and (e). Section 262.21(a)(2) provides that the registrant is responsible for ensuring that the organizations identified in its application are in compliance with the approved application and the requirements of § 262.21.

Because the § 262.21(a) provisions hold the registrant directly accountable for compliance, we fully expect the registrant to use whatever mechanisms are available to ensure that the organizations and companies in its application also comply with the requirements. This could include, for example, the use of organizational controls (*e.g.*, clear lines of communication, accountability and oversight) and production-related controls (*e.g.*, the use of quality management systems in the printing process). It also could include the use of contract terms and conditions that encourage strong performance by contracted firms.

In addition, § 262.21(a)(2) provides that the registrant is the only entity that can assign manifest tracking numbers to its manifests, except that the registrant can delegate this activity. We believe this provision is needed to ensure tight control and accountability over its numbers. One of our highest priorities under the Registry is ensuring that each manifest used or distributed (*e.g.*, sold to the public) has a unique manifest

submit samples of its continuation sheet, so long as the continuation sheet will be printed using the same paper type, paper weight, ink color of the instructions, and binding method of the manifest form.

After EPA receives the form samples, we will evaluate them to determine if the specifications of § 262.21(f) have been met (*See* § 262.21(e)). For example, we will evaluate them to determine whether they have acceptable copy-to-copy registration, imprints appear legibly on all copies, and the ink of the manifest's instructions does not bleed through the front of the copies.

If the manifests pass these tests, EPA will approve the registrant to print, distribute and use the manifest as desired. The registrant may not use or distribute its forms until EPA approves them. EPA anticipates the evaluation of the sample forms and their subsequent approval will take forty-five days. However, this process conceivably could extend beyond the default forty-five day time frame if unforseen circumstances arise, or we determine that the registrant's forms are unacceptable. If EPA finds the forms unacceptable, we will request additional information or modification before approving or denying them. An approved registrant must print its manifest and continuation sheet according to its application approved under § 262.21(c) and the print specifications at § 262.21(f). The forms also must be printed according to the paper type, paper weight, ink color of the instructions, and binding method of the approved form sample.

For the registration process to be successful and attractive to registrants and printers, we understand that we must provide adequate support to maximize the likelihood that their manifests will pass EPA's tests on the first try. EPA recognizes that most printers will run a small test batch of forms to produce the form samples for EPA review, and thus, they will incur some production costs. EPA is keenly interested in ensuring that registrants develop an approvable manifest on the first try so they do not incur any added expense of redesigning their forms based on EPA's comments on the original samples. To this end, EPA will provide an electronic file of the manifest, continuation sheet, and manifest instructions to registrants, which will relieve them of the need to completely typeset their forms. Using EPA's electronic file should ensure that their forms have exact registration to EPA's forms and do not contain any typographical errors.

In addition, EPA is planning to post manifest print guidance on its Web site. The guidance will set forth examples of manifest specifications that we have found to be acceptable under our tests (*e.g.*, acceptable paper weights, ink colors for the instructions). Registrants need not follow these recommendations, as there are many other combinations of specifications that will be acceptable. However, the registrant might increase its likelihood of being approved if it considers the guidance in designing its forms. The guidance also will describe how we will perform our tests of the form samples under § 262.21(e) and will discuss the timeframe needed to review and approve registrants to print and distribute their manifest forms. While the registrant is not required to conduct such tests, they can increase its likelihood of approval by performing such tests on its forms before submitting them to the Registry. By setting forth print guidance and explaining our tests, we believe we are creating a transparent process in which the registrant fully understands how it is being evaluated and how it can develop an approvable manifest.

Although many commercial printers agree with our requirement under § 262.21(d) for registrants to submit form samples that meet the print specifications of § 262.21(f), we note that some commercial printers have expressed concern about it. They argue that three form samples will not provide us with much useful information on a registrant's ability to consistently print forms to our satisfaction. This is because each print job can vary (*e.g.*, brightness of the paper and the expertise of the print supervisor on shift can vary). Instead, some commercial printers have suggested that we require each registrant to typeset the form (*i.e.*, prepare it from scratch in a computer program), submit a proof on bond paper that shows the format and appearance of the form, and indicate the paper type, binding method, and other specifications they intend to use. Because these commenters believe that printing the manifest is relatively straightforward, such a submittal should be all we need to approve the registrant and be confident that it will produce adequate forms. They indicate that this approach also will be less expensive than requiring form samples that meet the § 262.21(f) specifications.

We disagree with these printers in several respects. First, we acknowledge the several limitations of evaluating a multi-part form sample. However, we believe the requirement for form samples provides critical information on the registrant. Form samples demonstrate the competence of the registrant to print the form to our satisfaction under the § 262.21(f) specifications. For many commercial printers, this will be straightforward. States have relied on commercial printers for years to print their forms, and these printers have developed an institutional knowledge and methods for ensuring appropriate binding, ink color for the instructions, and other aspects.

We expect, however, that certain prospective registrants will be completely new to multi-part forms printing and may not have the necessary knowledge and capabilities. For example, certain hazardous waste handlers may want to print their own forms, but lack prior experience in forms printing. If the Registry required only that the registrant typeset the form, print it on bond paper, indicate the type of paper and other specifications, and submit these materials with its application, anyone with a personal computer could register, including persons with no demonstrable capability to print the forms with consistent quality on a large scale.

Although we do not want to discourage legitimate organizations from registering, we must ensure that each registrant is competent to print the form. Because the Registry will be open to everyone, we feel an obligation to the states and waste handlers—those who will use the forms—to separate legitimate registrants from the others. In effect, a registrant who submits form samples meeting the § 262.21(f) specifications will be demonstrating its competence under the Registry.

In addition, we believe form samples will be necessary for us to determine if the registrant's forms meet the § 262.21(f) specifications. Although we plan to provide guidance on our Web site on acceptable or approved specifications (*e.g.*, paper weight, etc.), we fully expect that a number of registrants will submit forms samples whose specifications are unfamiliar to us. In such situations, we may not be certain that the proposed forms will be adequate. Even if the registrant also provides us with samples of the blank paper it intends to use (*e.g.*, so we could write on them to test legibility), we could not be sure that the forms would be fully compliant with the § 262.21(f) specifications. For example, we could not be sure of the extent to which the registrant's proposed ink color of the instructions might bleed through the front of the copies when photocopied, scanned, or faxed. We also may not be certain whether a registrant's proposed binding method will ensure that copies

manifests each time it develops a new printing plate. As mentioned earlier, we will provide each registrant with an electronic file of the manifest, continuation sheet, and manifest instructions. We fully expect them to save the file directly as an electronic image (or negative) of the forms in their computer system to recreate their printing plate when needed. In this way, the Agency expects minimal typesetting and therefore minimal risk of human error in replicating the appearance and format of EPA's forms. As long as all of the approved registrants use EPA's electronic file and avoid typesetting their forms, we do not see the need to approve the form each time the printer develops a new plate for them.

Section 262.21(j) provides that EPA may, at its discretion, exempt a registrant from the requirement to submit a form sample under Sections 262.21(d) or (h)(3). A registrant may request an exemption from EPA by indicating why an exemption is warranted. We envision several reasons why a registrant might request an exemption.

For example, it would not be unusual for two or more registrants to rely on the same commercial printer to print their forms under the Registry. If a commercial printer prints the manifest on behalf of an approved registrant and then, subsequently, a second registrant applies to use that same printer, we do not believe it is necessary for the second registrant to submit new form samples under § 262.21(d), so long as the same printer will be printing the manifest using the same paper type, paper weight, ink color of the instructions and binding method of the form samples approved for the first registrant. After the printer's forms get approved the first time, the second registrant could submit the printer's original form samples for evaluation under the Registry. Once approved under § 262.21(e), the second registrant must use that printer to print its forms according to the specifications at § 262.21(f), as well as the paper weight, paper type, ink color of the instructions, and binding method of the printer's originally approved form samples. It also must pre-print a unique manifest tracking number on each manifest using its approved suffix.

Another common situation would be where a registrant gets approved to print a manifest using a certain paper type, paper weight, ink color of the instructions, and binding method, and subsequently wants to change one or more of these specifications. Under § 262.21(h)(3), the registrant must submit three form samples and get EPA approval. As discussed earlier, we believe the § 262.21(h)(3) requirement is important for evaluating whether a registrant's revised manifest meets the specifications at § 262.21(f). However, there might be some exceptions to this. For example, we do not believe we need to evaluate a revised form sample if we are aware that the revised specifications have already been approved for another registrant. As we evaluate and approve form samples under §§ 262.21(e) and (h)(3), we may post approved form specifications (*e.g.*, paper type, paper weight) on our Web site. If an approved registrant would like to change one or more of its form's specifications to another approved specification on our Web site, the registrant may notify EPA that it intends to do so, in lieu of submitting revised form samples. EPA could then relieve the registrant of the requirement to submit revised form samples.

Section 262.21(k) provides that an approved registrant must notify EPA by phone or e-mail as soon as it becomes aware that it has duplicated tracking numbers on any manifests that have been used or distributed to other parties. The states have emphasized to EPA the importance of registrants notifying EPA of even minor duplications of tracking numbers. Therefore, EPA has included this requirement to ensure registrants notify EPA of such occurrences. Upon notification of a duplicated number, EPA will try to determine the location of the forms in question and contact the customer to prevent the use of the forms. If this is not possible, we will notify the state manifest programs that the forms are in circulation.

Under § 262.21(l), if, subsequent to approval of a registrant, EPA becomes aware that the registrant's approved form does not satisfactorily meet the print specifications in paragraph (f) of this section, EPA will contact the registrant and require modifications to the form as needed. As discussed earlier in this preamble, EPA will request and evaluate samples of the registrant's proposed form under § 262.21(e) to determine whether it satisfies the print specifications at § 262.21(f). In the vast majority of cases, we expect this evaluation to provide enough information for EPA to determine effectively whether the registrant's form, as designed, will satisfactorily meet all of the print specifications when produced by the registrant. In rare cases, however, we believe it is possible that, subsequent to our approval under paragraph (e), we may become aware that forms produced by a registrant do not meet all specifications in a satisfactory manner. In particular, we are fully aware of the limitations inherent in evaluating samples of a registrant's forms (*e.g.*, the quality of its forms may vary significantly from one batch to the next based on many factors). If we become aware that the forms produced and distributed by a registrant do not satisfactorily meet the specifications (*e.g.*, based on complaints from states or waste handlers), we will contact the registrant to learn more about the problem and, if needed, request changes to the form or printing operation.

Under § 262.21(m), EPA might suspend and, if necessary, revoke printing privileges if we find that the registrant (i) has used or distributed forms that deviate from its approved form samples in regard to paper weight, paper type, ink color of the instructions, or binding method; or (ii) exhibits a continuing pattern of behavior in using or distributing manifests that contain duplicate manifest tracking numbers. We will send a warning letter to the registrant that specifies the date by which it must come into compliance with the requirements. If the registrant does not come in compliance by the specified date, EPA will send a second letter notifying the registrant that EPA has suspended or revoked its printing privileges. EPA believes suspension or revocation of printing privileges will be very rare.

Section 262.21(m) also requires an approved registrant to provide information on its printing activities to EPA, if requested. EPA notes that the rule does not require registrants to submit any scheduled reports to the Agency that would enable us to evaluate whether they have used or distributed forms with duplicated tracking numbers. As an initial matter, registrants must follow the procedures of their approved applications to tightly control their tracking numbers. We expect these procedures to be effective in minimizing the potential for duplication of numbers. Further, in its communications with states and commercial printers, EPA has found that, if a commercial printer identifies a duplicated number in a batch, it will address the problem (*e.g.*, by destroying the manifests containing the error) in order to maintain a good relationship with its customers. EPA believes the same dynamic will occur under the Registry process. A registrant that is itself a commercial printer will have a strong incentive to minimize, detect and report any duplicated numbers on forms that have been used or distributed. This will ensure good relationships with its customers and maintain a clean track record under the Registry. Registrants that use an unaffiliated company to

addition, the requirement provides that instructions cannot show through the front of the forms when scanned, photocopied or faxed. If the paper weight is too light and/or the ink color of the instructions is too dark, the instructions might bleed through the front of the copies. If the ink color is too light, it may not be legible to waste handlers that may be filling out the manifest in dimly lit situations (*e.g.*, inside of a truck). Registrants must determine the appropriate ink color and the extent of screening of the ink, if needed, to minimize bleed through but ensure legibility.

The specifications at § 262.21(f) leave a number of decisions to the registrants's discretion that should be further clarified. These include the following:

Paper type. Registrants may select the appropriate type of paper to use for their manifest. As provided at § 262.21(d)(2)(i), EPA defines "paper type" to include the manufacturer of the paper and grade of paper. EPA has found that paper manufacturers generally provide a range of paper grades. These grades may be more or less appropriate for a six-part form. For example, the highest quality papers are generally the brightest (whitest), and hence, handwritten and typed imprints are generally most legible on them. In addition, the highest quality carbonless papers normally contain the highest amount of coating, which results in a more effective transmission of imprint from copy to copy. EPA believes it is important to hold registrants to their paper type selection, as provided under § 262.21(e), so that they do not switch paper types subsequent to approval of their forms, unless they seek EPA approval of the changes under § 262.21(h)(3).

In addition, some papers may contain a range of recycled content. All commenters on the proposed rule believed EPA should take the lead on encouraging the use of recycled paper. In fact, one commenter recommended that EPA require registrants to use recycled paper for manifest forms. EPA has not taken this recommendation, which goes beyond the scope of today's rulemaking. EPA notes, however, that it has developed guidelines for federal procurement of recycled-content paper under section 6002 of RCRA and section 505 of Executive Order 13101. Under these guidelines, EPA requires procuring agencies to buy uncoated printing and writing grade papers, such as those used for manifest forms, containing 30% post-consumer fiber. The agency urges registrants to consider for the manifest recycled paper that meets the specifications at § 262.21(f).

Paper weight. Paper weight has several implications for the manifest. Lighter paper is generally thinner, and therefore, it is easier to make impressions copy-to-copy. However, if paper is too light, it is prone to tearing in normal use (*e.g.*, tearing in an automatic-feed copier or when detaching a copy from the manifest). Registrants must select a paper weight for each copy of the form that conveys handwritten and typed impressions onto all six copies, but that is also durable enough to withstand normal use. In evaluating existing manifest forms, EPA has found a number of forms with varying paper weights that transmit impressions effectively. Other forms consist of paper that is too heavy to produce legible bottom copies. We also have found forms with paper that is too fragile and tears easily. Because of the wide range of paper weights that result in legible bottom copies of the manifest, EPA has refrained from prescribing a paper weight and leaves this decision to the registrant. However, EPA believes it is important to hold registrants to their paper weight selection, as provided under § 262.21(e), so that they do not switch paper weights subsequent to approval of their forms, unless they seek EPA approval of the changes under § 262.21(h)(3).

Ink color of the manifest instructions. As described earlier, the instructions on the back of the manifest must be light enough so that they do not: (1) Show through on the front (*e.g.*, printed in black ink in a light enough screen to appear as light gray so that photocopiers and scanners do not pick up the text); or, (2) interfere with the transmission of the image from copy to copy (*e.g.*, from copy 4 to copy 5) when the manifest is filled out. The instructions also must be legible.

EPA has not prescribed an ink color or ink darkness. We recognize that the appropriate ink color and darkness will depend on, at the least, the paper weight of each copy. Because we do not prescribe paper weight, we do not prescribe ink color or darkness. However, we hold registrants to their ink color, as provided under § 262.21(e), so that they do not switch ink colors subsequent to approval of their forms, unless they seek EPA approval of the changes under § 262.21(h)(3).

Binding method of manifest copies. Some manifest forms are currently printed on continuous forms with side perforations. Others are printed on individual forms (unit sets), which are typically bound on top. Continuous forms generally are intended for use with continuous feed printers (such as impact printers), whereas unit sets are appropriate for typewriters and manual completion. Because some users prefer one type of binding or the other, we believe it would be too constraining to require only one type. Therefore, we leave the binding of the form to registrant discretion. However, we are concerned that some registrants might choose to crimp the sheets together but not glue them, thereby increasing the likelihood of the pages inadvertently separating during normal use. In addition, some registrants might bind top bound forms without a stub by "edge gluing." The edge gluing method is typically used for forms that have few pages, but could conceivably be tried for a six-part form. Edge-glued forms are unacceptable for manifest purposes and are not allowed because the sheets become loose when one ply is removed. Therefore, the rule provides that "copies must be bound together by one or more common stubs that reasonably ensure that they will not become detached inadvertently during normal use." Although we do not prescribe a binding method, we hold registrants to the binding method of their approved forms, as provided under § 262.21(e), so that they do not switch methods subsequent to EPA approval, unless they seek EPA approval of the changes under § 262.21(h)(3).

IV. Rejected Load and Container Residue Shipments

A.1. *Rejected Load and Container Residue Shipments—Introduction.* In the May 2001 NPRM, we proposed to improve the tracking of certain problematic hazardous waste shipments known as "rejected loads" or "container residues" by adding data elements to the manifest form for identifying rejected wastes and residues and by clarifying the manifest requirements and procedures for tracking these wastes. In the proposal, we discussed container residue as "the hazardous waste that remains in containers such as drums and in vehicles used for transport (such as tanker cars or box cars) after most of the contents of the container have been removed." These residues may be difficult to remove because the contents may have congealed and the receiving facility may not have the equipment to completely empty the container. As a result, the container may contain more waste than the regulatory threshold allows for meeting the RCRA definition of "empty," that is, more than 3% of a hazardous waste in a container less than or equal to 119 gallons, or more than 0.3% of a hazardous waste in a container greater than 119 gallons, and

4. *Proposed §§ 264.72(e),(f) and 265.72(e),(f).* The proposed requirements for 40 CFR 264.72(e),(f) and 265.72(e),(f) are as follows:

If you are . . .	You must . . .	And . . .
A facility forwarding rejected wastes or container residues off-site to an alternate facility.	Prepare a new manifest in accordance with § 262.20(a).	Follow the relevant instructions in either § 264.72(e)(1) through (e)(6), or § 265.72(e)(1) through (e)(6).
A facility returning rejected waste to its generator.	Prepare a new manifest in accordance with § 262.20(a).	Follow the relevant instructions in either § 264.72(f)(1) through (f)(6), or § 265.72(f)(1) through (f)(6).

Because the rejecting facility was responsible for putting the reject waste back into transportation, we proposed to require them to sign the Generator's Certification field to verify that they are shipping or offering the wastes in transportation and would be liable, in this capacity, for the truth of the "shipper's certification" language included in the generator's certification statement. Since the rejecting facility is not the RCRA generator of the waste, it is not bound by the waste minimization certification language. In the 2001 NPRM, we requested comment on an alternative approach to signing the generator certification. That is, we took comment on requiring the rejecting facility to consult with the generator about the disposition of the rejected waste, and then sign the generator's certification "on behalf of" the initial generator. This would result in the manifest being completed in the same manner (*i.e.*, Items 1 and 4 and listing the destination facilities) as under the proposed approach. However, by signing the generator's certification "on behalf of" the initial generator, the generator would be bound by the rejecting facility's signature on the certification statement. The rejecting facility signs the certification as the generator's authorized agent, but would not be liable for the proper execution of any pre-transportation acts that it performed. (Arguably, however, the rejecting facility would meet the definition of an "offeror" under DOT's HMR and would not be relieved of liability.)

5. *Proposed §§ 264.72(g) and 265.72(g).* Paragraph (g), as proposed, would clarify manifest completion procedures for any designated facility that rejects a full or partial load or container residue shipment after it has signed and returned the original manifest to the generator. If, after signing and returning the original manifest, a facility rejects part or all of a shipment, or discovers regulated residues, it must send the generator and delivering transporter a revised copy of the original manifest, reflecting the rejected waste or residue information in the discrepancy space. The facility must also re-sign and date the manifest, certifying the facts as amended.

6. *Proposed Changes to § 263.21(b).* We proposed to amend 40 CFR 263.21(b) by adding paragraph (b)(2). Paragraph (b)(2) distinguishes between the transporter responsibilities for wastes characterized as "undeliverable" due to either emergency, rejection or container residues. We proposed to retain § 263.21(b)(1), the existing transporter requirements, that apply to shipments that cannot be delivered due to an emergency, such as a strike, fire or similar emergency event which closes the designated facility's or next transporter's operations or that otherwise precludes the transporter from delivering the waste. In such emergencies, the transporter that cannot deliver the waste shipment to the designated facility, alternate designated facility or next designated transporter must contact the generator for further directions and revise the manifest according to the generator's instructions. We did not reconsider, reopen or request comment on these existing requirements. We merely recodified the existing provision at § 263.21(b)(1). Our proposed changes to § 263.21(b)(2) addressed transporters' responsibilities with respect to rejected wastes. Transporters would need to obtain the facility owner's or operator's signed and dated certification identifying the rejection on the manifest. The transporter also would need to retain one copy of this manifest, and give any remaining copies of the manifest to the rejecting TSDF, who processes them in accordance with the new procedures at §§ 264.71 and 264.72.

7. *Proposed Generator Regulations at 40 CFR 262.34.* Furthermore, the proposal revised the hazardous waste generator accumulation provisions at 40 CFR 262.34 by adding paragraph (j). Paragraph (j) requires hazardous waste generators to manage a rejected load and container residue shipment according to 40 CFR 262.34(a) or 262.34(d) depending on whether the generator was subject to the 90-day or 180-day accumulation time provisions when the waste shipment was returned to the generator. Generators who are subject to the 90-day accumulation provisions have up to 90 days to send the rejected shipment or container residue to an alternate facility, as long as the generator received the shipment in accordance with the manifest discrepancy provisions at § 264.72 or 265.72; however, generators who are subject to the 180-day accumulation provisions have up to180 days (or more than 270 days if the generator must transport this waste, or offer this waste for transportation, over a distance of 200 miles or more) to send the rejected shipment or container residue to an alternate facility. In the preamble proposal, we incorrectly explained that the accumulation time for the returned shipment is based on the generator's status at the time the original shipment was sent to the TSDF. We also explained that generators would not be required to obtain a RCRA permit while the returned waste is on-site as long as they complied with § 262.34(a) (for generators with 1000 kg or more on-site at the time the waste is sent) or § 262.34(d) (for generators with less than 1000 kg on-site).

B.1. Final Tracking Procedures for Rejected Waste and Residue Shipments. EPA retained most of the manifest discrepancy provisions we originally proposed, including those provisions for rejected loads and container residue shipments. However, we are finalizing the proposed paragraph 262.34 (j) as new paragraph 262.34 (m) (New paragraph (k) and (l) were added to § 262.34 after the May 2001 proposal.) In addition, we altered certain provisions in response to suggestions from commenters. In general, most commenters supported our proposed tracking procedures for rejected waste and container residue shipments.

However, several commenters expressed concern and suggested changes to the proposed manifest discrepancy provisions, particularly in the following areas: (1) Preparing a second manifest in all rejected waste or residue scenarios; (2) Requiring the rejecting TSDF to sign the generator

rejecting a partial shipment assume the role of offeror with respect to the wastes being re-shipped, we conclude that these purposes are best served by the initiation of a new manifest for all partial rejections.

Also, when a full load is rejected, but temporarily staged by the rejecting facility after the delivering transporter has left the premises, the original transportation of the waste shipment has ended. Therefore, it will require a new movement of the waste shipment to reintroduce the rejected wastes in transportation. Under today's rule, the rejecting facility initiates this new movement by completing a new manifest and signing it as the one offering the wastes in transportation. Since several days or weeks might pass while the materials are staged at the rejecting facility, it is important that the rejecting facility certify that the materials are properly described and in proper condition for transportation at the time the new movement begins. Also, under these facts, the information on transporters and destination facilities must be updated to reflect the new arrangements for the rejected shipment. We conclude that these purposes are best served again by requiring a new manifest to be initiated by the rejecting facility in all cases where rejected wastes are temporarily staged at the facility. In addressing the issues in this section, we introduced the idea that a rejecting TSDF may be offering these rejected wastes in transportation when they are re-shipped. The offeror concept is explained in greater detail in the following preamble section.

3. *Comments Analysis and Final Generator Certification Block.* Commenters were divided on our proposal to require the rejecting facility offering the waste in transportation to sign the shipper's certification as the party offering the wastes in transportation. Generators expressed strong support for the proposal, and greatly preferred the proposal to the alternative under which the rejecting TSDF would be viewed as signing the new manifest "on behalf of" or as the agent of the generator. The commenters supporting this offeror approach encouraged EPA to adopt the proposed regulatory language at § 264.72(d)(1) and (e)(6), which would require the TSDF to explain to the original generator its reasons for rejecting the waste and to consult with the generator and determine where the rejected waste or container residue shipments should be sent. After doing so, the rejecting facility would then initiate the new manifest for the new movement of the shipment in transportation by signing the Generator's Certification in the capacity as offeror of the shipment.

Several commenters in the TSDF sector criticized this approach, arguing that the rejecting facility would appear to be assuming full generator liabilities for the waste by virtue of signing the Generator's Certification. Other TSDF commenters also objected to the proposed approach because it seemed to suggest that the rejecting TSDF acting as "offeror" could in fact be liable for the proper performance of *all* the pre-transportation acts, including those already performed by the initial generator. In general, these commenters argued that under the "offeror" proposal, the responsibility for properly packaging and re-shipping the waste would now appear to fall on the TSDF, when the generator already may have selected and filled the container, and may be more aware than the rejecting TSDF of the exact nature of the material. Therefore, these commenters contend that the rejecting facility cannot really attest to the packaging and other pre-transportation requirements performed by the generator, and so should not be held responsible for their performance when re-shipping rejected wastes.

In general, those TSDF commenters that criticized the proposed approach tended to support the alternative approach requiring TSDFs to sign "on behalf of" the initial generator. One TSDF commenter, however, noted that a TSDF rejecting and re-shipping waste would be liable as offeror regardless of the "on behalf of" language, since the TSDF is initiating the new shipment. Another trade organization (the Environmental Technology Council) that represents TSDFs supported the offeror proposal, if the form were revised to make it more explicit that the TSDF is signing the manifest as an offeror, not a generator.

While the TSDFs objecting to the proposal tended to support the alternative approach under which the rejecting TSDF would sign the new manifest "on behalf of" the generator, the generators that commented on the proposed rule submitted strong comments opposing this alternative. These commenters in the generator sector argued that this "on behalf of" alternative would cause generators to be liable under DOT regulations for any pre-transportation functions performed improperly by the rejecting facility. They argued further that the generator could not possibly supervise from a distance the proper execution of the pre-transportation acts that the rejecting facility might perform before signing the certification statement, so it would be unfair to have the generator become bound by the TSDF's signing the form as the generator's agent.

In response, we are codifying in today's final rule the manifest signature requirements at § 264.72(d)(1) and (e)(6). As explained in section II.G.4. above, we also are modifying the Generator's Certification field by renaming it the "Generator's/Offeror's Certification," in order to clarify that either the generator or an offeror may sign the certification. The generator's signature certifies to both the waste minimization and shipper's certification statements, while a rejecting facility signing as an offeror of a shipment certifies only to the content of the shipper's certification language, as it applies to information the offeror knows or has a reason to know.

Today's action also clarifies that any rejecting facility that prepares and signs a new manifest to re-ship a rejected waste will be subject to liability only for the limited "offeror" or pre-transportation requirements. In such cases, the rejecting facility acting as an offeror is not considered a "generator" of the rejected waste, and generally is not subject to the full hazardous waste generator requirements under 40 CFR part 262.

We are finalizing the proposed approach concerning rejecting facilities signing new manifests because we believe that this approach is the outcome required under the Hazardous Materials Regulations (HMRs), and because we believe that it addresses the rejecting facility's responsibilities for re-shipments more appropriately. We agree with the generator comments to the effect that rejecting TSDFs should not be viewed as agents of the generators when they re-ship rejected wastes and sign the manifest to initiate a new movement of the rejected materials. If a shipment, for example, has been partially received and partially rejected by a TSDF, it is fitting that the TSDF rejecting a partial load be responsible for ensuring that the portion of the waste to be re-shipped is properly described on the new manifest, and that the packages are in good condition and properly marked and labeled at the time the rejected waste again moves in commerce. Also, if the facility has rejected a full load and staged it temporarily at its facility pending new arrangements for re-shipment, it is appropriate that the rejecting facility, when it initiates the new movement of the shipment by signing the new manifest, verify that the shipment is properly described and in proper condition for transportation at the time the new movement begins. This is accomplished when the rejecting facility signs as offeror of the re-shipped

additional 90/180 days to locate an alternate facility. First, the 90/180 day timeframe already exists under the existing 40 CFR 262.34 accumulation provisions, and we do not believe we have sufficient record to support a shorter time frame. Second, given that the generator will have to make new arrangements with a hauler to transport the waste off-site and arrange with an alternate facility to receive the shipment, it has essentially begun a new event. Therefore, the contingencies and timing affecting the original time frame no longer applies to the returned shipment. Based on these factors, today's rule grants generators an additional 90/180 days to send the waste shipment to an alternate facility.

5. *Comment Analysis and Final Staging of Waste at the Rejecting Facility.* In general, commenters supported our proposal, but some expressed concern that the qualitative term "timely manner" has too broad a range of interpretation, since the term is not clearly defined. EPA agrees with these commenters and has thus revised § 264.72(d)(1) to include a default timeframe of 60 days. Commenters differed on the length of time that EPA should grant a rejecting facility to stage the rejected load or container residue shipment. Several commenters suggested that EPA grant the rejecting facility 90 days to stage the rejected waste or container residue so that they could reconcile the problem shipment with the generator, forward it to an alternate facility or return it to the generator. These commenters stated that without adequate time, the rejecting facility would have no choice but to return the shipment to the generator. Other commenters suggested shorter timeframes, ranging from 10 to 30 days, pointing out that the TSDF can return the waste to the generator if they can not locate an alternate facility.

After analyzing comments, EPA believes 60 days is sufficient time for the rejecting TSDF to consult with the generator, locate an alternate facility and forward the shipment or return it to the generator. While we understand that there is some precedent for a 90-day accumulation period for generators when they initially accumulate their wastes on-site, we believe that there are distinguishing features which we believe support a 60-day limit on staging by a rejecting TSDF. First, there are very few management controls on temporary staging of rejected wastes by TSDFs, as opposed to the detailed technical requirements that apply to generator accumulation under 40 CFR 262.34(a). Since there are few requirements imposed on TSDF staging, we believe that a shorter time period for temporary staging of rejected wastes is appropriate, particularly given that such wastes may be rejected because the TSDF lacks authorization to manage them under its RCRA permit. Second, TSDFs rejecting waste are usually much more familiar with the waste management industry than are generators. TSDFs deal with waste transporters and other waste management facilities as a matter of course, so the logistics of arranging the forwarding or return of temporarily staged wastes should not raise difficult issues for the TSDF. Finally, in most cases, the rejecting TSDF can return the staged waste to the generator, if it is not able to find an alternate facility. We have also revised the regulation to clarify that the TSDF does not need permission to return the shipment to the generator.

We are aware that some states currently allow TSDFs to stage rejected waste shipments at their facility, but by regulation or by permit restrict the staging times to significantly less than 60 days. We acknowledge that a staging timeframe of less than 60 days (*e.g.*, 10 or 30 days) may be adequate time in some instances. However, based on comments, we believe that scheduling difficulties, preparation of new waste profiles, or other unforseen circumstances may arise that could require TSDFs to stage a rejected waste or residue for a number of weeks. In such instances, a shorter timeframe would not afford the TSDF adequate time to reconcile the rejected shipment or residue. We believe the default 60-day time limit will provide rejecting facilities sufficient time to reconcile such shipments and forward them to an alternate facility.

V. Final Unmanifested Waste Reporting Requirements

In the May 2001 NPRM, EPA proposed to revise the unmanifested waste reporting requirement at § § 264.76 for permitted facilities and 265.76 for interim status facilities. Sections 264.76 and 265.76 currently require TSDFs to submit an unmanifested waste report to the Regional Administrator on EPA form 8700–13B within 15 days after they have received a waste shipment without a manifest. Specifically, the proposal removed the requirement that the TSDF use EPA form 8700–13B to submit its unmanifested report, and proposed that the TSDF submit either a typed, handwritten or electronic note. The typed, handwritten or electronic note must be legible, and must contain the following information: (a) The EPA ID Number, name and address of the facility; (b) The date the facility received the waste; (c) The EPA ID Number, name, and address of the generator and the transporter, if available; (d) A description and the quantity of each unmanifested hazardous waste the facility received; (e) The method of treatment, storage, or disposal for each hazardous waste; (f) The certification signed by the owner or operator of the facility or his authorized representative; and (g) A brief explanation of why the waste was unmanifested, if known.

We explained in the proposal that the unmanifested requirements the Agency announced in the January 28, 1983 FR that it was deleting EPA form 8700–13B and its predecessor, EPA form 8700–13, which had appeared in the May 19, 1980 FR. Although both forms were linked to annual reporting requirements at that time and were supposed to be adapted for unmanifested waste reporting, we deleted them due to the change from annual to biennial reporting. We never published a new form for unmanifested waste reporting and the form now required for biennial reporting, EPA form 1300–A/B, "Hazardous Waste Report Instructions and Forms," is not adaptable for unmanifested waste reporting. Although we never published a replacement form for reporting unmanifested waste, the regulations still required this form which is generally unavailable to those seeking a copy.

The final rule retains the proposed unmanifested reporting requirements at 40 CFR 264.76 and 265.76. Commenters generally supported our unmanifested reporting approach. However, several commenters expressed concern or raised suggestions on the proposed procedures for unmanifested wastes reports. A number of commenters suggested that EPA revise the manifest so that an unmanifested report could be "unsubmitted" using a manifest (*e.g.*, using a check box). While we appreciate this suggestion, EPA does not believe that it is a workable option. One commenter expressed concern that the proposed procedures did not offer a standard reporting approach, which could lead to data quality problems. The commenter suggested that TSDFs provide a report using company letterhead and signed by a company official. We do not agree with the suggestion and are not convinced that data entry problems may result from the proposed approach.

VI. Administration and Enforcement of These Regulatory Changes in the States

A. *Uniform Applicability of Revised Manifest Requirements in All States.* In

changes under its state law authorities. That is the only significant or practical outcome that results from this one regulatory provision being designated a HSWA-based requirement.

All the other parts of today's final rule are based on pre-HSWA authority, so they will be implemented under RCRA authority in authorized States only when these states revise their programs and receive authorization for the final rule requirements. For users of the manifest, the reliance on pre-HSWA authority for most of the content of today's rule is largely a moot point, since the new form and requirements will be implemented in all states on the delayed compliance date (i.e., 18 months after publication) based on Federal hazardous materials law. To regulatory agencies, the point is significant, since it means that the new manifest requirements cannot be implemented and thus enforced under RCRA authority until the states have received authorization for the necessary revisions to their authorized hazardous waste programs.

D. *Consistency Requires Adoption of Revised Manifest in All States.* Under today's rule, authorized States will be required to adopt the revised Uniform Manifest form and requirements. To obtain and maintain authorization, States and territories are required to be consistent with the federal program and other State programs. Although sections 3006 and 3009 of RCRA allow States to have regulations that are different than the Federal requirements, as long as they are equivalent to or more stringent, section 3006(b) also requires States to have regulations that are consistent with the federal regulations. The requirements of this statutory provision are codified in 40 CFR 271.4, which specifically applies the consistency requirement to the manifest system under 40 CFR 271.4(c). When EPA originally promulgated the Uniform Manifest in 1984, we found that consistency was extremely important where requirements addressing transportation are concerned. We found during the early years of implementing the RCRA program that a proliferation of many State-specific manifest forms could hamper the movement of hazardous waste to waste management facilities, and that differing manifest use and information requirements between States caused added burdens and confusion among those trying to comply with the Subtitle C regulations. See 49 FR 10490 at 10491 (March 20, 1984). Therefore, in 1984, EPA announced that consistency in the use of the Uniform Manifest would be required from authorized States, and that, with the exception of the limited State information that was allowed then in the optional fields, authorized States could not require any other manifest or information to accompany a waste shipment. Id. Based on nearly 20 years of experience with the Uniform Manifest, EPA has concluded that variability in the current manifest system must be reduced further, since the current level of variability under the 1984 Uniform Manifest continues to produce excessive burden, confusion, and compliance problems. Therefore, EPA emphasizes that program consistency considerations under RCRA section 3006 and 40 CFR 271.4(c) demand that all authorized States must require the use of the revised manifest form and requirements as set out in today's final rule.

Under 40 CFR 271.4(c) and 271.10(f) and (h), in order to be consistent with the federal program, and receive approval from EPA, States must have a manifest system that includes a manifest format that follows the Federal format required in 40 CFR 262.20(a) and 262.21. Today's rule amends § 271.10(h) to correspond with the changes to the revised manifest format and the procedures for its use. Key among these amendments are form revisions that would eliminate all optional fields and establish a new procedure for obtaining a standard manifest form from registered printers or distributors. The new, standard manifest format and the corresponding federal printing specification will not provide areas of potential variability for users and states. The final rule thus amends § 271.10(h) to eliminate provisions addressing States' ability to supplement the form. The States will, however, retain the authority to require the entry of state-specific waste codes that are not redundant with federal codes, and the authority to require the submission of manifest copies to state offices for use in their data systems.

Because the revised uniform manifest is (except for § 262.27 as explained above) being promulgated pursuant to non-HSWA authority, it will not become effective as a RCRA requirement in authorized States until those States revise their programs and receive authorization.

EPA has involved the authorized States, as co-implementers of the RCRA program, in the development of today's rule. We believe that there is general support among the States for these manifest revisions that will result in a truly standardized manifest form. EPA also believes that the States will generally be able to revise their RCRA programs to include the revised manifest within the final rule's transition period. However, should any states experience delays in adopting the program revisions corresponding to today's rule, we emphasize that the revised form and requirements will apply uniformly in all states on this rule's delayed compliance date, under the authority of the federal hazardous materials laws. Thus, any delays at the state level in adopting state program revisions will not impair the ability of users to obtain the benefits of the new form, nor impede the accomplishment of a truly standardized manifest form.

VII. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order No. 12866 (58 FR 51735, October 4, 1993), Federal agencies must determine whether a regulatory action is "significant" and therefore subject to 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 or 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 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; or, (4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order."

Pursuant to the terms of Executive Order 12866, we determined that this rule is a "significant regulatory action" because it contains novel policy issues, although it is not economically significant. As such, this action was submitted to the Office of Management and Budget (OMB) for review. Changes made in response to OMB suggestions or recommendations are documented in the docket for today's rule.

In order to estimate the anticipated economic effects of today's final rule, we conducted an evaluation of the potential effects of this rule on hazardous waste handlers and on State government regulatory agencies: "Economics Background Document: Economic Analysis of the USEPA's Final Rule Revisions to the RCRA Hazardous Waste Manifest Form," Mark

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), 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 the UMRA, Federal agencies generally must prepare a written analysis, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures to State, local and tribal governments, in the aggregate, or to the private sector, of $100 million or more in any one year. Moreover, section 205 allows Federal agencies to adopt an alternative other than the least costly, most cost-effective or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before promulgating a rule for which a written statement is needed, section 205 of the UMRA requires Federal agencies to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Before a Federal agency establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed, under section 203 of the UMRA, a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials to have meaningful and timely input in the development of regulatory proposals, and informing, educating and advising small governments on compliance with the regulatory requirements.

This final rule does not include a Federal mandate that may result in expenditures of $100 million or more to State, local, or tribal governments in the aggregate, because the UMRA generally excludes from the definition of "Federal intergovernmental mandate" duties that arise from participation in a voluntary federal program. States are not legally required to have or maintain a RCRA authorized program. Therefore, today's final rule is not subject to the requirements of sections 202 or 205 of UMRA. Furthermore, public data sources we reviewed in 2003 indicate that 12 state governments (AR, CA, CT, DE, IL, LA, MD, MI, MO, NH, NJ, PA) collect revenues from direct assessment of fees during distribution of state-printed RCRA manifests, totaling an estimated $1.16 to $2.44 million per year (see "Economics Background Document" for basis of this estimate). However, more recently as 2004, we estimate there may only be seven states collecting manifest printing and distribution fees. Today's rule will override existing requirements for hazardous waste shippers to acquire state-printed RCRA manifests and thus reduce the existing direct fee assessment mechanism in these 7 to 12 states. In cases where states lose revenue as a result of this rule, they may reconfigure their hazardous waste manifest fee assessments to maintain these existing annual revenues such as by charging fees to process collected manifests, or by altering waste management fee mechanisms. In addition, this final rule contains no regulatory requirements that might significantly or uniquely affect small governments under section 203 of UMRA. Therefore, EPA does not believe that this final rule would have a significant or unique effect on small governments.

E. Executive Order 13132: Federalism

Executive Order 13132, entitled "Federalism" (64 FR 43255, August 10, 1999), requires Federal agencies 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." The Executive Order defines "policies that have federalism implications" 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 would 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.

The final rule would alter the information that a State may require a generator or transporter to submit on the Uniform Manifest, and it would also alter the States' current role in distributing manifests. However, these changes represent relatively minor adjustments to the current manifest system, and they do not alter substantially the relationship between the Federal government and the States, or the distribution of power and responsibilities among the various levels of government. The manifest would remain a tracking document and shipping paper that is primarily based on Federal requirements found in RCRA and in the hazardous materials transportation laws administered by DOT. As with existing hazardous waste manifest requirements, States would retain the authority to require generators and treatment, storage, and disposal facilities to provide additional information related to the hazardous waste shipment under separate cover, so long as such requirements are not inconsistent with the Hazardous Materials Transportation Act (HMTA) or HMTA regulations.

In addition, the final rule does not impose substantial direct costs on States and localities. Although States with manifest data tracking programs may incur some start-up costs in converting their tracking systems to accept the revised paper manifest, the final rule does not mandate that States collect manifests, as a part of their programs. Thus, Executive Order 13132 does not apply to this final rule.

Although Section Six of Executive Order 13132 does not apply to this rule, EPA consulted substantially with representatives of State government in developing this rule prior to finalization. The Agency invited State representatives to participate in two public meetings during which we presented our rulemaking objectives and strategies, and solicited comments and concerns. EPA conducted these public meetings on December 10–11, 1997, and on January 7–8, 1998. Representatives of 23 States and Territories participated in these meetings. In addition, State representatives were invited to participate in the meetings of the EPA work group which developed this rule. Representatives from five States (IN, MI, NH, PA and RI) were selected to participate in the work group meetings, and these States discussed rule options and draft rule language extensively with EPA throughout the development of both the proposed and final rules.

During our consultations with States on this rule, the State representatives identified several concerns about: (1) The reductions in the optional fields which States have used to require additional information from facilities; and (2) the changes for printing and acquiring manifests. A summary of the concerns raised during consultations with the States, and EPA's response to those concerns, is provided elsewhere in this preamble, as well as in our "Response to Comments" document (available to the public from the EPA Docket).

requirements of parts 270 and 124 of this chapter;

(ii) Has received a permit (or interim status) from a State authorized in accordance with part 271 of this chapter; or

(iii) Is regulated under § 261.6(c)(2) or subpart F of part 266 of this chapter; and

(iv) That has been designated on the manifest by the generator pursuant to § 262.20.

(2) *Designated facility* also means a generator site designated on the manifest to receive its waste as a return shipment from a facility that has rejected the waste in accordance with § 264.72(f) or § 265.72(f) of this chapter.

(3) If a waste is destined to a facility in an authorized State which has not yet obtained authorization to regulate that particular waste as hazardous, then the designated facility must be a facility allowed by the receiving State to accept such waste.

* * * * *

Manifest means: The shipping document EPA Form 8700–22 (including, if necessary, EPA Form 8700–22A), originated and signed by the generator or offeror in accordance with the instructions in the appendix to 40 CFR part 262 and the applicable requirements of 40 CFR parts 262 through 265.

Manifest tracking number means: The alphanumeric identification number (*i.e.*, a unique three letter suffix preceded by nine numerical digits), which is pre-printed in Item 4 of the Manifest by a registered source.

* * * * *

PART 261—IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

■ 3. 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

■ 4. Section 261.7 is amended by revising paragraph (b)(1)(iii) to read as follows:

§ 261.7 Residues of hazardous waste in empty containers.

* * * * *

(b)(1) * * *

(iii)(A) No more than 3 percent by weight of the total capacity of the container remains in the container or inner liner if the container is less than or equal to 119 gallons in size; or

(B) No more than 0.3 percent by weight of the total capacity of the container remains in the container or inner liner if the container is greater than 119 gallons in size.

* * * * *

PART 262—STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE

■ 5. The authority citation for part 262 continues to read as follows:

Authority: 42 U.S.C. 6906, 6912, 6922–6925, 6937, and 6938.

Subpart B—The Manifest

■ 6. Section 262.20 (a) is revised to read as follows:

§ 262.20 General requirements.

(a)(1) A generator who transports, or offers for transport a hazardous waste for offsite treatment, storage, or disposal, or a treatment, storage, and disposal facility who offers for transport a rejected hazardous waste load, must prepare a Manifest (OMB Control number 2050–0039) on EPA Form 8700–22, and, if necessary, EPA Form 8700–22A, according to the instructions included in the appendix to this part.

(2) The revised Manifest form and procedures in 40 CFR 260.10, 261.7, 262.20, 262.21, 262.27, 262.32, 262.33, 262.34, 262.54, 262.60, and the appendix to part 262, shall not apply until September 5, 2006. The Manifest form and procedures in 40 CFR 260.10, 261.7, 262.20, 262.21, 262.32, 262.33, 262.34, 262.54, 262.60, and the appendix to part 262, contained in the 40 CFR, parts 260 to 265, edition revised as of July 1, 2004, shall be applicable until September 5, 2006.

* * * * *

■ 7. Section 262.21 is revised (including the Section heading) to read as follows:

§ 262.21 Manifest tracking numbers, manifest printing, and obtaining manifests.

(a)(1) A registrant may not print, or have printed, the manifest for use or distribution unless it has received approval from the EPA Director of the Office of Solid Waste to do so under paragraphs (c) and (e) of this section.

(2) The approved registrant is responsible for ensuring that the organizations identified in its application are in compliance with the procedures of its approved application and the requirements of this section. The registrant is responsible for assigning manifest tracking numbers to its manifests.

(b) A registrant must submit an initial application to the EPA Director of the Office of Solid Waste that contains the following information:

(1) Name and mailing address of registrant;

(2) Name, telephone number and email address of contact person;

(3) Brief description of registrant's government or business activity;

(4) EPA identification number of the registrant, if applicable;

(5) Description of the scope of the operations that the registrant plans to undertake in printing, distributing, and using its manifests, including:

(i) A description of the printing operation. The description should include an explanation of whether the registrant intends to print its manifests in-house (*i.e.*, using its own printing establishments) or through a separate (*i.e.*, unaffiliated) printing company. If the registrant intends to use a separate printing company to print the manifest on its behalf, the application must identify this printing company and discuss how the registrant will oversee the company. If this includes the use of intermediaries (*e.g.*, prime and subcontractor relationships), the role of each must be discussed. The application must provide the name and mailing address of each company. It also must provide the name and telephone number of the contact person at each company.

(ii) A description of how the registrant will ensure that its organization and unaffiliated companies, if any, comply with the requirements of this section. The application must discuss how the registrant will ensure that a unique manifest tracking number will be pre-printed on each manifest. The application must describe the internal control procedures to be followed by the registrant and unaffiliated companies to ensure that numbers are tightly controlled and remain unique. In particular, the application must describe how the registrant will assign manifest tracking numbers to its manifests. If computer systems or other infrastructure will be used to maintain, track, or assign numbers, these should be indicated. The application must also indicate how the printer will pre-print a unique number on each form (*e.g.*, crash or press numbering). The application also must explain the other quality procedures to be followed by each establishment and printing company to ensure that all required print specifications are consistently achieved and that printing violations are identified and corrected at the earliest practicable time.

(iii) An indication of whether the registrant intends to use the manifests for its own business operations or to distribute the manifests to a separate company or to the general public (*e.g.*, for purchase).

revision. If the Agency denies the revision, it will explain the reasons for the denial, and it will contact the registrant and request further modification before approval.

(2) If the registrant would like a new tracking number suffix, the registrant must submit a proposed suffix to the EPA Director of the Office of Solid Waste, along with the reason for requesting it. The Agency will either approve the suffix or deny the suffix and provide an explanation why it is not acceptable.

(3) If a registrant would like to change the paper type, paper weight, ink color of the manifest instructions, or binding method of its manifest or continuation sheet subsequent to approval under paragraph (e) of this section, then the registrant must submit three samples of the revised form for EPA review and approval. If the approved registrant would like to use a new printer, the registrant must submit three manifest samples printed by the new printer, along with a brief description of the printer's qualifications to print the manifest. EPA will evaluate the manifests and either approve the registrant to print the forms as proposed or request additional information or modification to them before approval. EPA will notify the registrant of its decision by mail. The registrant cannot use or distribute its revised forms until EPA approves them.

(i) If, subsequent to its approval under paragraph (e) of this section, a registrant typesets its manifest or continuation sheet instead of using the electronic file of the forms provided by EPA, it must submit three samples of the manifest or continuation sheet to the registry for approval. EPA will evaluate the manifests or continuation sheets and either approve the registrant to print them as proposed or request additional information or modification to them before approval. EPA will notify the registrant of its decision by mail. The registrant cannot use or distribute its typeset forms until EPA approves them.

(j) EPA may exempt a registrant from the requirement to submit form samples under paragraph (d) or (h)(3) of this section if the Agency is persuaded that a separate review of the registrant's forms would serve little purpose in informing an approval decision (*e.g.*, a registrant certifies that it will print the manifest using the same paper type, paper weight, ink color of the instructions and binding method of the form samples approved for some other registrant). A registrant may request an exemption from EPA by indicating why an exemption is warranted.

(k) An approved registrant must notify EPA by phone or email as soon as it becomes aware that it has duplicated tracking numbers on any manifests that have been used or distributed to other parties.

(l) If, subsequent to approval of a registrant under paragraph (e) of this section, EPA becomes aware that the approved paper type, paper weight, ink color of the instructions, or binding method of the registrant's form is unsatisfactory, EPA will contact the registrant and require modifications to the form.

(m)(1) EPA may suspend and, if necessary, revoke printing privileges if we find that the registrant:

(i) Has used or distributed forms that deviate from its approved form samples in regard to paper weight, paper type, ink color of the instructions, or binding method; or

(ii) Exhibits a continuing pattern of behavior in using or distributing manifests that contain duplicate manifest tracking numbers.

(2) EPA will send a warning letter to the registrant that specifies the date by which it must come into compliance with the requirements. If the registrant does not come in compliance by the specified date, EPA will send a second letter notifying the registrant that EPA has suspended or revoked its printing privileges. An approved registrant must provide information on its printing activities to EPA if requested.

Subpart B—[Amended]

■ 8. Subpart B is amended by adding new § 262.27 to read as follows:

§ 262.27 Waste minimization certification.

A generator who initiates a shipment of hazardous waste must certify to one of the following statements in Item 15 of the uniform hazardous waste manifest:

(a) "I am a large quantity generator. I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment;" or

(b) "I am a small quantity generator. I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford."

Subpart C—Pre-Transport Requirements

■ 9. Section 262.32 is amended by revising paragraph (b) to read as follows:

§ 262.32 Marking.

* * * * *

(b) Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must mark each container of 119 gallons or less used in such transportation with the following words and information in accordance with the requirements of 49 CFR 172.304:

HAZARDOUS WASTE—Federal Law Prohibits Improper Disposal. If found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency.
Generator's Name and Address _____.
Generator's EPA Identification Number _____.
Manifest Tracking Number _____.

■ 10. Section 262.33 is revised to read as follows:

§ 262.33 Placarding.

Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must placard or offer the initial transporter the appropriate placards according to Department of Transportation regulations for hazardous materials under 49 CFR part 172, subpart F. If placards are not required, a generator must mark each motor vehicle according to 49 CFR 171.3(b)(1).

■ 11. Section 262.34 is amended by adding new paragraph (m) to read as follows:

§ 262.34 Accumulation time.

* * * * *

(m) A generator who sends a shipment of hazardous waste to a designated facility with the understanding that the designated facility can accept and manage the waste and later receives that shipment back as a rejected load or residue in accordance with the manifest discrepancy provisions of § 264.72 or § 265.72 of this chapter may accumulate the returned waste on-site in accordance with paragraphs (a) and (b) or (d), (e) and (f) of this section, depending on the amount of hazardous waste on-site in that calendar month. Upon receipt of the returned shipment, the generator must:

(1) Sign Item 18c of the manifest, if the transporter returned the shipment using the original manifest; or

(2) Sign Item 20 of the manifest, if the transporter returned the shipment using a new manifest.

Item 10. Containers (Number and Type)

Enter the number of containers for each waste and the appropriate abbreviation from Table I (below) for the type of container.

TABLE I.—TYPES OF CONTAINERS

BA = Burlap, cloth, paper, or plastic bags.
CF = Fiber or plastic boxes, cartons, cases.
CM = Metal boxes, cartons, cases (including roll-offs).
CW = Wooden boxes, cartons, cases.
CY = Cylinders.
DF = Fiberboard or plastic drums, barrels, kegs.
DM = Metal drums, barrels, kegs.
DT = Dump truck.
DW = Wooden drums, barrels, kegs.
HG = Hopper or gondola cars.
TC = Tank cars.
TP = Portable tanks.
TT = Cargo tanks (tank trucks).

Item 11. Total Quantity

Enter, in designated boxes, the total quantity of waste. Round partial units to the nearest whole unit, and *do not* enter decimals or fractions. To the extent practical, report quantities using appropriate units of measure that will allow you to report quantities with precision. Waste quantities entered should be based on actual measurements or reasonably accurate estimates of actual quantities shipped. Container capacities are not acceptable as estimates.

Item 12. Units of Measure (Weight/Volume)

Enter, in designated boxes, the appropriate abbreviation from Table II (below) for the unit of measure.

TABLE II.—UNITS OF MEASURE

G = Gallons (liquids only).
K = Kilograms.
L = Liters (liquids only).
M = Metric Tons (1000 kilograms).
N = Cubic Meters.
P = Pounds.
T = Tons (2000 pounds).
Y = Cubic Yards.

Note: Tons, Metric Tons, Cubic Meters, and Cubic Yards should only be reported in connection with very large bulk shipments, such as rail cars, tank trucks, or barges.

Item 13. Waste Codes

Enter up to six federal and state waste codes to describe each waste stream identified in Item 9b. State waste codes that are not redundant with federal codes must be entered here, in addition to the federal waste codes which are most representative of the properties of the waste.

Item 14. Special Handling Instructions and Additional Information.

1. Generators may enter any special handling or shipment-specific information necessary for the proper management or tracking of the materials under the generator's or other handler's business processes, such as waste profile numbers, container codes, bar codes, or response guide numbers. Generators also may use this space to enter additional descriptive information about their shipped materials, such as chemical names, constituent percentages, physical state, or specific gravity of wastes identified with volume units in Item 12.

2. This space may be used to record limited types of federally required information for which there is no specific space provided on the manifest, including any alternate facility designations; the manifest tracking number of the original manifest for rejected wastes and residues that are re-shipped under a second manifest; and the specification of PCB waste descriptions and PCB out-of-service dates required under 40 CFR 761.207. Generators, however, cannot be required to enter information in this space to meet state regulatory requirements.

Item 15. Generator's/Offeror's Certifications

1. The generator must read, sign, and date the waste minimization certification statement. In signing the waste minimization certification statement, those generators who have not been exempted by statute or regulation from the duty to make a waste minimization certification under section 3002(b) of RCRA are also certifying that they have complied with the waste minimization requirements. The Generator's Certification also contains the required attestation that the shipment has been properly prepared and is in proper condition for transportation (the shipper's certification). The content of the shipper's certification statement is as follows: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations. When a party other than the generator prepares the shipment for transportation, this party may also sign the shipper's certification statement as the offeror of the shipment.

2. Generator or Offeror personnel may preprint the words, "On behalf of" in the signature block or may hand write this statement in the signature block prior to signing the generator/offeror certification, to indicate that the individual signs as the employee or agent of the named principal.

Note: All of the above information except the handwritten signature required in Item 15 may be pre-printed.

II. Instructions for International Shipment Block

Item 16. International Shipments

For export shipments, the primary exporter must check the export box, and enter the point of exit (city and state) from the United States. For import shipments, the importer must check the import box and enter the point of entry (city and state) into the United States. For exports, the transporter must sign and date the manifest to indicate the day the shipment left the United States. Transporters of hazardous waste shipments must deliver a copy of the manifest to the U.S. Customs when exporting the waste across U.S. borders.

III. Instructions for Transporters

Item 17. Transporters' Acknowledgments of Receipt

Enter the name of the person accepting the waste on behalf of the first transporter. That person must acknowledge acceptance of the waste described on the manifest by signing and entering the date of receipt. Only one signature per transportation company is required. Signatures are not required to track the movement of wastes in and out of transfer facilities, unless there is a change of custody between transporters.

If applicable, enter the name of the person accepting the waste on behalf of the second transporter. That person must acknowledge acceptance of the waste described on the manifest by signing and entering the date of receipt.

Note: Transporters carrying imports, who are acting as importers, may have responsibilities to enter information in the International Shipments Block. Transporters carrying exports may also have responsibilities to enter information in the International Shipments Block. See above instructions for Item 16.

IV. Instructions for Owners and Operators of Treatment, Storage, and Disposal Facilities

Item 18. Discrepancy

Item 18a. Discrepancy Indication Space

1. The authorized representative of the designated (or alternate) facility's owner or operator must note in this space any discrepancies between the waste described on the Manifest and the waste actually received at the facility. Manifest discrepancies are: significant differences (as defined by §§ 264.72(b) and 265.72(b)) between the quantity or type of hazardous waste designated on the manifest or shipping paper, and the quantity and type of hazardous waste a facility actually receives, rejected wastes, which may be a full or partial shipment of hazardous waste that the TSDF cannot accept, or container residues, which are residues that exceed the quantity limits for "empty" containers set forth in 40 CFR 261.7(b).

2. For rejected loads and residues (40 CFR 264.72(d), (e), and (f), or 40 CFR 265.72(d), (e), or (f)), check the appropriate box if the shipment is a rejected load (*i.e.*, rejected by the designated and/or alternate facility and is sent to an alternate facility or returned to the generator) or a regulated residue that cannot be removed from a container. Enter the reason for the rejection or the inability to remove the residue and a description of the waste. Also, reference the manifest tracking number for any additional manifests being used to track the rejected waste or residue shipment on the original manifest. Indicate the original manifest tracking number in Item 14, the Special Handling Block and Additional Information Block of the additional manifests.

3. Owners or operators of facilities located in unauthorized States (*i.e.*, states in which the U.S. EPA administers the hazardous waste management program) who cannot resolve significant differences in quantity or type within 15 days of receiving the waste

Authority: 42 U.S.C. 6906, 6912, 6922–6925, 6937, and 6938.

■ 16. Section 263.20 is amended by revising paragraphs (a) and (g) to read as follows:

§ 263.20 The manifest system.

(a)(1) *Manifest requirement.* A transporter may not accept hazardous waste from a generator unless the transporter is also provided with a manifest signed in accordance with the requirements of § 262.23.

(2) *Exports.* In the case of exports other than those subject to subpart H of 40 CFR part 262, a transporter may not accept such waste from a primary exporter or other person if he knows the shipment does not conform to the EPA Acknowledgment of Consent; and unless, in addition to a manifest signed by the generator as provided in this section, the transporter shall also be provided with an EPA Acknowledgment of Consent which, except for shipments by rail, is attached to the manifest (or shipping paper for exports by water (bulk shipment)). For exports of hazardous waste subject to the requirements of subpart H of 40 CFR part 262, a transporter may not accept hazardous waste without a tracking document that includes all information required by 40 CFR 262.84.

(3) *Compliance Date for Form Revisions.* The revised Manifest form and procedures in 40 CFR 260.10, 261.7, 263.20, and 263.21, shall not apply until September 5, 2006. The Manifest form and procedures in 40 CFR 260.10, 261.7, 263.20, and 263.21, contained in the 40 CFR, parts 260 to 265, edition revised as of July 1, 2004, shall be applicable until September 5, 2006.

* * * * *

(g) Transporters who transport hazardous waste out of the United States must:

(1) Sign and date the manifest in the International Shipments block to indicate the date that the shipment left the United States;

(2) Retain one copy in accordance with § 263.22(d);

(3) Return a signed copy of the manifest to the generator; and

(4) Give a copy of the manifest to a U.S. Customs official at the point of departure from the United States.

* * * * *

■ 17. Section 263.21 is amended by revising paragraph (b) to read as follows:

§ 263.21 Compliance with the manifest.

* * * * *

(b)(1) If the hazardous waste cannot be delivered in accordance with paragraph (a) of this section because of an emergency condition other than rejection of the waste by the designated facility, then the transporter must contact the generator for further directions and must revise the manifest according to the generator's instructions.

(2) If hazardous waste is rejected by the designated facility while the transporter is on the facility's premises, then the transporter must obtain the following:

(i) For a partial load rejection or for regulated quantities of container residues, a copy of the original manifest that includes the facility's date and signature, and the Manifest Tracking Number of the new manifest that will accompany the shipment, and a description of the partial rejection or container residue in the discrepancy block of the original manifest. The transporter must retain a copy of this manifest in accordance with § 263.22, and give the remaining copies of the original manifest to the rejecting designated facility. If the transporter is forwarding the rejected part of the shipment or a regulated container residue to an alternate facility or returning it to the generator, the transporter must obtain a new manifest to accompany the shipment, and the new manifest must include all of the information required in 40 CFR 264.72(e)(1) through (6) or (f)(1) through (6) or 40 CFR 265.72(e)(1) through (6) or (f)(1) through (6).

(ii) For a full load rejection that will be taken back by the transporter, a copy of the original manifest that includes the rejecting facility's signature and date attesting to the rejection, the description of the rejection in the discrepancy block of the manifest, and the name, address, phone number, and Identification Number for the alternate facility or generator to whom the shipment must be delivered. The transporter must retain a copy of the manifest in accordance with § 263.22, and give a copy of the manifest containing this information to the rejecting designated facility. If the original manifest is not used, then the transporter must obtain a new manifest for the shipment and comply with 40 CFR 264.72(e)(1) through (6) or 40 CFR 265.72(e)(1) through (6).

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

■ 18. The authority citation for part 264 is revised to read as follows:

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

Subpart E—Manifest System, Recordkeeping, and Reporting

■ 19. Section 264.70 is revised to read as follows:

§ 264.70 Applicability.

(a) The regulations in this subpart apply to owners and operators of both on-site and off-site facilities, except as § 264.1 provides otherwise. Sections 264.71, 264.72, and 264.76 do not apply to owners and operators of on-site facilities that do not receive any hazardous waste from off-site sources, nor to owners and operators of off-site facilities with respect to waste military munitions exempted from manifest requirements under 40 CFR 266.203(a). Section 264.73(b) only applies to permittees who treat, store, or dispose of hazardous wastes on-site where such wastes were generated.

(b) The revised Manifest form and procedures in 40 CFR 260.10, 261.7, 264.70, 264.71, 264.72, and 264.76, shall not apply until September 5, 2006. The Manifest form and procedures in 40 CFR 260.10, 261.7, 264.70, 264.71. 264.72, and 264.76, contained in the 40 CFR, parts 260 to 265, edition revised as of July 1, 2004, shall be applicable until September 5, 2006.

■ 20. Section 264.71 is amended by revising paragraphs (a) and (b)(4) and adding paragraph (e) to read as follows:

§ 264.71 Use of manifest system.

(a)(1) If a facility receives hazardous waste accompanied by a manifest, the owner, operator or his/her agent must sign and date the manifest as indicated in paragraph (a)(2) of this section to certify that the hazardous waste covered by the manifest was received, that the hazardous waste was received except as noted in the discrepancy space of the manifest, or that the hazardous waste was rejected as noted in the manifest discrepancy space.

(2) If a facility receives a hazardous waste shipment accompanied by a manifest, the owner, operator or his agent must:

(i) Sign and date, by hand, each copy of the manifest;

(ii) Note any discrepancies (as defined in § 264.72(a)) on each copy of the manifest;

(iii) Immediately give the transporter at least one copy of the manifest;

(iv) Within 30 days of delivery, send a copy of the manifest to the generator; and

(v) Retain at the facility a copy of each manifest for at least three years from the date of delivery.

original manifest by completing Item 18a and 18b of the manifest and supplying the generator's information in the Alternate Facility space. The facility must retain a copy for its records and then give the remaining copies of the manifest to the transporter to accompany the shipment. If the original manifest is not used, then the facility must use a new manifest and comply with paragraphs (f)(1), (2), (3), (4), (5), and (6) of this section.

(g) If a facility rejects a waste or identifies a container residue that exceeds the quantity limits for "empty" containers set forth in 40 CFR 261.7(b) after it has signed, dated, and returned a copy of the manifest to the delivering transporter or to the generator, the facility must amend its copy of the manifest to indicate the rejected wastes or residues in the discrepancy space of the amended manifest. The facility must also copy the manifest tracking number from Item 4 of the new manifest to the Discrepancy space of the amended manifest, and must re-sign and date the manifest to certify to the information as amended. The facility must retain the amended manifest for at least three years from the date of amendment, and must within 30 days, send a copy of the amended manifest to the transporter and generator that received copies prior to their being amended.

■ 22. Section 264.76 is revised to read as follows:

§ 264.76 Unmanifested waste report.

(a) If a facility accepts for treatment, storage, or disposal any hazardous waste from an off-site source without an accompanying manifest, or without an accompanying shipping paper as described by § 263.20(e) of this chapter, and if the waste is not excluded from the manifest requirement by this chapter, then the owner or operator must prepare and submit a letter to the Regional Administrator within 15 days after receiving the waste. The unmanifested waste report must contain the following information:

(1) The EPA identification number, name and address of the facility;

(2) The date the facility received the waste;

(3) The EPA identification number, name and address of the generator and the transporter, if available;

(4) A description and the quantity of each unmanifested hazardous waste the facility received;

(5) The method of treatment, storage, or disposal for each hazardous waste;

(6) The certification signed by the owner or operator of the facility or his authorized representative; and,

(7) A brief explanation of why the waste was unmanifested, if known.

(b) [Reserved]

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

■ 23. The authority citation for part 265 is revised to read as follows:

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

Subpart E—Manifest System, Recordkeeping, and Reporting

■ 24. Section 265.70 is revised to read as follows:

§ 265.70 Applicability.

(a) The regulations in this subpart apply to owners and operators of both on-site and off-site facilities, except as § 265.1 provides otherwise. Sections 265.71, 265.72, and 265.76 do not apply to owners and operators of on-site facilities that do not receive any hazardous waste from off-site sources, nor to owners and operators of off-site facilities with respect to waste military munitions exempted from manifest requirements under 40 CFR 266.203(a).

(b) The revised Manifest form and procedures in 40 CFR 260.10, 261.7, 265.70, 265.71. 265.72, and 265.76, shall not apply until September 5, 2006. The Manifest form and procedures in 40 CFR 260.10, 261.7, 265.70, 265.71. 265.72, and 265.76, contained in the 40 CFR, parts 260 to 265, edition revised as of July 1, 2004, shall be applicable until September 5, 2006.

■ 25. Section 265.71 is amended by revising paragraphs (a) and (b)(4) and adding paragraph (e) to read as follows:

§ 265.71 Use of manifest system.

(a)(1) If a facility receives hazardous waste accompanied by a manifest, the owner, operator or his/her agent must sign and date the manifest as indicated in paragraph (a)(2) of this section to certify that the hazardous waste covered by the manifest was received, that the hazardous waste was received except as noted in the discrepancy space of the manifest, or that the hazardous waste was rejected as noted in the manifest discrepancy space.

(2) If a facility receives a hazardous waste shipment accompanied by a manifest, the owner, operator or his/her agent must:

(i) Sign and date, by hand, each copy of the manifest;

(ii) Note any discrepancies (as defined in § 265.72(a)) on each copy of the manifest;

(iii) Immediately give the transporter at least one copy of the manifest;

(iv) Within 30 days of delivery, send a copy of the manifest to the generator; and

(v) Retain at the facility a copy of each manifest for at least three years from the date of delivery.

(3) If a facility receives hazardous waste imported from a foreign source, the receiving facility must mail a copy of the manifest to the following address within 30 days of delivery: International Compliance Assurance Division, OFA/OECA (2254A), U.S. Environmental Protection Agency, Ariel Rios Building, 1200 Pennsylvania Avenue, NW., Washington, DC 20460.

(b) * * *

(4) Within 30 days after the delivery, send a copy of the signed and dated manifest or a signed and dated copy of the shipping paper (if the manifest has not been received within 30 days after delivery) to the generator; and

* * * * *

(e) A facility must determine whether the consignment state for a shipment regulates any additional wastes (beyond those regulated Federally) as hazardous wastes under its state hazardous waste program. Facilities must also determine whether the consignment state or generator state requires the facility to submit any copies of the manifest to these states.

■ 26. Section 265.72 is revised to read as follows:

§ 265.72 Manifest discrepancies.

(a) Manifest discrepancies are:

(1) Significant differences (as defined by paragraph (b) of this section) between the quantity or type of hazardous waste designated on the manifest or shipping paper, and the quantity and type of hazardous waste a facility actually receives;

(2) Rejected wastes, which may be a full or partial shipment of hazardous waste that the TSDF cannot accept; or

(3) Container residues, which are residues that exceed the quantity limits for "empty" containers set forth in 40 CFR 261.7(b).

(b) Significant differences in quantity are: For bulk waste, variations greater than 10 percent in weight; for batch waste, any variation in piece count, such as a discrepancy of one drum in a truckload. Significant differences in type are obvious differences which can be discovered by inspection or waste analysis, such as waste solvent substituted for waste acid, or toxic

(6) The certification signed by the owner or operator of the facility or his authorized representative; and

(7) A brief explanation of why the waste was unmanifested, if known.

(b) [Reserved]

PART 271—REQUIREMENTS FOR AUTHORIZATION OF STATE HAZARDOUS WASTE PROGRAMS

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

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

■ 29. 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
*	*	*	*
Mar. 4, 2005	Waste Minimization Certification in the Revised Manifest Rule.	[Insert FR page numbers]	Sept. 6, 2005.
*	*	*	*

■ 30. Section 271.10 is amended by revising paragraphs (f)(1), (f)(2), (f)(3), and (h) introductory text, (h)(1), and (h)(2) to read as follows:

§ 271.10 Requirements for generators of hazardous wastes.

* * * * *

(f) * * *

(1) Use a manifest system that ensures that interstate and intrastate shipments of hazardous waste are designated for delivery and, in the case of intrastate shipments, are delivered to facilities that are authorized to operate under an approved State program or the federal program. The manifest system must require the use of the manifest format as required by § 262.20(a). No other manifest form, shipping document, or information, other than that required by federal law, may be required by the State to travel with the shipment.

(2) Initiate the manifest and designate on the manifest the treatment, storage or disposal facility to which the waste is to be shipped.

(3) Ensure that all wastes offered for transportation are accompanied by a manifest, except:

(i) Shipments subject to 40 CFR 262.20(e) or (f);

(ii) Shipments by rail or water, as specified in 40 CFR 262.23(c) and (d).

* * * * *

(h) The State must follow the Federal manifest format for the form and instructions (40 CFR 262.20 and the appendix to part 262).

(1) A state may require the entry of waste codes associated with particular wastes that are regulated as hazardous wastes by the state, if the state codes are not redundant with a federally required code for the same waste. No state, however, may impose enforcement sanctions on a transporter during transportation of the shipment for failure of the form to include a state-required waste code.

(2) Either the State to which a shipment is manifested (consignment State) or the State in which the generator is located (generator State), or both, may require that copies of the manifest form be submitted to the State.

* * * * *

■ 31. Section 271.11 is amended by revising paragraph (c) to read as follows:

§ 271.11 Requirements for transporters of hazardous waste.

* * * * *

(c)(1) The State must require transporters to carry the manifest during transport, except in the case of shipments by rail or water, transporters may carry a shipping paper, as specified in 40 CFR 263.20(e) and (f);

(2) The State must require the transporter to deliver waste only to the facility designated on the manifest, which in the case of return shipments of rejected wastes or regulated container residues, may also include the original generator of the waste shipment.

(3) The State program must provide requirements for shipments by rail or water equivalent to those under 40 CFR 263.20(e) and (f).

(4) For exports of hazardous waste, the state must require the transporter to refuse to accept hazardous waste for export if the transporter knows the shipment does not conform to the EPA Acknowledgment of Consent, to carry an EPA Acknowledgment of Consent to the shipment, to sign and date the International Shipments Block of the manifest to indicate the date the shipment leaves the U.S., and to provide a copy of the manifest to the U.S. Customs official at the point the waste leaves the United States.

* * * * *

■ 32. Section 271.12 is amended by revising paragraph (i) to read as follows:

§ 271.12 Requirements for hazardous waste management facilities.

* * * * *

(i) Compliance with the manifest system including the requirement that facility owners or operators return a signed copy of the manifest:

(1) To the generator to certify delivery of the hazardous waste shipment or to identify discrepancies; and

(2) To EPA's International Compliance Assurance Division program, at the address referenced in 40 CFR 264.71(a)(3) and 265.71(a)(3), to indicate the receipt of a shipment of hazardous waste imported into the U.S. from a foreign source.

* * * * *

[FR Doc. 05–1966 Filed 3–3–05; 8:45 am]

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Federal Register

Thursday,
February 24, 2005

Part II

Environmental Protection Agency

40 CFR Parts 148, 261, et al.
Hazardous Waste—Nonwastewaters From Productions of Dyes, Pigments, and Food, Drug, and Cosmetic Colorants; Mass Loadings-Based Listing; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 148, 261, 268, 271, and 302

[RCRA–2003–0001; FRL–7875–8]

RIN 2050–AD80

Hazardous Waste Management System; Identification and Listing of Hazardous Waste; Dyes and/or Pigments Production Wastes; Land Disposal Restrictions for Newly Identified Wastes; CERCLA Hazardous Substance Designation and Reportable Quantities; Designation of Five Chemicals as Appendix VIII Constituents; Addition of Four Chemicals to the Treatment Standards of F039 and the Universal Treatment Standards

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA) is today listing as hazardous nonwastewaters generated from the production of certain dyes, pigments, and FD&C colorants. EPA is promulgating this regulation under the Resource Conservation and Recovery Act (RCRA), which directs EPA to determine whether these wastes pose a substantial present or potential hazard to human health or the environment when they are improperly treated, stored, transported, disposed of or otherwise managed. This listing sets annual mass loadings for constituents of concern, such that wastes would not be hazardous if the constituents are below the regulatory thresholds. If the wastes meet or exceed the regulatory levels for any constituents of concern, the wastes must be managed as listed hazardous wastes, unless the wastes are either disposed in a landfill unit that meets certain liner design criteria, or treated in a combustion unit as specified in the listing description. This rule also adds five toxic constituents to the list of hazardous constituents that serves as the basis for classifying wastes as hazardous. In addition, this rule establishes Land Disposal Restrictions (LDR) treatment standards for the wastes, and designates these wastes as hazardous substances subject to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This rule does not adjust the one pound statutory reportable quantity (RQ) for the waste.

DATES: This final rule is effective on August 23, 2005.

ADDRESSES: EPA has established a docket for this action under Docket ID No. RCRA–2003–0001. All documents in the docket are listed in the EDOCKET index at *http://www.epa.gov/edocket.* Although listed in the index, some information may not be publicly available, *e.g.*, Confidential Business Information (CBI) or other information whose 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 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, and the telephone number for the RCRA Docket is (202) 566–0270. This Docket Facility is open from 8:30 a.m.–4:30 p.m., Monday through Friday, excluding legal holidays.

FOR FURTHER INFORMATION CONTACT: For general information, review our website at *http://www.epa.gov/epaoswer/hazwaste/id/dyes/index.htm.* For information on specific aspects of the rule, contact Robert Kayser, Hazardous Waste Identification Division, Office of Solid Waste (5304W), Environmental Protection Agency, 1200 Pennsylvania Avenue, NW., Washington, DC 20460; telephone number: (703) 308–7304; fax number: (703) 308–0514; e-mail address: *kayser.robert@epa.gov.* For technical information on the CERCLA aspects of this rule, contact Ms. Lynn Beasley, Office of Emergency Prevention, Preparedness, and Response, Emergency Response Center (5204G), U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW., Washington, DC 20460; telephone number: (703) 603–9086; e-mail address: *beasley.lynn@epa.gov.*

SUPPLEMENTARY INFORMATION:

Readable Regulations

Today's preamble and regulations are written in "readable regulations" format. The authors tried to use active rather than passive voice, plain language, a question-and-answer format, the pronouns "we" for EPA and "you" for the owner/generator, and other techniques to make the information in today's rule easier to read and understand. This format is part of our efforts toward regulatory improvement. We believe this format helps readers understand the regulations, which should then increase compliance, make enforcement easier, and foster better relationships between EPA and the regulated community.

ACRONYMS USED IN THE RULE

Acronym	Definition
BDAT	Best Demonstrated Available Technology.
BIODG	Biodegradation.
CAA	Clean Air Act.
CARBN	Carbon absorption.
CAS	Chemical Abstract Services.
CBI	Confidential Business Information.
CCL	Compacted clay liner.
CERCLA	Comprehensive Environmental Response Compensation and Liability Act.
CFR	Code of Federal Regulations.
CHOXD	Chemical or electrolytic oxidation.
CMBST	Combustion.
CoC	Constituent of concern.
CI	Colour Index.
CPMA	Color Pigments Manufacturers Association.
CWA	Clean Water Act.
CWTP	Centralized wastewater treatment plant.
ED	Environmental Defense (previously the Environmental Defense Fund or EDF).
E.O.	Executive Order.
EP	Extraction Procedure.

ACRONYMS USED IN THE RULE—Continued

Acronym	Definition
EPA	Environmental Protection Agency.
EPACMTP	EPA's Composite Model for Leachate Migration with Transformation Products.
EPCRA	Emergency Planning and Community Right-To-Know Act.
ETAD	Ecological and Toxicological Association of Dyes and Organic Pigments Manufacturers.
EU	European Union.
fb	Followed by.
FDA	Food and Drug Administration.
FD&C	Food, Drug and Cosmetic.
FR	Federal Register.
GCL	Geosynthetic clay liner.
GC/MS	Gas Chromatography/Mass Spectroscopy.
GM	Geomembrane.
GSCM	General Soil Column Model.
HELP	Hydrologic Evaluation of Landfill Performance.
HGDB	Hydrogeologic Database.
HPLC	High Performance Liquid Chromatography.
HQ	Hazard Quotient.
HSWA	Hazardous and Solid Waste Amendments.
ICR	Information Collection Request.
kg/yr	Kilogram/year.
LDR	Land Disposal Restriction.
mg/kg	Milligram per kilogram.
mg/L	Milligram per liter.
MSW	Municipal Solid Waste.
MT	Metric ton.
NAICS	North American Industrial Classification System.
OMB	Office of Management and Budget.
OSW	Office of Solid Waste.
OSWER	Office of Solid Waste and Emergency Response.
POTW	Publicly owned treatment works.
ppm	Parts per million.
PRA	Paperwork Reduction Act.
QA	Quality Assurance.
QC	Quality Control.
RCRA	Resource Conservation and Recovery Act.
RFA	Regulatory Flexibility Act.
RFSA	Regulatory Flexibility Screening Analysis.
RQ	Reportable Quantity.
SAB	Science Advisory Board.
SBA	Small Business Administration.
SBREFA	Small Business Regulatory Enforcement Fairness Act.
SIC	Standard Industry Code.
SW–846	Test Methods for Evaluating Solid Wastes.
TRI	Toxic Release Inventory.
UCLM	Upper confidence limit of the mean.
UMRA	Unfunded Mandates Reform Act.
U.S.C.	United States Code.
UTS	Universal Treatment Standard.
WETOX	Wet air oxidation.

Contents of This Final Rule

I. Overview

A. Who Will Be Affected by This Final Rule?

Today's final action will affect those who handle the wastes that we are adding to EPA's list of hazardous wastes under the RCRA program. This regulation could directly impact businesses that generate and manage certain organic dyes and/or pigment production wastes. In addition, manufacturers that do not make dyes or pigments, but that generate wastes containing selected constituents of concern, may be indirectly impacted. This is because we are adding new treatment standards for four chemicals, and we are adding five new constituents to the list of hazardous constituents on Appendix VIII of part 261. Thus, these actions may result in indirect impacts on these manufacturers. In addition, landfill owners/operators who previously accepted these wastes may be indirectly impacted. This action may also affect entities that need to respond to releases of these wastes as CERCLA hazardous substances. Impacts on potentially affected entities, direct and indirect, are summarized in section VIII of this Preamble. The document, "Economic Assessment for the Proposed Loadings-Based Listing of Non-Wastewaters from the Production of Selected Organic Dyes, Pigments, and Food, Drug, and Cosmetic Colorants," November 2003 (hereafter known as the Economic Assessment Document) presents a comprehensive analysis of potentially impacted entities. Further updated analysis is also presented in the "Revised Impacts Assessment." [1] These documents are available in the docket for today's rule. A summary of potentially affected businesses is provided in the table below.

TABLE 1.—SUMMARY OF FACILITIES POTENTIALLY AFFECTED BY THE U.S. EPA'S 2005 DYES AND/OR PIGMENTS MANUFACTURING WASTE LISTING FINAL RULE

SIC code	NAICS code	Industry sector name	Estimated number of relevant facilities*
Directly Impacted:			
2865	325132–1	Synthetic Organic Dyes	31.
	325132–4	Synthetic Organic Pigments, Lakes, and Toners.	
Indirectly Impacted:			
2800 (except 2865)	325 (except 325132)	Chemical Manufacturing	Less than 50 facilities total.**
4953	562212	Solid Waste Landfills and Disposal Sites, Nonhazardous.	
5169	42269	Other Chemicals and Allied Products (wholesale).	

SIC—Standard Industrial Classification.
NAICS—North American Industry Classification System.
*Note: The figures in this column represent individual facilities, not companies. A total of 22 companies are expected to be impacted under this NAICS.
**Estimate based on 13 expanded scope facilities plus no more than 37 separate solid waste landfills (562212) potentially receiving wastes of concern.

The list of potentially affected entities in the above table may not be exhaustive. Our aim is to provide a guide for readers regarding entities likely to be regulated by this action. This table lists those entities that we are aware of that potentially could be affected by this action. However, this action may affect other entities not listed in the table. To determine whether your facility is regulated by this action, you should examine 40 CFR parts 260 and 261 carefully in concert with the final rules amending these regulations that are found at the end of this **Federal Register** document. If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding section entitled **FOR FURTHER INFORMATION CONTACT.**

B. What Are the Statutory Authorities for This Final Rule?

Today's hazardous waste regulations are promulgated under the authority of Sections 2002(a), 3001(b), 3001(e)(2), 3004(d)–(m) and 3007(a) of the Solid Waste Disposal Act, 42 U.S.C. 6912(a), 6921(b) and (e)(2), 6924(d)–(m) and 6927(a), as amended several times, most importantly by the Hazardous and Solid

[1] Memorandum from Lyn D. Luben to the RCRA Docket, July 21, 2004.

Waste Amendments of 1984 (HSWA). These statutes commonly are referred to as the Resource Conservation and Recovery Act (RCRA), are codified at Volume 42 of the United States Code (U.S.C.), Sections 6901 to 6992(k) (42 U.S.C. 6901–6992(k)).

Section 102(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 U.S.C. 9602(a) is the authority under which the CERCLA aspects of this rule are promulgated.

C. How Does the ED v. Johnson Consent Decree Impact This Final Rule?

HSWA established deadlines for completion of a number of listing determinations, including for dyes and pigment production wastes (see RCRA section 3001(e)(2)). Due to competing demands for Agency resources and shifting priorities, these deadlines were not met. As a result, in 1989, the Environmental Defense Fund (EDF, currently Environmental Defense or ED) filed a lawsuit to enforce the statutory deadlines for listing decisions in RCRA section 3001(e)(2). (*Environmental Defense* v. *Johnson*, D.D.C. Civ. No. 89–0598, subsequently referred to in this notice as the ED consent decree.) To resolve most of the issues in the case, in 1991 ED and EPA entered into a consent decree which has been amended several times to revise the deadlines for EPA action. Paragraph 1.h.(i) (as amended in December 2002) of the consent decree addresses the organic dyes and pigment production industries:

> EPA shall promulgate final listing determinations for azo/benzidine, anthraquinone, and triarylmethane dye and pigment production wastes on or before February 16, 2005* * * These listing determinations shall be proposed for public comment on or before November 10, 2003.

Furthermore, paragraph 6.e. (as amended) stipulates that:

> On or before November 10, 2003, EPA's Administrator shall sign a notice of proposed rulemaking proposing land disposal restrictions for dye and pigment wastes proposed for listing under paragraph 1.h.(i). EPA shall promulgate a final rule establishing land disposal restrictions for dye and pigment wastes listed under paragraph 1.h.(i) on the same date that it promulgates a final listing determination for such wastes.

Today's final rule satisfies EPA's duty under paragraphs 1.h and 6.e of the ED consent decree to finalize listing determinations and land disposal restrictions for the specified organic dyes and/or pigment production wastes.

II. Summary of Today's Action

In today's notice, EPA is promulgating regulations that add one waste generated by the dyes and/or pigments manufacturing industries to the list of hazardous waste in 40 CFR 261.32:

> K181—Nonwastewaters from the production of dyes and/or pigments (including nonwastewaters commingled at the point of generation with nonwastewaters from other processes) that, at the point of generation, contain mass loadings of any of the constituents identified in paragraph (c) of this section that are equal to or greater than the corresponding paragraph (c) levels, as determined on a calendar year basis. These wastes will not be hazardous if the nonwastewaters are: (i) Disposed in a subtitle D landfill unit subject to the design criteria in § 258.40, (ii) disposed in a subtitle C landfill unit subject to either § 264.301 or § 265.301, (iii) disposed in other subtitle D landfill units that meet the design criteria in § 258.40, § 264.301, or § 265.301, or (iv) treated in a combustion unit that is permitted under subtitle C, or an onsite combustion unit that is permitted under the Clean Air Act. For the purposes of this listing, dyes and/or pigments production is defined in paragraph (b)(1) of this section. Paragraph (d) of this section describes the process for demonstrating that a facility's nonwastewaters are not K181. This listing does not apply to wastes that are otherwise identified as hazardous under §§ 261.21–261.24 and 261.31–261.33 at the point of generation. Also, the listing does not apply to wastes generated before any annual mass loading limit is met.

This listing provides a flexible approach that focuses the regulation on wastes that present a risk to human health and the environment. All quantities of wastes generated during a calendar year up to the mass loading limits are not listed hazardous waste. Only wastes subsequently generated that meet or exceed the annual limits would potentially become hazardous waste. However, the listing includes a conditional exemption for wastes that are disposed of in a subtitle D or subtitle C landfill unit that meet the design standards specified in the listing description and for wastes treated in certain combustion units with the specified permits. Therefore, wastes that are below the mass loading limits, or wastes that meet the conditional exemption as described in the regulation, are excluded from the listing from their point of generation, and would not be subject to any RCRA subtitle C management requirements for generation, storage, transport, treatment, or disposal (including the land disposal restrictions).

EPA is listing this waste as hazardous based on the criteria set out in 40 CFR 261.11. As described in the November 25, 2003 proposed rule (68 FR 66164), we assessed and considered these criteria to determine whether nonwastewaters and wastewaters from the manufacture of dyes and/or pigments warranted listing. We evaluated the risks potentially posed by these residuals using quantitative risk assessment techniques.

After assessing public comments submitted in response to our proposal, we are finalizing the K181 hazardous waste listing, with several modifications. The final rule continues to establish mass-loading limits for seven of the eight proposed constituents of concern (CoCs), and continues to allow for the contingent exemption of wastes that meet or exceed these limits but that are managed in landfill units that are subject to the design criteria of either § 258.40, § 264.301, or § 265.301. We revised the exemption to also include wastes that are disposed in other non-municipal landfills (industrial landfills) that meet the liner design requirements in § 258.40, § 264.301 or § 265.301. We also added an exemption for wastes that are treated in combustion units that are either permitted under subtitle C, or that are onsite units permitted under the Clean Air Act (CAA). We are not, however, finalizing the proposed mass-loading levels for toluene-2,4-diamine; neither are we adding this constituent to Appendix VII of part 261 or to part 268.20 or 268.40 of the Land Disposal Restriction (LDR) standards.

Upon the effective date of today's final rule, wastes meeting the K181 listing description will become hazardous wastes and must be managed in accordance with RCRA subtitle C requirements, unless the wastes are to be managed in a manner that complies with the contingent management exemptions contained in the listing description. Residuals from the treatment, storage, or disposal of this newly listed hazardous waste also will be classified as hazardous waste pursuant to the "derived-from" rule (40 CFR 261.3(c)(2)(i)). Also, any mixture of a listed hazardous waste and a solid waste is itself a RCRA hazardous waste (40 CFR 261.3(a)(2)(iii) and (iv), "the mixture rule"). We are not promulgating any exemption for treatment residuals from the derived-from rule for the reasons set out in the proposed rule (68 FR 66199). The mass-based approach already builds in an exemption for wastes that are generated with constituent masses below the loading limit, are disposed of in landfills with liner design requirements, or are treated in certain combustion units. Once a waste meets the classification for K181, any treatment residuals remain hazardous wastes, unless delisted under § 260.22.

Today's rule also takes final action on our proposed decision not to list as hazardous, as discussed in the proposal, wastewaters from the production of dyes and/or pigments.

Descriptions of wastes from the production of dyes and/or pigments can be found in the document entitled "Background Document for Identification and Listing of Wastes from the Production of Organic Dyes and Pigments," November 2003 (hereafter referred to as the Listing Background Document), available in the docket for the rulemaking. Responses to public comments submitted on the November 25, 2003 proposal can be found in the "Response to Comments Background Document—Hazardous Waste Listing Determination for Dyes and/or Pigments Manufacturing Wastes (Final Rule)," dated February 2005 (hereafter referred to as the "Response to Comments Background Document"), also available in the docket. In addition, a number of commenters incorporated comments submitted in prior rulemakings into their 2003 public comments. Our responses to these "incorporated" comments are also available in the docket for today's final rule in a document entitled, "Background Document—Responses to Incorporated Historical Comments on Prior Rulemakings," dated February 2005.

We are also promulgating other changes to the RCRA regulations as a result of this final listing determination. These changes include adding constituents to Appendices VII and VIII of part 261, and setting land disposal restrictions for the newly listed waste. We are adding the following seven constituents to Appendix VII of 40 part CFR 261 due to the fact that these constituents serve as the basis for the new listing: Aniline, o-anisidine, 4-chloroaniline, p-cresidine, 2,4-dimethylaniline, 1,2-phenylenediamine, and 1,3-phenylenediamine. We are adding the following five constituents to Appendix VIII of 40 CFR part 261 as "hazardous constituents" because scientific studies show the chemicals have toxic, carcinogenic, mutagenic, or teratogenic effects on humans or other life forms (see § 261.11(a)(3)): o-anisidine, p-cresidine, 2,4-dimethylaniline, 1,2-phenylenediamine, and 1,3-phenylenediamine.[2] Section IV.D of today's rule describes the changes to the land disposal restrictions establishing treatment standards for the specific constituents in the newly-listed waste.

Also, as a result of this final rule, this listed waste becomes a hazardous substance under CERCLA. Therefore, in today's rule we are designating these wastes as CERCLA hazardous substances. These changes are described in section VII of today's final rule.

III. Summary of Proposed Rule

A. What Wastes Did EPA Propose To List as Hazardous?

In the November 25, 2003 proposed rule (68 FR 66164), EPA proposed to list one waste generated by the dyes and/or pigments manufacturing industry as hazardous waste under RCRA:

K181: Nonwastewaters from the production of dyes and/or pigments (including nonwastewaters commingled at the point of generation with nonwastewaters from other processes) that, at the point of generation, contain mass loadings of any of the constituents identified in paragraph (c)(1) of this section that are equal to or greater than the corresponding paragraph (c)(1) levels, as determined on a calendar year basis. These wastes would not be hazardous if: (i) The nonwastewaters do not contain annual mass loadings of the constituent identified in paragraph (c)(2) of this section at or above the corresponding paragraph (c)(2) level; and (ii) the nonwastewaters are disposed in a Subtitle D landfill cell subject to the design criteria in § 258.40 or in a Subtitle C landfill cell subject to either § 264.301 or § 265.301. For the purposes of this listing, dyes and/or pigments production is defined in paragraph (b)(1) of this section. Paragraph (d) of this section describes the process for demonstrating that a facility's nonwastewaters are not K181. This listing does not apply to wastes that are otherwise identified as hazardous under §§ 261.21–24 and 261.31–33 at the point of generation. Also, the listing does not apply to wastes generated before any annual mass loading limit is met.

A summary of the proposed listing determination is presented below. More detailed discussions are provided in the preamble to the proposed rule and in the Background Documents included in the docket for the proposed rule.

In connection with the proposed K181 listing, EPA proposed to amend Appendix VIII of 40 CFR part 261 to add o-anisidine, p-cresidine, 2,4-dimethylaniline, 1,2-phenylenediamine, and 1,3-phenylenediamine to the list of hazardous constituents.

We proposed to establish treatment standards for K181. We also proposed to add the following constituents to the Universal Treatment Standards (UTS) Table in 268.24 and to the F039 treatment standards applicable to hazardous waste landfill leachate: o-anisidine, p-cresidine, 2,4-dimethylaniline, toluene-2,4-diamine, and 1,3-phenylenediamine. The effect of adding these constituents to the UTS Table (in addition to the requirements for treatment of these constituents in K181 wastes) would be to require all characteristic hazardous wastes that contain any of these constituents as underlying hazardous constituents above their respective UTS levels to be treated for those constituents prior to land disposal.

We also proposed to add K181 to the list of CERCLA hazardous substances.

B. How Was This Proposal Different From Prior Hazardous Waste Listing Determinations?

In previous hazardous waste listings promulgated by EPA, we typically describe the scope of the listing in terms of the waste material and the industry or process generating the waste. However, we proposed to use a newly developed "mass loadings-based" approach for listing dyes and/or pigment production wastes. In a mass loadings-based listing, a waste would be hazardous once a determination is made that it contains any of the constituents of concern (CoC) at or above the specified mass-based levels of concern.

In the proposed rule, we identified CoCs likely to be present in nonwastewaters which may pose a risk above specified mass loading levels. Using risk assessment tools developed to support our hazardous waste identification program, we assessed the potential risks associated with the CoCs in plausible waste management scenarios. From this analysis, we developed "listing loading limits" for each of the CoCs.

We proposed that if you generate any dyes and/or pigment production nonwastewaters addressed by the proposed rule, you would be required either to determine whether or not your waste is hazardous or assume that it is hazardous as generated under the proposed K181 listing. (Note, we proposed that if wastes are otherwise hazardous due to an existing listing in §§ 261.31–261.33 or the hazardous waste characteristics in §§ 261.21–261.24, the listing under K181 would not apply.) We proposed a three-step determination process. The first step was a categorical determination where you would determine whether your waste falls within the categories of wastes covered by the listing (*e.g.*, nonwastewaters generated from the production of dyes and/or pigments that fall within the product classes of azo, triarylmethane, perylene or anthraquinone) and whether any of the regulated constituents could be in your waste. We proposed that if you

[2] For toxicity information, see section 7 of the "Risk Assessment Technical Background Document for the Dye and Pigment Industries Listing Determination," November 2003 in the docket.

determine under this first step that your waste meets the categorical description of K181 and that your waste may contain any K181 constituent, you would then in the second step determine whether your waste meets the numerical standards for K181 (*e.g.*, compare the mass loadings of the regulated constituents in your waste to the numerical standards). Your waste would be a listed hazardous waste if it contains any of the CoCs at a mass loading equal to or greater than the annual hazardous mass limit identified for that constituent (unless the waste is eligible for a conditional exemption under step three). Under the proposed approach, all waste handlers could manage as nonhazardous all wastes generated up to the mass loading limit, even if the waste subsequently exceeds one or more annual mass loading limits. Finally, in the third step, we proposed that you would be able to determine whether your waste is eligible for a conditional exemption from the K181 listing. We proposed that you would need to demonstrate that your waste does not exceed a higher mass loading limit for one constituent and that it is being disposed of in a landfill subject to design standards set out in § 258.40, § 264.301, or § 265.301.

The 2003 proposal (and today's final rule) differs markedly from two prior proposed listing determinations for the dyes and/or pigment manufacturing wastes. On December 22, 1994, we previously proposed traditional listings of five specific wastes from these industries (59 FR 66072). On July 23, 1999, we subsequently proposed to list an additional two wastes using a concentration-based listing approach (64 FR 40192). The 2003 proposal, and the final rule promulgated today, completely supercede the prior 1994 and 1999 proposals. See 68 FR 66171 for further discussion of the early background of this listing determination.

C. Which Constituents Did EPA Propose To Add to Appendix VIII of 40 CFR Part 261?

EPA proposed to add five constituents to the list of hazardous constituents at 40 CFR part 261. These chemicals and their Chemical Abstract Services (CAS) numbers are:

o-anisidine (CAS No. 90–04–0),
p-cresidine (CAS No. 120–71–8),
2,4-dimethylaniline (CAS No. 95–68–1),
1,2-phenylenediamine (CAS No. 95–54–5), and
1,3-phenylenediamine (CAS No. 108–45–2).

We proposed these chemicals as CoCs for the proposed K181 listing. Based on our assessment of the available toxicity data, we believed that these chemicals met the § 261.11(a) criteria for inclusion on Appendix VIII. Therefore, we proposed to add them to Appendix VIII of 40 CFR part 261.

D. What Was the Proposed Status of Landfill Leachate From Previously Disposed Wastes?

We proposed to amend the existing exemption from the definition of hazardous waste for landfill leachate generated from certain previously disposed hazardous waste (40 CFR 261.4(b)(15)) to include leachate collected from non-hazardous waste landfills that previously accepted the proposed K181 waste. We proposed to temporarily defer the application of the proposed new waste code to such leachate to avoid disruption of ongoing leachate management activities.

The Agency proposed the deferral because information available to EPA at the time indicated that the wastes proposed to be listed as hazardous have been managed previously in non-hazardous waste landfills. Leachate derived from the treatment, storage, or disposal of listed hazardous wastes is classified as hazardous waste by the derived-from rule in 40 CFR 261.3(c)(2). Without such a deferral, we were concerned about forcing pretreatment of leachate even though pretreatment is neither required by nor needed under the Clean Water Act (CWA).

E. What Were the Proposed Treatment Standards Under RCRA's Land Disposal Restrictions Standards?

We proposed, where possible, to apply existing universal treatment standards (UTS) for the proposed K181 constituents of concern (CoCs). We proposed to apply the UTS to these wastes because the waste compositions were found to be similar to other wastes for which applicable treatment technologies have been demonstrated.

We found that there is significant structural similarity among many of the CoCs, including those for which we had not previously set technology-specific standards. We proposed that all CoCs for these wastes can be treated with equal effectiveness (i.e., destroyed or removed so as to be no longer detectable) by similar methods of treatment. We proposed combustion as the most effective BDAT treatment for nonwastewater forms of these wastes. For wastewaters derived from K181, we proposed a treatment train of wet air oxidation (WETOX) or chemical oxidation (CHOXD) followed by carbon adsorption (CARBN), or application of combustion (CMBST) as BDAT for the CoCs for which treatment standards had not previously been developed.

We also assessed the potential of developing numerical standards for those constituents with current technology-based treatment standards and those CoCs in K181 that lack current treatment requirements. Commenters to the July 23, 1999 listing proposal (64 FR 40192) suggested that EPA establish numerical standards, because they allow any treatment, other than impermissible dilution, to be used to comply with the land disposal restrictions. We found that there was adequate documentation in existing SW–846[3] methods 8270, 8315, and 8325 to calculate numerical standards for the CoCs, with the exception of 1,3-phenylenediamine; 1,2-phenylenediamine; and 2,4-dimethylaniline. For 1,3-phenylenediamine and 2,4-dimethylaniline, we proposed to transfer the numerical standards of similar constituents as the universal treatment standards.

For 1,2-phenylenediamine, we found during past method performance evaluations that it can be difficult to achieve reliable recovery from aqueous matrixes and precise measurements. Therefore, for this constituent, we proposed that wastewaters be treated by CMBST; or CHOXD followed by BIODG or CARBN; or BIODG followed by CARBN, and all nonwastewaters would be treated by CMBST. We noted that if data adequate for the development of a numerical standard were presented in comments, the Agency might promulgate a numerical standard as an alternative, or as the treatment requirement.

We indicated, however, that if these numerical standards were shown in comments not to be achievable or otherwise appropriate, we would adopt methods of treatment as the exclusive treatment standard. Under this technology only approach, all nonwastewaters identified as K181 would be treated by CMBST, and all derived from wastewaters would be treated by either WETOX or CHOXD, followed by CARBN or CMBST.

We also proposed to add the constituents in K181 with numerical treatment standards to the Universal Treatment Standards listed at 40 CFR 268.48. As a result, characteristic wastes that also contain these constituents would require additional treatment before disposal, if constituent

[3] Manual of test methods from EPA/OSW: "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW–846; see *http://www.epa.gov/epaoswer/hazwaste/test/sw846.htm.*

concentrations exceed the proposed levels.

We proposed to amend the CoCs in F039 as necessary to include the constituents identified in K181 not already specified in F039. F039 applies to landfill leachates generated from multiple listed wastes in lieu of the original waste codes. F039 wastes are subject to numerical treatment standards equivalent to the universal treatment standards listed at 40 CFR 268.48. Without this change in existing regulations, F039 landfill leachates may not receive proper treatment for the constituents of K181.

The proposed treatment standards reflected the performance of best demonstrated treatment technologies, and were not based on the listing levels of concern derived from the risk assessment for dyes and/or pigments wastes. In that risk assessment, our analysis focused on the plausible management practices for only the dyes and pigment industries. As a result, our models did not attempt to assess all possible pathways, because the plausible management practice (disposal in a municipal subtitle D landfill) provides a certain level of control over some potential release pathways. In addition, our assessment of potential releases modeled engineered barriers in the form of various types of liner systems.

As discussed in the proposal, it was not appropriate to use the mass loading levels derived from these risk assessments as levels at which threats to human health and to the environment are minimized. Because there remained significant uncertainties as to what levels of hazardous constituents in these wastes would minimize threats to human health and to the environment posed by these wastes' land disposal, we chose to develop treatment standards for these wastes based on performance of the Best Demonstrated Available Technology for these wastes. *HWTC III*, 886 F. 2d at 361–363 (accepting this approach). For the same reason, we found that these technology-based treatment standards were not more stringent than the risk-based levels at which we could find that threats to human health and to the environment are minimized.

F. What Risk Assessment Approach Was Used for the Proposed Rule?

For the proposed rule, we conducted a risk assessment to calculate the maximum mass loading of individual constituents that could be present in dye and pigment waste and remain below a specified level of risk to both humans and the environment.

To establish these listing levels, we: (1) Selected constituents of potential concern in waste from dye and/or pigment production, (2) evaluated plausible waste management scenarios, (3) calculated exposure concentrations by modeling the release and transport of the constituents from the waste management unit to the point of exposure, and (4) calculated waste constituent loadings that are likely to pose an unacceptable risk. In addition, we conducted a screening level ecological risk assessment to ensure that the mass loading limits were protective of the environment.

The risk analysis for the dyes and/or pigment production wastes estimated the mass loading of individual constituents that can be present in each waste without exceeding a specified level of protection to human health and the environment. The risk assessment evaluated waste management scenarios that may occur nationwide. We selected a national analysis that captures variability in meteorological and hydrogeological conditions for this listing determination because facilities that manage these wastes are found in many areas of the country.

For this listing determination, we defined the target level of protection for human health to be an incremental lifetime cancer risk of no greater than one in 100,000 (10-5) for carcinogenic chemicals and a hazard quotient (HQ) of 1.0 for non-carcinogenic chemicals. The hazard quotient is the ratio of an individual's daily dose of a constituent to the reference dose for that constituent, where the reference dose is an estimate of the daily dose that is likely to be without appreciable risk of harmful effects over a lifetime.

To determine the allowable mass loadings for CoCs, we used a probabilistic analysis to calculate the exposure to nearby residents from disposal of those constituents in the types of waste management units that could be used by the dyes and pigments industries. We then established the allowable mass loading level such that the exposure to each constituent would not exceed the target level of protection for 90 percent of the nearby residents including both adults and children. Thus, the allowable mass loadings met a target cancer risk level of 10-5 or hazard quotient of one for 90 percent of the receptor scenarios we evaluated.

In this probabilistic analysis, we varied sensitive parameters for the distributions of data that were available. The parameters varied for this analysis include waste management unit size, parameters related to the location of the waste management unit such as climate and hydrogeologic data, location of the receptors relative to the waste management units, and exposure factors such as intake rates and residence times.

The preamble to the proposed rule (*see* 68 FR 66181, November 25, 2003) and the Risk Assessment Technical Background Document for the Dye and Pigment Industries Listing Determination (hereafter known as the Risk Assessment Background Document) provide more detail on this risk assessment.

IV. What Is the Rationale for Today's Final Rule?

A. Final Listing Determination

We are promulgating today a final listing for nonwastewaters generated from the production of dyes and/or pigments. As explained below, we are revising the listing language slightly from the proposal in response to comments. The final listing description follows:

> K181: Nonwastewaters from the production of dyes and/or pigments (including nonwastewaters commingled at the point of generation with nonwastewaters from other processes) that, at the point of generation, contain mass loadings of any of the constituents identified in paragraph (c) of this section that are equal to or greater than the corresponding paragraph (c) levels, as determined on a calendar year basis. These wastes will not be hazardous if the nonwastewaters are: (i) Disposed in a Subtitle D landfill unit subject to the design criteria in § 258.40, (ii) disposed in a Subtitle C landfill unit subject to either § 264.301 or § 265.301, (iii) disposed in other Subtitle D landfill units that meet the design criteria in § 258.40, § 264.301, or § 265.301, or (iv) treated in a combustion unit that is permitted under Subtitle C, or an onsite combustion unit that is permitted under the Clean Air Act. For the purposes of this listing, dyes and/or pigments production is defined in paragraph (b)(1) of this section. Paragraph (d) of this section describes the process for demonstrating that a facility's nonwastewaters are not K181. This listing does not apply to wastes that are otherwise identified as hazardous under §§ 261.21–24 and 261.31–33 at the point of generation. Also, the listing does not apply to wastes generated before any annual mass loading limit is met.

EPA is listing nonwastewaters from the production of dyes and/or pigments as hazardous because this wastestream meets the criteria set out at 40 CFR 261.11(a)(3) for listing a waste as hazardous. As described in the proposal (68 FR 66179), the criteria provided in 40 CFR 261.11(a)(3) include eleven factors for determining "substantial present or potential hazard to human health or the environment." Most of these factors were incorporated into EPA's risk assessment, as discussed

further below. The risk analyses conducted in support of our proposed listing determination are presented in detail in the Risk Assessment Background Document, which is in the docket for today's rule.

We considered the toxicity of the chemicals potentially present in these wastes (§ 261.11(a)(3)(i)). We found that the CoCs are toxic chemicals with established health-based benchmarks for cancer and noncancer endpoints.[4] We considered constituent concentrations (§ 261.11(a)(3)(ii)) and the quantities of waste generated (§ 261.11(a) (3)(viii)) in establishing mass loading limits for specific CoCs. Thus, the listing description for K181 includes mass loading limits for specific CoCs that present risk to consumers of groundwater. In setting the mass loading limits, we used fate and transport models to determine the potential for migration, persistence, and degradation of the hazardous constituents and any degradation products (§§ 261(a)(3)(iii), 261.11(a)(3)(iv), and 261.11(a)(3)(v)).[5] Bioaccumulation of the constituents (§ 261.11(a)(3)(vi)) is not relevant to the key exposure pathway EPA assessed (consumption of groundwater).

As discussed in the proposal (68 FR 66178), we considered two other factors, plausible mismanagement and other regulatory actions ((§§ 261.11(a)(3)(vii) and 261.11(a)(3)(x)) in establishing the waste management scenario(s) modeled in the risk assessment. We considered mass loading limits based on two plausible waste management scenarios, clay-lined and composite-lined landfills. We are promulgating a final listing with mass loading limits for wastes in a clay-lined landfill, and a conditional exemption for wastes managed in landfills that are subject to (or otherwise meet) the liner design requirements specified in the listing description for municipal landfills (§ 258.40) or hazardous waste landfills (§ 264.301 or § 265.301). We are also adding an exemption for wastes treated in certain permitted combustion units. Thus, if generators of wastes potentially subject to the K181 listing use landfills meeting these design standards, or treat the waste in the specified combustion units, then the loading limits set forth in K181 would not apply and the waste would not be hazardous.

We also considered one factor beyond the risk assessment, that is, whether damage cases indicate impacts on human health or the environment from improper management of the wastes of concern (§ 261.11(a)(3)(ix)).[6] We concluded that the wastes in the damage cases may include wastes not in the scope of today's rule, and that the cases reflect management scenarios that are not currently common or plausible (see 68 FR 66189). Thus, while the damage cases indicated that some dyes and/or pigment production wastes may sometimes pose risks, EPA relied on its quantitative risk assessment in formulating today's final rule.

Significant comments submitted on this proposal and the supporting analyses are summarized below. The Response to Comment Background Document provides all of the comments and our responses to them.

1. Toluene-2,4-diamine

Toluene-2,4-diamine was one of the eight constituents of concern (CoC) for which EPA proposed a § 261.31(c)(1) mass loading limits. We also proposed a higher mass loading limit for toluene-2,4-diamine under § (c)(2) that would have identified a mass loading limit above which wastes would no longer be eligible for a contingent management exemption and would have been a hazardous waste. Toluene-2,4-diamine was the only CoC for which we proposed a § 261.32(c)(2) level.

Commenters argued that it is inappropriate to use toluene-2,4-diamine as a CoC because it is "not typically or frequently used in dyes production" (Ecological and Toxicological Association of Dyes and Organic Pigments Manufacturers or ETAD) and is "not used in any color pigment facility for the production of color pigments" (Color Pigments Manufacturing Association or CPMA). In the proposal, we described data collected from the Toxic Release Inventory (TRI), the Colour Index (CI), and two facilities' websites that potentially link use of toluene-2,4-diamine to facilities known to manufacture dyes and/or pigments. The commenters have addressed these potential links. Based on these arguments, we believe the commenters have successfully demonstrated that toluene-2,4-diamine is rarely used. Only one dye manufacturer reported using this constituent, and this use does not generate any waste containing this CoC; it is not used at all by any pigment manufacturers. (See Response to Comments Background Document for more detailed discussion regarding the use, or lack of use of toluene-2,4-diamine.) As a result, we do not believe it is appropriate to include toluene-2,4-diamine as a basis for listing K181 in today's final rule. Accordingly, we have removed this constituent from the proposed § 261.31(c)(1) standards, and have deleted entirely the proposed § 261.32(c)(2) standard in this action.

2. Use of Clay-Lined and Composite-Lined Landfills

We proposed to list nonwastewaters from dye and/or pigment manufacturing that met or exceeded mass loading limits for eight constituents of concern. These "baseline" loading limits were based on our risk assessment of management of the waste in a clay-lined landfill. We also proposed to conditionally exempt wastes managed in landfills subject to liner regulations for municipal or hazardous waste landfills, if the mass of one constituent of concern (toluene-2,4-diamine) was below a specified mass loading limit. The basis for this conditional exemption was a risk assessment of wastes managed in a composite-lined landfill.

A number of dye and pigment manufacturers submitted comments stating that they do not use unlined or clay-lined landfills, and most indicated that their waste is managed in landfills that have "synthetic liners." The trade association for the dye manufacturers (ETAD) surveyed their members and stated that there is "no use of unregulated clay-lined landfills or unlined landfills" and that "all known landfills currently in use are subtitle C or subtitle D landfills that incorporate a synthetic liner into their liner system." The association further noted that the design standards for municipal solid waste landfills promulgated in 1991 call for use of a composite liner (§ 258.40). The association also resubmitted a survey it originally submitted in 1999 in comments on the prior July 23, 1999 proposal, claiming that this showed all identified liner systems included a synthetic liner. The trade association for pigment manufacturers (CPMA) also surveyed their members and stated that their members do not use unlined or clay-lined landfills, but rather use "synthetic lined industrial landfills" and "synthetic lined municipal landfills" for their nonwastewaters. Based on this information, commenters argued that the risk assessment EPA used to establish mass loading limits for K181 should have been based on composite-lined landfills with a synthetic liner.

We continue to believe that the clay-lined landfill is an appropriate scenario for the baseline mass loading limits for K181 for several reasons. First, as noted

[4] Risk Assessment Background Document, Section 7.

[5] Risk Assessment Background Document, Sections 4 and 5.

[6] The final factor allows EPA to consider other factors as appropriate (§ 261.11(a)(3)(xi)), however we did not consider such factors.

in the proposal, our data show that the industries use municipal solid waste (MSW) landfills, and the liner requirements in § 258.40 are not applicable to existing units in operation since before October 9, 1993, or certain exempt units (§ 258.1(f)(1)). Thus, our data indicate that disposal of dye and pigment wastes into older clay-lined MSW landfills in operation is a plausible management scenario (see proposal at 68 FR 66191). In addition, the information provided by the commenters is insufficient to rebut this finding for these industries. In fact, the information provided by the commenters shows that industrial landfills are in use by some pigment manufacturers. There are no Federal liner requirements that are in place for such units. While many states have regulations for these type of industrial landfills, the requirements for liners appear variable and do not necessarily provide the same level of protection as the standards for municipal solid waste landfills in § 258.40. Finally, while commenters claimed that the landfills currently in use by respondents to their surveys have "synthetic" liners, they did not confirm that all landfills in use had composite liners that met the standards set out in § 258.40.

The specific landfill information resubmitted by ETAD was for seventeen landfills relevant to dye manufacturers only, and thus not representative of the landfills that could be used throughout the dye and pigment industries. (EPA estimated that there were about 2,300 MSW landfills in operation in 2000.) Furthermore, ETAD originally submitted this information in response to the proposed listing decision in 1999 for only three wastestreams generated by the dye and pigment industries; as such, ETAD did not clarify if other landfills may have been in use for other wastestreams. Finally, the limited information provided in this submission shows that the type of liner system was not specified for some landfills, and thus, it is not clear if the liner systems are composite liners that would meet the § 258.40 requirements.

We proposed mass loading limits based on two specific types of lined and fills, clay-lined and composite-lined landfills. We are promulgating a final listing with a conditional exemption for wastes managed in landfill units that meet the liner design requirements specified in the listing description (§ 258.40, 264.301 or 265.301).[7] Unlike the proposal, the final rule no longer sets a mass loading limit for toluene-2,4-diamine, and thus there are no testing requirements associated with this exemption. If generators of wastes potentially subject to the K181 listing use composite-lined municipal or subtitle C landfills, then the mass loading limits set forth in K181 would not apply and the waste would not be hazardous. (The final listing also includes an exemption for combustion, as discussed in the following section). Therefore, given the uncertainties in the types of liner systems that may be in place in landfills used by dye and pigment manufacturers, and based on the information available that indicates this is a plausible management scenario, we believe that it is appropriate to base the mass-loading limits on a clay-lined landfill.

3. Status of Wastes That Are Combusted

While we proposed a conditional exemption for wastes managed in units meeting the liner design criteria for municipal or hazardous waste landfills, we proposed that wastes that met or exceeded the baseline listing levels would be hazardous if treated by combustion. However, we solicited comment in the preamble on the option to exempt wastes going to combustion, provided the units are permitted under subtitle C or have other relevant permits under the Clean Air Act (CAA).

The comments generally supported the option of exempting wastes destined for combustion. Commenters stated that EPA should exempt wastes being combusted or include combustion in the contingent management practices qualifying for an exemption from the listing. Surveys submitted by the trade associations (ETAD and CPMA) confirmed that some facilities treated nonwastewaters by combustion, and other comments by specific companies stated they want to have the option of incineration in the future. Commenters pointed out that the proposed approach would mean that wastes that met or exceeded the baseline listing levels and are incinerated would be hazardous, while the same waste would be nonhazardous if it is managed in a landfill meeting appropriate criteria. Commenters contended that this would encourage facilities to shift from combustion to disposal in landfills, even for wastes with high organic content. Commenters suggested that wastes going to "permitted" combustion units should be exempt, because permitting authorities consider input fuels for commercial boilers and combustion units.

Commenters stated that regulating incineration in the absence of a risk assessment or data is not warranted, and that combustion provides at least as much protection for the environment as a synthetic-lined landfill. Commenters cited the preamble discussion in the proposal, which stated that previous analyses for other wastes determined that potential risks from the release of constituents through incineration would be several orders of magnitude below potential air risks from releases from tanks or impoundments. Commenters also noted that EPA had concluded that combustion was effective and protective in setting BDAT standards for K181. One commenter submitted a risk assessment for combustion of their waste, which was previously submitted in their comments on the 1994 proposal, and indicated that the risks are below levels of concern.

After reviewing the comments and the available information, we have decided to exempt wastes treated in certain combustion units from the K181 listing. As we noted in the proposed rule, we expect risks from combustion of the key constituents of concern to be relatively low, based on the relatively low air risks exhibited by these constituents from treatment in tanks and surface impoundments. Analyses in previous listing determinations have shown that air risks arising from releases of constituents not destroyed in combustion are much lower than risks from releases of constituents from tanks and surface impoundments (68 FR 66196). Thus, while we did not model the specific dye and pigment wastes at issue in this rule, we believe that risks from combustion would be relatively low.

As commenters pointed out, by exempting wastes going to certain landfills, but not wastes treated by combustion, we would effectively be encouraging landfill disposal over combustion. The exemption for landfill disposal may therefore cause some facilities with organic waste having significant fuel (BTU) value to change from combustion (either offsite or onsite) to disposal in landfills, to take advantage of the landfill exemption. Exempting wastes treated in appropriate combustion units would avoid this unintended outcome of the listing.

As noted in the proposal, we found ten facilities reporting in the TRI that they send wastes off site for combustion (*e.g.*, incineration, energy recovery). All of the treatment facilities are RCRA Subtitle C facilities. Because this is a management practice we believe is

[7] Note that in the final rule we have replaced the term "landfill cell" with "landfill unit." We made this change so that the terminology used in this rule is more consistent with the use of the term "unit" in the RCRA regulations for landfills (Part 258 and in §§ 264.301 and 265.301).

especially appropriate for waste with high organic content, we have decided to include an exemption for wastes treated in Subtitle C combustion units. To the extent that these wastes are already managed as hazardous because they exhibit a hazardous waste characteristic or meet another hazardous waste listing description, today's final rule will have no impact on them, because the K181 listing does not apply to wastes that are hazardous for other reasons (see the listing description).

We are more concerned about the combustion of dye and pigment wastes in units that are not subject to Subtitle C regulations. We know of only two facilities that use onsite thermal treatment of dye or pigment production wastes. One of these facilities indicated that it does not produce any in-scope wastes containing any of the CoCs. The other facility generates a still bottom that may exceed the mass loading limit for aniline. This facility resubmitted a risk assessment previously included in comments on the 1994 proposal in an attempt to show no significant risk for its onsite boiler. The risk assessment, while specific to this one combustion unit, provides information on the unit that indicates that it has relatively high destruction and removal efficiency (>99% in this case for the CoC known to be present, aniline). This particular unit is also permitted by the state under the CAA, and the permit contains specific limitations on the release of the key CoC (40 kg/year).[8] Therefore, in this specific case, the state regulatory authority has evaluated and controlled the releases of this CoC through this permit. We find the comments submitted by the company compelling, given that the waste has high organic content (98.7%) and a high fuel value. Therefore, we have also decided to include an exemption for onsite combustion units (units that are located at the site of generation) that are permitted under the CAA. We are limiting the exemption to onsite combustion units because: (1) Currently we have no information that offsite combustion is occurring in non-subtitle C units, and (2) we lack information on whether any permits for non-subtitle C offsite units would necessarily address all potential CoCs. Offsite combustion units are likely to accept a wide variety of other wastes, and seem less likely to address the specific constituents of concern for dye and pigment production wastes. We have less information on the various kinds of existing or potential permits relevant to offsite combustion units that may be used for dye and pigment wastes. Permits for offsite units under the CAA would not necessarily consider the CoCs for the dye and pigment wastes (*e.g.*, of the seven CoCs, only aniline and o-anisidine are Hazardous Air Pollutants under the CAA), whereas permits for onsite units are likely to be more specific for the dye and pigment industries.

[8] *See* the air permit for BASF in the docket for this rule.

4. Scope of Listing Definition

Commenters identified several issues related to the scope of the proposed listing, as summarized below, and discussed in more detail in the Response to Comments Background Document.

a. *Perylenes and Anthraquinones.* One trade association commented that EPA erred in including perylenes in the proposed listing because Paragraph I.h.(i) of the ED consent decree (as amended in December 2002) states that "EPA shall promulgate final listing determinations for azo/benzidine, anthraquinone, and triarylmethane dye and pigment production wastes." The commenter argued that perylenes are not a subclass of the anthraquinone category, and that none of the eight CoCs are used as raw materials in the manufacture of perylene color pigments.

We note, as discussed previously in the proposal, that the ED consent decree (under which today's listing determination is mandated) further specifies that "The anthraquinone listing determination shall include the following anthraquinone dye and pigment classes: anthraquinone and perylene" (68 FR 66173). Therefore, we must make listing determinations that cover any corresponding wastes, regardless of whether or not perylenes are properly classified as anthraquinones. Furthermore, as discussed in the proposal and in the Response to Comments Background Document, we are not differentiating between dye manufacture and pigment manufacture. While the pigments industry may not use the K181 CoCs for manufacturing perylene pigments as contended by the commenter, it is possible that the dyes industry may still use some of them for perylene dyes. Note that ETAD and its member dye manufacturers did not provide comments in this respect. Finally, we note that the consent decree does not limit EPA's authority to list wastes, but merely identifies those wastes for which EPA must make a listing determination.

Another commenter argued that none of the eight CoCs are used to produce anthraquinone dyes or pigments and, therefore, EPA should remove anthraquinone dyes and pigments from the proposed rule. The commenter further pointed out that in the 1994 proposal (59 FR 66072), EPA proposed a no-list decision for wastewater from the production of anthraquinone dyes and pigments, and in the 1999 proposal (64 FR 40192), EPA proposed a no-list decision for wastewater treatment sludge from the production of anthraquinone dyes and pigments. As discussed in the proposal, EPA identified the constituents by developing a list of chemicals that could reasonably be expected to be associated with wastes from the production of various classes of dyes and pigments, including anthraquinone dyes and pigments. *See* 68 FR at 66180–66182, and "Background Document: Development of Constituents of Concern for Dyes and Pigments Listing Determination" in the docket. This commenter did not provide any documentation to support its argument that none of the eight CoCs are used to produce anthraquinone dyes or pigments, or otherwise specifically address the information and findings presented in the proposal. In addition, none of the other companies or trade associations made similar claims. Finally, we note that, as discussed in the 2003 proposal (68 FR 66171–2), our 2003 proposed rule completely supercedes the 1994 and 1999 proposals. In any case, unlike the 1999 concentration-based listing in which we evaluated specific waste types from the production of individual dyes/pigments classes,[9] the 2003 proposal grouped all of the wastes that are identified in the ED consent decree into wastewaters and nonwastewaters.

Moreover, some of the listing constituents might be present in the dyes and/or pigments production nonwastewaters as a result of reaction byproducts, impurities in raw materials, or as a result of degradation of raw materials or products. Therefore, we believe it is appropriate to retain both perylene and anthraquinone production within the scope of this final K181 listing. If, however, as the commenter suggests, the CoCs are not present in the generators' wastes, then the wastes would not be considered the K181 listed waste.

b. *Post-Production.* Two commenters stated that the proposed rule does not adequately define "production" of dyes and/or pigments, and that some wastes covered by the ED consent decree could

[9] Spent filter aids, triarylmethane sludges and anthraquinone sludges were deferred from the 1994 proposed listing decisions for 11 of the wastes covered in the ED consent decree (59 FR 66072, December 22, 1994). EPA did not take final action on either of the 1994 and 1999 proposals.

be generated from certain types of "post-production" activities. They contended that the listing should not apply to "post-production" activities, in reference to 68 FR 66173 in which the Agency stated that the proposed rule does not apply to the end-users of dyes and/or pigments and similarly does not apply to post-production formulation and packaging. One commenter suggested that EPA should include the appropriate clarifications in the CFR language that defines the scope of the proposed listing.

In response to the commenters' request for clarification, we are adding the following language to the final rule at the end of the Listing Specific Definitions in § 261.32(b)(1): "Wastes that are not generated at a dyes and/or pigments manufacturing site, such as wastes from the off-site use, formulation, and packaging of dyes and/or pigments, are not included in the K181 listing." Thus, we are specifically including this in the regulatory language to clarify that we are not including in K181 those wastes that are not generated at a dyes and/or pigments manufacturing site. However, wastes resulting from the blending, formulation, preparation, processing (grinding, dispersing, drying, finishing, filtering, purification, product standardization, etc.), dust collection, packaging and any other operations related to in-scope dyes and/or pigments that occur on site at the covered dyes and/or pigments manufacturers are potentially within the scope of today's final listing, if they meet the relevant criteria. Note that, as required under the ED consent decree, we addressed a variety of dyes and/or pigment waste streams in this listing determination. The ED consent decree states that "Listing determinations under paragraph 1(h) of this Decree shall include the following wastes, where EPA finds such wastes are generated: spent catalysts, reactor still overhead, vacuum system condensate, process waters, spent adsorbent, equipment cleaning sludge, product mother liquor, product standardization filter cake, dust collector fines, recovery still bottoms, treated wastewater effluent, and wastewater treatment sludge." Some of the wastes identified in the ED consent decree (such as product standardization filter cake and dust collector fines) can be generated from various "post-production" activities at the dyes and/or pigments facilities.

c. *Commingling.* We described in the proposal (68 FR 66195) that the scope of the listing covers commingled wastes with mass contributions from other processes (*i.e.*, that other process wastes commingled with in-scope process wastes would be covered by the proposed K181 listing). We requested comment, however, on an alternative approach which would allow facilities to count only those mass loadings associated with azo/triarylmethane/perylene/anthraquinone dyes and/or pigments manufacture when assessing whether their wastes meet or exceed the K181 listing levels. One commenter, a trade association, favored this alternative approach. This commenter reasoned that not allowing facilities to count only those mass loadings associated with covered production will result in "an artificial incentive to inefficiently segregate wastes, potentially increasing risks associated with their management." However, this commenter did not elaborate or provide any specifics.

We have carefully considered the commenter's argument, but we have decided to retain the proposed approach. The dye and pigment industries use batch processes and numerous raw materials to produce a wide variety of products, thereby generating various nonwastewaters.[10] Therefore, we believe it would not only be more difficult for the facilities to implement the proposed alternative approach (*i.e.*, tracking and keeping adequate documentation of all the mass contributions prior to commingling), but it would also be very difficult for the regulating authorities to make their own determinations for oversight and enforcement purposes. For this reason and the reasons stated at 68 FR 66195, we have decided to take the more straightforward approach of structuring the mass-based K181 listing as proposed, and not to adopt the alternative approach. Therefore, the K181 listing covers mass contributions from other processes when in-scope and out-of-scope waste sources are commingled, and the entire commingled volume is included in the waste quantity and mass loading calculations. On the other hand, if the in-scope waste sources contain none of the K181 listing constituents, the commingled volume is not subject to the K181 listing even though its mass loadings may meet or exceed the K181 listing levels.

As discussed in the proposal, a facility might choose to segregate K181 sources from non-K181 sources, so that nonwastewaters from noncovered processes would not be subject to the K181 listing. One trade association felt that the general concept of segregating waste which has no in-scope K181 contribution is reasonable.[11]

To help clarify these concepts, we present below several examples of how wastes might be commingled. (*See also* the examples previously presented in the proposal at 68 FR 66205–66207.)

Example 1: In-scope wastes without CoCs, commingled with out-of-scope wastes.

Facility A produces numerous chemical products including a small amount of azo dyes. This facility uses none of the K181 CoCs in the manufacture of azo dyes, and it finds no CoCs in the dye manufacturing process wastewaters based on recent analytical results. Thus, according to the procedure in § 261.32(d)(1), the facility determines that any resulting treatment sludge is not K181. The in-scope azo dye process wastewaters are commingled and co-treated with a much larger volume of nonhazardous wastewaters generated from the production of various out-of-scope chemicals in a centralized wastewater treatment plant (CWTP) prior to discharge to a publicly owned treatment works (POTW). The facility uses aniline in some of the other out-of-scope chemical production processes. The facility determines that the resultant wastewater treatment sludges, though found to contain aniline above the listing level, are not subject to K181 because the azo dye process wastewaters treated in the plant do not contain any of the CoCs. The facility also determines that other nonwastewaters (including filtration sludges, spent filter aids, and other process solids) generated from dye manufacturing also do not contain any CoCs, based on its knowledge of the feed raw materials (including major and minor ingredients, and impurities) and the manufacturing processes (reaction, chemical degradation, waste generation, etc.). The facility documents its findings, and appropriately manages all the CWTP sludges and dye process nonwastewaters (also determined to be not characteristically hazardous and not meeting any other listing descriptions) as nonhazardous.

Example 2: In-scope wastes with traces of CoCs, co-managed with out-of-scope wastes.

Facility B is an organic pigment manufacturer operating a number of in-scope and out-of-scope production process lines. The facility generates a total of 450 metric tons per year (MT/yr) of nonwastewaters, consisting of 350 MT/yr of sludge from the facility's onsite wastewater treatment system and as much as 100 MT/yr of production waste solids generated from all onsite processes combined. Historically, all the nonwastewaters were stored in dumpsters and periodically shipped off site for disposal in a Subtitle D landfill. Following the promulgation of the K181 listing, the facility carefully examines the material safety data

[10] ETAD also indicated in its comment that "Dyes production involves batch processes, numerous distinct products and highly variable waste streams * * *" and that "The production mix and scale is entirely subject to somewhat unpredictable customer demand."

[11] Facilities might also choose to treat the K181 listing levels as valuable pollution prevention goals and engage in process modifications designed to reduce mass loadings (irrespective of their source) below the K181 loading limits.

sheets and finds traces of p-cresidine in some of the raw materials used. Based on the material purity information, the facility uses its knowledge and, based on mass balance (*see* § 261.32(d)(2) for generated quantities less than 1,000 MT/yr), determines that a maximum of 30 kg/yr of p-cresidine could be released to and contained in the combined volume of nonwastewaters generated for the year. Since the annual mass loading of p-cresidine is less than the K181 listing level of 660 kg/yr, the facility concludes that its in-scope nonwastewaters are not a K181 waste. The facility thus documents its findings, and appropriately continues to ship the commingled wastes to a subtitle D landfill.

Example 3: Segregation of wastes destined for disposal in a municipal landfill; total in-scope waste quantities over 1,000 MT/yr.

Facility C uses some of the CoCs in its production of various organic dyes and pigments covered by the K181 listing. It commingles and co-treats all the manufacturing process wastewaters on site, generating 1,200 MT/yr of wastewater treatment sludge. In addition, it generates 50 MT/yr of process wastes with high organic content (still bottoms). Therefore, this facility's manufacturing and treatment processes yield a total of 1,250 MT/yr of in-scope nonwastewaters. Given that the K181 listing allows nonwastewaters to be disposed in a municipal landfill subject to the § 258.40 design criteria regardless of constituent levels in the wastes, the facility decides to send all the wastewater treatment sludges to a municipal landfill subject to § 258.40. The still bottoms, however, would not be managed in the same manner due to their high liquid content.

The still bottoms do not exhibit any of the hazardous waste characteristics nor meet any other listing descriptions. Because the total annual waste quantity of dyes/pigments nonwastewaters generated by all the processes would exceed 1,000 MT/yr, the facility considers the options of either: (1) Complying with the annual testing requirements of § 261.32(d)(3) and, if the CoCs are below the mass-loading levels, sending the still bottom waste offsite for combustion in a nonhazardous combustion unit, or (2) sending the waste offsite to a subtitle C combustion unit. The facility suspects that the still bottom waste will exceed the mass loading limits for several constituents. Rather than going to the expense of confirming this through testing representative samples of the waste, the facility decides to send the waste off site for treatment at a subtitle C combustion facility. Thus, this waste is also exempt from the K181 listing because it is treated in a combustion unit permitted under Subtitle C.

5. Waste Quantities

As described in the proposal at 68 FR 66176–66177, we estimated facility by facility nonwastewater quantities (for 37 active organic dyes and/or pigment production facilities known to the Agency at the time) by using engineering estimates of wastewater treatment sludge generation rates and, wherever possible, facility-specific information provided in portions of RCRA Section 3007 surveys and public comments that were not claimed as confidential business information (CBI). We then used the average of the estimated annual waste quantities (1,894 MT/yr) and a high-end waste constituent concentration of 5,000 parts per million (ppm) to calculate a mass loading cutoff of 10,000 kilograms per year (kg/yr); that is, we assumed it would be highly unlikely to find the CoC above this level in typical dyes and/or pigment production nonwastewaters (*see* discussion at 68 FR 66186).[12] In addition, we used the estimated waste quantities for cost and economic analyses of the potential impacts of the proposed listing, and for waste treatment and management capacity analyses. Below we address the public comments on our use of the estimated waste quantities for establishing the proposed mass loading levels. Comments on our use of the estimated waste quantities for economic impacts and waste management capacity analyses are addressed separately in section VIII and section IV.E, respectively.

Two trade associations and several dyes/pigments manufacturers submitted comments on the Agency's estimates of waste quantities generated by the organic dyes and pigments industries. They argued that our waste quantity estimates were overstated, and thus our estimates of possible amounts of CoCs present in the wastes were too high.

Subsequent to the November 25, 2003 proposal, ETAD conducted a confidential survey of 15 organic dye production facilities, and submitted as part of their comments masked waste quantity data from the survey.[13] Based on its survey results, ETAD contended that the proposed rule greatly exaggerates the quantity of proposed K181 wastes generated at dyes production facilities and therefore, the proposed mass loading cutoff of 10,000 kg/yr should be revised. ETAD also indicated in its survey summary that two dye production facilities use none of the proposed K181 listing constituents in dyes production. Furthermore, ETAD confirmed that two dye manufacturers ceased operation during the past year.

CPMA similarly conducted a confidential survey of 21 organic pigment manufacturers following the proposal, and provided masked waste quantity summary data for both total and in-scope nonwastewaters as part of their comments. CPMA commented that, based on its survey, EPA's estimates of nonwastewater quantities overestimate the amount of nonwastewater generated by the pigments industry by at least 400 percent, and that the actual amount of nonwastewaters generated by the dyes and pigments production industries is much less than one-half the amount estimated by the Agency.

Six organic dyes and/or pigments manufacturers also presented their waste quantities and disputed the Agency's estimates for their facilities. Several other pigment manufacturers mirrored CPMA's comment that the Agency overestimated the waste quantities generated by the industries by at least 400 percent, although they did not specifically provide their own waste quantities. Several manufacturers informed us that their in-scope manufacturing processes do not contribute any of the proposed K181 constituents to their wastes.

We reviewed the waste quantity information and data provided by the commenters, but found some data discrepancies and deficiencies that limit use of the data. Our findings are summarized below:

—Two dye manufacturers have closed.
—The organic pigment manufacturing operation of one dye and pigment production facility was recently sold to a pigments manufacturer.
—Two facilities use none of the proposed K181 listing constituents.
—Three facilities do not generate any nonwastewater.
—CPMA's survey encompassed wastes generated in 2002, while ETAD did not specify the time period covered by its survey. As such, these two sets of survey quantity data may not be fully compatible.
—Three facilities making both dyes and pigments products responded to both ETAD and CPMA surveys. However, for the reported waste quantities possibly associated with these facilities, there appears to be some discrepancies between ETAD's and CPMA's masked annual quantity data.
—Three known Food, Drug and Cosmetic (FD&C) colorant production facilities were not covered by either the ETAD or CPMA survey.

We removed from the database the two facilities using none of the

[12] That is, a constituent of concern was eliminated if the calculated allowable loading from risk modeling exceeds 10,000 kg/yr.

[13] The survey waste quantity results initially included in ETAD's February 23, 2004 comments and attachments are annual quantities of nonwastewaters relating to the manufacturing of in-scope dyes (*i.e.*, specifically covered by the proposed rule). In response to our inquiry, ETAD later submitted an amended summary of waste quantities that include the other wastestreams commingled with the in-scope wastes.

proposed K181 listing constituents, as well as the three facilities generating zero waste quantities, because they would not be impacted by the proposed rule. Next, we made assumptions in trying to match the masked data points for the three facilities that responded to both the ETAD and CPMA surveys in order to account for the overlap, using publicly available data and our best judgement. To revise our previous estimates of facility-specific waste quantities, we adopted the specific waste quantity data provided by the commenting dyes/pigments manufacturers, made assumptions based on certain comments, and applied the estimated annual revenues to match the masked waste quantities with facilities. Finally, we added the three facilities not covered by either the CPMA or ETAD survey, using waste quantities we estimated for these facilities. The consolidated data points created a set of annual waste quantities with high uncertainties for the potentially impacted dyes/pigment facilities.

In any case, we have analyzed the commenters' data and concluded that the average estimated waste quantity we used for the proposed rule (*i.e.*, 1,894 MT/yr) is well within the distributions of values reported in comments; the estimated value of 1,894 MT/yr is comparable to the 80th percentile value (1,815 MT/yr) of the consolidated data set described above. For a detailed analysis of the commenters' data, see the Response to Comments Background Document, available in the public docket for today's final rule.

Based on our analysis of the commenters' waste quantity data, and in view of the data uncertainty in the ETAD and CPMA surveys, we continue to believe that it is reasonable to retain the proposed mass loading cutoff of 10,000 kg/yr for eliminating constituents from consideration.

6. Prevalence of Constituents of Concern

Commenters submitted critiques of each of the CoCs, arguing that they do not warrant inclusion in the final listing. With the exception of the arguments submitted for toluene-2,4-diamine (as discussed in a prior section of this notice), EPA has concluded that our basis for setting standards for the seven CoCs is valid. The comments for these seven CoCs and our responses are summarized below, and provided in more detail in the Response to Comments Background Document in the docket for today's final rule.

a. *Aniline.* We proposed to include aniline as a CoC because it is widely reported to be used in the manufacture of dyes and/or pigments. We detected aniline in a variety of wastes in our analysis of waste samples, it is reported to be an intermediate in the production of various products reported by U.S. manufacturers in the Colour Index, it is reported in the TRI by various known dye and/or pigment manufacturers, it was reported to be a waste component in the RCRA § 3007 survey and in comments on our 1994 proposal, and is a known intermediate for various products reported as available on the Web sites of various U.S. dye and/or pigment manufacturers (*see* the Listing Background Document).

In addition, ETAD and CPMA comments on the November 2003 proposal provided recent survey data indicating that seven dye manufacturers use aniline in their processes, and that four pigment manufacturers use this CoC. Twelve pigment survey respondents also indicated that it is present in their wastes. Further, although CPMA stated that less than 25 percent of U.S. pigment manufacturers use aniline, nine pigment manufacturers individually commented that aniline is actually used or is likely present in their production of pigments. These data confirm our position at proposal that aniline is used widely in the manufacture of dyes and pigments.

ETAD argued that the available analytical data does not support a conclusion that aniline is likely to be present in dye wastes at levels exceeding the proposed listing level. One commenter (BASF) noted that the maximum concentration of aniline in wastewater treatment sludges reported in the proposal (31,000 ppm) was from their process, and reflects a process waste that was eliminated from their manufacturing process in 1996.

While we agree with ETAD and BASF that the available analytical data (as described in the proposal) are older, these data do provide a snapshot in time of the composition of wastes from the manufacture of dyes and/or pigments. BASF did not provide a profile of their currently generated wastes, so it is not possible to ascertain whether other wastes generated from their process(es) are as contaminated as the stream that was eliminated in 1996. BASF did, however, provide in their comments a risk assessment of releases from their onsite boiler.[14] This risk assessment contains limited waste characterization data which depicts aniline concentrations in their boiler feed even higher than the levels observed in most of the available analytical data (1.45% aniline). We note also that the commenters focused solely on the analytical data available for wastewater treatment sludges; we reported in the proposal three additional samples of "other nonwastewaters" that contain aniline, with a maximum value of 180,000 ppm.[15]

ETAD also argued that if EPA's estimated average waste quantity is adjusted to reflect the results of their survey, the 10,000 kilograms/year (kg/yr) screening level would be lower, eliminating aniline as a potential CoC. As discussed more fully in section IV.A.5, we believe that the waste quantity that we used in the development of the proposal is well within the distribution of waste quantities reported by commenters, and we accordingly have not adjusted it.

After considering the commenters' concerns, we believe that it is appropriate to retain the mass-loading levels for aniline in today's final rule.

b. *o-Anisidine.* We proposed to include o-anisidine as a CoC because it is widely reported to be used in the manufacture of dyes and/or pigments. We detected o-anisidine in several wastes in our analysis of waste samples, it is reported to be an intermediate in the production of various products reported by U.S. manufacturers in the Colour Index, it is reported in the TRI by known dye and/or pigment manufacturers, azo dyes derived from it are subject to regulation by the European Union (EU), and it is a known intermediate for products reported as available on the Web sites of several U.S. dye and/or pigment manufacturers (*see* the Listing Background Document).

In addition, ETAD and CPMA comments on the November 2003 proposal provided recent survey data indicating that three dye manufacturers and two pigment manufacturers use o-anisidine in their processes. Further, five CPMA survey respondents reported this CoC being present in their wastes as a contaminant. Six pigment manufacturers (which represent 11 facilities manufacturing in-scope pigments) also indicated in their individual comments that o-anisidine is actually used or likely to be present in their pigment processes.

ETAD argued that o-anisidine is only used or generated at 3 of 15 dye production facilities. CPMA stated that it is only used in the production of pigments by less than 25 percent of U.S. pigment manufacturers. We believe, however, that these usage rates are not insignificant, particularly for an

[14] *See* Comment RCRA–2003–0001–0258.

[15] *See* the aggregated EPA data in Appendix I of the Background Document for Identification and Listing of Wastes from the Production of Organic Dyes and Pigments, which is in the docket for today's rule.

industry known to manufacture a wide variety of products over time and between companies using batch operations. Further, as noted above, six pigment manufacturers also reported using or generating this CoC. Therefore, the available information indicates that o-anisidine is likely to be present in dye/pigment wastes, and it is reasonable to keep this as a constituent of concern. Moreover, even if o-anisidine were considered infrequently used, EPA would still consider that o-anisidine met the listing criteria set out in § 261.11.

ETAD noted that o-anisidine was only detected in one sample, and that the sample is outdated and of limited value as it was qualified as a "J" value[16] and difficult to differentiate from 2-/4-aminoaniline. We agree that the particular analytical result noted is an insufficient basis by itself to include o-anisidine in the K181 listing. However, we have other sources that confirm that this constituent is used by a number of generators in the manufacture of relevant colorants. We note that o-anisidine was also tentatively identified in four wastewater samples in the data summary presented in the proposal's Listing Background Document, and that the ETAD and CPMA surveys confirm that this constituent is still in use at a number of their members' facilities.

ETAD noted that o-anisidine was not reported in the RCRA § 3007 survey. We note that the survey data used to support the proposal represented a limited subset of the census survey (*i.e.*, those surveys without CBI claims), and may not be fully indicative of waste composition.

ETAD also argued that there is no evidence that either the calculated theoretical average concentration of o-anisidine (58 ppm) or the average waste volume of 1,894 MT/yr (described in the proposal's Listing Background Document) occurs in dyes production wastes. We agree that the data available to the Agency do not identify specific wastes that would exceed the listing levels. Nevertheless, given the format of the proposed rule (*i.e.*, a mass loadings-based listing), we believe that such data are not critical. Instead, we have demonstrated that the range of both expected waste quantities and organic waste constituent concentrations are broad enough that CoC levels in real wastes could potentially exceed the K181 loading limits.

ETAD further asserts that their newly collected data show that the median volume of o-anisidine is zero, and the maximum reported volume is less than one percent of the proposed mass loading. We do not believe these statistics are particularly meaningful. First, the commenter provided very little information about the nature of its data. For example, it is unclear what year the data reflect, or even if they represent the same calendar year among ETAD's survey respondents. Also, ETAD provided no information regarding the variability of these data over time (*e.g.*, were the data representative of typical operations? Are there relevant trends in the use of raw materials?). In an industry that produces a very diverse range of products from plant to plant and from year to year, we would not expect that the majority of manufacturers would utilize any one of the K181 constituents at any given time. Thus, the commenter's findings of a median value of zero is not surprising or relevant. Similarly, the commenter did not provide sufficient information regarding their assertion that there are no dye manufacturers whose mass loading of o-anisidine in their wastes exceed 1 percent of the K181 limit for us to remove this constituent from the listing, given all the information supporting this constituent. The commenter did not provide any information on how the survey respondents determined mass loadings of o-anisidine or other constituents in their waste, so we have no way of judging the validity of such claims. We also expect that any given facility's raw material slate will change over time in response to market demands for different colors and product characteristics. Retaining this constituent in the listing provides a clear incentive for generators to make choices in their manufacturing processes to avoid excessive levels of o-anisidine in their wastes. We note that there are three facilities that reported o-anisidine in Form A under TRI. Form A is used for chemicals with releases below 500 pounds per year (as well as other restrictions related to usage volume). The K181 mass loading level for o-anisidine is 110 kg, or 242 pounds, thus it is possible that these three facilities are above or near the K181 level.

Finally, ETAD also argued that because the groundwater modeling results indicated that the time-to-impact is more than 250 years for o-anisidine, this constituent should be excluded from the listing. As discussed later with respect to the comments on the risk assessment, we do not believe this is an unreasonable time frame.

In conclusion, we have determined that our basis for including o-anisidine in the listing is sound, and we are finalizing the o-anisidine level as proposed.

c. *4-Chloroaniline.* We proposed to include 4-chloroaniline as a CoC because it is reported to be used in the manufacture of dyes and/or pigments. We detected 4-chloroaniline in a variety of wastes in our analysis of waste samples, it is reported in the TRI by a known dye and/or pigment manufacturer, and azo dyes derived from it are subject to regulation by the EU (see the Listing Background Document).

In addition, ETAD and CPMA comments on the November 2003 proposal provided recent survey data indicating that two dye manufacturers use 4-chloroaniline in their processes, and that one pigment manufacturer also uses this CoC, although not in a process covered by the scope of the proposed K181 listing.

ETAD argued that 4-chloroaniline is only used or generated at 2 of 15 dye production facilities. We believe that this is not an insignificant response, particularly for an industry known to manufacture a wide variety of products over time at companies using batch operations. Therefore, the available information indicates that 4-chloroaniline is likely to be present in dye/pigment wastes, and it is reasonable to keep this as a constituent of concern. Moreover, even if 4-chloroaniline were considered infrequently used, EPA would still consider that 4-chloroaniline met the listing criteria set out in § 261.11.

ETAD noted that 4-chloroaniline was only detected in two samples. We point out, however, that 4-chloroaniline was also identified in two wastewater samples and one "other nonwastewater" sample in the data summary presented in the proposal's Listing Background Document, and that CPMA had reported the presence of this constituent in three split samples of the noted data. In addition, several commenters on prior proposals for these wastes described the presence of this CoC in their wastes. Further, the ETAD survey confirms that this constituent is currently in use at several of their members' facilities.

ETAD also pointed out that the referenced TRI data are limited to a single report in a single year. Bayer, the company that reported this TRI release, explained in their comments that 4-chloroaniline is not used by any covered dyes process and was never present in

[16] "J" values are chemical concentrations that were detected below the analytical reporting limit, but above the limit of detection for the method used. See OSW's methods manual, especially Chapter 1, Quality Control; "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW–846."

the wastewater or wastewater treatment sludge generated at the facility of interest (Bushy Park, SC). While this may be the case, it is not clear whether 4-chloroaniline is used in pigment production at this site as the pigment operations were sold to Sun Chemical in January 2003.[17]

In addition, ETAD argued that the Agency's basis for regulating this constituent is weak because there are no references to the use of this chemical in the Colour Index, or in the RCRA § 3007 survey. We acknowledge both points, but note that the Colour Index, while very useful, provides an incomplete compendium of intermediates used in the production of dyes and pigments, particularly for those products that have only recently been brought to market. Furthermore, the information presented in the Colour Index is limited by certain confidentiality concerns manufacturers may have for colorants produced. In our research of products reported by manufacturers on their Web sites and those listed in the Colour Index, there were many products for which no intermediate information was available. Further, the Colour Index does in fact identify a number of manufacturers that produce colorants derived from 4-chloroaniline (*e.g.*, CI 37510, 37610), although none of them appear to be based in the U.S. This information implies that a market exists for these products, and U.S. manufacturers might produce these colorants. With respect to the lack of § 3007 survey data, we have previously described the incomplete nature of the survey data available for use in the proposed rule.

Furthermore, ETAD argued that there is no evidence that either the calculated theoretical average concentration of 4-chloroaniline (2,534 ppm) or the average waste volume of 1,894 MT/yr (described in the proposal's Listing Background Document) occurs in dyes production wastes. ETAD asserts that their newly collected data show that the median volume of 4-chloroaniline is zero, and the maximum reported volume is less than one percent of the proposed mass loading. We refer the reader to our earlier responses to similar comments on o-anisidine.

Finally, ETAD also argued that if EPA's estimated average waste quantity is adjusted to reflect the results of their survey and the assumed plausible maximum constituent concentration (5,000 ppm) were more reasonable, the 10,000 kg/yr screening level would be lower, eliminating 4-chloroaniline as a potential CoC. As discussed more fully in section IV.A.5, we believe that the waste quantity that we used in the development of the proposal is well within the distribution of waste quantities reported by commenters, and we accordingly have not adjusted it. Similarly, we believe that the assumed plausible maximum constituent concentration is appropriate, noting that we considered analytical data for both "wastewater treatment sludge" and "other nonwastewaters," while the commenter appears to be focused only on the wastewater treatment sludge data. The data for "other nonwastewaters" show several constituents with concentrations in the thousands of parts per million.

In conclusion, we have determined that our basis for including 4-chloroaniline in the listing is sound, and we are finalizing the 4-chloroaniline level as proposed.

d. *p-Cresidine.* We proposed to include p-cresidine as a CoC because it is reported to be used in the manufacture of dyes and/or pigments. p-Cresidine is reported to be an intermediate in the production of various products reported by U.S. manufacturers in the Colour Index, it is reported in the TRI by a known dye and/or pigment manufacturer, azo dyes derived from it are subject to regulation by the EU, and it is a known intermediate for several products reported as available on the website of a U.S. dye and/or pigment manufacturer (see the Listing Background Document).

In addition, ETAD and CPMA comments on the November 2003 proposal provided recent survey data indicating that four dye manufacturers use p-cresidine in their processes, and that two pigment manufacturers also use this CoC (although these uses may be from onsite dye manufacture).

ETAD argued that p-cresidine is only used or generated at 4 of 15 dye production facilities. As noted previously, we believe that this is not insignificant, particularly for an industry known to manufacture a wide variety of products over time at companies using batch operations. Two pigment facilities were reported by CPMA to also use or generate this CoC. Therefore, the available information indicates that p-cresidine is likely to be present in dye/pigment wastes, and it is reasonable to keep this as a constituent of concern. Moreover, even if p-cresidine were considered infrequently used, EPA would still consider that p-cresidine met the listing criteria set out in § 261.11.

ETAD also argued that p-cresidine should be removed as a basis for the listing in part because there are no sampling and analysis data or RCRA section 3007 survey data demonstrating its presence in wastes. We acknowledge that p-cresidine was not detected in any of the samples collected in support of the 1994 rulemaking. However, the sampling was conducted at a subset of the manufacturing sites in operation at that time, and thus it is likely that these data are an incomplete profile of potential waste composition. In fact, the commenter's own data indicate that four dye manufacturers currently use p-cresidine as an intermediate, and thus the likelihood that this CoC exists in wastes at these sites is high. As mentioned previously, the § 3007 data presented in the proposal represents that portion of the data which were not subject to any confidentiality claims and, therefore, does not represent a complete profile of reported waste constituents.

In addition, ETAD argued that the TRI data does not support inclusion of p-cresidine because only one Form R and one Form A were submitted. However, we believe that it is significant that the TRI data confirm that current manufacturers of impacted colorants do use and release this CoC, supporting our basis for including p-cresidine in the K181 listing.

Further, ETAD argued that there is no evidence that either the calculated theoretical average concentration of p-cresidine (348 ppm) or the average waste volume of 1,894 MT/yr (described in the proposal's Listing Background Document) occurs in dyes production wastes. ETAD asserts that their newly collected data show that the median volume of p-cresidine is zero, and the maximum reported volume is less than one percent of the proposed mass loading. We refer the reader to our earlier responses to similar comments on o-anisidine.

Moreover, ETAD also argued that if EPA's estimated average waste quantity is adjusted to reflect the results of their survey and the assumed plausible maximum constituent concentration (5,000 ppm) were more reasonable, the 10,000 kg/yr screening level would be lower, eliminating p-cresidine as a potential CoC. We refer the reader to our earlier response to a similar comment on 4-chloroaniline.

Finally, ETAD argued that because the groundwater modeling results indicated that the time-to-impact is more than 250 years for p-cresidine, this constituent should be excluded from the listing. As discussed later with respect to the comments on the risk assessment, we do not believe this is an unreasonable time frame.

[17] *http://www.timesleader.com/mld/timesleader/5122083.htm.*

In conclusion, we have determined that our basis for including p-cresidine in the listing is sound, and we are finalizing the p-cresidine level as proposed.

e. *2,4-Dimethylaniline.* We proposed to include 2,4-dimethylaniline as a CoC because it is reported to be used in the manufacture of dyes and/or pigments. We detected 2,4-dimethylaniline in several wastes, it was reported to be a waste component in the RCRA § 3007 survey, and it is a known intermediate for several products reported as available on the websites of several U.S. dye and/or pigment manufacturers (*see* the Listing Background Document).

In addition, ETAD and CPMA comments on the November 2003 proposed rule provided recent survey data that two dye manufacturing facilities report the use of this CoC, and confirming the presence of 2,4-dimethylaniline in wastes at two pigment manufacturing facilities. Six pigment manufacturers indicated in their individual comments that this constituent is actually used or likely present in their production of pigments.

ETAD argued that 2,4-dimethylaniline is only used or generated at 2 of 15 dye production facilities. CPMA stated that it is only used in the production of pigments by less than 25 percent of U.S. pigment manufacturers. We believe, however, that these usage rates are not insignificant, particularly for an industry known to manufacture a wide variety of products over time and at companies using batch operations. Further, we note that CPMA has confirmed that this CoC is a waste component at two pigment facilities, and that six pigment manufacturers have specifically confirmed that 2,4-dimethylaniline is relevant to their processes and/or wastes. Therefore, the available information indicates that 2,4-dimethylaniline is likely to be present in dye/pigment wastes, and it is reasonable to keep this as a constituent of concern. Moreover, even if 2,4-dimethylaniline were considered infrequently used, EPA would still consider that 2,4-dimethylaniline met the listing criteria set out in § 261.11.

ETAD argued that our basis for including this constituent is weakened because this CoC was not detected in nonwastewaters. While we confirm this specific observation, we note that 2,4-dimethylaniline was detected in wastewaters by EPA, and CPMA reported this chemical in split sample analyses. These data support EPA's finding that this constituent may reasonably be expected to be present in some wastes from the production of dyes and/or pigments.

ETAD also suggests that our basis for including this constituent as a basis for the listing is weakened because we presented no linkages to the TRI, the Colour Index (or similar sources), or the EU ban for this constituent. First, we would note that 2,4-dimethylaniline is not listed in section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA), and thus is not subject to TRI reporting. With respect to the Colour Index, this source does in fact identify a number of manufacturers that produce azo colorants derived from 2,4-dimethylaniline (*e.g.*, CI 14900, 16150, 29105), although none of them appear to be based in the U.S.[18] This information implies that a market exists for these products, and U.S. manufacturers might in the future choose to produce these colorants. Finally, with respect to the EU ban [Directive for a Community Ban on Azocolourants (76/769/EEC, Annex I, point 43)], as discussed in the proposal, this constituent has been studied for possible inclusion in a related ban of certain compounds in cosmetics and is regulated as a class 2 carcinogen in Germany.[19]

In addition, ETAD argued that there is no evidence that either the calculated theoretical average concentration of 2,4-dimethylaniline (53 ppm) or the average waste volume of 1,894 MT/yr (described in the proposal's Listing Background Document) occurs in dyes production wastes. We refer the reader to our earlier response to a similar comment on o-anisidine.

Furthermore, ETAD asserts that their newly collected data show that the median volume of 2,4-dimethylaniline is zero, and the maximum reported volume is less than one percent of the proposed mass loading. We refer the reader to our earlier response to a similar comment on o-anisidine.

Finally, ETAD argued that because the groundwater modeling results indicated that the time-to-impact is more than 250 years for 2,4-dimethylaniline, this constituent should be excluded from the listing. As discussed later with respect to the comments on the risk assessment, we do not believe this is an unreasonable time frame.

[18] One U.S. company, Bernscolor (Poughkeepsie, NY), is listed in the Colour Index as marketing CI 16150, however, neither trade association identified this facility as manufacturing in-scope dyes and/or pigments.

[19] Studied by EU in the context of Directive 76/768/EEC: SCCNFP/0495/01, Opinion of the Scientific Committee on Cosmetic Products and Non-Food Products Intended for Consumers concerning "The Safety Review of the Use of Certain Azo-Dyes in Cosmetic Products," 2/27/02. *http://europa.eu.int/comm/food/fs/sc/sccp/out155_ea.pdf.*

In conclusion, we have determined that our basis for including 2,4-dimethylaniline in the listing is sound, and we are finalizing the 2,4-dimethylaniline level as proposed.

f. *1,2-Phenylenediamine.* We proposed to include 1,2-phenylenediamine as a CoC because it is reported to be used in the manufacture of dyes and/or pigments. We detected 1,2-phenylenediamine in several wastes in our analysis of waste samples, it is reported to be an intermediate in the production of various products reported by U.S. manufacturers in the Colour Index, it was reported in the TRI by known dye and/or pigment manufacturers, and it is a known intermediate for several products reported as available on the websites of several U.S. dye and/or pigment manufacturers (*see* the Listing Background Document).

In addition, ETAD and CPMA comments on the November 2003 proposal provided recent survey data indicating that two dye manufacturers use 1,2-phenylenediamine in their processes, and that two pigment manufacturers also use this CoC. Two pigment manufacturers also indicated in their individual comments that it is present in their wastes (although possibly not from in-scope pigment processes).

ETAD argued that 1,2-phenylenediamine is only used or generated at 2 of 15 dye production facilities. We believe that this is not insignificant, particularly for an industry known to manufacture a wide variety of products over time at companies using batch operations. In addition, CPMA has confirmed that this CoC is a waste component at two pigment facilities, and that it is used in the production of pigments at two facilities. Therefore, the available information indicates that 1,2-phenylenediamine is likely to be present in dye/pigment wastes, and it is reasonable to keep this as a constituent of concern. Moreover, even if 1,2-phenylenediamine were considered infrequently used, EPA would still consider that 1,2-phenylenediamine met the listing criteria set out in § 261.11.

ETAD also argued that the TRI data does not support inclusion of 1,2-phenylenediamine because only one Form A was submitted for one year. While it is true that only one Form A was reported, the TRI data confirm that there is current use and release of this CoC, supporting our basis for including 1,2-phenylenediamine in the K181 listing.

In addition, ETAD argued that 1,2-phenylenediamine should not be

included as a basis for this listing in part because there are no RCRA § 3007 survey data demonstrating its presence in wastes. As mentioned previously, the § 3007 data presented in the proposal represent that portion of the data which were not subject to any confidentiality claims and, therefore, does not represent a complete profile of reported waste constituents. In fact, ETAD's (and CPMA's) own data indicate that a number of dye and/or pigment manufacturers currently use 1,2-phenylenediamine as an intermediate, providing further confirmation that this CoC exists in wastes at these sites.

Furthermore, ETAD noted that 1,2-phenylenediamine was only detected in one sample, and that the sample is outdated and of limited value as it was qualified as a "J" value, and difficult to differentiate from 1,4-phenylenediamine and o-anisidine. We agree that the particular analytical result noted is insufficient by itself to be a basis to include 1,2-phenylenediamine in the K181 listing. However, we have other sources of information that confirm that this constituent is used by a number of generators in the manufacture of relevant colorants. We note that 1,2-phenylenediamine was also tentatively identified in four wastewater samples in the data summary presented in the proposal's Listing Background Document. Two comments on the earlier proposed listing determination for these wastes also refer to the use or presence of this constituent in the wastes of concern. In addition, the ETAD and CPMA surveys confirm that this constituent is currently in use at a number of their members' facilities.

Moreover, ETAD argued that there is no evidence that either the calculated theoretical average concentration of 1,2-phenylenediamine (375 ppm) or the average waste volume of 1,894 MT/yr (described in the proposal's Listing Background Document) occurs in dyes production wastes. We refer the reader to our earlier response to a similar comment on o-anisidine.

ETAD also asserts that their newly collected data show that the median volume of 1,2-phenylenediamine is zero, and the maximum reported volume is less than one percent of the proposed mass loading. We refer the reader to our earlier response to a similar comment on o-anisidine.

Finally, ETAD argued that if EPA's estimated average waste quantity is adjusted to reflect the results of their survey and the assumed plausible maximum constituent concentration (5,000 ppm) were more reasonable, the 10,000 kg/yr screening level would be lower, eliminating 1,2-phenylenediamine as a potential CoC. We refer the reader to our earlier response to a similar comment on 4-chloroaniline.

In conclusion, we have determined that our basis for including 1,2-phenylenediamine in the listing is sound, and we are finalizing the 1,2-phenylenediamine level as proposed.

g. 1,3-Phenylenediamine. We proposed to include 1,3-phenylenediamine as a CoC because it is reported to be used in the manufacture of dyes and/or pigments. Specifically, 1,3-phenylenediamine is reported to be an intermediate in the production of various products reported by U.S. manufacturers in the Colour Index, it was reported in the TRI by a known dye and/or pigment manufacturer, it was reported to be a waste component in the RCRA § 3007 survey, and it is a known intermediate for several products reported as available on the websites of several U.S. dye and/or pigment manufacturers (*see* the Listing Background Document).

In addition, ETAD and CPMA comments on the November 2003 proposal provided recent survey data indicating that three dye manufacturers use 1,3-phenylenediamine in their processes, and that one pigment manufacturer indicated that it is present in their wastes (although not from in-scope pigment processes).

ETAD argued that 1,3-phenylenediamine is only used or generated at three of 15 dye production facilities. We believe that this is not insignificant, particularly for an industry known to manufacture a wide variety of products over time at companies using batch operations. In addition, the available RCRA § 3007 survey results indicate that this constituent was reported by industry in at least 17 in-scope discrete wastestreams. Therefore, the available information indicates that 1,3-phenylenediamine is likely to be present in dye/pigment wastes, and it is reasonable to keep this as a constituent of concern. Moreover, even if 1,3-phenylenediamine were considered infrequently used, EPA would still consider that 1,3-phenylenediamine met the listing criteria set out in § 261.11.

ETAD also argued that 1,3-phenylenediamine should not be included as a basis for the listing in part because there are no sampling and analysis data demonstrating its presence in wastes. We acknowledge that 1,3-phenylenediamine was not detected in any of the samples collected in support of the 1994 rulemaking. However, the sampling was conducted at a subset of the manufacturing sites in operation at that time, and thus it is likely that these data are an incomplete profile of potential waste composition. The commenter's own data indicate that three dye manufacturers currently use 1,3-phenylenediamine as an intermediate, providing further confirmation that this CoC exists in wastes at these sites.

In addition, ETAD also argued that there is no evidence that either the calculated theoretical average concentration of 1,3-phenylenediamine (634 ppm) or the average waste volume of 1,894 MT/yr (described in the proposal's Listing Background Document) occurs in dyes production wastes. We refer the reader to our earlier response to a similar comment on o-anisidine.

Furthermore, ETAD asserts that their newly collected data show that the median volume of 1,3-phenylenediamine is zero, and the maximum reported volume is less than 10 percent of the proposed mass loading. We refer the reader to our earlier response to a similar comment on o-anisidine, and note that "10 percent" is not insignificant—process changes or stepped up production volumes might increase this maximum value to exceed the K181 loading limit.

Finally, ETAD argued that if EPA's estimated average waste quantity is adjusted to reflect the results of their survey and the assumed plausible maximum constituent concentration (5,000 ppm) were more reasonable, the 10,000 kg/yr screening level would be lower, eliminating 1,3-phenylenediamine as a potential CoC. We refer the reader to our earlier response to a similar comment on 4-chloroaniline.

In conclusion, we have determined that our basis for including 1,3-phenylenediamine in the listing is sound, and we are finalizing the 1,3-phenylenediamine level as proposed.

7. Availability of Analytical Methods for Constituents of Concern

Commenters contend that EPA did not adequately address the availability of analytical methods necessary to implement the proposed rule. The commenters pointed out that EPA's economic analysis suggested that four proposed constituents (toluene-2,4-diamine, 1,2-phenylenediamine, 1,3-phenylenediamine, and 2,4-dimethylaniline) lack established analytical methods. Most commenters were especially concerned with the lack of a verified method for one of the four constituents, toluene-2,4-diamine. One commenter also expressed concern specifically over the lack of methods for

1,2-phenylenediamine. Commenters questioned the adequacy of the methods for analyzing another proposed constituent (aniline). They referred to previous studies that indicated gas chromatography methods may cause false positive readings for aniline, because another chemical sometimes present (acetoacetanilide) often breaks down into aniline in the analysis.

We continue to believe that adequate analytical methods exist for most CoCs. However, as described previously, we have decided to no longer include toluene-2,4-diamine as a constituent of concern for K181. Therefore, analysis of this chemical will not be necessary. Concerning 1,2-phenylenediamine, we noted the problems with this constituent in the proposed rule (68 FR 66194). We have reexamined the available EPA methods and determined that, while some methods (*e.g.*, SW–846 method 8321B) show promise, the recoveries remain low. Thus, we have decided to allow generators to use their knowledge of the waste instead of determining the level of this constituent through testing. We have revised the final K181 regulatory language to reflect this change in the testing requirements by inserting (d)(3)(ii), which reads:

(d)(3)(ii) If 1,2-phenylenediamine is present in the wastes, the generator can use either knowledge or sampling and analysis procedures to determine the level of this constituent in the wastes. For determinations based on use of knowledge, the generator must comply with the procedures for using knowledge described in paragraph (d)(2) and keep the records described in paragraph (d)(2)(iv) of this section. For determinations based on sampling and analysis, the generator must comply with the sampling and analysis and recordkeeping requirements described below in this section.

We believe that the other constituents have adequate methods. While 2,4-dimethylaniline is not included as an analyte in EPA's SW–846 manual of methods, the chemical has been measured in dye and pigment waste samples by both EPA [20] and by industry.[21] As the 2003 BDAT background document indicated, the standard EPA gas chromatography/mass spectrum method (GC/MS method 8270) should be effective for this constituent. We are also confident that this GC/MS method is adequate for 1,3-phenylenediamine. This is further supported by an EPA technical paper showing that 1,3-phenylenediamine can be determined using GC/MS methods.[22] As noted by the commenters, this same technical paper describes the breakdown of the chemical acetoacetanilide to aniline during GC/MS analysis. While this could theoretically present difficulties in determining a precise concentration of aniline in wastes that also contain acetoacetanilide, generators may deal with this potential problem in several ways. The technical paper cited above shows that aniline may also be determined by other methods, *i.e.*, High Performance Liquid Chromatography (HPLC) methods. HPLC methods do not require the high temperatures needed for GC/MS analysis; thus, the presence of acetoacetanilide should not present any problems. Alternatively, a generator could conduct the GC/MS analysis, recognizing that some of the aniline detected may arise from the breakdown of acetoacetanilide. If the measured aniline in the waste is still below the aniline loading limit for K181, then the waste would not be a hazardous waste due to aniline. Because the loading limit for aniline is rather high (9,300 kg/yr), there would have to be a high level of acetoacetanilide present in the waste to cause any significant problem. In any case, the generators have the option of using the HPLC method if they believe that aniline levels would approach the mass loading limit, and if they know that the waste contains acetoacetanilide.

8. Risk Assessment

The Agency received comments on a number of issues that focused on the risk analysis that EPA conducted for the proposed K181 listing determination. The most significant of these comments, summarized below, pertain to the General Soil Column Model, biodegradation rates, infiltration rates, well distance, hydraulic conductivity, simulation durations and exposure parameters. We have developed responses for all of the public comments received on the proposed rule. The verbatim comments and our responses are provided in the Response to Comments Background Document in the docket for today's rule.

a. *General Soil Column Model (GSCM).* The landfill model that we used approximates the dynamic effects of the gradual filling of active landfills. The Generic Soil Column Model (GSCM) is a critical submodel or algorithm that predicts the fate and transport of constituents within the landfill and partitions contaminants to three phases: adsorbed (solid), dissolved (liquid), and gaseous.

Commenters contended that the GSCM is under review by the EPA's Science Advisory Board (SAB) and that the SAB panel identified significant errors that are expected to produce erroneous results. The commenters expected that the SAB panel would recommend that EPA not use the GSCM to make any regulatory decisions until a more thorough evaluation, including reanalysis of the underlying model code is completed. As a result, the commenters argued that it is unacceptable for EPA to use the GSCM to make regulatory decisions for the dyes manufacturing industry. The commenters noted that EPA has performed limited comparison simulations between the GSCM and another model (MODFLOW–SURFACT). While the results from this comparison indicated that the two simulations yield similar results, the commenters stated that the tests completed by EPA represent only a simple and potential worst-case scenario that does not test soil zone complexity. Although uniform soil zone properties are expected to result in maximum leaching, the commenters argued that EPA should also complete an evaluation of the GSCM under conditions with significant heterogeneity.

We continue to believe that the use of the GSCM is appropriate and does not produce erroneous results. In the final SAB report,[23] the SAB acknowledged that 3MRA—in its current state—could be used to support regulatory decisions for national exit concentrations. However, the SAB also recognized that 3MRA is the product of a collection of submodels (which includes the GSCM) and that any regulatory decisions that rely on 3MRA will reflect the uncertainty and the limitations of these models. The SAB panelists conducted a thorough evaluation of the GSCM and agreed with the EPA's thoughts on the strengths and limitations of the GSCM. The SAB pointed out that the GSCM—as compared to some of the legacy models in 3MRA—"is relatively untested and has some *potential* (italics added) theoretical inadequacies." The SAB review goes on to report on several model evaluation studies (*e.g.*,

[20] See the aggregated EPA data in Appendix I of the Background Document for Identification and Listing of Wastes from the Production of Organic Dyes and Pigments, which is in the docket for today's rule.

[21] See final table in the industry data attached to the Letter from J. Lawrence Robinson, President of the CPMA, to Ed Abrams of EPA, regarding aggregated test data resulting from analyses of the split samples, April 20, 1994, in the docket for today's rule.

[22] See the technical paper attached to the Letter from J. Lawrence Robinson, President of the CPMA, to Ed Abrams of EPA, regarding aggregated test data resulting from analyses of the split samples, April 20, 1994, in the docket for today's rule.

[23] Report of the U.S. EPA Science Advisory Board Review Panel; EPA's Multimedia, Multipathway, and Multireceptor Risk Assessment (3MRA) Modeling System; EPA–SAB–05–003, November 2004 (*http://www.epa.gov/sab/fiscal04.htm*).

conducting model-to-model studies and comparing estimated and experimental data) conducted by EPA, suggesting that these types of studies are important steps in building confidence in the model and increasing our understanding of the limitations of the GSCM.

One of the major theoretical issues raised by the SAB was the concern with the GSCM's ability to produce reliable leachate profiles for short time scales; that is, less-than-annual chemical concentration profiles for leachate. However, the Agency's risk assessment of waste from dye and/or pigment manufacture is based on long-term chronic exposures and, therefore, the concentrations at the point of exposure are averaged according to the exposure duration for each receptor. In particular, the comparison between the GSCM and MODFLOW/SURFACT (a widely used flow and transport simulator) demonstrated that long-term, average leachate concentration profiles generated by the GSCM were similar to those generated by the more robust solution technique used in MODFLOW–SURFACT. Thus, the comparison between the GSCM and MODFLOW–SURFACT demonstrated that the theoretical limitations in the GSCM do not appear to be significant when generating annual averages for the purposes of estimating long-term potential risks to humans and ecological receptors for the dyes and pigments assessment.

b. *Biodegradation.* Within the landfill, we simulated losses of mass through anaerobic biodegradation (*i.e.*, degradation processes that occur in an oxygen-free environment). In the absence of biodegradation data for seven organic chemicals, we used surrogate information for similar compounds. Commenters generally supported the use of surrogates and the appropriateness of considering biodegradation in anaerobic landfill conditions. However, commenters believed that EPA overestimated concentrations at receptor wells, because EPA used the maximum half-life from the available data (*i.e.*, we used the slowest degradation rates). Commenters suggested that it would be more appropriate to use average values for the half-life.

We continue to believe that our use of the maximum half-life for biodegradation is appropriate to ensure that the mass-loading levels are protective to compensate for the uncertainties inherent in the data. We used anaerobic degradation rates that were available in our primary reference,[24] and when degradation data were not available, we used degradation rates based on surrogate chemicals. This reference provides ranges of half lives in environmental media and the Agency acknowledges there is considerable uncertainty associated with these data. Where available, the authors use preferred data from experimental values. However, in cases where experimental values were not available, scientific judgements were made in order to estimate a value. The amount of biodegradation that occurs will also vary depending on various site-specific environmental parameters, including temperature, pH, and available biomass. In light of these uncertainties, we believe that it is prudent to use the high value in the range of values presented rather than to use an average value as suggested by the commenters.

c. *Landfill Infiltration Rates.* Our modeling for landfills included analyses for both clay liner and composite liner scenarios. For the clay-liner scenario, we used the existing databases of landfill infiltration rates and ambient regional recharge rates calculated using the Hydrologic Evaluation of Landfill Performance (HELP) water-balance model. For the composite liner scenario, we used empirical distributions of infiltration rates for composite-lined landfills compiled in a recent report (TetraTech report).[25]

The commenters stated that they identified several errors and inconsistencies with the infiltration estimates used to predict downgradient concentrations. The commenters indicated that the composite liner infiltration rates EPA used in the modeling analysis were not consistent with the infiltration rates shown in the TetraTech report. The commenters claimed that EPA incorrectly used infiltration rates for the single synthetic liner instead of the infiltration rates for the composite liner. One commenter noted that the Risk Assessment Background Document provides a leak density variable, as well as an infiltration rate for landfills, suggesting that infiltration rates through the liner are calculated. Thus, the commenter suggested that EPA clarify exactly how leachate curves are estimated. The commenter also stated that the HELP model is not an appropriate tool to determine liner percolation rates because (1) the HELP model is intended to be used as a landfill design tool to evaluate the merits of different design alternatives, and (2) the HELP model has been found to overestimate infiltration rates at landfills and to erroneously predict the timing of events.

As we described in the proposal, we based the composite liner scenario on infiltration rates extracted from the TetraTech report for composite lined landfill units, *i.e.*, units with a combination of geomembrane (GM) and clay liners (compacted clay, CCL, or geosynthetic clay, GCL). We screened the data to yield a data set of forty infiltration rates. The composite liner scenario represented only those rates from the screened set of rates and, thus, we did not use rates from single synthetic liners in this analysis. We then generated the specific values used for modeling the composite liner scenario through interpolation using the available forty infiltration rates. Thus, the interpolated values are a representative distribution of the forty rates and do not reflect single synthetic liners. Finally, we also note that we are not using the composite liner results to set mass-loading levels since we have decided to no longer include toluene-2,4-diamine as a constituent of concern for K181.

Regarding the HELP model, the Agency used the model to determine infiltration rates through capped unlined and clay lined landfills hypothetically sited at each of the 102 climate stations available in the model. Neither permeability nor leak density were included as parameters in these simulations. EPA used the HELP model, in conjunction with data from climate stations across the United States, to develop recharge and infiltration rate distributions for different liner designs.[26] Further, the landfills modeled in this analysis were consistent with standard design practices, and similar to the type of landfill HELP was designed to simulate. The Agency used the HELP model to estimate long-term infiltration rates based on the historical data available with the model. Recent evaluations of actual leachate generation rates have shown that the HELP model can also be a very good approximation of actual conditions.

d. *Well Distance.* The commenters contended that the information on well distance from EPA's National Survey of Municipal Landfills is not representative of disposal practices in the dye industry. The commenters'

[24] Howard, P.H., R.S. Boethling, W.F. Jarvis, W.M. Meylan, E.M. Michalenko, and H.T. Printup (ed.). 1991. Handbook of Environmental Degradation Rates. Lewis Publishers.

[25] "Characterization of Infiltration Rate Data to Support Groundwater Modeling Efforts," Draft Final. TetraTech, Inc. September 28, 2001.

[26] See Appendix A of the EPA's Composite Model for Leachate Migration with Transformation Products (EPACMTP)—Parameters/Date Background Documents (2003).

review of the survey used to estimate well distance indicated that EPA only collected well distance information if a well was located within one mile of the landfill. The commenters contended that the survey results used by EPA are significantly skewed and any distribution calculated from these results will not be representative of municipal landfills, but only those municipal landfills with well distances less than one mile. The commenters suggested that EPA should have limited the well distance information to those facilities currently used by dye manufacturers, and resubmitted a survey of landfills originally submitted in comments on the previous 1999 proposed rule. According to the data supplied, seven of sixteen landfills have no nearby wells or have wells greater than one mile from the landfill boundary. Based on this information, the commenters argued that the Agency's well distance distribution was irrelevant for the dye industry and thereby overestimated potential migration of constituents from the landfill to the receptor well.

We believe that the use of a national distribution of landfill characteristics is appropriate. The populations of concern to EPA are those with private wells near landfills, and the selected distribution covers that population. The data supplied by the commenters are incomplete with respect to coverage of all facilities in the dyes and/or pigments industries and, therefore, may not be representative of disposal facility characteristics that could be used. The Agency adopted an approach to use a nationwide risk assessment methodology that has been applied in previous listing determinations, and this approach has been subject to peer review. As noted in our response to comments on landfill liners in section IV.A.2, the specific landfill information submitted by the commenters was for a small number of landfills relevant to dye manufacturers only, and would not be representative of the landfills that could be used (EPA estimated that there are about 2,300 MSW landfills in operation in 2000). Moreover, disposal locations, in addition to well locations, can change over time. Therefore, we used probabilistic analyses in an attempt to incorporate the variability and uncertainty in the data.

e. *Hydraulic Conductivity Values.* The commenters questioned a number of hydraulic conductivity values used in the regional hydrogeologic database. The commenters believed that these "extremely high" hydraulic conductivity values are implausible and skewed the model results. The commenters contended that this would over predict concentrations at the receptor well, and significantly under predict the travel time to the receptor well. Moreover, they believed that these high hydraulic permeabilities are not representative of any shallow or deep zone aquifer system in the United States.

It is the Agency's position that the hydrogeologic database (HGDB) is the best data source available to characterize subsurface parameters for conducting nationwide, probabilistic, groundwater pathway analyses. The hydraulic conductivity values used in this analysis were compiled under the auspices of the American Petroleum Institute and the National Well Water Association.[27] The objective of the data compilation was to provide the Agency an up-to-date, screened datasource for probabilistic modeling. Hydraulic conductivity values from site investigations at 400 hazardous waste sites were collected, subjected to internal review, and were subsequently published in a peer-reviewed journal.

The groundwater velocity at a specific location, such as a receptor well, has regional and local contributions. Regional groundwater velocities are proportional to hydraulic conductivity, while local velocities are governed by areal recharge and are almost independent of hydraulic conductivity. Of the entire hydraulic conductivity database, there are only two values equal to 2.21×10^7 m/yr. These values are relatively high but not implausible for fractured sedimentary rocks (Region 2). Regions 4, 5, and 6 (Sand and Gravel; Alluvial Basins, Valleys, and Fans; and River Valleys and Flood Plains, respectively) have four hydraulic conductivity values which are in excess of 10^5 m/yr. These values, although relatively high, are also not implausible. For example, literature references indicate that values of hydraulic conductivities for gravelly deposits may range from 10^4 to 10^7 m/yr.[28] We also note that these values make up an extremely small fraction of the values in the data base, thereby reflecting the likelihood of their occurrence nationally. This is consistent with the nationwide probabilistic approach we used in the risk evaluation.

f. *Simulation Durations.* The commenters pointed out that for several chemicals (o-anisidine, p-cresidine, and 2,4-dimethylaniline), the groundwater time to impact is more than 250 years. The commenters stated that simulations over this time period are computationally intensive and generate results that are unrealistic and not interpretable, because we cannot predict human behaviors that influence exposure or land uses so far in the future. Commenters suggested that EPA should limit the results to the maximum concentration within the next 100 years.

As a matter of policy, the Agency has adopted long time frames for assessing risks in the hazardous waste listing program because it allows peak concentrations to be observed at most receptor locations. This time frame is consistent with other listing determinations.[29] The EPACMTP computer model, developed by the Agency, can perform the simulation over these time frames in a computationally efficient manner on modern computers. It is well documented in the scientific literature that groundwater travel can span hundreds to thousands of years.

Therefore, we do not agree that simulations over a 250-year time period will generate results that are unrealistic and not interpretable. Furthermore, the commenter did not provide any reason why arbitrarily restricting the modeling to a 100-year time frame would be more appropriate. The Agency agrees that future changes in human behavior and environments are subject to uncertainty. However, the Agency's probabilistic approach in conjunction with relatively conservative assumptions is designed to provide a reasonable level of protection for future generations.

g. *Exposure Parameters.* Commenters stated that EPA has selected maximum values for several exposure parameters for the probabilistic analyses, and that use of maximum values overestimates potential risk.

Ingestion and inhalation rates: Commenters argued that EPA's current ranges for groundwater ingestion rates are overly conservative and that EPA overestimated the amount of water ingested by potential adult receptors. The commenters noted that the maximum values used by EPA are higher than the 99th percentile value presented in EPA's Exposure Factors

[27] Newell, C.J., L.P. Hopkins, and P.B. Bedient. 1989. Hydrogeologic Database for Ground Water Modeling. American Petroleum Institute, Washington, DC; and Newell, C.J., L.P. Hopkins, and P.B. Bedient. 1990. A hydrogeologic database for ground water modeling. Ground Water 28(5):703–714.

[28] See Freeze, R.A., J.A. Cherry. 1979. Groundwater; Prentice Hall, Englewood Cliffs, New Jersey, and Driscoll, F.G. 1986. Groundwater and Wells, Second Edition; Johnson Screens, Publisher, St. Paul, Minnesota.

[29] Paints Listing Determination; February 13, 2001; 66 FR 10093; Inorganic Chemical Manufacturing Listing Determination; September 14, 2000; 65 FR 55697.

Handbook (EPA 1997a).[30] The commenters also argued that EPA overestimates maximum inhalation rates for adult and child residents, noting that the maximum rate used by EPA exceeds the 99th percentile inhalation rates for men and women given in EPA guidance (EPA (2000), Options for Development of Parametric Probability Distributions for Exposure Factors).

We do not agree that the water ingestion and inhalation rates we used are overly conservative. The maximum values were used to truncate the distribution during sampling using a statistical software package. A large range was used in order to prevent the shape of the data distributions from being distorted. For groundwater ingestion, the mean, 50th, 90th, 95th, and 99th percentiles from the sampled data were verified by comparing them against the data provided in EPA's Exposure Factors Handbook. Similarly for inhalation, the simulated 99th percentile value for the adult inhalation rate we used was consistent with the values cited in the above document. In addition, the probabilistic analyses use values throughout the distribution of parameter values. The maximum value is only one point on the distribution curve, and thus, has a minor impact on the overall modeling results.

Exposure Duration: The commenters contended that EPA used exposure durations that are inappropriate for the receptors identified. The commenters argued that EPA overestimated the period of exposure, thereby arbitrarily increasing the risk estimates calculated. The commenters pointed out that the exposure duration for a child varied between one and 50 years, even though the greatest length of potential exposure is five years for a one-to five-year-old. Commenters stated that EPA correctly holds all other inputs within the one-to five-year age bracket; therefore, EPA's methodology could result in modeling a 22-year-old that has the body weight and ingestion rate of a five-year-old.

EPA does not agree that the exposure duration is inappropriate for the receptors identified. The exposure duration used in the analysis is selected once for each receptor at the beginning of each iteration. As we described in the proposal (68 FR 66182–66183), we evaluated a child whose exposure begins at a random age between one and six years old. We then aged the child for the number of years defined by the randomly selected exposure duration. As children mature, their physical characteristics and behavior patterns change. Depending on the exposure duration selected, a receptor (*e.g.*, a 1- to 5-year-old) ages through successive age groups (also known as cohorts). Other exposure parameters (*i.e.*, body weight, inhalation rate, drinking rate) are held constant while a receptor is in a given age cohort, but are selected again as a receptor enters the successive age cohort. For example, a receptor initiated at age three would have a constant 1- to 5-year-old body weight at ages 3, 4, and 5. At age 6, a new body weight would be selected from the 6- to 11-year-old body weight distribution to be used for the duration spent in this cohort (and so on). A 22-year-old would have a body weight selected from the adult body weight distribution, not that of a 1- to 5-year-old.

Indoor air exposures: The commenters believe that the shower model used by EPA overestimates potential exposure and risk. The commenters claim that EPA used several overly conservative exposure parameters, including the time in the bathroom. Commenters contended that it is highly unlikely that individuals regularly spend four hours in the bathroom showering and in related activities, and suggested that the total duration should not exceed a plausible value (*e.g.*, one hour total). The commenters also argued that EPA assumed that the entire constituent concentration is available for uptake and did not consider that only a fraction of that inhaled may be available and absorbed.

EPA does not believe that the indoor air exposure parameters are overly conservative. During the Monte Carlo simulation, the distributions for the time spent in showering and related activities are sampled independently, such that the combined shower exposure used in the Monte Carlo simulation is significantly lower than four hours. For example, the 50th percentile value of the combined shower exposures results in a duration of 32 minutes in the bathroom; the 99th percentile value of the combined shower exposures results in a total duration of 83 minutes in the bathroom. These are not implausible values. The commenters did not suggest any alternative exposure periods for the showering scenario, so we cannot compare any suggested values to those we used in our analysis. We note, however, that the mean, 50th, 90th, 95th, and 99th percentiles were verified by comparing them against the data provided in EPA's Exposure Factors Handbook. In addition, shower inhalation exposure was a determining exposure pathway for only two constituents (naphthalene and dichlorobenzene) and neither of these two constituents served as a basis for listing K181. Drinking water ingestion was the determining pathway for all other constituents.

In order to be protective of human health, EPA assumes that the entire constituent concentration in indoor and ambient air is available for respiratory uptake, unless chemical-specific data indicate otherwise. Data on the fraction absorbed from inhalation are not frequently available, and the commenter did not provide any such data. However, when data are available, the fraction absorbed is incorporated into the cancer and noncancer inhalation benchmarks.

Monte Carlo Distributions: In the Monte Carlo analysis, the Agency used distributions to describe several exposure parameters, including body weight, exposure duration, and drinking water intake. The commenters contended that EPA failed to follow its own guidance when developing these distributions, noting that the document Guiding Principles for Monte Carlo Analysis (EPA 1997c) stated "risk assessors should never depend solely on goodness-of-fit tests to select the analytic form for a distribution." The commenters pointed out that for the distributions used in the exposure assessment, the Agency did not complete any graphical analyses of the data to ensure that the distributions selected were consistent with the results of the statistical analyses. The commenters also stated that EPA did not provide enough information to support the distribution selected for drinking water ingestion (a gamma distribution) instead of a lognormal distribution, as described in EPA's Exposure Factors Handbook.

We agree that graphical representations are often useful and we have provided such graphical representations for key exposure parameters in the Response to Comment document. However, as part of our analysis for the proposal, EPA conducted a thorough review of sampled data to ensure that the selected percentiles were representative of the data. Regarding the specific distribution selected for drinking water ingestion, the gamma model provided a better fit. In any case, we found no significant difference between using the gamma versus the log normal distributions for this data set. For example, using a gamma distribution for drinking water intake of adults, the 50th and 90th percentile simulated values are 1,272 mL/day and 2,302 mL/day, compared to

[30] U.S. EPA Exposure Factors Handbook, August 1997; EPA/600/P–95/002Fa. *http://www.epa.gov/ncea/pdfs/efh/front.pdf.*

1,252 mL/day and 2,268 mL/day for the log normal distribution.

9. Implementation

EPA received comments on a number of issues concerning the proposed implementation approach for the K181 listing determination. The most significant issues include: (1) EPA's alternative to consider all wastes generated during the year to be hazardous if the mass loading limit for a CoC in the wastes is met or exceeded at any time during the year; (2) not allowing higher quantity waste generators the option of using knowledge of their wastes to demonstrate that the wastes are nonhazardous; (3) use of the maximum detected concentration or a concentration based on the 95th percentile upper confidence limit of the mean to determine the mass of a CoC; (4) EPA's onsite recordkeeping requirements to support a nonhazardous determination for the wastes; and (5) EPA's annual follow-up testing requirements to verify that wastes remain nonhazardous. The Agency's responses to these comments are summarized below. The verbatim comments and our responses to all comments are provided in the Response to Comments Background Document.

a. *Alternative Option for Wastes Which Meet or Exceed Mass Loading Limit.* EPA took comment on an alternative option that would consider all wastes generated during the year to be hazardous if the mass loading limit for a CoC in the wastes is met or exceeded at any time during the year. Commenters on the proposed rule did not support this option. They argued that this alternative is not necessary or practical for several reasons. First, waste quantities determined to be nonhazardous based on the results of the risk assessment would be subject to hazardous waste regulation. Second, it would require the waste generators to accurately forecast customer demand for products and the amount of constituents in wastes over a one year period from highly variable waste streams that often result from batch manufacturing processes. Third, customers may have to be turned away and potential new products put on hold if a company's forecast for the mass of any CoC in its wastes is approached before the end of the calendar year and the wastes have been disposed in a nonhazardous landfill. Finally, waste management facilities (for nonhazardous wastes) may not accept such nonhazardous wastes if the wastes may later be declared hazardous.

EPA generally agrees with the concerns stated by the commenters on the alternative option. We noted some of these concerns in the proposed rule as part of our request for comment on this option. Specifically, we agree that the alternative approach would cause significant difficulties for waste management facilities that might accept initial batches of wastes as nonhazardous, but later find that these wastes are declared hazardous. As a result, the generators may have difficulty in finding waste management facilities that would accept wastes as nonhazardous under this approach. Therefore, we are finalizing the proposed approach, which considers all K181 potential wastes generated up to the mass loading limits of the CoCs to be nonhazardous and allows these wastes to be managed as nonhazardous. In other words, the K181 listing would apply to only the portion of wastes that meets or exceeds the mass loading limits for any of the K181 CoCs in a calendar year.

While the K181 listing only applies to wastes that meet or exceed the mass loading limits, the Agency notes that the annual mass loading limits, the landfill design requirements, and treatment in specified combustion units are conditions of the listing. Dyes and/or pigments nonwastewaters become K181 wastes unless a generator fulfills one of these conditions. If one or more of these conditions are not met, EPA or authorized states could bring enforcement actions for violations of hazardous waste requirements against anyone who has not managed the waste in compliance with applicable Subtitle C requirements. Furthermore, EPA can take action under section 7003 of RCRA if the management of dyes and/or pigment nonwastewaters may pose an imminent and substantial endangerment to human health or the environment. Thus, we advise generators to properly store nonwastewaters that are potentially hazardous under the K181 listing. At a minimum, we encourage generators to store all wastes in proper containers (*i.e.*, such that wastes are not placed directly on the ground) prior to disposal.

b. *Using Knowledge of Wastes To Demonstrate that Wastes are Nonhazardous.* EPA proposed that waste generators who generate or expect to generate 1,000 metric tons per year or less of K181 categorized wastes would have the option of using knowledge of their wastes to demonstrate that their wastes are nonhazardous. On the other hand, we proposed that generators who generate more than 1,000 metric tons per year (MT/yr) of K181 would be required to use the more extensive procedures in § 261.32(d)(3), which include a requirement to test for constituents reasonably expected to be present. Commenters objected to EPA's proposal that would limit who could use knowledge of their wastes to demonstrate that their wastes are nonhazardous. They stated that all waste generators should have the option of using knowledge to demonstrate that their wastes are nonhazardous, irrespective of how much waste they generate. This is because, in most cases, commenters believe that testing of wastes by generators is unnecessary and burdensome. They pointed out that waste generators have sufficient knowledge about their wastes to make appropriate determinations for any quantity of wastes that they generate. They also noted that the wastes do not contain many of the proposed CoCs for K181 and, when present, they are not likely to exceed threshold quantities. Finally, the commenters emphasized that, if toluene-2,4-diamine is not present in the wastes and the wastes are being disposed in lined landfills, then the testing requirements are irrelevant and should be deleted.

We proposed and are finalizing that all manufacturers can use knowledge of their wastes to determine which K181 constituents of concern are reasonably expected to be present in their wastes. However, we do not agree that manufacturers who generate more than 1,000 MT/yr should have the option to use knowledge to determine the level of K181 CoCs present in their wastes. This is in part because, as stated in the proposal, we believe that the larger quantities of wastes have the potential for posing greater environmental risks than smaller quantities of wastes if a nonhazardous determination based on knowledge turns out to be inaccurate (*see* 68 FR 66202). In addition, as discussed previously (section IV.A.6), we believe that the information available indicates that the constituents of concern are present in dye/pigment production wastes, and that the levels of the constituents have the potential to exceed the annual mass loading limits. Therefore, we believe that it is reasonable to require larger quantity waste generators to test their wastes. Test data represent the best information that can be obtained on the concentrations of CoCs present in the waste and for use in determining the mass loading levels for CoCs, because waste testing provides a direct indication of constituent levels. It should also be noted that, based on the conditional nature of the final listing

determination, the generators who generate more than 1,000 metric tons per year of K181 would only have to test their wastes if they are managing them in a landfill that does not meet the liner standards identified in the listing. That is, if such generators are managing their wastes in lined landfills that are subject to (or otherwise meet) § 258.40, 264.301 or 265.301, there is no need to determine the levels of K181 CoCs and thus no need to test. Finally, we note that if facilities generating 1,000 MT/yr or less use some level of waste analysis data to determine the levels of CoCs present, they are still only subject to the requirements in § 261.32(d)(2), and not the more extensive testing requirements in § 261.32(d)(3).

We are adding further language in the regulations to clarify when the generators are required to evaluate their wastes and to demonstrate their wastes are not hazardous. We have revised the beginning of § 261.32(d) to make it clear that only generators that do not dispose of the wastes in landfill units that meet the design requirements in the listing description are required to evaluate their wastes for CoCs under § 261.32(d)(1) through § 261.32(d)(3). Generators that dispose of their wastes in landfills meeting the specified design requirements do not have to evaluate their wastes, however they must document the disposal in an appropriate landfill (§ 261.32(d)(4)). Furthermore, we added language to the beginning of § 261.32(d)(3) to clarify that all steps in this subparagraph must be completed.

c. *Use of the Maximum Detected Concentration or a Concentration Based on the 95th Percentile Upper Confidence Limit of the Mean.* EPA proposed that waste generators use the maximum detected concentration or, if multiple samples are collected, use either the maximum concentration or a concentration based on the 95th percentile upper confidence limit of the mean (UCLM) in order to determine the mass of a CoC in the waste. Commenters did not support the use of the maximum concentration, since they believe it is overly conservative and would overstate the mass loading generated by a facility. The commenters also considered the use of a concentration based on the 95th percentile UCLM as complicated and open to interpretation. Instead of requiring the use of the maximum concentration or a concentration based on the 95th percentile UCLM, commenters suggested that waste generators should be allowed to use rolling averages, or average concentrations, or median concentrations.

To ensure protection of human health and the environment, we want to be reasonably conservative and see that generators use the most appropriate concentrations of CoCs to calculate the mass of each CoC in the wastes. Therefore, the use of rolling averages, average concentrations, or median concentrations would not be appropriate. Rolling averages and average concentrations are based on the simple average of the measured concentrations, with no statistical measure of the confidence limit associated with these concentrations. Therefore, the use of simple averages would not account for the possibility of a wide variability in the levels of CoCs in the waste. The median is simply the middle value in the data (*i.e.*, one-half of the values are above the median, and one-half are below it) and may not be representative of the average concentration of a CoC in the waste.

The use of maximum sample concentration is appropriate when the waste generator takes insufficient samples of a particular amount of waste. In general, because potential K181 wastes are likely to be highly variable, waste generators should be taking multiple samples to properly characterize the wastes. For multiple samples, the waste generator may use the maximum detected concentration or a concentration based on the 95th percentile upper confidence limit of the mean for a CoC. The upper confidence limit approach takes into account the variability of the waste and provides a measure of confidence that the mean concentration is below the upper bound of the confidence limit. Thus, using the 95th percentile upper confidence limit of the mean for a CoC gives a greater degree of confidence that its mass in the waste is below the mass loading limit. The 95th percentile upper confidence limit calculation, although it requires some statistical analysis, is relatively simple to calculate and has been used in other parts of the RCRA program (*e.g.*, see the implementation of the Comparable/Syngas Fuel Exclusion under 40 CFR 261.38(c)(8)(iii)(A)). [Use of the 95th percentile upper confidence level provides assurance that the mass loadings established in the regulation will be protective of human health and the environment.]

d. *Onsite Recordkeeping Requirements.* EPA proposed onsite recordkeeping requirements to support a nonhazardous determination. These included keeping records on waste sampling and analysis. Commenters questioned the need for waste analysis and onsite recordkeeping requirements associated with waste analysis if toluene-2,4-diamine is not present in the waste and the wastes are being disposed in a lined landfill. The commenters stated that EPA, at most, should require records of wastes limited to proof of transportation to the appropriate landfill.

As described previously, the Agency has reviewed the comments on toluene-2,4-diamine and has decided to no longer include toluene-2,4-diamine as a constituent of concern for K181. As a result of this decision, one of the two conditions that were proposed for the dyes and/or pigment nonwastewaters to be considered nonhazardous under the landfill exemption has been eliminated. The only remaining condition for these wastes to be considered nonhazardous in the final listing is for the wastes to be disposed in a landfill unit that meets the liner design standards specified in the listing description. (As discussed in section IV.A.3, the listing also includes an exemption for combustion.) Therefore, as long as the wastes are being disposed in these types of landfills, the waste generators do not have to test or maintain records associated with waste sampling or testing. The Agency agrees that records demonstrating that each shipment of waste was received by an acceptable type of landfill must be maintained.

A generator claiming that it is not subject to the listing would have to maintain sufficient documentation to demonstrate that it has not exceeded the relevant annual mass loading limits, that it has sent its waste to a landfill meeting the liner design standards specified under the conditional exemption, or that the waste was treated in a permitted combustion unit as specified in the listing description. EPA believes that it is critical for generators to have documentation demonstrating that the waste is below the mass loading limits, or that shipments of waste have been (or will be) sent to landfills meeting the specified design requirements or combustion units as specified in the listing. Paragraphs (d)(1), (d)(2), (d)(3) and (d)(4) of § 261.32 of the rule require generators of dyes and/or pigment nonwastewaters from the listed product classes to keep records under the authority of sections 2002 and 3007 of RCRA. Failure to comply with the recordkeeping requirements could result in an enforcement action by EPA under section 3008 of RCRA or by an authorized State under similar State authorities. Without adequate documentation, the regulating agency may presume that the generator is not complying with the requirements for

demonstrating that the wastes are nonhazardous.

Note that in the final rule, we are also clarifying that the requirement for keeping records on site for three years under paragraphs (d)(2) and (d)(3) refers to the three most recent calendar years by including more specific text in § 261.32(d)(2)(iv) and § 261.32(d)(3)(x) (*i.e.*, "Keep the following records on site for the three most recent calendar years in which the hazardous waste determinations are made"). We believe this clarification makes the recordkeeping requirement more consistent with the calendar year basis of the annual loading limits.

Below we provide examples to illustrate the types of records that need to be kept on site for two facilities, one that sends all wastes to a municipal landfill, and another that tests their waste.

Example 1: Facility D is a producer of a variety of in-scope organic dyes and pigments, generating 2,000 metric tons per year of wastewater treatment sludges. The generated wastes do not exhibit any hazardous waste characteristic nor meet any other listing descriptions. While the total quantity of wastes exceeds 1,000 MT/yr, the facility decides to send all of the wastes to a municipal landfill where the receiving units meet the liner design criteria of § 258.40. Therefore, the facility has no obligation to test for the presence of CoCs. To comply with the recordkeeping requirements of § 261.32(d)(4), the facility keeps records on site for three years to show that shipments of the wastes received by the landfill are disposed of properly. These records include documentation of the types of wastes shipped, shipping records from the transporter and the landfill documenting receipt of the waste shipment, and documentation from the landfill or state indicating that the landfill units meet the § 258.40 design standards.

Example 2: Facility E is a producer of in-scope organic dyes and pigments generating 3,500 MT/yr of process sludges. Facility E would like to manage as much as possible of the 3,500 MT as nonhazardous (*e.g.*, dispose of the waste in an industrial landfill that does not meet the liner criteria specified in the listing description), as long as the wastes are below the mass-loading limits in § 263.32(c). Since the total volume of nonwastewaters exceeds 1,000 MT/yr, the facility must follow the procedures set forth in § 263.32(d)(3) to determine the status of its nonwastewaters.

Therefore, the facility first determines that one of the K181 listing constituents is expected to be present in the facility's wastes (4-chloroaniline). This determination is based on the raw materials used for manufacturing, the impurities likely present in the process feeds, and the production chemistry involved. The facility documents this finding using the MSDS sheets for the materials used, the process reaction information reviewed, and the results of past analyses performed.

The facility develops a sampling and analysis plan that includes the requirements of § 263.32(d)(3)(iii) for characterizing the levels of the K181 constituents present in the wastes destined for disposal in an industrial landfill that does not meet the liner requirements. The facility collects and analyzes representative waste samples according to the developed sampling and analysis plan and the § 263.32(d)(3)(iv) testing requirements. The analytical results show that the annual amount of waste contains up to 6,800 kg/yr of 4-chloroaniline. The facility maintains on site the sampling and analysis plan, documents showing the analytical results and the accompanying quality assurance/quality control (QA/QC) data, and records showing the waste batches and quantities represented by the test results.

The facility keeps a running total of the 4-chloroaniline mass loadings determined throughout the year and documents the calculations performed. The facility manages those batches with cumulative mass loadings of less than 4,800 kg/yr of 4-chloroaniline as nonhazardous waste, and ships them to an industrial landfill that does not meet the design requirements of § 258.40, § 264.301, or § 265.301. The facility is careful to document the mass loadings in those batches. The facility ships the remaining waste to a municipal landfill subject to the § 258.40 design criteria. The facility keeps all of the above waste determination and management records on site for three years.

e. *Annual Follow-up Testing Requirements.* EPA proposed that waste generators continue to perform waste analysis annually after the wastes have been determined to be nonhazardous for the purpose of verifying that the wastes remain nonhazardous. However, we also proposed that the annual testing requirements for the wastes could be suspended if the annual running total mass levels for the CoCs during any three consecutive years based on the sampling and analysis results for the CoCs in the wastes are determined to be nonhazardous. We also proposed that following a significant process change (*i.e.*, if it could result in significantly higher levels of the CoCs for K181 in the wastes and greatly increase the potential for the wastes to become hazardous), the annual testing requirements for the wastes would be reinstituted. Commenters questioned the need for annual testing requirements over a period of at least three years. They believe that, after a demonstration that the wastes are nonhazardous for one year, annual follow-up testing requirements are not necessary, unless there is a significant change in the process. Also, if there is a significant process change, the commenters believe that a one year repeat demonstration should be considered sufficient to demonstrate that the wastes remain nonhazardous. In addition, commenters believe that there is no reason for annual testing of wastes disposed in lined landfills, if they do not contain toluene-2,4-diamine or if the concentration of toluene-2,4-diamine in the wastes does not change. Finally, commenters pointed out that EPA, in other hazardous waste exclusions, required an initial demonstration and repeat demonstration only when there is a significant change in the process that generates the wastes.

The Agency notes that toluene-2,4-diamine is no longer a constituent of concern for the K181 waste listing. Therefore, any waste generator that is disposing of these wastes in a landfill unit subject to the liner design criteria specified in the listing description, is not required to test or conduct repeat testing under the conditional final listing for the dyes and/or pigments nonwastewaters. However, any large waste generator that tests their wastes and is not disposing of them in this type of landfill (or treating the waste by combustion as specified in the listing) is subject to the testing requirements (as proposed) in today's final rule at § 261.32(d)(3). This is because the wastes produced by the dyes and/or pigments industries using batch processes can be highly variable.[31] As a result, we do not believe that testing for one year is sufficient to demonstrate that the waste would remain nonhazardous over a sufficiently long period of time. Thus, the Agency is requiring test data to show that the dyes and/or pigment wastes are nonhazardous for three consecutive years to provide a greater degree of confidence in the waste determination. The follow-up testing can only be suspended if it is demonstrated that the wastes are nonhazardous for three consecutive years.

10. Exemption for Non-Municipal Landfills

The proposed rule included an exemption for wastes disposed in landfill units that are subject to the liner design requirements in § 258.40. This

[31] As ETAD indicated in its comment that "Dyes production involves batch processes, numerous distinct products and highly variable waste streams * * *"

was based on our risk analysis that demonstrated that wastes disposed in landfills with composite liners did not present significant risks for K181 dye and pigment wastes. (In the proposal, we also included a mass-loading limit for toluene-2,4-diamine for composite-lined units, but as noted previously, we are dropping this constituent in the final rule.) We also sought comment on the option of including in the exemption wastes that are disposed in other non-municipal landfills (industrial landfills) that meet the liner design requirements in § 258.40 or Subtitle C landfills. One commenter indicated that, since lined landfills do not pose a significant risk for disposal of the waste, manufacturers generating potential K181 waste should have the option of utilizing synthetic membrane lined industrial landfills which are as protective as lined municipal landfills. The commenter suggested that the generators could be responsible for assuring that a landfill is designed with an appropriate synthetic liner system.

After considering this issue fully, we agree that it would be appropriate to include industrial landfill units (*e.g.*, non-municipal landfill units) in the landfill exemption for the K181 listing, provided the units meet the specified liner design standards. While the available information indicates that generators are using primarily municipal landfills for disposal of dyes and pigment manufacturing wastes, comments submitted (see CPMA comments, Appendix B) indicate that industrial landfills are in use to some extent. We do not wish to preclude use of commercial industrial landfills that meet the liner standards for municipal landfills in § 258.40 (or for subtitle C landfills). As the commenter suggested, the generator would be responsible for documenting that the landfill meets the specified liner standards. States have regulations governing the design of non-municipal non-hazardous landfills.[32] Thus landfill operators are likely to have certifications or permit conditions available to provide to generators who wish to use such landfills instead of municipal landfill units. As described previously in the discussion on recordkeeping requirements, generators wishing to qualify for the exemption are required to maintain records to show that they are using an appropriate landfill unit, whether the unit is a municipal landfill, subtitle C landfill, or an industrial landfill. Therefore, we are finalizing the listing to include an exemption for wastes disposed in subtitle D landfills that meet the design requirements in § 258.40, § 264.301, or § 265.301. The landfill exemption in the K181 listing now reads as follows (the final rule also includes an exemption for certain combustion units, as well):

> These wastes will not be hazardous if the nonwastewaters are: (i) Disposed in a subtitle D landfill unit subject to the design criteria in § 258.40, (ii) disposed in a subtitle C landfill unit subject to either § 264.301 or § 265.301, (iii) disposed in other subtitle D landfill units that meet the design criteria in § 258.40, § 264.301, or § 265.301, or (iv) treated in a combustion unit that is permitted under subtitle C, or an onsite combustion unit that is permitted under the Clean Air Act.

B. Final "No List" Determination for Wastewaters

The Agency proposed not to list as hazardous wastewaters from the production of dyes and/or pigments. We received numerous comments supporting this proposal, and no adverse comments on this proposed decision. We have not independently learned of any new information requiring us to change our position on these wastes. Therefore, we are making a final decision not to list wastewaters from the production of dyes and/or pigments.

C. What Is the Status of Landfill Leachate Derived From Newly-Listed K181 Wastes?

As noted in the proposed rule, actively managed landfill leachate and gas condensate generated at non-hazardous waste landfills derived from previously-disposed and newly-listed wastes could be classified as K181. We proposed to temporarily defer the application of the new waste code to such leachate to avoid disruption of ongoing leachate management activities while the Agency decides if any further integration is needed of the RCRA and CWA regulations consistent with RCRA section 1006(b)(1).

We are finalizing the revisions to the temporary deferral in § 261.4(b)(15) with no change from the proposed rule. Commenters generally supported the proposed deferral. However, two commenters stated that EPA should make the deferral permanent. One of the commenters stated that the various approaches used by EPA in listings, including the mass loadings approach proposed for the current dyes and pigments waste listing, creates uncertainty for the municipal landfill operator regarding leachate management. The other commenter also urged EPA to expand this deferral to include leachate that is derived from a surface impoundment.

As we noted in the proposal, we believe a temporary deferral is warranted. We believe that it is appropriate to defer regulation on a case-by-case basis to avoid disrupting leachate management activities, and to allow us to decide whether any further integration of the two programs is needed.[33] While the commenter suggested there were "uncertainties" in leachate management requirements, no specific problems were identified. In any case, a broader exemption for landfill leachate is beyond the scope of the current rulemaking. Similarly, we see no need to expand the deferral to include leachate from surface impoundments, as well as landfills. The issues raised by this commenter relate to the management of leachate from closed surface impoundments located on site. We believe that these issues are site-specific and are best left to the local regulatory agency. Therefore, we are not expanding the deferral to include impoundment leachate.

One commenter sought clarification on our use of the term "active management," in the context of our statement in the proposal that "The Agency often uses the term 'active management' as a catch-all term to describe the types of activities that may trigger RCRA subtitle C permitting requirements." (See 68 FR 66199, Footnote 57). The commenter noted that actions not requiring a permit may be active management and wanted to clarify that active management would include situations like 90-day storage of excavated K181 waste, which does not require a permit. The commenter is correct. We did not mean to imply that active management can only occur for actions requiring a RCRA subtitle C permit. In the case of a typical listed waste, excavated wastes stored in 90-day containers (*e.g.*, roll-off bins) would indeed be considered "active management" and carry the hazardous waste code designation. For the K181 listing, however, the only excavated wastes that could carry the K181 designation would be wastes that meet or exceed the mass loadings of any of the specified constituents. Furthermore, if the excavated waste is disposed in a suitable landfill that is subject to or

[32] Association of State and Territorial Solid Waste Management Officials ("ASTSWMO"), *Non-Municipal, Subtitle D Waste Survey.*

[33] EPA's Office of Water examined the need for national effluent limitations guidelines and pretreatment standards for wastewater discharges (including leachate) from certain types of landfills (see proposed rule at 63 FR 6426, February 6, 1998). EPA decided such standards were not required and did not issue pretreatment standards for Subtitle D landfill wastewaters sent to POTWs (see 65 FR 3008, January 19, 2000).

meets the specified design criteria, or treated by combustion as specified in the listing description, then the waste would be exempt from the listing.

D. What Are the Final Treatment Standards Under RCRA's Land Disposal Restrictions for the Newly-Listed Hazardous Wastes?

1. What are EPA's Land Disposal Restrictions (LDRs)?

The RCRA statute requires EPA to establish treatment standards for all wastes destined for land disposal. These are the so called "land disposal restrictions" or LDRs. For any hazardous waste identified or listed after November 8, 1984, EPA must promulgate LDR treatment standards within six months of the date of identification or final listing (RCRA section 3004(g)(4), 42 U.S.C. 6924(g)(4)). RCRA also requires EPA to set as these treatment standards "* * * levels or methods of treatment, if any, which substantially diminish the toxicity of the waste or substantially reduce the likelihood of migration of hazardous constituents from the waste so that short-term and long-term threats to human health and the environment are minimized." RCRA section 3004(m)(1), 42 U.S.C. 6924(m)(1). Once a hazardous waste is prohibited, the statute provides only two options for legal land disposal: Meet the treatment standard for the waste prior to land disposal, or dispose of the waste in a land disposal unit that satisfies the statutory no migration test. A no migration unit is one from which there will be no migration of hazardous constituents for as long as the waste remains hazardous. RCRA sections 3004 (d), (e), (f), and (g)(5).

We are finalizing the prohibitions and treatment standards for the K181 wastes which we are listing as hazardous. The date of the prohibition and treatment standard is August 23, 2005.

2. How Does EPA Develop LDR Treatment Standards?

In an effort to make treatment standards as uniform as possible, while adhering to the fundamental requirement that the standards must minimize threats to human health and the environment, EPA developed the so called Universal Treatment Standards (codified at 40 CFR 268.48). Under the UTS, whenever technically and legally possible, the Agency adopts the same technology-based numerical limit for a hazardous constituent, regardless of the type of hazardous waste in which the constituent is present. See 63 FR 28560 (May 26, 1998); 59 FR 47982 (September 19, 1994). The UTS, in turn, reflects the performance of Best Demonstrated Available Treatment (BDAT) technologies of the constituents in question. EPA is also authorized in section 3004(m) to establish methods of treatment as a treatment standard. Doing so involves specifying an actual method by which the waste must be treated (unless a variance or determination of equivalency is obtained). Given this constraint, EPA prefers to establish numerical treatment standards, which leaves the option of using any method of treatment (other than impermissible dilution) to achieve the treatment standard.

EPA also finds that the treatment standards established in today's rule are not established below levels at which threats to human health and the environment are minimized. See Hazardous Waste Treatment Council v. EPA, 886 F. 2d 355, 362 (D.C. Cir. 1990). That case held that the statute can be read to allow either technology-based or risk-based standards, and further held that technology-based LDR treatment standards are permissible so long as they are not established "beyond the point at which there is no 'threat' to human health or the environment." Id. at 362. EPA's finding that today's standards are not below a "minimize threat" level is based on the Agency's inability at the present time to establish concentration levels for hazardous constituents which represent levels at which threats to human health and the environment are minimized. See 63 FR at 28560 (May 26, 1998) explaining at greater length why these difficulties remain. Thus, the Agency continues to find that technology-based standards remain the best approach for the national treatment standards for these wastes since such standards eliminate as much of the inherent uncertainty of hazardous waste land disposal and so fulfill the Congressional intent in promulgating the land disposal restrictions provisions. 55 FR at 6642 (Feb. 26, 1990).

3. What Are the Treatment Standards for K181?

Of the seven CoCs that form the basis of the final listing, two of them—aniline and 4-chloroaniline—have an existing UTS. For two of the other CoCs—o-anisidine, p-cresidine—there is adequate documentation in existing SW–846 methods 8270, 8315, and 8325 to calculate numerical standards. Finally, for two other constituents—2,4-dimethylaniline and 1,3-phenylenediamine—we are transferring the numerical standards of similar constituents as the universal treatment standards.

In the proposal, we had stated that if the numerical standards for these constituents were shown in comments not to be achievable or otherwise appropriate, we might adopt methods of treatment as the exclusive treatment standard. We did not receive any such comments suggesting that these numerical standards were not achievable or otherwise appropriate. Therefore, we are finalizing the proposed numerical treatment standards for these six CoCs.

For the remaining constituent of concern, 1,2-phenylenediamine, we stated in the proposed rule that in past method performance evaluations, we have found it difficult to achieve reliable recovery from aqueous matrixes and precise measurements. Therefore, we proposed technology-specific LDR treatment standards for this constituent. We also noted that if commenters submitted data adequate for us to develop a numerical standard, then we might promulgate a numerical standard in addition to, or in lieu of, the technology standard.

Because we did not receive data on 1,2-phenylenediamine, we are maintaining the technology-specific standard as the LDR treatment standard, with one change. We are expanding the treatment options for K181 nonwastewaters to include, in addition to combustion (CMBST), a treatment train of chemical oxidation (CHOXD) followed by BIODG (biodegradation) or CARBN (carbon adsorption) and a treatment train of BIODG followed by CARBN. We are making this change based on a comment we received on the proposed rule. The commenter asserted that the proposed LDR standard of CMBST has the potential to significantly disrupt the company's on-site biosolids disposal. More specifically, because of the mixture and derived-from rule, if the facility were to accept into its wastewater treatment facility wastes that meet the nonwastewater definition of K181, and it contains 1,2-phenylenediamine, the biosolids resulting from treatment would have to be combusted.

In the above scenario, we do not believe it makes sense to establish a treatment standard that would require the wastewater treatment biosolids to be combusted. As the commenter points out, and with which we agree, if a facility were to introduce a nonwastewater into its wastewater treatment system, the nonwastewater would immediately become a wastewater (by LDR definition) and would be amenable to treatment by a wastewater treatment system. Therefore, we are adding to the LDR treatment

standard for 1,2-phenylenediamine a treatment train of CHOXD followed by BIODG or CARBN and a treatment train of BIODG followed by CARBN. Note that the treatment standard for K181 wastes containing 1,2-phenylenediamine now is identical for wastewaters and nonwastewaters. We have revised the BDAT Background Document to reflect this change and placed it in the docket for today's rule.

The following table summarizes the final treatment standards for the constituents of concern.

TABLE IV–I.—TREATMENT STANDARDS FOR CONSTITUENTS IN K181

Constituents of concern	CAS No.	Wastewater (mg/L)	Nonwastewater (mg/kg)
Aniline	62–53–3	0.81	14
o-Anisidine (2-methoxyaniline)	90–04–0	0.010	0.66
4-Chloroaniline	106–47–8	0.46	16
p-Cresidine	120–71–8	0.010	0.66
2,4-Dimethylaniline (2,4-xylidine)	95–68–1	0.010	0.66
1,2-Phenylenediamine	95–54–5	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN
1,3-Phenylenediamine	108–45–2	0.010	0.66

Note: "fb" means "followed by."

In this final rule, we are also finalizing the following provisions, all of which are consistent with the proposed rule. See the Response to Comments Background Document for other LDR-specific issues raised in comments.

—We are adding the CoCs in K181 with numerical treatment standards to the Universal Treatment Standards listed at 40 CFR 268.48, which results in the addition of four new chemicals to the list: o-anisidine, p-cresidine, 2,4-dimethylaniline, and 1,3-phenylenediamine. Adding these constituents to the UTS list will ensure that, if they are present in a characteristic waste, they will be treated prior to land disposal, which in turn will minimize any risks they present to human health and the environment. (**Note:** Because toluene-2,4-diamine is not being included as a constituent of concern for this waste, it will no longer be added to the UTS list at 40 CFR 268.48.)

—We are adding to F039 those constituents identified in K181 not already specified in F039 (the same constituents named above for addition to the UTS list). F039 applies to landfill leachates generated from multiple listed wastes in lieu of the original waste codes. F039 wastes are subject to numerical treatment standards equivalent to the universal treatment standards listed at 40 CFR 268.48. Making this change ensures F039 landfill leachates receive proper treatment for the CoCs in K181.

—For debris contaminated with K181 waste, the provisions in § 268.45 apply. This means debris contaminated with K181 would be required to be treated prior to land disposal, using specific technologies from one or more of the following families of debris treatment technologies: extraction, destruction, or immobilization. If such debris is treated by immobilization, it remains a hazardous waste and must be managed in a hazardous waste facility. Residuals generated from the treatment of debris contaminated with K181 would remain subject to the treatment standards being finalized today.

—We are prohibiting K181 wastes from underground injection. Therefore, K181 wastes may not be injected underground, unless they meet the LDR treatment standards or are injected into a Class 1 well from which it has been determined that there will be no migration of hazardous constituents for as long as the wastes remain hazardous.

E. Is There Treatment Capacity for the Newly Listed Wastes?

1. Introduction

Under the land disposal restrictions (LDR) determinations, the Agency must demonstrate that adequate commercial capacity exists to manage listed hazardous wastes in compliance with the LDR treatment standards before the Agency can restrict the listed waste from further land disposal. The Agency performs capacity analyses to determine the effective date of the LDR treatment standards for the proposed listed wastes. This section summarizes the results of EPA's capacity analysis for the wastes covered by today's rule. For a detailed discussion of capacity analysis-related data sources, methodology, and analysis results for the wastes covered in this rule, see "Background Document for Capacity Analysis for Land Disposal Restrictions: Newly Identified Dye and Pigment Manufacturing Wastes (Final Rule), February 2005" (*i.e.*, the Capacity Background Document), available in the RCRA docket established for today's final rule.

EPA's decisions on whether to grant a national capacity variance are based on the availability of alternative treatment or recovery technologies capable of achieving the prescribed treatment standards. Consequently, the methodology focuses on deriving estimates of the quantities of newly-listed hazardous waste that will require either commercial treatment or the construction of new onsite treatment or recovery technology as a result of the LDRs. The resulting estimates of required commercial capacity are then compared to estimates of available commercial capacity. If adequate commercial capacity exists, the waste is prohibited from further land disposal, unless it meets the LDR treatment standards prior to disposal. If adequate capacity does not exist, RCRA Section 3004(h)(2) authorizes EPA to grant a national capacity variance for the waste for up to two years or until adequate alternative treatment capacity becomes available, whichever is sooner.

2. What Are the Capacity Analysis Results for K181?

In the proposed rule, EPA estimated nonwastewater quantities applying engineering estimates of wastewater treatment sludge generation rates and, wherever possible, using information provided in non-CBI portions of the RCRA section 3007 surveys and public comments in response to the 1994 and 1999 proposed rules for dyes and pigments production wastes. EPA received comments in response to the November 25, 2003 proposed rule (68 FR 66164), which stated that the Agency overestimated the amount of

nonwastewaters generated by the dyes and pigments production industry. We reviewed the information submitted by commenters on waste characteristics, quantities, and management practices. EPA found some data discrepancies and deficiencies that limit the use of the submitted data (*see* discussion on waste quantities in section IV.A.5). However, we believe the additional data from the commenters provide useful information on the likely waste quantities generated. Therefore, we have analyzed the commenters' data and revised our estimated waste quantities affected by this rule. We recognize that the actual quantity of waste requiring commercial treatment will probably be smaller due to waste-specific assessments of actual K181 CoC loadings, use of the contingent management exemptions, facility closures, changes in product formulations, or waste management practices. We also recognize the batch process nature of this industry and the speed at which facilities may change product formulations. Even relying on the larger quantities estimated for the proposed rule, we find more than adequate waste management capacity exists to accommodate wastes that would be treated or disposed as a result of today's rule.

As described in section IV.D.3 above, EPA is finalizing numerical treatment standards or methods of treatment as the treatment standards for the CoCs of the newly listed K181 waste. We expect that the CoCs in the nonwastewater or wastewater (if K181-derived wastewater is generated) forms of K181 are amenable to the treatment by combustion or other technologies in a treatment train. EPA estimates that, at most, approximately 36,000 metric tons per year of nonwastewater forms of K181 may require alternative commercial treatment and be managed off site at a commercial hazardous waste treatment facility. Furthermore, EPA anticipates that much less than 36,000 metric tons per year of the wastes may require combustion capacity because not all of these wastes are expected to exceed the mass loading limits. Furthermore, these wastes would not be hazardous if the nonwastewaters are disposed in a landfill unit that meets liner design criteria specified in the listing description, or are treated in certain combustion units. Therefore, these wastes will not require treatment to meet LDR treatment standards. In any case, we estimate that the commercially available combustion capacity for sludge, solid, and mixed media/debris/devices is approximately 0.5 million tons per year and, therefore, sufficient to treat the newly listed waste which may require treatment. We also expect that adequate landfill capacity exists for managing residuals from treating these wastes. Also, there is adequate wastewater treatment capacity available should the need for treatment of the wastewater form of K181 wastes arise. In addition, we are not listing wastewaters generated at these facilities, so there is no need for additional treatment of wastewater from the production of dyes and/or pigments (other than K181-derived wastewaters). No commenters challenged either the variance determination or available treatment or disposal capacity for nonwastewater or wastewater forms of K181 wastes. Therefore, we conclude that sufficient treatment or disposal capacity is available to manage newly-listed K181 wastes.

As discussed in section IV.D, we are also finalizing the addition of the CoCs in K181 with numerical standards to the constituent listed in F039 and the universal treatment standards. EPA does not anticipate that waste volumes subject to the treatment standards for F039 or characteristic wastes would increase because of the addition of these organic constituents to F039 and the UTS lists. Based on available data, waste generators already appear to be required to comply with the treatment requirements for other organic constituents in F039 and characteristic wastes. We received no comments, data, or information to warrant any change of this conclusion. Therefore, we expect that additional treatment due to the addition of the constituents to the F039 and UTS lists will not be required. When changing the treatment requirements for wastes already subject to LDR (including F039 wastes), EPA no longer has authority to use RCRA § 3004(h)(2) to grant a capacity variance to these wastes. However, EPA is guided by the overall objective of section 3004(h), namely that treatment standards which best accomplish the goal of RCRA § 3004(m) (to minimize threats posed by land disposal) should take effect as soon as possible, consistent with availability of treatment capacity.

For soil and debris contaminated with K181, as indicated in the proposed rule, we believe that the vast majority of contaminated soil and debris, if any, will be managed on site and, therefore, would not require substantial commercial treatment capacity. Thus, we proposed not to grant a national capacity variance for hazardous soil and debris contaminated with this newly listed waste. EPA received no comments regarding this issue. There also were no data showing mixed radioactive wastes or underground injected wastes associated with the newly listed K181 based on the public information used in the proposed rule. Thus, we also proposed not to grant a national capacity variance for mixed radioactive waste (*i.e.*, radioactive wastes mixed with K181) or waste being injected underground. EPA did not receive comments indicating that the newly listed wastes are underground injected or that they are mixed with radioactive wastes or with both radioactive wastes and soil or debris.

Therefore, EPA is finalizing its decision not to grant a national capacity variance for wastewater and nonwastewater forms of K181 wastes. We also are finalizing our decision not to grant a national capacity variance for hazardous soil and debris contaminated with the newly listed wastes, radioactive wastes mixed with K181 or contaminated soil or debris of K181, or K181 wastes being injected underground. The customary time period of six months is sufficient to allow facilities to determine whether their wastes are affected by this rule, to identify onsite or commercial treatment and disposal options, and to arrange for treatment or disposal capacity, if necessary. Therefore, LDR treatment standards for the affected wastes covered under today's rule become effective when the listing determinations become effective—the earliest possible date. This conforms to RCRA § 3004(h)(1), which indicates that land disposal prohibitions must take effect immediately when there is sufficient protective treatment capacity available for the waste.

Finally, EPA may consider a case-by-case extension to the effective date based on the requirements outlined in 40 CFR 268.5, which includes a demonstration that adequate alternative treatment, recovery, or disposal capacity for the petitioner's waste cannot reasonably be made available by the effective date due to circumstances beyond the applicants' control, and that the petitioner has entered into a binding contractual commitment to construct or otherwise provide such capacity.

V. When Must Regulated Entities Comply With the Provisions in Today's Final Rule?

A. Effective Date

The effective date of today's rule is August 23, 2005. These provisions, promulgated under HSWA authorities, will take effect in both the federal regulations and authorized state programs at that time.

B. Section 3010 Notification

Under RCRA § 3010, the Administrator may require all persons who handle hazardous wastes to notify EPA of their hazardous waste management activities within 90 days after the wastes are identified or listed as hazardous. This requirement may be applied even to those generators, transporters, and treatment, storage, and disposal facilities (TSDFs) that have previously notified EPA with respect to the management of other hazardous wastes. The Agency has decided to waive this notification requirement for persons who handle wastes that are covered by today's hazardous waste listing and already have (1) notified EPA that they manage other hazardous wastes, and (2) received an EPA identification number. The Agency has waived the notification requirement in this case because it believes that most, if not all, persons who manage the wastes listed as hazardous in today's rule already have notified the Agency and received an EPA identification number. However, any person who generates, transports, treats, stores, or disposes of this newly listed waste and has not previously received an EPA identification number must obtain an identification number pursuant to 40 CFR 262.12 to generate, transport, treat, store, or dispose of these hazardous wastes by May 25, 2005, for K181.

Note that nonwastewaters would not become newly listed K181 wastes if the constituent mass loadings do not meet the levels in § 261.32(c). If the wastes meet or exceed the mass loading limits, the wastes would also not be listed K181, provided the nonwastewaters are disposed in a landfill unit or treated in combustion unit as specified in the listing description. Persons who generate only wastes that meet one of these conditions need not notify EPA or obtain an identification number, because the waste would not be K181.

C. Generators and Transporters

Persons who generate newly identified hazardous wastes may be required to obtain an EPA identification number if they do not already have one (as discussed in section V.B above). If person(s) generate these wastes after the effective date of this rule, they will be subject to the generator requirements set forth in 40 CFR part 262. These requirements include standards for hazardous waste determination (40 CFR 262.11), compliance with the manifest (40 CFR 262.20 through 262.23), pre-transport procedures (40 CFR 262.30 through 262.34), generator accumulation (40 CFR 262.34), record keeping and reporting (40 CFR 262.40 to 262.44), and import/export procedures (40 CFR 262.50 through 262.60). The generator accumulation provisions of 40 CFR 262.34 allow generators to accumulate hazardous wastes without obtaining interim status or a permit only in certain specified units (container storage units, tank systems, drip pads, or containment buildings). These regulations also place a limit on the maximum amount of time that wastes can be accumulated in these units. If K181 wastes are managed in units that are not tank systems, containers, drip pads, or containment buildings as described in 40 CFR 262.34, accumulation of these wastes is subject to the requirements of 40 CFR parts 264 and 265, and the generator is required to obtain interim status and seek a permit (or modify interim status or a permit, as appropriate). Also, persons who transport newly identified hazardous wastes will be required to obtain an EPA identification number (if they do not already have one) as described above and will be subject to the transporter requirements set forth in 40 CFR part 263.

Nonwastewaters that do not meet the mass loading levels in § 261.32(c) are not listed K181. Furthermore, in cases where the wastes meet or exceed the mass loading limits, the wastes would also not be listed K181, provided the nonwastewaters are disposed in a landfill unit or treated in a combustion unit as specified in the listing description. Therefore, persons who generate or transport wastes that meet either of these conditions are not subject to the regulations governing hazardous waste generation and transport in part 262 and 263.

D. Facilities Subject to Permitting

The listing for dyes and/or pigment wastes, K181, in today's rule is issued pursuant to HSWA authority. Therefore, EPA will regulate the management of the newly listed hazardous waste until states are authorized to regulate these wastes.

1. Facilities Newly Subject to RCRA Permit Requirements

Facilities that treat, store, or dispose of K181 wastes that are subject to RCRA regulation for the first time by this rule (that is, facilities that have not previously received a permit pursuant to section 3005 of RCRA and are not currently operating pursuant to interim status), might be eligible for interim status (see section 3005(e)(1)(A)(ii) of RCRA). To obtain interim status based on treatment, storage, or disposal of such newly identified wastes, eligible facilities are required to comply with 40 CFR 270.70(a) and 270.10(e) by providing notice under section 3010 and submitting a Part A permit application no later than August 23, 2005. Such facilities are subject to regulation under 40 CFR part 265 until a permit is issued.

In addition, under section 3005(e)(3) and 40 CFR 270.73(d), not later than August 24, 2006, land disposal facilities newly qualifying for interim status under section 3005(e)(1)(A)(ii) also must submit a part B permit application and certify that the facility is in compliance with all applicable groundwater monitoring and financial responsibility requirements. If the facility fails to submit these certifications and a permit application, interim status will terminate on that date.

2. Existing Interim Status Facilities

Pursuant to 40 CFR 270.72(a)(1), all existing hazardous waste management facilities (as defined in 40 CFR 270.2) that treat, store, or dispose of the newly listed K181 wastes and are currently operating pursuant to interim status under section 3005(e) of RCRA, must file an amended part A permit application with EPA no later than the effective date of today's rule, (*i.e.*, August 23, 2005). By doing this, the facility may continue managing the newly listed wastes, pending final disposition of the permit application. If the facility fails to file an amended part A application by that date, the facility will not receive interim status for management of the newly listed hazardous wastes and may not manage those wastes until the facility receives either a permit or a change in interim status allowing such activity (40 CFR 270.10(g)).

3. Permitted Facilities

Facilities that already have RCRA permits must request permit modifications if they want to continue managing newly listed K181 wastes (*see* 40 CFR 270.42(g)). This provision states that a permittee may continue managing the newly listed waste by following certain requirements, including submitting a Class 1 permit modification request by the date on which the waste or unit becomes subject to the new regulatory requirements (*i.e.*, the effective date of today's rule), complying with the applicable standards of 40 CFR parts 265 and 266 and submitting a Class 2 or 3 permit modification request within 180 days of the effective date.

Generally, a Class 2 modification is appropriate if the newly listed wastes will be managed in existing permitted units or in newly regulated tanks, container units, or containment

buildings, and will not require additional or different management practices than those authorized in the permit. A Class 2 modification requires the facility owner to provide public notice of the modification request, a 60-day public comment period, and an informal meeting between the owner and the public within the 60-day period. The Class 2 process includes a "default provision," which provides that if the Agency does not reach a decision within 120 days, the modification is automatically authorized for 180 days. If the Agency does not reach a decision by the end of that period, the modification is authorized for the life of the permit (*see* 40 CFR 270.42(b)).

A Class 3 modification is generally appropriate if management of the newly listed wastes requires additional or different management practices than those authorized in the permit or if newly regulated land-based units are involved. The initial public notification and public meeting requirements are the same as for Class 2 modifications. However, after the end of the 60-day public comment period, the Agency will grant or deny the permit modification request according to the more extensive procedures of 40 CFR Part 124. There is no default provision for Class 3 modifications (*see* 40 CFR 270.42(c)).

Under 40 CFR 270.42(g)(1)(v), for newly regulated land disposal units, permitted facilities must certify that the facility is in compliance with all applicable 40 CFR part 265 groundwater monitoring and financial responsibility requirements no later than August 24, 2006. If the facility fails to submit these certifications, authority to manage the newly listed wastes under 40 CFR 270.42(g) will terminate on that date.

4. Units

Units in which newly listed hazardous wastes are generated or managed will be subject to all applicable requirements of 40 CFR part 264 for permitted facilities or 40 CFR part 265 for interim status facilities, unless the unit is excluded from such permitting by other provisions, such as the wastewater treatment tank exclusion (40 CFR 264.1(g)(6) and 265.1(c)(10)) and the product storage tank exclusion (40 CFR 261.4(c)). Examples of units to which these exclusions could never apply include landfills, land treatment units, waste piles, incinerators, and any other miscellaneous units in which these wastes may be generated or managed.

5. Closure

All units in which newly listed hazardous wastes are treated, stored, or disposed after the effective date of this regulation that are not excluded from the requirements of 40 CFR parts 264 and 265 are subject to both the general closure and post-closure requirements of subpart G of 40 CFR 264 and 265 and the unit-specific closure requirements set forth in the applicable unit technical standards subpart of 40 CFR part 264 or 265 (*e.g.*, Subpart N for landfill units). In addition, EPA promulgated a final rule that allows, under limited circumstances, regulated landfills, surface impoundments, or land treatment units to cease managing hazardous waste, but to delay subtitle C closure to allow the unit to continue to manage nonhazardous waste for a period of time prior to closure of the unit (*see* 54 FR 33376, August 14, 1989). Units for which closure is delayed continue to be subject to all applicable 40 CFR parts 264 and 265 requirements. Dates and procedures for submittal of necessary demonstrations, permit applications, and revised applications are detailed in 40 CFR 264.113(c) through (e) and 265.113(c) through (e).

VI. State Authority and Compliance

A. How Are States Authorized Under RCRA?

Under section 3006 of RCRA, EPA may authorize qualified States to administer their own hazardous waste programs in lieu of the federal program within the State. Following authorization, EPA retains enforcement authority under sections 3008, 3013, and 7003 of RCRA, although authorized states have primary enforcement responsibility. The standards and requirements for State authorization are found at 40 CFR part 271.

Prior to enactment of the Hazardous and Solid Waste Amendments of 1984 (HSWA), a State with final RCRA authorization administered its hazardous waste program entirely in lieu of EPA administering the federal program in that State. The federal requirements no longer applied in the authorized State, and EPA could not issue permits for any facilities in that state, since only the state was authorized to issue RCRA permits. When new, more stringent federal requirements were promulgated, the State was obligated to enact equivalent authorities within specified time frames. However, the new federal requirements did not take effect in an authorized State until the State adopted the federal requirements as State law.

In contrast, under RCRA section 3006(g) (42 U.S.C. 6926(g)), which was added by HSWA, new requirements and prohibitions imposed under HSWA authority take effect in authorized States at the same time that they take effect in unauthorized States. EPA is directed by the statute to implement these requirements and prohibitions in authorized States, including the issuance of permits, until the State is granted authorization to do so. While States must still adopt HSWA-related provisions as State law to retain final authorization, EPA implements the HSWA provisions in authorized States until the States do so.

Authorized States are required to modify their programs only when EPA enacts 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 40 CFR 271.1). Therefore, authorized States may, but are not required to, adopt federal regulations, both HSWA and non-HSWA, that are considered less stringent than previous federal regulations.

B. How Does This Rule Affect State Authorization?

We are finalizing today's rule pursuant to HSWA authority. The listing of the new K-waste is promulgated pursuant to RCRA section 3001(e)(2), a HSWA provision. Therefore, we are adding this rule to Table 1 in 40 CFR 271.1(j), which identifies the Federal program requirements that are promulgated pursuant to HSWA and take effect in all States, regardless of their authorization status. The land disposal restrictions for these wastes are promulgated pursuant to RCRA section 3004(g) and (m), also HSWA provisions. Table 2 in 40 CFR 271.1(j) is modified to indicate that these requirements are self-implementing.

States may apply for final authorization for the HSWA provisions in 40 CFR 271.1(j), as discussed below. Until the States receive authorization for these more stringent HSWA provisions, EPA would implement them. The procedures and schedule for final authorization of State program modifications are described in 40 CFR 271.21.

Section 271.21(e)(2) of EPA's State authorization regulations (40 CFR part 271) requires that States with final authorization modify their programs to reflect Federal program changes and submit the modifications to EPA for approval. The deadline by which the States would need to modify their programs to adopt this regulation is determined by the date of promulgation of a final rule in accordance with

§ 271.21(e)(2). Once EPA approves the modification, the State requirements would become RCRA Subtitle C requirements.

States with authorized RCRA programs already may have regulations similar to those in this final rule. These State regulations have not been assessed against the Federal regulations finalized today to determine whether they meet the tests for authorization. Thus, a State would not be authorized to implement these regulations as RCRA requirements until State program modifications are submitted to EPA and approved, pursuant to 40 CFR 271.21. Of course, States with existing regulations that are more stringent than or broader in scope than current Federal regulations may continue to administer and enforce their regulations as a matter of State law. In implementing the HSWA requirements, EPA will work with the States under agreements to avoid duplication of effort.

VII. CERCLA Designation and Reportable Quantities

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act of 1980) defines the term "hazardous substance" to include RCRA listed and characteristic hazardous wastes. When EPA adds a hazardous waste under RCRA, the Agency also will add the waste to its list of CERCLA hazardous substances. EPA establishes a reportable quantity, or RQ, for each CERCLA hazardous substance. EPA provides a list of the CERCLA hazardous substances along with their RQs in Table 302.4 at 40 CFR 302.4. If you are the person in charge of a vessel or facility that releases a CERCLA hazardous substance in an amount that equals or exceeds its RQ, then you must report that release to the National Response Center (NRC) pursuant to CERCLA section 103. You also may have to notify State and local authorities.

A. How Does EPA Determine Reportable Quantities?

Under CERCLA section 102(b)(1), hazardous substances are assigned a reportable quantity of one pound, unless and until EPA changes the RQ by regulation. EPA has wide discretion to adjust the RQ of the hazardous substance(s). The Agency's methodology involves an evaluation of the intrinsic physical, chemical, and toxic properties. The intrinsic properties, called "primary criteria," are aquatic toxicity, mammalian toxicity (oral, dermal, and inhalation), ignitability, reactivity, chronic toxicity, and potential carcinogenicity. EPA evaluates the data for a hazardous substance for each primary criterion. To adjust the RQs, EPA ranks each criterion on a scale that corresponds to an RQ value of 1, 10, 100, 1,000, or 5,000 pounds. For hazardous substances evaluated for potential carcinogenicity, each substance is assigned a hazard ranking of "high," "medium," or "low," corresponding to RQ levels of 1, 10, and 100 pounds, respectively. For each criterion, EPA establishes a tentative RQ. A hazardous substance may receive several tentative RQ values based on its particular intrinsic properties. The lowest of the tentative RQs becomes the "primary criteria RQ" for that substance.

After the primary criteria RQs are assigned, EPA further evaluates substances for their susceptibility to certain degradative processes. These are secondary adjustment criteria. The natural degradative processes are biodegradation, hydrolysis, and photolysis (BHP). If a hazardous substance, when released into the environment, degrades rapidly to a less hazardous form by one or more of the BHP processes, EPA generally raises its RQ (as determined by the primary RQ adjustment criteria) by one level. Conversely, if a hazardous substance degrades to a more hazardous product after its release, EPA assigns an RQ to the original substance equal to the RQ for the more hazardous substance.

The standard methodology used to adjust the RQs for RCRA hazardous waste streams differs from the methodology applied to individual hazardous substances. The procedure for assigning RQs to RCRA waste streams is based on the results of an analysis of the hazardous constituents of the waste streams. The constituents of each RCRA hazardous waste stream are identified in 40 CFR part 261, Appendix VII. EPA first determines an RQ for each hazardous constituent within the waste stream using the methodology described above. The lowest RQ value of these constituents becomes the adjusted RQ for the waste stream. When there are hazardous constituents of a RCRA hazardous waste stream that are not CERCLA hazardous substances, the Agency develops an RQ, called a "reference RQ," for these constituents in order to assign an appropriate RQ to the waste stream (see 48 FR 23565, May 25, 1983). In other words, the Agency derives the RQ for waste streams based on the lowest RQ of all the hazardous constituents, regardless of whether they are CERCLA hazardous substances.

B. What Is the RQ for the K181 Waste?

In today's final rule, EPA is assigning a one-pound RQ to the K181 waste. The RQ for each constituent contained in the waste is presented in the table below.

TABLE VIII–1.—RQS FOR CONSTITUENTS IDENTIFIED IN K181 WASTE

Constituents in K181 waste stream	Constituent RQ (kg) (40 CFR 302.4)
Aniline	5000 (2270)
o-Anisidine	100 (45.4)
4-Chloroaniline	1000 (454)
p-Cresidine	1* (0.454)
2,4-Dimethylaniline	1* (0.454)
1,2-Phenylenediamine	1* (0.454)
1,3-Phenylenediamine	1* (0.454)

*RQ of 1 pound assigned to this constituent because we have not yet developed a "waste constituent RQ" for this substance.

As noted in the proposed rule (68 FR 66213), we are not adjusting the RQ for K181 at this time because we have not yet developed a "reference RQ" for the following CoCs in this waste: p-cresidine; 2,4-dimethylaniline; 1,2-phenylenediamine; and 1,3-phenylenediamine. Therefore, the RQ for K181 will be one pound. As noted elsewhere in this notice, we have dropped toluene-2,4-diamine as a constituent of concern for K181. While this chemical has an existing RQ, EPA does not expect that its RQ will be considered should the Agency decide to propose any further adjustment to the RQ for K181 wastes.

Note, however, that all quantities of wastes generated during a calendar year up to the mass loading limits are not listed K181 waste; only wastes subsequently generated that meet or exceed the annual limits would be hazardous waste. Wastes that are below the mass loading limits are excluded from the listing from their point of generation, and would not be subject to the CERCLA reporting requirements.

Commenters urged EPA not to adopt the statutory RQ, but rather to adjust the RQ for K181 waste. They noted that EPA's risk analysis for the proposal indicates that a higher RQ is warranted. Commenters stated that it is counterintuitive for a company to be able to dispose of tons of dyes and/or pigment production wastes as nonhazardous in a landfill, yet have to report a release of just one pound of K181 waste to the environment. They noted that EPA conceded that it would be unreasonable to expect the CoCs to be present at concentrations higher than 5,000 parts per million.

While we agree with the commenters that an adjustment of the RQ may be

warranted based on the mass loading limits and the landfill disposal exclusion established in the final rule, until we develop waste constituent RQs for p-cresidine; 2,4-dimethylaniline; 1,2-phenylenediamine; and 1,3-phenylenediamine the RQ for K181 will remain at the statutory one-pound level. We will consider adjusting the RQ for K181 after we develop these constituent RQs; however, the RQ for K181 will remain one pound until such an adjustment is made.

C. When Would I Need To Report a Release of These Wastes Under CERCLA?

Today's final hazardous waste listing is based on the mass loadings of the hazardous constituents in the wastes. An RQ of one-pound is assigned for the waste based on the lowest RQ of the hazardous constituents in the waste. Notification is required under CERCLA when a waste meeting the listing description and threshold for that hazardous waste is released into the environment in a quantity that equals or exceeds the RQ for the waste.

For CERCLA reporting purposes, the Clean Water Act mixture rule (40 CFR 302.6) may be adapted to apply to releases of this waste when the quantity (or mass limit) of all of the K181 hazardous constituents in the waste are known and the waste meets the K181 listing description (*i.e.*, any of the K181 mass loading levels are met or exceeded). In such a case, notification is required where an amount of waste is released that contains an RQ or more of any hazardous substance contained in the waste. When the quantity (or mass limit) of one or more of the K181 hazardous constituents is not known, notification is required when the quantity of K181 waste released equals or exceeds the RQ for the waste stream.

D. How Would I Report a Release?

To report a release of K181 (or any other CERCLA hazardous substance) that equals or exceeds its RQ, you must immediately notify the National Response Center (NRC) as soon as you have knowledge of that release. The toll-free telephone number of the NRC is 1–800–424–8802; in the Washington, DC, metropolitan area, the number is (202) 267–2675.

You may also need to notify State and local authorities. The Emergency Planning and Community Right-to-Know Act (EPCRA) requires that owners and operators of certain facilities report releases of CERCLA hazardous substances and EPCRA extremely hazardous substances (*see* the list in 40 CFR part 355, Appendix A) to State and local authorities. After the release of an RQ or more of any of those substances, you must report immediately to the community emergency coordinator of the local emergency planning committee for any area likely to be affected by the release, and to the State emergency response commission of any State likely to be affected by the release.

VIII. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order 12866 [58 FR 51735 (October 4, 1993)], the Agency, in conjunction with the Office of Management and Budget (OMB), must determine whether a regulatory action is "significant" and therefore subject to OMB review and the requirements of the Executive Order. The Order defines "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 or 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 the Executive Order.

Pursuant to the terms of this Executive Order, we have found that this final action does not represent an economically significant regulatory action, as defined under point number one above. The total nationwide costs associated with this final action are estimated to be less than $3 million per year. Furthermore, this final rule is not expected to adversely effect, 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. The annualized benefits associated with today's rule have not been monetized, but are believed to be less than $100 million. However, this final rule has been determined to potentially raise novel legal or policy issues due to the unique mass loading-based approach used in the risk assessment modeling. As a result, it has been determined that this rule is a "significant regulatory action," as identified under point number four above. Therefore, this action was submitted to OMB for review. Any substantive changes made in response to OMB review have been documented in the public record. The following paragraphs briefly summarize findings presented in the Economic Assessment[34] conducted for the Proposed Rule, substantive economic related issues brought up in stakeholder comments and Agency responses, and revised findings in support of the final action.

1. Summary of Proposed Rule Findings: Costs, Economic Impacts, Benefits

The impacts of our proposed action were presented in two supporting documents: Economic Assessment for the Proposed Loadings-Based Listing of Non-Wastewaters from the Production of Selected Organic Dyes, Pigments, and Food, Drug, and Cosmetic Colorants, Final Report, November 2003, and Regulatory Flexibility Screening Analysis for the Proposed Loadings-Based Listing of Non-Wastewaters from the Production of Selected Organic Dyes, Pigments, and Food, Drug, and Cosmetic Colorants, Final Report, November 2003.

We identified a total of 37 facilities in the November 2003 Economic Assessment that were expected to be impacted by the proposed action. These facilities were found to be operated by 29 different companies. Of these companies, 15 were categorized as "small businesses" under the Small Business Administration size definition.[35] We estimated the total quantity of potentially affected waste to range from 44,215 to 68,368 metric tons per year. Aggregate nationwide compliance costs were estimated to range from $0.6 million/year to $4.3 million/year, depending upon assumptions regarding total waste quantity affected and presence of targeted constituents. Corporate level economic impacts were negligible, ranging from virtually zero to 0.52 percent of gross annual revenues. We determined that there were no significant economic impacts on any small entities.

Benefits of the proposed action were presented in a general qualitative assessment. Types of benefits included the potential for reduced or avoided human health damage cases, avoided or

[34] Economic Assessment for the Proposed Loadings-Based Listing of Non-wastewaters from the Production of Selected Organic Dyes, Pigments, and Food, Drug, and Cosmetic Colorants, Final Report, November 2003.

[35] Less than 750 total employees at the corporate level.

reduced acute events, avoided or reduced resource damage, and avoided or reduced response costs. Depending upon actual or future exposure patterns, the primary benefits identified in the preamble to the proposed rule were associated reductions in human health and environmental effects from targeted releases. Increased waste minimization practices were discussed as upstream benefits potentially stimulated by the proposed action.

2. Public Comments and Agency Responses

a. *Summary of Substantive Cost, Economic, and Benefits Issues, and Responses.* The Agency received 25 public comments on the proposed rule. Nearly all of these addressed some aspect related to cost of compliance, economic impacts, and/or benefit of the rule, as proposed. Related to these issues, there were four categories of crucial concern presented by the commenters: industry profile/characterization, waste quantities, analytical costs, and benefits (*i.e.*, need for the rule). A summary of these issues and the Agency's responses are presented below. Stakeholder comments are addressed in more detail in the Agency's response-to-comment document,[36] available in the docket established for today's action.

b. *Industry Profile/Characterization.* Numerous commenters indicated that the profiles presented in the Economic Assessment were overly optimistic concerning the projected growth and general health of the dyes and pigment industries. Additional plant closures were noted. In addition, several commenters noted that products affected by the proposed rulemaking, *e.g.*, azo dyes and pigments, tend to be experiencing lower growth rates and profitability margins than other product lines from the dyes and pigments industries.

Our determination of average annual growth and industry health, as presented in the November 2003 Economic Assessment, was based on the best publicly available information at the time. However, upon detailed review of the public comments, and review of public information sources available after proposal, we find that our assumption of revenues increasing by an average of 3 percent per year was overly optimistic. This may be especially true for dye manufacturers where production has been plagued by downward trends in the textile industry, coupled with pressure from inexpensive imports.[37] However, we have no reliable source of information that would indicate that product production quantities (as opposed to gross revenues) for affected dye manufacturers are substantially different from estimates presented in the Economic Assessment. Thus, we expect waste quantities generated from this production, and corresponding waste management costs to be relatively unaffected. As discussed in section VIII.A.2.c below (see also the July 21, 2004 Revised Impacts Assessment memo), we believe that our low-end estimate of waste quantity generated per year reflects a reasonable approximation of adjusted quantities based on comments. Thus, economic impacts estimated under this scenario may be considered a reasonable worst case estimate when unadjusted for revenue projections. We also developed economic impact estimates based on a linear reduction in compliance costs corresponding to adjusted waste quantities, and assuming gross revenues were 100 percent (2-fold) overstated. Economic impacts under this scenario were found to still be less than 1 percent of annual gross revenues (*see* section VIII.A.3; more details are provided in the July 21, 2004 Revised Impacts Assessment memo).

c. *Waste Quantities.* Commenters indicated that waste quantities presented in the November 2003 Economic Assessment were substantially overestimated. New information was provided regarding potentially affected quantities of nonwastewaters. Some of this information was facility-specific. Most information, however, was derived from association survey responses. These new survey data were linked to individual facilities by number only. None of the waste quantity information provided in comments was claimed as confidential business information.

The November 2003 Economic Assessment (EA) presented both high and low estimates for potentially affected nonwastewaters. We recognize that the total "high estimate" quantity, as presented in the EA represents an overestimation. However, our "low estimate" appears to represent a good approximation of total quantity, as compared to data presented by the commenters. This "low estimate" is approximately 22 percent greater than the total quantity derived from commenter data. The waste quantities presented in the EA were based only on information that was publically available at the time.

We accept, with modifications, the waste quantity information provided by the manufacturers/associations. Facility-specific quantities, where available by facility name, are generally accepted, as identified. For the other facilities, we have derived waste quantity estimates based on the survey response information correlated to facility revenue rankings. These derived waste quantities are based only on the publicly available data, and reflect our best attempt to assign the available quantity data from the comments with specific facilities (applying our revenue ranking estimates, as needed). Revised cost, economic impact, and benefit estimates have been developed based on this new waste quantity information (*see* below under Revised Findings).

d. *Analytical Costs.* Commenters expressed concern relating to some of our assumptions and determinations regarding analytical costs, especially as they related to waste characterization, process knowledge, and new method development. Commenters indicated a perceived need to take a large number of samples due to the batch operations. There was also concern that processor knowledge would have to be buttressed by at least limited sampling in order to have adequate proof that wastes generated were eligible for the exclusion. For wastes that are determined by the generator to be nonhazardous, commenters raised the concern that landfills may refuse the waste, or require certification to track the annual mass loadings. Commenters also raised technical issues relating to the development of analytical methods for sampling the CoCs to be added to 40 CFR Part 261 Appendix VIII. Specifically, there were concerns that the development of appropriate analytical methods would be more complex and costly than estimated in the proposal.

In the November 2003 Economic Assessment, we included sampling and analysis costs for facilities assumed to be generating greater than 1,000 metric tons of potentially impacted nonwastewaters per year. Facilities generating less than 1,000 metric tons/year were assumed to use operator knowledge. While the rule as proposed did not require any specific number of samples, sampling procedure, or analytical methods for waste characterization or determination of mass-loading limits, the Economic Assessment applied conservative assumptions for the development of cost estimates. We assumed 15 samples per

[36] Response to Comments Document: Hazardous Waste Listing Determination for Dyes and/or Pigments Manufacturing Wastes (Final Rule), February 2005.

[37] PR Newswire, 2004 (March 26), Synalloy Corporation Announces Fourth Quarter Results Financial Services News.

wastestream for initial characterization, and an additional five samples per year (including the first year) to assess stream fluctuations. Annual retesting is assumed to continue for three consecutive years to cover variations in processes and products. It was also assumed that the three-year time period would allow the generator to determine if any process fluctuations, waste changes, or minor process changes may alter the waste stream characterization from nonhazardous to hazardous.

We believe our assumptions for waste stream characterization and annual retesting reflect a very conservative cost scenario for facilities generating greater than 1,000 metric tons of potentially affected nonwastewaters per year. For facilities generating less than 1,000 metric tons, process knowledge may be used. Proper documentation of the process used to generate the waste (*e.g.*, raw materials, quantities, reactions, and typical constituent concentrations) is expected to be adequate to demonstrate full process knowledge. Facilities that are uncomfortable with this approach may choose to purchase insurance or implement a testing procedure. However, the Agency is not requiring such options.

We believe that the potential for landfills to require certification to track the annual mass loadings is highly unlikely (and was not raised in comments by any waste management firm), particularly in light of our modification of the proposal to remove the proposed (c)(2) requirements that would have prohibited subtitle D landfilling once a waste's mass loading of toluene-2,4-diamine exceeded the proposed (c)(2) limit. However, if for some reason a particular landfill were to reject the waste outright, other subtitle D landfills are prevalent. Additional costs from switching subtitle D landfills would be minimal due to the relatively high number of available subtitle D landfills within similar transportation distances.

For the development of analytical methods for sampling the CoCs to be added to 40 CFR part 261 Appendix VIII, we assumed that the industry would utilize common laboratories to share the costs for developing analytical procedures. All facilities are assumed to use one of three contracting analytical laboratories to perform the analyses. The development costs were spread across all dye and pigment manufactures generating more than 1,000 metric tons and selected "expanded scope" facilities known (at the time of the proposal) to generate waste with constituent(s) of concern. EPA identified three laboratories that would independently develop the analytical methods, for a total development cost of $61,171 ($20,390 per laboratory). A five-year capital recovery factor at 7 percent (0.24389) was applied to the development cost. Development costs were spread equally across all facilities generating waste with the CoCs.

The annual development cost per dye and pigment facility was estimated at $1,083 (assuming the waste must be sampled for all CoCs). In addition to this annual development cost, the analytical cost (assuming all eight proposed constituents) is estimated to be $1,089 per sample. Thus, assuming five samples per year, total annual costs would be $1,306 per sample [this is based on five samples at $1,089/sample, plus $1,083 passed through development costs, equals $6,530. Dividing this by five samples per year equals $1,306 per sample]. This total analytical cost per sample is within the range of $1,000 to $3,000 per sample, as identified by commenters. With the elimination of toluene-2,4-diamine from the list of CoCs, analytical method development costs will be lower because generators can avoid all testing requirements by certifying that their wastes are being managed in landfill units that meet the liner design requirements (or treated by combustion) as specified in the listing description. Furthermore, the method costs would also be reduced because we have modified the regulations to allow use of knowledge for the problematic analyte, 1,2-phenylenediamine.

Therefore, the Agency believes that the analytical costs and assumptions applied in our proposed action, as summarized above, represent a very conservative (high) cost estimate and will maintain these costs for estimating impacts associated with the final action. Today's final action does not require any specific number of samples, sampling type, or analytical methods. The actual number of samples necessary to appropriately represent the waste will be determined by the generator.

e. *Benefits.* Commenters expressed concern over the lack of concrete benefit estimates in support of the proposed rulemaking. Several commenters questioned the need for the regulation due to the lack of quantified and monetized benefits, resulting in a perceived unsubstantiated actual risk to humans or the environment from the existing management of these wastes. Commenters noted that the wastes of concern are currently managed in lined landfills with little or no risk documented by the risk assessment for this scenario. Commenters noted that there were few facilities that generate wastes with the CoCs, and that the only constituent of concern that resulted in substantial risk to human health and the environment under current management practices was toluene-2,4-diamine, which they argued should be (and has been) deleted. Furthermore, commenters believed that the overestimation of waste quantities, as discussed above, results in exaggerated benefits associated with compliance management.

The Agency believes that, to the extent that dye, pigment and FD&C colorant wastes are managed in landfills that do not meet the liner requirements in 40 CFR 258.40, 264.301, or 265.301, waste management practices have the potential to contaminate groundwater, resulting in greater risk to human health and the environment. To the extent that all wastes are managed in compliant landfills, there would be minimal benefit from the listing. However, the Agency is uncertain of industry claims that all wastes are so managed, nor is it clear that without the regulatory action, current waste management practices would not change to higher risk landfilling.

3. Revised Findings

We have revised our cost, economic impact, and benefits estimates for the final rule. These revisions are based on the new waste quantity information presented in public comments, and rule modifications. The scope and impacts of this final action do not warrant the completion of a full revised Economic Assessment and Regulatory Flexibility Screening Analysis (RFSA).

The total potentially affected nonwastewater quantity presented in the November 2003 Economic Assessment (EA) ranged from 44,215 metric tons/year to 68,368 metric tons/year. Aggregate annual compliance costs associated with these quantities ranged from $0.6 million/year to $4.3 million/year for the proposed regulatory approach (Economic Assessment, Table 5–1). Corresponding economic impacts were found to range from negligible to 0.52 percent, when measured as the ratio of compliance costs to gross corporate revenues (Economic Assessment, Table 5–7). Cost estimates associated only with the low waste quantity estimate (44,215 metric tons), ranged from $0.6 million/year to $2.9 million/year, with corresponding economic impacts ranging from negligible to 0.29 percent.

The revised total waste quantity, as derived from public comments, is estimated at 36,142 metric tons/year. The cost and economic impact findings

associated with our "low estimate" waste quantity (44,215 MT/yr), as presented above, may be considered a reasonable approximation of impacts associated with the final rule. However, more refined estimates may be developed assuming a linear relationship between total waste quantity and cost/economic impacts. Under this scenario, total costs and economic impacts would decline by approximately 18 percent, corresponding to the decline in total waste quantity (44,215 MT/yr to 36,142 MT/yr). Under this approach, the total compliance costs for the final rule would range from an estimated $0.49 million per year to $2.38 million/year, with economic impacts ranging from negligible to 0.238 percent of gross corporate revenues. These findings assume all other cost parameters are unchanged (*e.g.*, analytical assumptions, transportation costs, administrative). In reality, the more refined cost and economic impact estimates would be even lower due to the elimination of toluene-2,4-diamine as a CoC for the final rule and the likely use by industry of the conditional exemptions.

Some commenters have suggested that our estimated gross annual corporate revenue estimates may be overstated due to overly optimistic growth projections for the affected industries, as derived from some of our public sources. This issue pertains primarily to private or privately held companies where no independent revenue source was identified (see Economic Assessment, Table 5–3). An overestimate of gross revenues would be reflected in an artificially low economic impact estimate. We assessed this possibility and found that, even under the most highly impacted scenario, impacts would remain less than 1 percent (see July 21 memo, Revised Impacts Assessment).

Reduced waste quantities, as discussed above, would correspond to reduced benefits from compliant management. However, we continue to believe that, to the extent that affected dye, pigment and FD&C colorant wastes may be managed in landfills not compliant with 40 CFR section 258.40, 264.301 or 265.301, these wastes have the potential to contaminate groundwater, resulting in unacceptable risk to human health and the environment.

B. Paperwork Reduction Act

The information collection requirements in this rule have been submitted for approval to the Office of Management and Budget (OMB) under the *Paperwork Reduction Act* (PRA), 44 U.S.C. 3501 *et seq.* The information collection requirements are not enforceable until OMB approves them. The Information Collection Request (ICR) Supporting Statement prepared by EPA (available in the public docket for this final rule) has been assigned EPA ICR number 1189.13

The effect of listing the wastes described earlier is to subject certain wastes generated by the dyes and pigments industries to management and treatment standards under the Resource Conservation and Recovery Act (RCRA). This final rule represents an incremental increase in burden for generators and subsequent handlers of the newly listed wastes, and affects the existing RCRA information collection requirements for the Land Disposal Restrictions.

In addition to complying with the existing subtitle C recordkeeping and reporting requirements for the newly listed waste stream, EPA is requiring that facilities generating organic dyes and/or pigment nonwastewaters to be able to document their compliance with the new K181 demonstration (through use of knowledge or testing) and recordkeeping requirements, as well as the conditions provided for exemption from the scope of the conditional hazardous waste listing promulgated today. This requirement is necessary to ensure that in-scope nonwastewaters are managed in a manner that is safe for human health and the environment.

As a result of the final rule, EPA estimates that up to 33 facilities may be subject to an additional burden for existing and new RCRA information collection requirements for the newly listed wastes. We have estimated the annual hour and cost burden for these facilities to comply with the existing and new recordkeeping and reporting requirements associated with generating and managing K181 wastes. The hourly recordkeeping burden from the new requirements ranges between 6.5 and 20.40 hours per respondent per year. This burden includes time for reading the regulations, determining whether organic dyes and/or pigment production nonwastewaters exceed regulatory listing levels, and keeping documentation on site, as specified. We estimate that these facilities would incur an annual burden of approximately 563 hours and $123,776 in carrying out new information collection requirements. We also estimated that these facilities would incur an annual burden of approximately 2 hours and $86,102 in carrying out existing information collection requirements. See the ICR Supporting Statement for details.

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. When this ICR is approved by OMB, the Agency will publish a technical amendment to 40 CFR part 9 in the **Federal Register** to display the OMB control number for the approved information collection requirements contained in this final rule.

C. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) of 1980, as Amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), 5 U.S.C. 601 et seq., generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedures Act or any other statute. This is required 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. The Agency has determined that no small organizations or small governmental jurisdictions are impacted by today's final rulemaking.

For purposes of assessing the impacts of today's final determination on businesses, a small business is defined either by the number of employees or by the annual dollar amount of sales/revenues. The level at which an entity is considered small is determined for each North American Industry Classification System (NAICS) code by the Small Business Administration (SBA). Organic dye and pigment manufacturers are classified under NAICS 325132. The SBA has

determined that manufacturers classified under this NAICS code are "small businesses" if their total corporate employment is less than 750 persons.

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. The small entities directly regulated by this final rule are organic dye and pigment manufacturers classified under NAICS 325132. We have determined that all potentially impacted small businesses are projected to experience compliance cost impacts of less than 1 percent of gross annual revenues. Based on the available information, there are ten potentially affected firms that constitute small entities under the size definition established by the SBA. Assuming all ten companies generate wastes containing any of the constituents of concern, no company would experience impacts greater than 0.29 percent of annual gross revenues (see July 21, 2004 memo: Revised Impacts Assessment).

Although this final rule will not have a significant economic impact on a substantial number of small entities, EPA nonetheless has tried to reduce the impact of this rule on small entities. Today's final action was designed to mitigate economic impacts to small entities while, at the same time ensuring full protection of human health and the environment. This was accomplished through our innovative mass-based approach for the determination of regulatory levels. Our waste quantity-based implementation approach also helped mitigate potential impacts to small entities.

D. Unfunded Mandates Reform Act

Signed into law on March 22, 1995, the Unfunded Mandates Reform Act (UMRA) supersedes Executive Order 12875, reiterating the previously established directives while also imposing additional requirements for federal agencies issuing any regulation containing an unfunded mandate.

Today's final rule is not subject to the requirements of sections 202, 204 and 205 of UMRA. In general, a rule is subject to the requirements of these sections if it contains "Federal mandates" that may result in the expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of $100 million or more in any one year. Today's final rule does not result in $100 million or more in expenditures. The aggregate annualized compliance costs for today's rule are projected to be less than $3 million.

Today's rule is not subject to the requirements of section 203 of UMRA. Section 203 requires agencies to develop a small government Agency plan before establishing any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments. EPA has determined that this rule will not significantly or uniquely affect small governments.

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" are 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."

Today's final rule does not have federalism implications. No State or local governments own or operate potentially impacted organic dye and/or pigment manufacturing facilities. Furthermore, this action will not impose excessive enforcement or review requirements. Thus, this rule 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 the Order. Executive Order 13132 does not apply to this final rule.

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

Executive Order 13175, entitled "Consultation and Coordination with Indian Tribal Governments" (65 FR 67249, November 6, 2000), 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" is defined in the Executive Order to include regulations that have "substantial direct effects on one or more Indian tribes, on the relationship between the Federal government and the Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes."

Today's final rule does not have tribal implications. This rule will not significantly or uniquely affect the communities of Indian tribal governments, nor impose substantial direct compliance costs. No tribal governments own or operate potentially impacted organic dye and/or pigment manufacturing facilities. Furthermore, this action will not impose any enforcement or review requirements for tribal entities. Thus, this rule 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 the Order.

G. Executive Order 13045: Protection of Children From Environmental Health 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 E.O. 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 rule on children, and explain why the regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

Today's final rule is not subject to the Executive Order because it is not economically significant as defined under point one of the Order, and because the Agency does not have reason to believe the environmental health or safety risks addressed by this action present a disproportionate risk to children. However, the Agency is particularly concerned with environmental threats to children.

The topic of environmental threats to children's health is growing in importance as scientists, policy makers, and community leaders recognize the extent to which children are particularly vulnerable to environmental hazards. Recent EPA actions are in the forefront of addressing environmental threats to the health of children. Setting environmental standards that address combined exposures and that are protective of the heightened risks faced by children are both goals named within EPA's "National Agenda to Protect Children's Health from Environmental Threats." Areas for potential reductions in risks and related health effects are all targeted as priority issues within EPA's

September 1996 report, Environmental Health Threats to Children.

A few significant physiological characteristics are largely responsible for children's increased susceptibility to environmental hazards. First, children eat proportionately more food, drink proportionately more fluids, and breathe more air per pound of body weight than do adults. As a result, children potentially experience greater levels of exposure to environmental threats than do adults. Second, because children's bodies are still in the process of development, their immune systems, neurological systems, and other immature organs can be more easily and considerably affected by environmental hazards. The connection between these physical characteristics and children's susceptibility to environmental threats was a consideration in developing the hazardous waste listing under today's final action.

H. Executive Order 12898: Environmental Justice

Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" (February 11, 1994), is designed to address the environmental and human health conditions of minority and low-income populations. EPA is committed to environmental justice for all citizens and has assumed a leadership role in such initiatives. The Agency's goals are to ensure that no segment of the population, regardless of race, color, national origin, income, or net worth bears disproportionately high and adverse human health and/or environmental impacts as a result of EPA's policies, programs, and activities. We have no data indicating that today's final rule would result in disproportionately negative impacts on minority or low income communities.

I. Executive Order 13211: Actions Affecting Energy Supply, Distribution, or Use

Executive Order 13211, "Actions Concerning Regulations That Affect Energy Supply, Distribution, or Use" (May 18, 2001), addresses the need for regulatory actions to more fully consider the potential energy impacts of the proposed rule and resulting actions. Under the Order, agencies are required to prepare a Statement of Energy Effects when a regulatory action may have significant adverse effects on energy supply, distribution, or use, including impacts on price and foreign supplies. Additionally, the requirements obligate agencies to consider reasonable alternatives to regulatory actions with adverse effects and impacts the alternatives might have upon energy supply, distribution, or use.

This final rule is not subject to Executive Order 13211, "Actions Concerning Regulations That Affect Energy Supply, Distribution, or Use" (66 FR 28355 (May 22, 2001)) because it is not an economically significant regulatory action under Executive Order 12866. Furthermore, it is not expected to have a significant adverse impact on the supply, distribution, or use of energy.

J. National Technology Transfer and Advancement Act

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

This final rule does not involve the establishment of voluntary technical standards; thus, the requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) do not apply.

K. The Congressional Review Act (5 U.S.C. 801 et seq., as Added by the Small Business Regulatory Enforcement Fairness Act of 1996)

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 submitted a report containing this final 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 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).

List of Subjects

40 CFR Part 148

Administrative practice and procedure, Hazardous waste, Reporting and record keeping requirements, Water supply.

40 CFR Part 261

Environmental protection, Hazardous materials, Waste treatment and disposal, Recycling.

40 CFR Part 268

Environmental protection, Hazardous materials, Waste management, Reporting and record keeping requirements, Land Disposal Restrictions, Treatment Standards.

40 CFR Part 271

Environmental protection, Administrative practice and procedure, Confidential business information, Hazardous material transportation, Hazardous waste, Indians—lands, Intergovernmental relations, Penalties, Reporting and record keeping requirements, Water pollution control, Water supply.

40 CFR Part 302

Environmental protection, Air pollution control, Chemicals, Emergency Planning and Community Right-to-Know Act, Extremely hazardous substances, Hazardous chemicals, Hazardous materials, Hazardous materials transportation, Hazardous substances, Hazardous wastes, Intergovernmental relations, Natural resources, Reporting and record keeping requirements, Superfund, Waste treatment and disposal, Water pollution control, Water supply.

Dated: February 15, 2005.

Stephen L. Johnson,

Acting Administrator.

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

PART 148—HAZARDOUS WASTE INJECTION RESTRICTIONS

■ 1. The authority citation for part 148 continues to read as follows:

Authority: Sec. 3004, Resource Conservation and Recovery Act, 42 U.S.C. 6901, *et seq.*

■ 2. Section 148.18 is amended by revising paragraph (l) and adding paragraph (m) to read as follows:

§ 148.18 Waste-specific prohibitions—newly listed and identified wastes.

* * * * *

(l) Effective August 23, 2005, the waste specified in 40 CFR 261.32 as

EPA Hazardous Waste Number K181 is prohibited from underground injection.

(m) The requirements of paragraphs (a) through (l) of this section do not apply:

(1) If the wastes meet or are treated to meet the applicable standards specified in subpart D of 40 CFR part 268; or

(2) If an exemption from a prohibition has been granted in response to a petition under subpart C of this part; or

(3) During the period of extension of the applicable effective date, if an extension has been granted under § 148.4.

PART 261—IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

■ 3. 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—[Amended]

■ 4. Section 261.4 is amended by revising paragraph (b)(15) to read as follows:

§ 261.4 Exclusions.

* * * * *

(b) * * *

(15) Leachate or gas condensate collected from landfills where certain solid wastes have been disposed, provided that:

(i) The solid wastes disposed would meet one or more of the listing descriptions for Hazardous Waste Codes K169, K170, K171, K172, K174, K175, K176, K177, K178 and K181 if these wastes had been generated after the effective date of the listing;

(ii) The solid wastes described in paragraph (b)(15)(i) of this section were disposed prior to the effective date of the listing;

(iii) The leachate or gas condensate do not exhibit any characteristic of hazardous waste nor are derived from any other listed hazardous waste;

(iv) Discharge of the leachate or gas condensate, including leachate or gas condensate transferred from the landfill to a POTW by truck, rail, or dedicated pipe, is subject to regulation under sections 307(b) or 402 of the Clean Water Act.

(v) As of February 13, 2001, leachate or gas condensate derived from K169–K172 is no longer exempt if it is stored or managed in a surface impoundment prior to discharge. As of November 21, 2003, leachate or gas condensate derived from K176, K177, and K178 is no longer exempt if it is stored or managed in a surface impoundment prior to discharge. After February 26, 2007, leachate or gas condensate derived from K181 will no longer be exempt if it is stored or managed in a surface impoundment prior to discharge. There is one exception: if the surface impoundment is used to temporarily store leachate or gas condensate in response to an emergency situation (*e.g.*, shutdown of wastewater treatment system), provided the impoundment has a double liner, and provided the leachate or gas condensate is removed from the impoundment and continues to be managed in compliance with the conditions of this paragraph (b)(15)(v) after the emergency ends.

* * * * *

Subpart D—[Amended]

■ 5. Section 261.32 is amended by:

■ a. Designating the existing text and table as paragraph (a),

■ b. In the table by adding a new entry in alphanumeric order (by first column) under the heading "Organic Chemicals",

■ c. Adding paragraphs (b), (c) and (d).

The revisions and additions read as follows:

§ 261.32 Hazardous wastes from specific sources.

(a) * * *

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
*	* * * * * *	
	Organic Chemicals	
*	* * * * * *	
K181	Nonwastewaters from the production of dyes and/or pigments (including nonwastewaters commingled at the point of generation with nonwastewaters from other processes) that, at the point of generation, contain mass loadings of any of the constituents identified in paragraph (c) of this section that are equal to or greater than the corresponding paragraph (c) levels, as determined on a calendar year basis. These wastes will not be hazardous if the nonwastewaters are: (i) disposed in a Subtitle D landfill unit subject to the design criteria in § 258.40, (ii) disposed in a Subtitle C landfill unit subject to either § 264.301 or § 265.301, (iii) disposed in other Subtitle D landfill units that meet the design criteria in § 258.40, § 264.301, or § 265.301, or (iv) treated in a combustion unit that is permitted under Subtitle C, or an on-site combustion unit that is permitted under the Clean Air Act. For the purposes of this listing, dyes and/or pigments production is defined in paragraph (b)(1) of this section. Paragraph (d) of this section describes the process for demonstrating that a facility's nonwastewaters are not K181. This listing does not apply to wastes that are otherwise identified as hazardous under §§ 261.21–261.24 and 261.31–261.33 at the point of generation. Also, the listing does not apply to wastes generated before any annual mass loading limit is met.	(T)
*	* * * * * *	

* * * * *

(b) *Listing Specific Definitions:* (1) For the purposes of the K181 listing, dyes and/or pigments production is defined to include manufacture of the following product classes: dyes, pigments, or FDA certified colors that are classified as azo, triarylmethane, perylene or anthraquinone classes. Azo products include azo, monoazo, diazo, triazo, polyazo, azoic, benzidine, and pyrazolone products. Triarylmethane products include both triarylmethane and triphenylmethane products. Wastes that are not generated at a dyes and/or pigments manufacturing site, such as wastes from the offsite use, formulation, and packaging of dyes and/or pigments, are not included in the K181 listing.

(c) *K181 Listing Levels.* Nonwastewaters containing constituents in amounts equal to or exceeding the following levels during any calendar year are subject to the K181 listing, unless the conditions in the K181 listing are met.

Constituent	Chemical abstracts No.	Mass levels (kg/yr)
Aniline	62–53–3	9,300
o-Anisidine	90–04–0	110
4-Chloroaniline	106–47–8	4,800
p-Cresidine	120–71–8	660
2,4-Dimethylaniline	95–68–1	100
1,2-Phenylenediamine	95–54–5	710
1,3-Phenylenediamine	108–45–2	1,200

(d) *Procedures for demonstrating that dyes and/or pigment nonwastewaters are not K181.* The procedures described in paragraphs (d)(1)–(d)(3) and (d)(5) of this section establish when nonwastewaters from the production of dyes/pigments would not be hazardous (these procedures apply to wastes that are not disposed in landfill units or treated in combustion units as specified in paragraph (a) of this section). If the nonwastewaters are disposed in landfill units or treated in combustion units as described in paragraph (a) of this section, then the nonwastewaters are not hazardous. In order to demonstrate that it is meeting the landfill disposal or combustion conditions contained in the K181 listing description, the generator must maintain documentation as described in paragraph (d)(4) of this section.

(1) *Determination based on no K181 constituents.* Generators that have knowledge (*e.g.*, knowledge of constituents in wastes based on prior sampling and analysis data and/or information about raw materials used, production processes used, and reaction and degradation products formed) that their wastes contain none of the K181 constituents (*see* paragraph (c) of this section) can use their knowledge to determine that their waste is not K181. The generator must document the basis for all such determinations on an annual basis and keep each annual documentation for three years.

(2) *Determination for generated quantities of 1,000 MT/yr or less for wastes that contain K181 constituents.* If the total annual quantity of dyes and/or pigment nonwastewaters generated is 1,000 metric tons or less, the generator can use knowledge of the wastes (*e.g.*, knowledge of constituents in wastes based on prior analytical data and/or information about raw materials used, production processes used, and reaction and degradation products formed) to conclude that annual mass loadings for the K181 constituents are below the paragraph (c) of this section listing levels of this section. To make this determination, the generator must:

(i) Each year document the basis for determining that the annual quantity of nonwastewaters expected to be generated will be less than 1,000 metric tons.

(ii) Track the actual quantity of nonwastewaters generated from January 1 through December 31 of each year. If, at any time within the year, the actual waste quantity exceeds 1,000 metric tons, the generator must comply with the requirements of paragraph (d)(3) of this section for the remainder of the year.

(iii) Keep a running total of the K181 constituent mass loadings over the course of the calendar year.

(iv) Keep the following records on site for the three most recent calendar years in which the hazardous waste determinations are made:

(A) The quantity of dyes and/or pigment nonwastewaters generated.

(B) The relevant process information used.

(C) The calculations performed to determine annual total mass loadings for each K181 constituent in the nonwastewaters during the year.

(3) *Determination for generated quantities greater than 1,000 MT/yr for wastes that contain K181 constituents.* If the total annual quantity of dyes and/or pigment nonwastewaters generated is greater than 1,000 metric tons, the generator must perform all of the steps described in paragraphs ((d)(3)(i)–(d)(3)(xi) of this section) in order to make a determination that its waste is not K181.

(i) Determine which K181 constituents (see paragraph (c) of this section) are reasonably expected to be present in the wastes based on knowledge of the wastes (*e.g.*, based on prior sampling and analysis data and/or information about raw materials used, production processes used, and reaction and degradation products formed).

(ii) If 1,2-phenylenediamine is present in the wastes, the generator can use either knowledge or sampling and analysis procedures to determine the level of this constituent in the wastes. For determinations based on use of knowledge, the generator must comply with the procedures for using knowledge described in paragraph (d)(2) of this section and keep the records described in paragraph (d)(2)(iv) of this section. For determinations based on sampling and analysis, the generator must comply with the sampling and analysis and recordkeeping requirements described below in this section.

(iii) Develop a waste sampling and analysis plan (or modify an existing plan) to collect and analyze representative waste samples for the K181 constituents reasonably expected to be present in the wastes. At a minimum, the plan must include:

(A) A discussion of the number of samples needed to characterize the wastes fully;

(B) The planned sample collection method to obtain representative waste samples;

(C) A discussion of how the sampling plan accounts for potential temporal and spatial variability of the wastes.

(D) A detailed description of the test methods to be used, including sample preparation, clean up (if necessary), and determinative methods.

(iv) Collect and analyze samples in accordance with the waste sampling and analysis plan.

(A) The sampling and analysis must be unbiased, precise, and representative of the wastes.

(B) The analytical measurements must be sufficiently sensitive, accurate and precise to support any claim that the constituent mass loadings are below the paragraph (c) of this section listing levels of this section.

(v) Record the analytical results.

(vi) Record the waste quantity represented by the sampling and analysis results.

(vii) Calculate constituent-specific mass loadings (product of concentrations and waste quantity).

(viii) Keep a running total of the K181 constituent mass loadings over the course of the calendar year.

(ix) Determine whether the mass of any of the K181 constituents listed in paragraph (c) of this section generated between January 1 and December 31 of any year is below the K181 listing levels.

(x) Keep the following records on site for the three most recent calendar years in which the hazardous waste determinations are made:

(A) The sampling and analysis plan.

(B) The sampling and analysis results (including QA/QC data)

(C) The quantity of dyes and/or pigment nonwastewaters generated.

(D) The calculations performed to determine annual mass loadings.

(xi) Nonhazardous waste determinations must be conducted annually to verify that the wastes remain nonhazardous.

(A) The annual testing requirements are suspended after three consecutive successful annual demonstrations that the wastes are nonhazardous. The generator can then use knowledge of the wastes to support subsequent annual determinations.

(B) The annual testing requirements are reinstated if the manufacturing or

waste treatment processes generating the wastes are significantly altered, resulting in an increase of the potential for the wastes to exceed the listing levels.

(C) If the annual testing requirements are suspended, the generator must keep records of the process knowledge information used to support a nonhazardous determination. If testing is reinstated, a description of the process change must be retained.

(4) *Recordkeeping for the landfill disposal and combustion exemptions.* For the purposes of meeting the landfill disposal and combustion condition set out in the K181 listing description, the generator must maintain on site for three years documentation demonstrating that each shipment of waste was received by a landfill unit that is subject to or meets the landfill design standards set out in the listing description, or was treated in combustion units as specified in the listing description.

(5) *Waste holding and handling.* During the interim period, from the point of generation to completion of the hazardous waste determination, the generator is responsible for storing the wastes appropriately. If the wastes are determined to be hazardous and the generator has not complied with the subtitle C requirements during the interim period, the generator could be subject to an enforcement action for improper management.

■ 6. Appendix VII to part 261 is amended by adding the following entry in alphanumeric order (by the first column) to read as follows.

Appendix VII to Part 261—Basis for Listing Hazardous Waste

EPA hazardous waste No.	Hazardous constituents for which listed
* * * *	
K181	Aniline, o-anisidine, 4-chloroaniline, p-cresidine, 2,4-dimethylaniline, 1,2-phenylenediamine, 1,3-phenylenediamine.
* * * *	

* * * * *

Appendix VIII to Part 261—Hazardous Constituents

■ 7. Appendix VIII to part 261 is amended by adding in alphabetical sequence of common name the following entries:

* * * * *

Common name	Chemical abstracts name	Chemical abstracts No.	Hazardous waste No.
* * *	* * *		*
o-Anisidine (2-methoxyaniline)	Benzenamine, 2-Methoxy-	90–04–0	.....
* * *	* * *		*
p-Cresidine	2-Methoxy-5-methylbenzenamine	120–71–8	.....
* * *	* * *		*
2,4-Dimethylaniline (2,4-xylidine)	Benzenamine, 2,4-dimethyl-	95–68–1	.....
* * *	* * *		*
1,2-Phenylenediamine	1,2-Benzenediamine	95–54–5	.....
* * *	* * *		*
1,3-Phenylenediamine	1,3-Benzenediamine	108–45–2	.....
* * *	* * *		*

PART 268—LAND DISPOSAL RESTRICTIONS

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

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

Subpart C—Prohibitions on Land Disposal

■ 9. Subpart C is amended by adding § 268.20 and adding and reserving §§ 268.21 through 268.29 to read as follows:

§ 268.20 Waste specific prohibitions—Dyes and/or pigments production wastes.

(a) Effective August 23, 2005, the waste specified in 40 CFR part 261 as EPA Hazardous Waste Number K181, and soil and debris contaminated with this waste, radioactive wastes mixed with this waste, and soil and debris contaminated with radioactive wastes mixed with this waste are prohibited from land disposal.

(b) The requirements of paragraph (a) of this section do not apply if:

(1) The wastes meet the applicable treatment standards specified in subpart D of this Part;

(2) Persons have been granted an exemption from a prohibition pursuant to a petition under § 268.6, with respect to those wastes and units covered by the petition;

(3) The wastes meet the applicable treatment standards established pursuant to a petition granted under § 268.44;

(4) Hazardous debris has met the treatment standards in § 268.40 or the alternative treatment standards in § 268.45; or

(5) Persons have been granted an extension to the effective date of a prohibition pursuant to § 268.5, with respect to these wastes covered by the extension.

(c) To determine whether a hazardous waste identified in this section exceeds the applicable treatment standards specified in § 268.40, the initial generator must test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract of the waste, or the generator may use knowledge of the waste. If the waste contains regulated constituents in excess of the applicable subpart D levels, the waste is prohibited from land

disposal, and all requirements of part 268 are applicable, except as otherwise specified.

■ 10. In § 268.40, the Table of Treatment Standards is amended by revising the entry for F039 to add constituents in alphabetical sequence, and by adding in alphanumeric order the new entry for K181 to read as follows:

§ 268.40 Applicability of treatment standards.

* * * * *

TREATMENT STANDARDS FOR HAZARDOUS WASTES

[Note: NA means not applicable]

Waste code	Waste description and treatment/regulatory subcategory[1]	Regulated hazardous constituent		Wastewaters Concentration in mg/L[3], or technology code[4]	Nonwastewater Concentration in mg/kg[5] unless noted as "mg/L TCLP", or technology code
		Common name	CAS[2] No.		
F039 ...	Leachate (liquids that have percolated through land disposed wastes) resulting from the disposal of more than one restricted waste classified as hazardous under Subpart D of this part. (Leachate resulting from the disposal of one or more of the following EPA Hazardous Wastes and no other Hazardous Waste retains its EPA Hazardous Waste Number(s): F020, F021, F022, F026, F027, and/or F028).	o-Anisidine (2-methoxyaniline)	90-04-0	0.010	0.66
		p-Cresidine	120-71-8	0.010	0.66
		2,4-Dimethylaniline (2,4-xylidine)	95-68-1	0.010	0.66
		1,3-Phenylenediamine	108-45-2	0.010	0.66
K181 ...	Nonwastewaters from the production of dyes and/or pigments (including nonwastewaters commingled at the point of generation with nonwastewaters from other processes) that, at the point of generation, contain mass loadings of any of the constituents identified in paragraph (c) of section 261.32 that are equal to or greater than the corresponding paragraph (c) levels, as determined on a calendar year basis.	Aniline	62-53-3	0.81	14
		o-Anisidine (2-methoxyaniline)	90-04-0	0.010	0.66
		4-Chloroaniline	106-47-8	0.46	16
		p-Cresidine	120-71-8	0.010	0.66
		2,4-Dimethylaniline (2,4-xylidine)	95-68-1	0.010	0.66
		1,2-Phenylenediamine	95-54-5	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN
		1,3-Phenylenediamine	108-45-2	0.010	0.66

* * * * *

Footnotes to Treatment Standard Table 268.40

1 The waste descriptions provided in this table do not replace waste descriptions in 40 CFR Part 261. Descriptions of Treatment/Regulatory Subcategories are provided, as needed, to distinguish between applicability of different standards.

2 CAS means Chemical Abstract Services. When the waste code and/or regulated constituents are described as a combination of a chemical with its salts and/or esters, the CAS number is given for the parent compound only.

3 Concentration standards for wastewaters are expressed in mg/L and are based on analysis of composite samples.

4 All treatment standards expressed as a Technology Code or combination of Technology Codes are explained in detail in 40 CFR 268.42 Table 1—Technology Codes and Descriptions of Technology-Based Standards.

5 Except for Metals (EP or TCLP) and Cyanides (Total and Amenable) the nonwastewater treatment standards expressed as a concentration were established, in part, based upon incineration in units operated in accordance with the technical requirements of 40 CFR part 264, Subpart O or 40 CFR part 265, Subpart O, or based upon combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may comply with these treatment standards according to provisions in 40 CFR 268.40(d). All concentration standards for nonwastewaters are based on analysis of grab samples.

* * * * *

■ 11. The Table—Universal Treatment Standards in § 268.48 is amended by adding in alphabetical sequence the following entries under the heading organic constituents:

§ 268.48 Universal treatment standards.

(a) * * *

UNIVERSAL TREATMENT STANDARDS

[Note: NA means not applicable]

Regulated constituent common name	CAS[1] number	Wastewater standard Concentration in mg/L[2]	Nonwastewater standard Concentration in mg/kg[3] unless noted as "mg/L TCLP"
* * * * *		*	*
o-Anisidine (2-methoxyaniline)	90-04-0	0.010	0.66
* * * * *		*	*
p-Cresidine	120-71-8	0.010	0.66
* * * * *		*	*
2,4-Dimethylaniline (2,4-xylidine)	95-68-1	0.010	0.66
* * * * *		*	*
1,3-Phenylenediamine	108-45-2	0.010	0.66
* * * * *		*	*

* * * * *

1 CAS means Chemical Abstract Services. When the waste code and/or regulated constituents are described as a combination of a chemical with its salts and/or esters, the CAS number is given for the parent compound only.

2 Concentration standards for wastewaters are expressed in mg/L and are based on analysis of composite samples.

3 Except for Metals (EP or TCLP) and Cyanides (Total and Amenable) the nonwastewater treatment standards expressed as a concentration were established, in part, based upon incineration in units operated in accordance with the technical requirements of 40 CFR Part 264, Subpart O, or Part 265, Subpart O, or based upon combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may comply with these treatment standards according to provisions in 40 CFR 268.40(d). All concentration standards for nonwastewaters are based on analysis of grab samples.

* * * * *

PART 271—REQUIREMENTS FOR AUTHORIZATION OF STATE HAZARDOUS WASTE PROGRAMS

■ 12. The authority citation for Part 271 continues to read as follows:

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

■ 13. Section 271.1(j) is amended by adding the following entries to Table 1 and Table 2 in chronological order by date of publication 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
* * * * *		*	*
Feb. 15, 2005	Listing of Hazards Waste K181	[INSERT FEDERAL REGISTER PAGE NUMBERS FOR FINAL RULE].	Aug. 23, 2005
* * * * *		*	*

TABLE 2.—SELF-IMPLEMENTING PROVISIONS OF THE SOLID WASTE AMENDMENTS OF 1984

Effective date	Self-implementing provision	RCRA citation	Federal Register reference
* * * * *		*	*
Aug. 23, 2005	Prohibition on land disposal of K181 waste, and prohibition on land disposal of radioactive waste mixed with K181 wastes, including soil and debris.	3004(g)(4)(C) and 3004(m)	Feb. 24, 2005, (INSERT FEDERAL REGISTER PAGE NUMBERS).
* * * * *		*	*

PART 302—DESIGNATION, REPORTABLE QUANTITIES, AND NOTIFICATION

■ 14. The authority citation for Part 302 continues to read as follows:

Authority: 42 U.S.C. 9602, 9603, and 9604; 33 U.S.C. 1321 and 1361.

■ 15. In § 302.4, Table 302.4 is amended by adding the following new entry in alphanumeric order at the end of the table to read as follows:

§ 302.4 Designation of hazardous substances.

* * * * *

TABLE 302.4.—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES

[**Note:** All comments/notes are located at the end of this table]

Hazardous substance	CASRN	Statutory code‡	RCRA waste number	Final RQ pounds (Kg)
* * * *	*	*		*
K181		4	K181	##
Nonwastewaters from the production of dyes and/or pigments (including nonwastewaters commingled at the point of generation with nonwastewaters from other processes) that, at the point of generation, contain mass loadings of any of the constituents identified in paragraph (c) of section 261.32 that are equal to or greater than the corresponding paragraph (c) levels, as determined on a calendar year basis.				

‡ Indicates the statutory source defined by 1, 2, 3, and 4, as described in the note preceding Table 302.4.

* * * * *

The Agency may adjust the statutory RQ for this hazardous substance in a future rulemaking; until then the statutory RQ applies.

* * * * *

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