WEST VIRGINIA
SECRETARY OF STATE
KEN HECHLER
ADMINISTRATIVE LAW DIVISION

Form #1

Do Not Mark In This Box

FILED

JUL 14 4 07 PM '00

OFFICE OF WEST VIRGINIA SECRETARY OF STATE

NOTICE OF A PUBLIC HEARING ON A PROPOSED RULE

AGENCY: Div. Environmental Protection-Office Waste Management TITLE NUMBER: 33

RULE TYPE: Legislative CITE AUTHORITY: 22-18-1

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: ___

DATE OF PUBLIC HEARING: Tuesday, August 15, 2000 TIME: 6:00 P.M.

LOCATION OF PUBLIC HEARING: Office of Waste Management
1356 Hansford Street
Charleston, WV 25301

COMMENTS LIMITED TO: ORAL ___, WRITTEN ___, BOTH X

COMMENTS MAY ALSO BE MAILED TO THE FOLLOWING ADDRESS: Office Waste Management
1356 Hansford Street
Charleston, WV 25301
Attn: Mike Dorsey

The Department requests that persons wishing to make comments at the hearing make an effort to submit written comments in order to facilitate the review of these comments.

The issues to be heard shall be limited to the proposed rule.

ATTACH A **BRIEF** SUMMARY OF YOUR PROPOSAL

Carol J. Chambers

Authorized Signature

$1880

Executive Office
#10 McJunkin Road
Nitro, WV 25143-2506
Telephone No: (304)759-0575
Fax No: (304)759-0526

West Virginia Bureau of Environment

Cecil H. Underwood
Governor

Michael C. Castle
Commissioner

July 14, 2000

Ms. Judy Cooper
Director, Administrative Law
Division
Secretary of State's Office
Capitol Complex
Charleston, WV 25305

RE: 33CSR20 - "Hazardous Waste Management Rule"

Dear Ms. Cooper:

This letter will serve as my approval to file the above-referenced Legislative Rule with your Office and the Legislative Rule-Making Review Committee as "Notice of a Public Hearing/ Comment Period on a Proposed Legislative Rule."

Your cooperation in the above request is very much appreciated. If you should have any questions or require additional information, please call Carrie Chambers in my Office at 759-0515.

Sincerely,

Michael C Castle

Michael C. Castle
Commissioner

MCC:cc

cc: Mike Dorsey
Carrie Chambers

BUREAU OF ENVIRONMENT
DIVISION OF ENVIRONMENTAL PROTECTION

BRIEFING DOCUMENT

Rule Title: Hazardous Waste Management

A. AUTHORITY: WV Code Section 22-18-6

B. SUMMARY OF RULE:

The proposed amendment to this rule is being submitted in order to adopt federal regulations by reference, and to adopt, ahead of schedule, two less stringent federal regulations, which are final rules titled "180-Day Accumulation Time Under RCRA for Waste Water Treatment Sludges From the Metal finishing Industry" and "Hazardous Waste Management System; Modification of the Hazardous Waste Program; Hazardous Waste Lamps".

C. STATEMENT OF CIRCUMSTANCES WHICH REQUIRE RULE:

This proposed amendment to this rule ensures that the State Hazardous Waste Program remains consistent with and equivalent to the federal program, and incorporates two additional federal rules that ease the burden on the regulated community while encouraging recycling and waste minimization.

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

WV Code §22-1-3 in conjunction with the WV Code §22-1-3(a) requires, in part, the Director of the Division 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 Director shall incorporate by reference, to the greatest extent possible, the federal counterpart regulation. If the Director determines the rule should not be the same in substance as the federal counterpart rule, then the Director shall file a statement setting forth the difference between the proposed rule and the counterpart federal regulation. W. Va. Code §22-1-3a requires the Director to conduct the stringency determination and provide specific reasons for deviation of the proposed state rule from the federal counterpart regulation.

The proposed amendment to the rule will adopt additional federal counterpart regulations by reference.

E. CONSTITUTIONAL TAKINGS DETERMINATION:

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

F. CONSULTATION WITH THE ENVIRONMENTAL PROTECTION ADVISORY COUNCIL:

These proposed rule amendments were discussed during the meeting of the Environmental Protection Council on July 6, 2000. Those minutes are attached.

MINUTES

ENVIRONMENTAL PROTECTION ADVISORY COUNCIL

July 6, 2000, Director's Conference Room, Nitro

The twenty-first meeting of the DEP Advisory Council was held Thursday, July 6, 2000, in the Director's Second Floor Conference Room located in Nitro. Chairman Mike Castle called the meeting to order at 10:00 a.m.

ATTENDING:

Advisory Council Members:

Mike Castle, Chairman
Lisa Dooley
Jacqueline Hallinan
Bill Raney
Rick Roberts
Bill Samples

Environmental Protection:

Greg Adolfson
John Ailes
John Benedict
Al Blankenship
Carrie Chambers
Dick Cooke
Mike Dorsey
Andy Gallagher
Randy Huffman
John Johnston
Ava King
Brian Long
Pam Nixon
Rocky Parsons
Jennifer Pauer
Cap Smith
Randy Sovic
Charlie Sturey
Darcy White

1) Review and Approval of April 6, 2000 Minutes. The April 6 Minutes were approved with note of two minor revisions.

2) Discussion of Proposed Rule Amendments - 2001 Legislative Session. In accordance with WV Code §22-1-1(c), and DEP's rule-making procedure policy that was implemented in 1998, and included involving DEP's Advisory Council in DEP's rule-making process as early as possible to enable the Council to

review, comment, and make recommendations to the Director on the proposed Legislative rules before they are filed for public hearing, the following proposed rules were brought to the Council's attention.

John Benedict, Deputy Chief of the Office of Air Quality (OAQ), reviewed the following OAQ rules:

- **45CSR1 - "NO_x Budget Trading Program as a Means of Control and Reduction of Nitrogen Oxides"**
- **45CSR6 - "To Prevent and Control Air Pollution From Combustion of Refuse"**
- **45CSR15 - "Emission Standards for Hazardous Air Pollutants Pursuant to 40 CFR Part 61"**
- **45CSR16 - "Standards of Performance for New Stationary Sources Pursuant to 40 CFR part 60"**
- **45CSR23 - "To Prevent and Control Emissions From Municipal Solid Waste Authorities"**
- **45CSR25 - "To Prevent and Control Air Pollution From Hazardous Waste Treatment, Storage, or Disposal Facilities"**
- **45CSR30 - "Requirements for Operating Permits"**
- **45CSR34 - "Emission Standards for Hazardous Air Pollutants for Source Categories Pursuant to 40 CFR Part 63"**

In discussion of **45CSR1**, John explained to the Council that they did not have the companion rule (which is 45CSR26) to this proposed rule amendment, but Council will be provided a copy of the proposed rule when the draft is complete. Both rules have been drafted as a response to EPA's NO_x SIP Call. Failure of states to respond to the SIP Call will result in a NO_x federal implementation plan or federal program to reduce NO_x emissions under Section 126 of the CAA. John explained that OAQ is late in drafting both rules because they were waiting until several issues were settled in federal court. EPA is now requiring, and the federal courts concurred, that states develop rules and meet the conditions of the SIP Call by October 28, 2000. EPA's SIP Call affects major utility sources, cement kilns, and large

industrial-type boilers (those exceeding 250 lbs/mmBtu). The SIP Call originally included internal combustion engines.

45CSR1 establishes standards specifically for non-utility boilers, and follows EPA's model rule that states are to use in developing their SIPS. The model rule incorporates standards to allow sources to trade emissions between states. Therefore, states do not have a lot of flexibility to adjust their state-specific rules, if they want their sources to participate in a national NO_x budget-trading program.

John informed the Council that **45CSR15** adopts by reference the new federal provisions for emission standards for hazardous air pollutants (NESHAPS), and other regulatory requirements as outlined in 40 CFR Part 61, as of June 1, 2000. This also applies to **45CSR16**, which specifically includes associated reference methods, performance specifications, other test methods, and a minor correction to the reporting requirements for industrial-commercial-institutional steam generating units.

45CSR6 prevents and controls particulate matter air pollution from the combustion of refuse by the prohibition of open burning. This proposed rule also establishes weight and visible emission standards for incinerators and incineration, and is part of the West Virginia State Implementation Plan (SIP) approved by EPA. The rule does not prohibit bonfires, campfires, or other forms of open burning for the purposes of personal enjoyment and comfort, but establishes standards for open burning. The proposed revisions are intended to exempt certain flares and flare stacks from the requirement to obtain a permit under 45CSR13.

45CSR23 - This rule was first promulgated approximately three years ago, and for the most part adopts new federal standards by reference. There is a specific plan that each state puts together for "existing sources" that OAQ has done for previous rule versions, and the plan for West Virginia has been approved by EPA.

45CSR25 - This rule establishes a program of air quality regulation over the treatment, storage, and disposal of hazardous wastes. John informed Council that this proposed rule amendment is incorporating additional federal requirements promulgated by EPA, as of June 1, 2000. There is a shift from the Resource Conservation and Recovery Act (RCRA) requirements into the Clean Air Act (CAA) programs that OAQ operates. Many of the RCRA provisions previously contained in this rule are now being

shifted to 45CSR34 (which will be discussed later in the meeting). John said this proposed rule amendment is also necessary to maintain consistency with the Office of Waste Management's current rule - 33CSR20.

45CSR26 (copy not provided for Council at this time) specifically addresses NO_x reduction requirements for electric generating units. This rule deviates somewhat from EPA's model rule, but follows the Governor's Coalition proposal. EPA's model rule requires electric generating units .15 lb/mmBtu NO_x limits, which is roughly an 85% reduction in NO_x emissions. Whereas, the Governor's coalition proposal requires .25 lb/mmBtu NO_x limits, or 65% reduction from their 1999 emissions.

45CSR30 establishes a comprehensive air quality operating permits program consistent with the requirements of Title V of the federal Clean Air Act and 40 CFR Part 70. These proposed amendments will incorporate various corrections and revisions associated with the November 1995 Federal Register Notice. John said OAQ has deferred making these changes until now in anticipation of additional changes they believe EPA will make in Part 70. There also has not been a great deal of concern since OAQ has received interim approval of the program since 1994; however, EPA was recently sued for issuing these interim approvals. This put OAQ in the position of amending the rule to comply with the November 1995 requirements, so that OAQ can receive final approval from EPA. John said the rule may need to be modified again in the near future when (and if) EPA modifies the Part 70 requirements.

45CSR34 - This rule provides authority for the Director to determine and enforce case-by-case maximum achievable control technology (MACT) standards for major hazardous air pollutant sources, in the absence of a federal standard under certain circumstances, as required for permit program approval under Title V of the CAA. John said this proposed amendment does delete the requirement that OAQ do a case-by-case MACT analysis for sources that modify. He said this is a fairly significant change in the rule. Previously, and even under OAQ's Title V program, sources that do even slight modifications and were to eventually receive a MACT standard from EPA, were required to make some kind of guess as to what that standard was under such modification, and then do a case-by-case analysis to make that source comply with what everybody thought would be the ultimate MACT standard for that source. EPA was sued over this particular requirement, and has since removed the requirement from the Title V program. As mentioned earlier in the meeting, OAQ is also

proposing incorporating the provisions in 45CSR25, pertaining to hazardous waste combustors, into this rule.

After discussions and questions concerning OAQ's proposed rules, Council recommended the following to Chairman Castle:

Bill Raney deferred to Ray Joseph, representing the natural gas industry, for questions concerning Section 6 of 45CSR6 (To Prevent and Control Air Pollution From Combustion on Refuse) requirements for Permits before the installation and use of emergency flares. The concern from Mr. Joseph was that in certain situations emergency flares would exceed permitting trigger levels requiring a permit pursuant to 45CSR13. John Benedict concurred that permits would be required under those circumstances. However, that should not be that much of a burden since the emissions from a majority (90% +) of emergency flares used in the natural gas industry would be below permit trigger levels. It was noted that Section 6 was specifically revised to allow the use of emergency flares for the natural gas industry, and that others in OAQ were more directly involved in drafting the specific language in Section 6. Mr. Benedict recommended that proposed rule 45CSR6 go to public notice as drafted, and that the OAQ would meet with representatives of the natural gas industry to further discuss their concerns, and possibly consider revisions in Section 6.

Bill Raney asked if the Administrative Procedures Act requires Fiscal Notes to be completed as to the implications of the rule on the regulated community. Carrie Chambers advised Mr. Raney that fiscal notes are prepared for each rule before they are filed for public hearing, but the fiscal note requires information on the cost to the state in implementing the proposed rules, not on the regulated community. The Fiscal Notes are a work-in-progress, and will be submitted to Council after they are completed. Mr. Raney expressed his concern by stating that he has a problem in approving the proposed rules without the Council reviewing these documents beforehand. He said agencies have typically been known to crank out the standard responses to the fiscal notes, which leads to problems during the Legislative Rule-Making process. Bill Samples said he wasn't sure if the Council has a right to approve or disapprove the proposed rules, but only that the Director is to consult with Council on the proposed amendments, and then consider their comments. Mr. Raney stated that he would still like his concerns noted and included in the minutes that will be filed with the proposed rules.

Mr. Raney said he would also like to ask why there is nothing on the agenda concerning the Environmental Quality Board's (EQB) Water Quality Standards rule. Carrie Chambers explained that she has included a copy of EQB's rule (and also three of the Solid Waste Management Board's proposed rules), for Council's review, in the notebooks containing DEP's rules. She went on to explain that since the Boards have their own rule-making authority under §22B-3-4, they are not required to go before the Advisory Council during the rule-making process.

Mr. Raney said that DEP has a huge obligation in regards to water quality standards, regardless of who has the rule-making authority. He also said that the rules as proposed are huge, and the implications to the regulated community are immense.

Chairman Castle said he would try to find someone from OWR or EQB to discuss EQB's rule later in the meeting.

- **60CSR4 - "Awarding of West Virginia Stream Partners' Program Grant Rule."**

Jennifer Pauer, Program Coordinator for the Stream Partners' Program, briefed Council members on the proposed amendments to **60CSR4.** Jennifer said this rule was filed as an emergency rule in March. After one year of implementing the rule, it was discovered that the rigid spending caps contained in the original rule made it difficult to implement as intended by §20-13-4. The proposed amendments will loosen these spending caps, and therefore make it easier for grant recipients to complete their watershed improvement projects. The rule also contains minor technical cleanup.

After discussion and questions from the Council, there were no substantive recommendations made to the Director concerning the proposed amendments to 60CSR4.

- **199CSR1 - "Surface Mining Blasting Rule"**

Darcy White, Office of Explosives and Blasting (OEB), briefed Council on 199CSR1. Darcy explained that many of the proposed amendments to the Surface Mining Blasting rule are technical cleanup in nature and also involve changing the order of some provisions to improve clarity. Sections covering inspections and enforcement and appeals were extracted from portions of existing 38CSR2, the Surface Mining and Reclamation rule. These sections are being amended into the current rule to

ensure OEB has authority to enforce a program that will satisfy OSM requirements. Another section extracted from 38CSR2 deals with pre-blast survey requirements, and is necessary if OEB is to gain OSM approval of the proposed rules. Darcy said that subsection 3.11 also contains a proposed revision that allows the Director to further restrict blasting on a case-by-case basis as an alternative to prohibiting blasting altogether. To correspond with the blaster's certification rules approved by OSM, and to help improve certified blaster's professionalism and knowledge, the requirements for blaster's certification is also being proposed as an amendment to this rule.

Larry Harris, Advisory Council member, was unable to attend the meeting; however, he expressed the following comments on 199CSR1 by e-mail. He asked whether these blasting rules will also apply to the quarry bill and rules. He said that in the Surface Mining Blasting rule there seems to be some consideration of the premining groundwater/wells. This presumes that any taking of this water right from nearby landowners is cause for a claim. Is this also true for limestone quarries?

Darcy responded by saying that no, 199CSR1 applies only to coal mining. Blasting requirements for quarries are addressed in §22-4 (revised during the past legislative session, and effective this July). Rocky Parsons is currently working on a rules package as required by this legislation. Until those are promulgated, there is no change in blasting requirements for quarries.

After discussion and questions from the Council, there were no recommendations made to the Director concerning the proposed amendments to 199CSR1.

John Johnston, Chief of the Office of Oil and Gas, discussed the following proposed rules.

- **35CSR4 - "Oil and Gas Wells and Other Wells"**
- **35CSR7 - "Certification of Gas Wells"**

John told Council that there are three proposed amendments to 35CSR4 and one to 35CSR7 that are both fairly straightforward. He said the proposed amendments in **35CSR4** will: 1) allow the plats to be submitted electronically. This is the first step in relation to authorizing permitting electronically for oil and gas wells; 2) will apply to the procedure for well transfer. These proposed amendments will eliminate the pre-circular, and cut the

paperwork and mailing in half that the Office of Oil and Gas must perform in the transfer process. This will also allow the transfer of well responsibility to occur in a more timely manner; and 3) will waive the new certification for the reuse of plats when applying for plugging permits.

35CSR7 - The Federal Energy Regulatory Commission is proposing to reinstate certain regulations regarding well category determination under the Natural Gas Policy Act of 1978, Section 503. This section allows natural gas producers to obtain tax credits under Section 29 of the Interval Revenue Code. Section 503 first requires a determination by the local regulatory agency that a well is producing one of the types of gas eligible for the Section 29 tax credit. The promulgation of these proposed rules will enable the Office of Oil and Gas to review and conduct the first determination.

After discussion and questions from the Council, there were no substantive recommendations made to the Director concerning the proposed amendments to 35CSR4 and 35CSR7.

The following Office of Waste Management rules were discussed:

- **33CSR3 - "Yard Waste Management Rule"**
- **33CSR5 - "Waste Tire Management Rule"**
- **33CSR20 - "Hazardous Waste Management Rule"**
- **33CSR32 - "Underground Storage Tank Insurance Fund"**

Dick Cooke, Assistant Chief, Office Waste Management (OWM), briefed Council on **33CSR3**. He said OWM has taken a policy statement, that with a change in the yard waste laws approximately two years ago, provided for the Director to provide for reasonable and necessary exceptions to the prohibition of yard waste in landfills. This provision was not incorporated into the rule as the Legislature intended at that time. This proposed amendment incorporates that exception into the rule, and will allow West Virginia residents to dispose of small quantities of domestic yard waste in solid waste landfills, where there is no other option available.

Dick Cooke explained to Council that SB 427 (the Tire Bill) mandated that emergency rules be promulgated under **33CSR5**. The

proposed emergency rule, among other amendments, will allow the disposal of waste tires in solid waste landfills, but only when the state agency authorizing the remediation or cleanup program has determined there is no reasonable alternative available. The proposed amendments also adds permitting or other requirements for salvage yards, waste tire dealers, waste tire transporters, and commercial landfill facilities.

Mike Dorsey, Assistant Chief, OWM, next discussed **33CSR20**. He explained the rule is being amended to adopt by federal reference the 1999 changes made to 40 CFR Parts 260 through 279. Those amendments include Hazardous Waste Management System: Modification of the Hazardous Waste Program, Hazardous Waste Lamps, and 180-day Accumulation Time Under RCRA for Waste Water Treatment Sludges from the Metal Finishing Industry. These amendments are less stringent than federal regulations and are intended to assist the regulated community, and encourage recycling and waste minimization.

Mike said OWM has two rule amendments this year that deal with underground storage tanks. The first, **33CSR30**, applies to a very small segment of the population. This rule, as well as federal EPA requirements, requires that all underground storage tanks (UST) have corrosion protection by December 22, 1998. Many UST systems were upgraded to meet the standards rather than new USTs being installed; however, the UST inspectors are finding that many of the systems were not installed correctly. Since the current rules do not specifically require certification of persons who install corrosion protection, the burden falls solely on the UST owners and/or operators to correct the system. This proposed amendment should prevent this from continuing in the future.

33CSR32, OWM's final proposed rule, deals with the Underground Storage Tank Insurance Fund. This rule requires that accrued interest on the UST Insurance Trust Fund Capitalization Fund remain in that fund. The UST Administrative Fund has been depleted, and the annual registration fee assessment no longer generates enough revenue to support the UST program. The expenditures from the UST Administrative Fund are used as the required match for the federal grant. Unless more revenue is deposited in the UST Administrative Fund, there will be insufficient funds to pay personnel and other operating costs. The proposed amendments to this rule will allow the transfer of the interest money and alleviate the need to increase the annual registration fees. Mike said this amendment has the full support of the UST Advisory Committee.

After discussion of OWM's proposed rules, the following amendment to 33CSR5 (the Waste Tire Disposal rule) was offered by Counsel:

Bill Samples said that section 3.1.a indicates that a permit is required for persons who generate waste tires, but he couldn't find a definition of "generator," and this could be confusing when trying to interpret the rule. Cap Smith, Chief of OWM, said that is a very good point, and it will certainly be taken into consideration during the public hearing/comment period timeframe.

The following Office of Mining and Reclamation rules were discussed:

- **38CSR2 - "WV Surface Mining Reclamation Rule"**
- **38CSR3 - "Rules for Quarrying and Reclamation"**

John Ailes, Assistant Chief, OMR, briefly described the proposed amendments to **38CSR2**, and noted that most of the amendments deal with Office of Surface Mining program amendments.

After discussion/questions concerning 38CSR2, the following comments were made by Council:

In Section 14.15.f, OMR is proposing to tie contemporaneous reclamation to reclamation liability. The proposed amendment stated that the reclamation liability cannot exceed the bond posted for the site. Bill Raney stated his concern with limiting the area to be disturbed based upon liability. He questioned who would be determining reclamation liability, and how. He said that he understands the reasoning, but would like to go on record as being "cautiously reserved," and additional comments would be forthcoming during the public hearing/comment period.

The proposed amendment to strike Section 23, which deals with coal extraction as an incidental part of development of land for commercial, residential, industrial or civic use, was questioned by Council. John explained to Council that this provision was amended into the rule a few years ago, but never approved by OSM, and therefore deleted from the rule mainly as a cleanup. Bill Raney said that he is hesitant to see the Section deleted from the rule since it is still in DEP's statute, and has been beneficial to businesses several times throughout the state. After further discussion, Chairman Castle agreed to reinstate Section 23 and will work with OSM to seek program approval.

Rocky Parsons, OMR Assistant Chief, discussed the newly-proposed Quarry mining rules, 38CSR3, authorized in HB 4055, effective June 8. He said that the Statue was developed through the stakeholders' process, and the rules have been drafted the same way. DEP intends to file the rules as "Emergency," and at the same time file the rules to go through the normal legislative rule-making process. He said it is still a working document, but any changes made will be as a result of the stakeholders' process.

After discussion/questions on 38CSR3, the following comments are noted by Council members:

Mr. Larry Harris commented by e-mail on 38CSR3. He stated that his concerns for quarries are "related to degradation of nearby streams and water tables. Where limestone is located the quality of streams is generally high, often being trout streams. Quarries can alter the quality of the stream through siltation, and the quantity through alterations of the water table due to blasting. Hence, we want to make sure that the rules adequately address these two issues. I think that the water quality baseline studies should include a bottom fines analysis of receiving streams. Duffield of the Forest Service has established a direct relationship between the % of fines in stream sediment and the biological productivity of the stream. Having a baseline value for the receiving stream, and requiring monitoring to assure that this figure is not increased to the point where productivity is altered, would be a suitable protection for the stream - Part of 3.5 of the proposed rules."

Mr. Harris also noted his objection to calling streams "Natural Drainways" in subsection 2.17 of the definitions - He stated that "this nomenclature lowers the status of streams to drains, which are essentially industrial conduits or pipes. Very often these streams are manipulated in a way that destroys habitat and degrades the productivity of that stream."

Rocky responded that he will take these comments to the next stakeholders' meeting for their consideration, including a possible rewrite of 2.17.

Mr. Harris also asked if there are any preblast assessments or surveys of the groundwater level. Rocky responded by saying that preblast surveys do require a sampling of the water wells. With, quarries, operations in existence now have a year to do a preblast survey to the nearest protected structure within 1,000

feet of the blasting area. A new permit has to do a preblast survey for any structure within 1,500 feet of the blasting area, as opposed to 1/2 mile with coal.

Bill Samples pointed out section 7.4.b., that deals with sediment control, seems to be awkwardly worded. As it is worded, the Director has to make a very definitive determination on something that the applicant only has to have a reasonable likelihood of. Chairman Castle agreed with this comment, and the rule will be amended accordingly.

Mr. Samples also noted in 7.4.c., that normally in an environmental regulation when something has to be removed, you say it has to be disposed of in an appropriate manner. Chairman Castle agreed with this comment and amendment to this section.

3. Open Discussion.

Chairman Castle introduced Libby Chatfield, Technical Advisor for the Environmental Quality Board. Chairman Castle thanked Libby for taking the time to appear before Council to discuss 46CSR1, EQB's Water Quality Standard Rule. Randy Sovic, DEP's Office Water Resources, also participated in the discussion.

After discussions/questions concerning the proposed EQB rule, the following comments are noted from Council members:

Bill Raney said that even though the Boards (the Environmental Quality Board and Solid Waste Management Board) are not required to come before the Council with their proposed Legislative rules, he would like to go on record as being "absolutely in opposition" to the proposed Groundwater Quality Standards' rule amendments until a full-blown, socio-economic impact statement is done. He said he does take exception to the fact that the Board can autonomously go forward with the rules without coming to the Advisory Council, and that he believes the obligations and costs will be enormous, both to the state and to industry.

Lisa Dooley stated that she is in complete agreement with Mr. Raney, and would also like to go on record as being opposed to EQB's proposed rule. She said that the proposed rule amendments, especially as they relate to the economic development part, very much concern her. She believes any economic development in West Virginia will be subject to the state's anti-degradation policy. And that policy should be reviewed and compared to surrounding states so that it is not detrimental for businesses and municipalities.

Bill Samples said that there is a multitude of concerns with this rule amendment, and that industry certainly has a major concern with it. He said that other states with anti-degradation rules may not have brought things to a stop, but certainly delayed them. He said that he would also like to go on record as being opposed to this rule amendment.

Rick Roberts asked to be included, for the record, his opposition to the proposed rule.

Director Castle said that the connection and link to DEP with regard to implementing the proposed EQB rules will definitely be taken into consideration.

Before adjournment of the meeting Bill Raney said he would like to go on record to thank Carrie Chambers for putting together the rules package and e-mailing them to Counsel in a timely fashion. Chairman Castle adjourned the meeting at 4:00 p.m.

APPENDIX B

FISCAL NOTE FOR PROPOSED RULES

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

Type of Rule: ___X___ Legislative _____ Interpretive _____ Procedural

Agency: Division of Environmental Protection

Address: Office of Waste Management
1356 Hansford Street
Charleston, WV 25301-1401 Attn: Mike Dorsey

1. Effect of Proposed Rule	Annual		Fiscal Year		
	Increase	Decrease	Current	Next	There-after
Estimated Total Cost	$ -0-	$ -0- *	$ -0-	$ -0-	$ -0-
Personal Services					
Current Expense					
Repairs and Alterations					
Equipment					
Other					

2. Explanation of above estimates:

* Overall, this years' rule adopts federal regulations that are less stringent than last years rule. The two attached final rules should normally economically benefit the regulated community and yet not increase the burden placed on the agency to a significant degree. For example, the first new rule regulates lamps that contain mercury as universal waste rather than hazardous waste to encourage recycling. In fact, this rule is already found in 33 CSR 20. The adoption of the new rule primarily clarifies the definition of the lamps being regulated.

The second new rule is an example of a less stringent policy toward metal finishers allowing them to accumulate F006 waste for an additional 90 days prior to off-site shipment. The EPA has estimated a national savings for the metal finishers of between $3.9 million to $5.3 million dollars annually. This averages out to be less than one percent of a typical metal finisher's annual sales.

Please see the economic impact statements in the two rules included in this package.

3. Objectives of these rules:

The objective of this rule is to stay in compliance with federal guidelines when implementing the State hazardous waste 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 needed to implement the program. Note: *The State Hazardous Waste Program has been reauthorized by EPA as of July 10, 2000.*

4. Explanation of Overall Economic Impact of Proposed Rule.

A. Economic Impact on State Government.

There is believed to be no significant economic impact on the agency to implent these rules.

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

The metal finishing industry should benefit somewhat from longer accumulation times for F006 waste and should benefit from waste minimization activities. See EPA's economic discussion.

C. Economic Impact on Citizens/Public at Large.

There should be no significant economic impact on the public at large from this years' rule. As the public becomes more aware of the universal waste status of mercury containing lamps and recycling of these lamps increases, mercury is expected to be more efficiently removed from the environment.

Date: July 14, 2000

Signature of Agency Head or Authorized Representative:

Carrie J. Chambers

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

SERIES 20
HAZARDOUS WASTE MANAGEMENT RULE

§33-20-1. Scope and Purpose.

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, §22-18-1, et seq.

1.3. Filing Date. - - ~~May 12, 2000~~

1.4. Effective Date. - - ~~July 1, 2000~~

1.5. Amendment of Former Rule. -- This rule amends the Hazardous Waste Management rule, 33 CSR 20, in effect prior to the date this rule becomes effective.

1.6. 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, 199~~8~~9, 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.

1.6.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:

1.6.a.1. "Office of waste management, West Virginia division of environmental protection" shall be substituted for "environmental protection agency."

1.6.a.2. "Chief of the office of waste management, West Virginia division of environmental protection" shall 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" shall have the meaning defined in 40 CFR § 260.10.

1.6.a.3. Whenever the regulations require publication in the "Federal Register" compliance shall 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.

1.6.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 should be to section 4 of this rule. 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 of this rule.

1.7. 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 regulations 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 division 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."

1.8. 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 division of environmental protection pursuant to statute, or is in excess of the statutory authority, such provision shall be and remain effective only to the extent authorized by the West Virginia Code.

1.9. 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 chief, and which are in effect on the date this rule becomes effective, shall continue in effect according to their terms unless modified, suspended or revoked in accordance with the law.

1.10. This rule references the provisions of West Virginia division 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" effective on July 1, 200~~0~~1.

§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 shall 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.

~~2.1.a.2. "Mercury containing lamp" means an electric lamp in which mercury is purposely introduced by the manufacturer for the operation of the lamp. Mercury containing lamps commonly include fluorescent lamps.~~

2.1.a.2. The provisions of Federal Register document dated July 6, 1999 (Volume 64, Number 128) on pages 36466-36490: titled "Hazardous Waste Management System; Modification of the Hazardous Waste Program; Hazardous Waste Lamps; Final Rule" are adopted and incorporated by reference.

2.1.a.2.A. "Lamp", also referred to as "universal waste lamp", is defined as the bulb or tube portion of an electric lighting device. A lamp is specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infra-red regions of the electromagnetic spectrum. Examples of common universal waste electric lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps.

2.1.a.3. "Universal Waste" means any of the following hazardous wastes that are managed under the universal waste requirements of 40 CFR part 273:

2.1.a.3.A. Batteries as described in 40 CFR § 273.2;

2.1.a.3.B. Pesticides as described in 40 CFR § 273.3; ~~and~~

2.1.a.3.C. Thermostats ~~and mercury containing lamps~~ as described in 40 CFR § 273.4.
and

2.1.a.3.D. Lamps as described in 40 CFR § 273.5 and subparagraph 2.1.a.2.A. of this rule.

~~2.1.a.4. The provisions of Federal Register document dated November 30, 1990 (Volume 63, Number 229) on pages 65873-65947; the final rule titled "Hazardous Remediation Waste Management Requirements" (HWIR-media) are hereby adopted and incorporated by reference.~~

~~2.1.a.5. The provisions of Federal Register document dated October 22, 1998 (Volume 63, Number 204) on pages 56709-56735; the final rule titled "Standards Applicable to Owners and Operators of Closed and Closing Hazardous Waste Management Facilities; Post-closure Permit Requirements; Closure Process" are hereby adopted and incorporated by reference.~~

2.2. 40 CFR § 260.2. -- 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). -- 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 chief for such an exclusion following the procedures established in 40 CFR § 260.20 and 40 CFR § 260.22.

Note: The division of environmental protection intends to 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 chief providing for the recovery of all reasonable costs incurred by the division 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 shall be determined by the number of hours worked under the agreement by the primary division of environmental protection employee multiplied by 2.5 times the hourly rate of such employee and then adding direct expenses incurred by such employee. Costs related to independent contractors retained by the division of environmental protection to assist in the review and investigation of petitions shall be included as direct expenses.

2.4.b.2. Within thirty (30) calendar days of receiving a petition under this section, the division of environmental protection shall send the petitioner an itemized list of estimated costs it expects to incur as a result of reviewing and investigating the petition. Such list shall include anticipated outside contractor costs.

2.4.b.3. If, upon review of the itemized list of estimated costs submitted by the division of environmental protection, the petitioner determines not to continue the petition process, the petitioner may submit a certified letter to the chief withdrawing the petition. If such letter is submitted within ten (10) days of the date of receipt of the division of environmental protection's list of estimated costs, the petitioner shall 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 chief shall accept such a 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 may petition the chief for such an inclusion after having received approval from the administrator of the environmental protection agency. The petition shall 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 CFR § 260.20 and 40 CFR part 273; and

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

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

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

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

2.5.d.1. Submit a petition to the chief demonstrating that the 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 should 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 chief 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 chief shall be in writing and state the reasons to either grant or deny the petition. Any petitioner aggrieved by the decision of the chief 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 chief that groundwater monitoring complying with either 40 CFR part 265, subpart F or which is approved by the chief, 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 such 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) shall notify the chief of the receipt of such wastes on a form prescribed by the chief.

3.1.a.3. Annually submit to the chief 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 shall notify the chief of their hazardous waste activity in accordance with section 4 of this rule.

3.3. ~~The provisions of 40 CFR § 261.9 are amended by revising 40 CFR § 261.9(c) to read as follows:~~

~~(C) Thermostats and mercury containing lamps as described in 40 CFR § 273.4.~~

3.3. The provisions of 40 CFR part 261 [Organobromide Production Wastes; (63 FR 24596; May 4, 1998), as amended (63 FR 35147; June 29, 1998)] that added two new wastes (K140 and U408) to the 40 CFR Part 261 listings are excepted from incorporation by reference. K140, U408 and 2,4,6-Tribromophenol are therefore removed from this rule. On April 9, 1999, the United States Court of Appeals for the District of Columbia in Great Lakes Chemical Corporation versus EPA (Docket No. 98-1312), granted the U.S. Government's motion for a voluntary vacatur of the rules addressed by Revision Checklist 165 [Organobromide Production Wastes; (63 FR 24596; May 4, 1998), as amended (63 FR 35147; June 29, 1998)].

3.4. In addition to adoption and incorporation by reference of 40 CFR part 261 effective on July 1, ~~1998~~ 1999:

~~3.4.a. The provisions of Federal Register document dated November 30, 1998 (Volume 63, Number 229) on pages 65873-65947: the final rule titled "Hazardous Remediation Waste Management Requirements" (HWIR-media) are hereby adopted and incorporated by reference.~~

3.4.a. The provisions of Federal Register document dated July 6, 1999 (Volume 64, Number 128) on pages 36466-36490: titled "Hazardous Waste Management System; Modification of the Hazardous Waste Program; Hazardous Waste Lamps; Final Rule" are hereby adopted and incorporated by reference.

~~3.4.b. The provisions of Federal Register document dated October 22, 1998 (Volume 63, Number 204) on pages 56709-56735: the final rule titled "Standards Applicable to Owners and Operators of Closed and Closing Hazardous Waste Management Facilities; Post-closure Permit Requirements; Closure Process" are hereby adopted and incorporated by reference.~~

§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 shall notify the chief of these activities when such activity begins, unless such activities are exempted from the requirements of this rule.

4.1.a. Any person as described in subsection 4.1 of this rule 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 of this rule.

4.1.b. The purpose of section 4 of this rule 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. of this rule or all who initiated hazardous waste activities subsequent to the requirements of EPA as referenced above in subdivision 4.1.a of this rule to notify the chief of their hazardous waste activities.

4.1.c In addition to the notification requirements specified in this section, the chief shall require notification of hazardous waste activities, as applicable, pursuant to the following:

~~4.1.c.1. The provisions of Federal Register document dated November 30, 1990 (Volume 63, Number 229) on pages 65873-65947: the final rule called "Hazardous Remediation Waste Management Requirements" (HWIR-media) are hereby adopted and incorporated by reference.~~

4.1.c.1. The provisions of Federal Register document dated July 6, 1999 (Volume 64, Number 128) on pages 36466-36490: titled "Hazardous Waste Management System; Modification of the Hazardous Waste Program; Hazardous Waste Lamps; Final Rule" are hereby adopted and incorporated by reference.

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

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 of this rule, but is subject to those requirements shall notify the chief 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, shall notify the chief in writing of his hazardous waste activities on the date of initiation of such 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 shall file a notification form for generation activities as well as storage, treatment, and disposal activities, unless such 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. of this rule shall comply with the EPA identification number requirements and shall 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) shall 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) shall be deemed references to subsection 5.2 of this rule and the subdivisions herein, as appropriate.

5.3. 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 1.6.a. of this rule 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 shall file with the chief copies of all documentation, manifests, exception reports, annual reports or records, inter alia, submitted to EPA, the administrator or the regional administrator as required by and within the time frames set forth in subpart E.

5.4. 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. of this rule 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 shall file with the chief copies of all documentation, manifests, exception reports, annual reports or records, inter alia, submitted to EPA, the administrator or the regional administrator as required by and within the time frames set forth in subpart H.

~~5.5. The provisions of Federal Register document dated November 30, 1990 (Volume 63, Number 229) on pages 65873-65947: the final rule titled "Hazardous Remediation Waste Management Requirements" (HWIR media) are hereby adopted and incorporated by reference~~.

5.5 The provisions of Federal Register document dated March 8, 2000 (Volume 65, Number 46) on pages 12378-12398: titled "180-Day Accumulation Time Under RCRA for Waste Water Treatment Sludges From the Metal Finishing Industry; Final Rule" are hereby adopted and incorporated by reference.

§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 said regulations relate to the transportation of hazardous waste by air and water.

6.2. Note. -- 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 of this rule 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", apply 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 of this rule, 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. 40 CFR § 264.1 -- The provisions of 40 CFR § 264.1(g)(11)(iii) and (iv)are amended to read as follows:

(iii) Thermostats ~~and mercury containing lamps~~ as described in 40 CFR § 273.4.

(iv) Lamps as described in 40 CFR § 273.5. and subparagraph 2.1.a.2.A. of this rule.

7.4. 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 chief of the office of waste management must receive identical notification.

7.5. 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.

7.5.a. For purposes of 40 CFR § 264.92, reference to the "regional administrator" shall 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.

7.5.b. For purposes of 40 CFR § 264.94 and subparagraphs thereof, the environmental quality board rule on groundwater protection standards, 46 CSR 12 and the subparagraphs therein, shall apply as required pursuant to the authority granted the environmental quality board in W. Va. Code, §22-12-4.

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

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

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

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

7.7. Provisions Relating to Incinerators. -- The provisions of 40 CFR §§ 264.341, 264.342, 264.343, 264.344, 264.345 and 264.347 relating to incinerators are excepted from incorporation by reference. Consult the rules of the office of air quality regarding emissions from incinerators.

7.7.a. Consult the office of air quality, 45 CSR 25, "To Prevent and Control Air Pollution from Hazardous Waste Treatment, Storage, or Disposal Facilities."

7.8. 40 CFR Part 264, Subparts AA, BB, CC. -- The 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.

~~7.9. The provisions of Federal Register document dated November 30, 1998 (Volume 63, Number 229) on pages 65873-65947: the final rule titled "Hazardous Remediation Waste Management Requirements" (HWIR-media) are hereby adopted and incorporated by reference.~~

7.9. The provisions of Federal Register document dated September 15, 1998 (Volume 63, Number 204) on pages 49383-49407 (as amended by 63 FR 53844-53847; October 7, 1998):the final rule titled " a Project XL site-specific rulemaking for Osi Specialties, Inc., Sistersville, West Virginia." are hereby adopted and incorporated by reference. These provisions include 40 CFR § 264.1080(f); and 40 CFR § 264.1080(g).

~~7.10. The provisions of Federal Register document dated October 22, 1998 (Volume 63, Number 204) on pages 56709-56735: the final rule titled "Standards Applicable to Owners and Operators of Closed and Closing Hazardous Waste Management Facilities; Post-closure~~

~~Permit Requirements; Closure Process" are hereby adopted and incorporated by reference.~~

7.10. The provisions of Federal Register document dated October 8, 1997 (Volume 62, Project XL Site-Specific Rulemaking for Merck & Co., Inc., Stonewall Plant, Elkton, VA: Final Rule (62 FR 59621-59642; 10/8/97) are hereby excluded from incorporation by reference. These provisions include 40 CFR §§264.1030(d),264.1050(g),264.1080(e),265.1030(c),265.1050(f), and 265.1080(e).

§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 § 265.1 -- The provisions of 40 CFR § 264.1(g)(11)(iii) and (iv)are amended to read as follows:

(iii) Thermostats ~~and mercury containing lamps~~ as described in 40 CFR § 273.4.

(iv) Lamps as described in 40 CFR § 273.5. and subparagraph 2.1.a.2.A. of this rule.

8.3. 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 chief of the office of waste management must receive identical notification.

8.4. 40 CFR §§265.345, 265.347, 265.352. -- The provisions of 40 CFR §§ 265.341, 265.345, 265.347 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.

8.5. 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.

8.6. 40 CFR Part 265 Subparts AA, BB, CC. -- The 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 emissions standards for equipment leaks, and air emission standards for tanks, surface impoundments and containers.

~~8.7. The provisions of Federal Register document dated November 30, 1998 (Volume 63, Number 229) on pages 65873-65947: the final rule titled "Hazardous Remediation Waste Management Requirements" (HWIR-media) are hereby adopted and incorporated by reference.~~

8.7 The provisions of Federal Register document dated July 6, 1999 (Volume 64, Number 128) on pages 36466-36490: titled "Hazardous Waste Management System; Modification of the Hazardous Waste Program; Hazardous Waste Lamps; Final Rule".

~~8.8. The provisions of Federal Register document dated October 22, 1998 (Volume 63, Number 204) on pages 56709-56735: the final rule titled "Standards Applicable to Owners and Operators of Closed and Closing Hazardous Waste Management Facilities; Post-closure Permit Requirements; Closure Process" are hereby adopted and incorporated by reference.~~

8.8. The provisions of Federal Register document dated September 15, 1998 (Volume 63, Number 204) on pages 49383-49407 (as amended by 63 FR 53844-53847; October 7, 1998):the final rule titled " a Project XL site-specific rulemaking for Osi Specialties, Inc., Sistersville, West Virginia." are hereby adopted and incorporated by reference. These provisions include 40 CFR § 265.1080(f); and 40 CFR § 265.1080(g).

8.9. The provisions of Federal Register document dated October 8, 1997 (Volume 62, Project XL Site-Specific Rulemaking for Merck & Co., Inc., Stonewall Plant, Elkton, VA: Final Rule (62 FR 59621-59642; 10/8/97) are hereby excluded from incorporation by reference. These provisions include 40 CFR §§264.1030(d),264.1050(g),264.1080(e),265.1030(c),265.1050(f), and 265.1080(e).

§33-20-9. Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Treatment 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 § 268.1 -- The provisions of 40 CFR § 264.1(f)(3) and (f) (4)are amended to read as follows:

(3) Thermostats ~~and mercury-containing lamps~~ as described in 40 CFR § 273.4.; and

(4) Lamps as described in 40 CFR § 273.5 and subparagraph 2.1.a.2.A. of this rule.

10.3. 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.

10.4. The provisions of 40 CFR part 268 [Organobromide Production Wastes; (63 FR 24596; May 4, 1998), as amended (63 FR 35147; June 29, 1998)] that added two new wastes (K140 and U408) to the 40 CFR Part 268 listings are excepted from incorporation by reference. K140, U408 and 2,4,6-Tribromophenol are therefore removed from the land disposal restrictions requirements in 40 CFR Part 268 as referenced by this rule. On April 9, 1999, the United States Court of Appeals for the District of Columbia in Great Lakes Chemical Corporation versus EPA (Docket No. 98-1312), granted the U.S. Government's motion for a voluntary vacatur of the rules addressed by Revision Checklist 165 [Organobromide Production Wastes; (63 FR 24596; May 4, 1998), as amended (63 FR 35147; June 29, 1998)]. Note that the final rule published August 10, 1998 (63 FR 42580) is also vacated as it only clarified that the typographical errors made in the May 4, 1998 rule were corrected by the June 29, 1998 rule.

~~10.4.~~ 10.5. Definition of Administrator in 40 CFR Part 268.40(b). The term "administrator" in 40 CFR § 268.40(b) shall retain its meaning as defined in 40 CFR § 260.10.

~~10.5.~~ ~~10.6. The provisions of Federal Register document dated November 30, 1998 (Volume 63, Number 229) on pages 65873-65947: the final rule titled "Hazardous Remediation Waste Management Requirements" (HWIR-media) are hereby adopted and incorporated by reference.~~

10.6 The provisions of Federal Register document dated July 6, 1999 (Volume 64, Number 128) on pages 36466-36490: titled "Hazardous Waste Management System; Modification of the Hazardous

Waste Program; Hazardous Waste Lamps; Final Rule" are hereby adopted and incorporated by reference.

§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 § 270.1. -- The provisions of 40 CFR § 270.1(c)(2)(viii)(C) are amended to read as follows:~~

~~(c) Thermostats and mercury containing lamps as described in 40 CFR § 273.4.~~

11.2. 40 CFR § 270.1 -- The provisions of 40 CFR § 270.1(c)(2)(viii) (C) and (D)are amended to read as follows:

(C) Thermostats ~~and mercury containing lamps~~ as described in 40 CFR § 273.4.; and

(D) Lamps as described in 40 CFR § 273.5. and subparagraph 2.1.a.2.A. of this rule.

11.3. 40 CFR § 270.2 Definitions.

11.3.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 shall apply to obtain a hazardous waste management permit in West Virginia. All references in 40 CFR part 270 to 40 CFR part 124 shall be deemed to be references to the applicable provisions of subsections 11.5. through 11.18 of this rule. To the extent of any inconsistency with 40 CFR part 270, the specific provisions contained herein shall control.

11.4. Application Fees.

11.4.a. Any person who applies for a permit for the construction or operation of a hazardous waste management facility, or both, shall submit as part of said 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 these regulations are not required to pay a permit application fee.

11.4.b. Such fee shall be determined by the schedule set forth in table 1 of this rule. 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 division 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.

11.4.c. The chief reserves the right to promulgate rules establishing a permit renewal fee at a later date.

11.5. Pre-application Public Meeting and Notice.

11.5.a. Applicability. The requirements of this subsection shall apply to West Virginia hazardous waste management Part B permit applications seeking initial permits for hazardous waste management units. The requirements of this section shall also apply to West Virginia hazardous waste management Part B permit applications seeking renewal of permits for such units, where 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.

11.5.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 shall post a sign-in sheet or otherwise provide a voluntary opportunity for attendees to provide their names and addresses.

11.5.c. The applicant shall submit a summary of the meeting, along with the list of attendees and their addresses developed under subsection 11.5.b. of this section, 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).

11.5.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.

11.5.d.1. The applicant shall provide public notice in all of the following forms:

11.5.d.1.A. A newspaper advertisement. The applicant shall publish a notice, fulfilling the requirements in paragraph 11.5.d.2. of this section, in a newspaper of general circulation in the county or equivalent jurisdiction that hosts the proposed location of the facility. In addition, the chief shall instruct the applicant to publish the notice in newspapers of general circulation in adjacent counties or equivalent jurisdictions, where the chief determines that such publication is necessary to inform the affected public. The notice must be published as a display advertisement.

11.5.d.1.B. A visible and accessible sign. The applicant shall post a notice on a clearly marked sign at or near the facility, fulfilling the requirements in paragraph 11.5.d.2. of this section. 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.

11.5.d.1.C. A broadcast media announcement. The applicant shall broadcast a notice, fulfilling the requirements in paragraph 11.5.d.2. of this section, at least once on at least one local radio station or television station. The applicant may employ another medium with prior approval of the chief.

11.5.d.1.D. A notice to the permitting agency. The applicant shall send a copy of the newspaper notice to the permitting agency and the chief shall 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.

11.5.d.2. The notices required under paragraph 11.5.d.1. of this section must include:

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

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

11.5.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;

11.5.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

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

11.6 Public Notice Requirements at the Application Stage.

11.6.a. Applicability. The requirements of this subsection shall apply to all West Virginia hazardous waste management Part B permit applications seeking initial permits for hazardous waste management units. The requirements of this section shall also apply to hazardous waste management Part B permit applications seeking renewal of permits for such 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.

11.6.b. Notification. The chief shall provide public notice as required in subsection 11.6. of this rule when a Part B permit application has been submitted. The chief shall provide public notice to:

11.6.b.1. The applicant;

11.6.b.2. All persons on a mailing list developed under subparagraph 11.12.d.1.D. of this rule; and

11.6.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 chief and is available for review.

11.6.b.4. Any person otherwise entitled to receive notice under subdivision 11.6.b. of this rule may waive the right to receive notice for any classes and categories of permits.

11.6.c. The notice shall be published within a reasonable period of time after the application is received by the chief. The notice must include:

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

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

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

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

11.6.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

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

11.6.d. Concurrent with the notice required under subdivision 11.6.b. of this section, the chief 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.

11.7. Information Repository.

11.7.a. Applicability. The requirements of this section apply to all applications seeking West Virginia hazardous waste management permits for hazardous waste management units.

11.7.b. The chief may assess the need, on a case-by-case basis, for an information repository. When assessing the need for an information repository, the chief shall 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 chief determines, at any time after submittal of a permit application, that there is a need for a repository, then the chief shall notify the facility that it must establish and maintain an information repository.

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

11.7.d. The information repository shall be located and maintained at a site chosen by the facility. If the chief 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 chief shall specify a more appropriate site.

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

11.7.f. The facility owner/operator shall be responsible for maintaining and updating the repository with appropriate information throughout a time period specified by the chief. The chief may close the repository at his or her discretion, based on the factors in subdivision 11.7.b. of this section.

11.8. Application for a Permit.

11.8.a. Any person who requires a permit under this rule shall complete, sign, and submit to the chief 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 chief shall 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.

11.8.b. The chief shall review for completeness every application. Each application submitted by a new hazardous waste management, should be reviewed for completeness by the chief 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), should be reviewed for completeness within 60 days of receipt. Upon completing the review, the chief shall notify the applicant in writing whether the application is complete. If the application is incomplete, the chief shall list the information necessary to make the application complete. When the application is for an existing hazardous waste management facility, the chief shall specify in the notice of deficiency a date for submitting the necessary information. The chief shall notify the applicant that the application is complete upon receiving this information. After the application is completed, the chief may request additional information from the applicant but only when necessary to clarify, modify or supplement previously submitted material. Request for

such additional information will not render an application incomplete.

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

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

11.8.e. The effective date of an application is the date on which the chief notifies the applicant that the application is complete as provided for in subdivision 11.8.b. of this section.

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

11.8.f.1. Prepare a draft permit;

11.8.f.2. Give public notice;

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

11.8.f.4. Issue a final permit.

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

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

11.9.b. If the chief decides the request is not justified, he or she shall 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 chief may be appealed

to the environmental quality board in accordance with section 15 of this rule.

11.9.b.1. If the chief tentatively decides to modify or revoke and reissue a permit under 40 CFR §§ 270.41 or 270.42 (c), he or she shall prepare a draft permit under section 11.10. incorporating the proposed changes. The chief 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 chief shall require the submission of a new application.

11.9.b.2. In a permit modification under this section, only those conditions to be modified shall be reopened when a new draft permit is prepared. All other aspects of the existing permit shall remain in effect for the duration of the unmodified permit. When a permit is revoked and reissued under this section, the entire permit is reopened just as if the permit had expired and was being reissued. During any revocation and reissuance proceeding the permittee shall comply with all conditions of the existing permit until a new final permit is reissued.

11.9.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.

11.9.c. If the chief tentatively decides to terminate a permit under 40 CFR § 270.43, he or she shall 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 11.10. of this rule.

11.10. Draft Permits.

11.10.a. Once an application is complete, the chief shall tentatively decide whether to prepare a draft permit or to deny the application.

11.10.b. If the chief tentatively decides to deny the permit application, he or she shall 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 chief's final decision is that the tentative decision to deny the permit application was incorrect, he or she shall withdraw the Notice of Intent to Deny and proceed to prepare a draft permit.

11.10.c. If the chief tentatively decides to issue a permit, he or she shall prepare a draft permit that contains the following information:

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

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

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

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

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

11.11. Fact Sheet

11.11.a. A fact sheet shall be prepared for every draft permit for a hazardous waste management facility, which the chief finds is the subject of wide-spread public interest or raises major issues. The fact sheet shall briefly set forth the principal facts and the significant factual, legal, and methodological and policy questions considered in preparing the draft permit. The chief shall send the fact sheet to the applicant and, on request, to any other person.

11.11.b. The fact sheet shall include when applicable:

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

11.11.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;

11.11.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;

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

11.11.b.5. A description for reaching a final decision on a draft permit including:

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

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

11.11.b.5.C. Any other procedures by which the public may participate in the final decision.

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

11.12. Public Notice of Permit Actions and Public Comment Period

11.12.a. Scope. The chief shall give public notice if the following actions have occurred:

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

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

11.12.b. No public notice is required when a request for permit modification, revocation and reissuance, or termination is denied under subsection 11.9. of this rule. Written notice of that denial shall be given to the requester and to the permittee.

11.12.c. Timing. Public notice of the preparation of a draft permit (including a Notice of Intent to Deny a Permit Application) required under subdivision 11.12.a. of this rule shall allow at least forty-five (45) days for public comment. Public notice of a public hearing shall 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.)

11.12.d. Public notice of activities described in subdivision 11.12.a. of this section shall be given by the following methods:

11.12.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):

11.12.d.1.A. The applicant;

11.12.d.1.B. Any other agency which the chief 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;

11.12.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;

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

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

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

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

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

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

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

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

11.12.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.

11.12.e. All public notices issued under this section shall contain the following minimum information:

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

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

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

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

11.12.e.5. A brief description of the comment procedures required by subsections 11.13. and 11.14. of this rule 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.

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

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

11.12.f. Public notices for hearings. In addition to the general public notice described in subdivision 11.12.e. of this section, the public notice of a hearing shall contain the following information:

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

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

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

11.12.g. In addition to the general public notice described in subdivision 11.12.e. of this section, all persons identified in subparagraphs 11.12.d.1.A, 11.12.d.1.B, and 11.12.d.1.C of this

section shall be mailed a copy of the fact sheet, the permit application and the draft permit, as applicable.

11.13. Public Comments and Requests for Public Hearings

During the public comment period provided under subsection 11.12. of this rule, any interested person may submit written comments on the draft permit and may request a public hearing, if no hearing has already been scheduled. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. All comments shall be considered in making the final decision and shall be answered as provided in subsection 11.17 of this rule.

11.14. Public Hearings.

11.14.a. The chief shall hold a public hearing whenever he or she finds, on the basis of requests, a significant degree of public interest in a draft permit.

11.14.b. The chief may also hold a public hearing at his or her discretion, whenever, for instance, such a hearing might clarify one or more issues involved in the permit decision.

11.14.c. The chief shall 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 11.12.c. of this rule; whenever possible the chief shall schedule a hearing under this section at a location in convenient to the nearest population center to the proposed facility.

11.14.d. Public notice of the hearing shall be given as specified in subsection 11.12. of this rule.

11.14.e. Whenever a public hearing will be held the chief shall designate a presiding officer for the hearings who shall be responsible for its scheduling and orderly conduct.

11.14.f. Any person may submit oral or written statements and data concerning the draft permit. Reasonable limits may be set upon the time allowed for oral statements, and the submission of statements in writing may be required. The public comment period under subsection 11.12. of this rule shall 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.

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

11.15. Reopening of the Public Comment Period.

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

11.15.a.1. Prepare a new draft permit, appropriately modified, under subsection 11.10. of this rule.

11.15.a.2. Prepare a revised fact sheet under subsection 11.11. of this rule and reopen the comment period.

11.15.a.3. Reopen or extend the comment period under subsection 11.12. of this rule to give interested persons an opportunity to comment on the information or arguments submitted.

11.15.b. Comments filed during the reopened comment period shall be limited to the substantial new questions that caused its reopening. The public notice under subsection 11.12. of this rule shall define the scope of the reopening.

11.15.c. Public notice of any of the above actions shall be issued under subsection 11.12 of this rule.

11.16. Issuance and Effective Date of Permit.

11.16.a. After the close of the public comment period on a draft permit the chief shall issue a final permit decision. The chief shall notify the applicant and each person who has submitted written comments or requested notice of the final permit decision. The notice shall 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.

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

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

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

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

11.17. Response to Comments.

11.17.a. At the time that any final permit decision is issued, the chief shall issue a response to comments. This response shall:

11.17.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

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

11.17.b. The response to comments shall be available to the public.

11.18. Administrative Record.

11.18.a. The provisions of a draft permit prepared under subsection 11.10. of this rule shall be based on the administrative records consisting of:

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

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

11.18.a.3. The fact sheet;

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

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

11.18.b. The chief shall base final permit decisions on the administrative record consisting of:

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

11.18.b.2. All comments received during the public comment period provided under subsection 11.12. of this rule (including any extension or reopening under subsection 11.15. of this rule);

11.18.b.3. The tape or transcript of any hearing(s) held under subsection 11.14. of this rule;

11.18.b.4. Any written material submitted at such hearing;

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

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

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

11.18.b.8. The final permit.

11.18.c. The administrative record shall be complete on the date the final permit is issued.

11.18.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 11.18.a. and 11.18.b. of this rule, 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.

11.19. Public Access to Information.

11.19.a. Any records, reports, or information and any permit, permit applications, and related documentation within the chief's possession shall be available to the public for inspection and copying; provided, however, that upon a satisfactory showing to the chief that such 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 chief shall consider, treat, and protect such records as confidential.

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

11.19.c. Any document submitted to the chief which contains information for which claim of confidential information is made

shall be submitted in a sealed envelope marked "CONFIDENTIAL" and addressed to the chief. The document shall be submitted in two (2) separate parts. The first part shall contain all information which is not deemed by the person preparing the report as confidential and shall 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.

11.19.d. No information shall be protected as confidential information by the chief unless it is submitted in accordance with the provisions of subdivision 11.19.c. of this rule and no information which is submitted in accordance with the provision of subdivision 11.19.c. of this rule shall be afforded protection as confidential information unless the chief finds that such protection is necessary to protect trade secrets. The person who submits information claimed to be confidential shall receive written notice from the chief as to whether the information has been accepted as confidential or not.

11.19.e. All information which meets the tests of subdivision 11.19.d. of this rule shall be marked with the term "ACCEPTED" and shall be protected as confidential information. If said person fails to satisfactorily demonstrate to the chief that such information in the form presented to him meets the criteria of subdivision 11.19.d. of this rule, the chief shall mark the information "REJECTED" and promptly returned such information to the person submitting such information. The chief shall retain a copy of such information for reference.

11.19.f. Nothing contained herein shall be construed so as to restrict the release of relevant confidential information during situations declared to be emergencies by the chief or his designee.

11.19.g. Nothing in subsection 11.19. of this rule may be construed as limiting the disclosure of information by the division to any officer, employee, or authorized representative of the state or federal government concerned with effecting the purposes of this subsection.

11.19.h. Persons interested in obtaining information pursuant to this subsection should submit a request in accordance with the environmental quality board rule 46 CSR 8.

~~11.20. The provisions of Federal Register document dated October 22, 1998 (Volume 63, Number 204) on pages 56709-56735: the final rule titled "Standards Applicable to Owners and Operators of Closed and Closing Hazardous Waste Management Facilities; Post-closure~~

~~Permit Requirements; Closure Process" are hereby adopted and incorporated by reference.~~

11.20~~1~~. 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 11.19. of this rule.

11.21~~2~~. 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 form process vents.

11.22~~3~~. 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.

§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 shall notify the chief in writing of such transfer.

12.3. Other Requirements. -- Nothing contained in this section of this rule shall 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.

~~Permit Requirements; Closure Process" are hereby adopted and incorporated by reference.~~

11.20~~1~~. 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 11.19. of this rule.

11.21~~2~~. 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 form process vents.

11.22~~3~~. 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.

§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 shall notify the chief in writing of such transfer.

12.3. Other Requirements. -- Nothing contained in this section of this rule shall 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.

13.1.a. The provisions of Federal Register document dated July 6, 1999 (Volume 64, Number 128) on pages 36466-36490: titled "Hazardous Waste Management System; Modification of the Hazardous Waste Program; Hazardous Waste Lamps; Final Rule" are hereby adopted and incorporated by reference.

13.2. In addition to pesticides, batteries, and thermostats covered by 40 CFR part 273, Lamps as described in subparagraph 2.1.a.2.A. of this rule are also covered under 40 CFR Part 273.

~~13.3. 40 CFR § 273.1 -- The provisions of 40 CFR § 273.1(a)(3) are amended to read as follows:~~

~~(3) Thermostats and mercury containing lamps as described in 40 CFR § 273.4.~~

~~13.4. 40 CFR § 273.4 -- Applicability - mercury thermostats and mercury containing lamps -- The provisions of 40 CFR § 273.4 are amended by adding thereto a new subdivision designated subdivision (d) to read as follows:~~

~~(d) Whenever the phrase "mercury thermostats" or "thermostats" is used in 40 CFR part 273, the phrase is to be read to include mercury containing lamps except where such language refers to mercury containing ampules. Mercury containing lamps shall be managed as universal waste to the same extent as mercury thermostats if the mercury containing lamp is a hazardous waste because it exhibits one or more of the characteristics identified in 40 CFR part 261, subpart C. Mercury containing lamps must be handled to prevent breakage, leakage or spillage of the hazardous constituents. In the event that the hazardous constituents are released, the handler must manage the material in accordance with all applicable universal waste remediation procedures and determine whether or not it is subject to the requirements of 40 CFR parts 260 through 272.~~

~~13.5. 40 CFR § 273.6 -- Definitions -- The provisions of 40 CFR § 273.6 are amended to read as follows:~~

~~13.5.a. "Mercury containing lamp" means an electric lamp in which mercury is purposely introduced by the manufacturer for the operation of the lamp. Mercury containing lamps commonly include fluorescent lamps.~~

13.3~~5.b~~. "Universal Waste" means any of the following hazardous wastes that are managed under the universal waste requirements of 40 CFR part 273:

13.3.a.~~5.b.1.~~ Batteries as described in 40 CFR § 273.2;

13.3.b.~~5.b.2.~~ Pesticides as described in 40 CFR § 273.3; and

13.3.c.~~5.b.3.~~ Thermostats ~~and mercury containing lamps~~ as described in 40 CFR § 273.4.

13.3.d.~~5.b.4.~~ Lamps as described in 40 CFR § 273.5. and subparagraph 2.1.a.2.A. of this rule.

13.4.~~6.~~ 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. of this rule 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 shall file with the chief copies of all documentation, manifests, exception reports, annual reports or records, inter alia, submitted to EPA, the administrator or the regional administrator as required by 40 CFR part 273.

13.5.~~7.~~ 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.~~, the provisions of 40 CFR part 279 effective on July 1, 1995, are hereby adopted and incorporated by reference.~~

13.6.~~8.~~ 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 of this rule 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. ~~Notwithstanding the effective date of this rule, the provisions of 40 CFR part 279 effective on July 1, 1995, are hereby adopted and incorporated by reference.~~ (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, 1999 unless otherwise noted in the text of this rule.)

14.2. 40 CFR § 279.82(b). -- The term EPA at 40 CFR § 279.82(b) shall 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

Federal Register

Tuesday
July 6, 1999

Part IV

Environmental Protection Agency

40 CFR Parts 260, 261, 264, etc.
Hazardous Waste Management System; Modification of the Hazardous Waste Program; Hazardous Waste Lamps; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 260, 261 264, 265, 268, 270 and 273

[FRL–6371–3]

RIN 2050–AD93

Hazardous Waste Management System; Modification of the Hazardous Waste Program; Hazardous Waste Lamps

AGENCY: Environmental Protection Agency.

ACTION: Final rule.

SUMMARY: Today's final rule adds hazardous waste lamps to the federal list of universal wastes regulated under the Resource Conservation and Recovery Act (RCRA). Handlers of universal wastes are subject to less stringent standards for storing, transporting, and collecting these wastes. The Agency has concluded that regulating spent hazardous waste lamps as a universal waste under 40 CFR Part 273 will lead to better management of these lamps and will facilitate compliance with hazardous waste requirements. Today's final rule, which streamlines the Subtitle C management requirements for hazardous waste lamps, also supports energy conservation efforts.

EFFECTIVE DATE: This final rule is effective on January 6, 2000.

ADDRESSES: The official record for this rulemaking is identified as Docket F–99–FLEF–FFFFF and is in the EPA RCRA docket, located in the RCRA Information Center (RIC) at Crystal Gateway I, First Floor, 1235 Jefferson Davis Highway, Arlington, VA 22202. The RIC is open from 9 a.m. to 4 p.m., Monday through Friday, excluding federal holidays. To review docket materials, it is recommended that the public make an appointment by calling (703) 603–9230. The public may copy a maximum of 100 pages from the regulatory docket at no charge. Additional copies cost $0.15/page.

FOR FURTHER INFORMATION CONTACT: The RCRA/Superfund/EPCRA/UST Hotline at (800) 424–9346 (toll free) or TDD (800) 553–7672 (hearing impaired). In the Washington, D.C. metropolitan area, call (703) 412–9810. For technical information about this rule, contact Marilyn Goode of the Office of Solid Waste (5304W), U.S. Environmental Protection Agency, 401 M St. SW., Washington DC 20460, phone 703–308–8800, or E-mail goode.marilyn@epamail.epa.gov.

SUPPLEMENTARY INFORMATION:

Internet Availability

This rule is available on the Internet. Using a World Wide Web (WWW) browser, type http://www.epa.gov/epaqswer/osw/hazwaste.htm#id.

Official Record

The official record for this action is kept in a paper format. The official record is maintained at the address in the **ADDRESSES** section at the beginning of this document.

Outline of Today's Document

I. Background

Under Subtitle C of the Resource Conservation and Recovery Act (RCRA) the Environmental Protection Agency (EPA) has promulgated regulations governing the nation's hazardous waste management program. These regulations are found at parts 260 through 279 of title 40 of the Code of Federal Regulations. These regulations first define which materials are considered solid wastes and then identify wastes that are hazardous and thus subject to RCRA hazardous waste requirements. Requirements are then set forth for hazardous waste generators,

transporters, and owners and operators of treatment, storage, and disposal facilities (TSDs). On May 11, 1995, EPA finalized streamlined requirements for collecting certain widely dispersed hazardous wastes under the Universal Waste Rule, codified in 40 CFR part 273. Today's rule extends the scope of that rule by adding hazardous waste lamps.

A. Current Regulations

Any person who generates a solid waste, as defined in 40 CFR 261.2, must determine whether or not the solid waste is a hazardous waste, either because the waste is listed as a hazardous waste in subpart D of 40 CFR part 261 or because the waste exhibits one or more of the characteristics of hazardous waste, as provided in subpart C of 40 CFR part 261. Data available to EPA, including studies conducted by the Agency, indicate that many fluorescent and high intensity discharge (HID) lamps exhibit the toxicity characteristic (TC) for mercury because of the use of that compound in producing these lamps. Some HID and other types of lamps may also exhibit the toxicity characteristic for lead, principally because of the use of lead solder. Before today's rulemaking (except as explained in the next paragraph), generators of spent lamps that exhibited hazardous waste characteristics were subject to the RCRA Subtitle C hazardous waste management requirements. Generators were subject to all applicable requirements of 40 CFR parts 260 through 268, including the on-site management, pre-transport, and manifesting requirements of part 262.

Spent hazardous waste lamps sent for reclamation are considered spent materials (rather than sludges or by-products) and are therefore solid wastes. A spent material is "any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing" (40 CFR 261.1(c)(1)). Generators of solid wastes (including spent lamps) are thus responsible for determining whether the wastes are hazardous (through testing or through their knowledge of the material).

However, even though waste lamps are considered solid and hazardous wastes if they exhibit hazardous waste characteristics, not all generators of these spent lamps have had to manage the lamps as hazardous waste. Under RCRA Subtitle C, there are different requirements for generators of hazardous waste depending on the amount of hazardous waste generated in a calendar month. Conditionally-exempt small quantity generators (CESQGs) (i.e., generators of less than 100 kilograms of hazardous waste in a calendar month) are not subject to RCRA Subtitle C hazardous waste management standards and may choose to send their wastes to a municipal solid waste landfill or other facility approved by a state for the management of industrial or municipal non-hazardous wastes (40 CFR 261.5). Generators of more than 100 kilograms and less than 1,000 kilograms in a calendar month are subject to the RCRA hazardous waste management standards, but are allowed to comply with certain reduced regulatory requirements (40 CFR 262.34). Generators of more than 1,000 kilograms of hazardous waste in a calendar month are required to comply fully with federal hazardous waste regulations. Household generators of waste lamps may be exempt from hazardous waste management requirements under 40 CFR 261.4(b)(1). Also, several states already regulate waste lamps as universal wastes under their authorized state hazardous waste programs.

B. Proposed Rule

On July 27, 1994 (59 FR 38288), EPA proposed two approaches for controlling the management of spent lamps, specifically mercury-containing lamps. Mercury-containing lamps include fluorescent, high pressure sodium, mercury vapor, and metal halide lamps. In that notice, the Agency requested comment on whether either approach was appropriate for protecting human health and the environment from potential releases of mercury. The two management options proposed by EPA were less stringent than the existing federal regulations. Both regulatory alternatives provide streamlined requirements for certain waste management activities in lieu of regulating spent mercury-bearing lamps under the full RCRA Subtitle C management standards.

The first regulatory alternative proposed by EPA was a conditional exclusion from hazardous waste regulation for waste mercury-containing lamps. Under the proposed conditional exclusion, waste mercury-containing lamps could be disposed in a municipal landfill provided the landfill was permitted by a state with an EPA-approved municipal solid waste landfill permitting program or managed at a mercury reclamation facility permitted, licensed, or registered by a state. The second regulatory alternative included in the proposed rule was to add waste mercury-containing lamps to the universal waste program, which consists of streamlined regulations designed to address the management of certain widely generated hazardous wastes. EPA also solicited comment on whether to add other types of spent hazardous waste lamps (e.g., lamps that are hazardous waste because they fail the TC for other constituents, such as lead) to the universal waste program.

C. The Toxicity Characteristic

Under section 3001 of the Resource Conservation and Recovery Act (RCRA), EPA is charged with defining which solid wastes are hazardous by identifying characteristics that indicate hazardous waste and by listing particular solid wastes as hazardous wastes. On May 19, 1980, the Agency promulgated the Extraction Procedure Toxicity Characteristic (EPTC) to determine the toxicity of waste. The EPTC regulated eight metals, four insecticides, and two herbicides. On March 29, 1990, in response to section 3001(g) of RCRA, which was added by the Hazardous and Solid Waste Amendments (HSWA) of 1984, the Agency replaced the Extraction Procedure with the Toxicity Characteristic Leaching Procedure (TCLP). Like the EPTC, the TCLP is used to determine the toxicity of waste. Although regulatory levels for the metals (including mercury) remained the same as originally promulgated in 1980, the promulgation of the Toxicity Characteristic resulted in additional wastes becoming regulated as hazardous due to the new leaching procedure (the TCLP) and to the addition of regulatory levels for more waste constituents.

In the 1994 proposal on spent lamps, the Agency did not propose, or request comment on, regulatory language that would modify or amend the current hazardous waste toxicity characteristic provisions published in 40 CFR 261.24. However, EPA noted that the Agency was conducting long-term studies on the fate and transport of TC metals in ground water, and that the TC regulatory levels for mercury may be changed when that work is completed. The proposed rule also requested submission of any municipal solid waste leachate or groundwater data to support this separate effort. Because of the extreme complexity of mercury chemistry in the environment and because scientific knowledge about the environmental fate and transport of mercury continues to evolve, this work is still ongoing.

The most recent data available to the Agency demonstrate greater mobility than previously thought. These data include updated groundwater modeling, as well as field data collected by the Agency in reviewing the hazardous characteristics generally, the TCLP test,

and Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) Records of Decision (RODs) from municipal solid waste landfills. As explained in more detail in responses to comments and elsewhere in the record, these data expand upon and corroborate data cited in the proposal that mercury can migrate from municipal solid waste landfills in harmful concentrations and reach human drinking water sources located over a mile from the landfill in significant concentrations, i.e., concentrations exceeding allowable mercury in drinking water. Thus, actual site data from recent and on-going studies support the Agency's conclusion that mercury is present in significant concentrations in both leachate and groundwater at non-hazardous waste landfill sites, including municipal solid waste landfills, and has migrated off-site to drinking water sources (in some instances in concentrations exceeding Federal drinking water standards). This conclusion is sufficient to warrant continued regulation of spent lamps containing mercury as hazardous waste.

Even though EPA did not re-open issues related to the appropriateness of the TCLP for evaluating the toxicity of mercury-bearing waste in this proposal, the Agency is clarifying that the recent opinion of the D.C. Circuit in *Columbia Falls Aluminum Company* v. *EPA*, 139 F.3d 914 (D.C. Cir. 1998) ("*Columbia Falls*"), does not affect the use of the TCLP to determine whether spent waste lamps exhibit the toxicity characteristic and, therefore, should be regulated as hazardous wastes under RCRA Subtitle C.

Columbia Falls presented unique and limited circumstances which do not apply to the question of using the TCLP for determining whether spent lamps are hazardous wastes. In the context of *Columbia Falls*, EPA had established treatment standards for spent aluminum potliners (hazardous waste code K088), and the treatment standards used the TCLP to measure the performance of the treatment technology in mitigating the hazard presented by several hazardous constituents found in the waste, including arsenic and fluoride. In the case of *Columbia Falls*, all of the commercial treatment capacity for the waste (K088) was provided by a single facility, and all of the treatment residue from this single process was disposed at a single location in a dedicated monofill.[1] Notwithstanding that the treatment process was able to achieve the treatment standards for arsenic and fluoride as measured by the TCLP (i.e., the treatment residue, when tested with the TCLP, never exceeded the regulatory levels), actual *leachate* from the single disposal site contained significantly higher levels of these two constituents. EPA had not offered any substantive explanation for continued use of the TCLP to measure performance of the treatment process for these constituents after the disparities between the predicted leaching using the TCLP and the actual performance in the field became known. Under these circumstances, the court held that it was arbitrary and capricious to continue to use the TCLP to establish treatment standards for spent potliner wastes because it bore no rational relationship to what was actually occurring.

None of these circumstances applies to the question of using the TCLP to determine the toxicity of spent lamps and, therefore, whether such lamps are hazardous wastes in the first place. With respect to mercury, the TCLP has not been shown in this case to under predict mercury leachate concentrations for 100 percent of the wastes to which the test applies.

First, there is no question that it is reasonable to model a disposal environment where lamps are disposed with municipal solid waste, since most lamps are disposed in municipal solid waste landfills, or would be if they were not hazardous wastes. The grinding feature of the TCLP protocol is likewise reasonable, since there is no dispute that lamps will be crushed after they are landfilled. The dilution/attenuation feature of the TCLP is likewise a reasonable approximation of fate and transport of mercury which escapes from the lamp matrix. There is no chemical reason why such mercury would be immobile. The mercury itself is primarily the divalent form which can form mobile salts or soluble mercury acetate upon exposure to acidic municipal solid waste (a phenomenon modeled by the pH and acid of the simulated leachate in the TCLP test (see Memorandum To the Docket from Gregory Helms entitled "Solubility of Mercury Salts," dated June 18, 1999).

Second, as explained in more detail in responses to comments and other materials in the record, mercury has proven mobile in municipal solid waste landfill environments, migrating in leachate to contaminate ambient groundwater at concentrations exceeding the federal maximum contaminant levels (MCLs) used for drinking water (see EPA's "Summary of Mercury Damage Incidents from CERCLA Records of Decisions (RODs)," June 9, 1999, and chart entitled "Maximum Mercury Concentration Observed in Leachate from Landfill Cells," June 11, 1999.) Mercury contamination from municipal solid waste leachate exceeding MCLs has actually been found in groundwater drinking wells over a mile from the landfill (well past the 500 feet used in the TC for fate and transport assumptions). These concentrations are within an order of magnitude, or within the same order of magnitude, as predicted in the TC. *Id.* Thus, the reasonableness of using the TC to evaluate the hazardousness of these wastes is firmly supported by empirical data.

D. Universal Waste Rule

On February 11, 1993, EPA proposed streamlined hazardous waste management requirements for collecting and managing certain widely generated hazardous wastes (58 FR 8102). The Agency finalized the Universal Waste Rule on May 11, 1995 (60 FR 25492). The final rule promulgated streamlined hazardous waste management regulations for hazardous waste batteries, certain hazardous waste pesticides, and mercury-containing thermostats. Handlers of universal wastes are subject to less stringent standards for storing, transporting, and collecting these wastes. These standards serve to encourage environmentally sound collection and proper management of these hazardous wastes.

The universal waste regulations apply to handlers and transporters of universal wastes. Handlers include universal waste generators and collection facilities. The regulations distinguish between "large quantity handlers of universal waste" (those who handle more than 5,000 kilograms of total universal waste at one time) and "small quantity handlers of universal waste" (those who handle 5,000 kilograms or less of universal waste at one time). The 5,000 kilogram accumulation criterion applies to the quantity of all universal wastes accumulated.

Universal waste handlers who generate or manage items designated as universal waste are exempt from certain requirements routinely applied to hazardous waste management and instead are subject to the management standards under part 273. These include streamlined standards for storing universal waste, labeling and marking waste or containers, preparing and sending shipments of universal wastes off-site, employee training, and response to releases. Large quantity handlers of universal waste (LQHUW) also must provide notification of universal waste management to the appropriate EPA Region (or state director in authorized

[1] 62 FR 1993 (Jan. 14, 1997).

states), obtain an EPA identification number, and retain for three years records of off-site shipments of universal waste. Small quantity handlers of universal waste (SQHUW) are not required to manifest wastes, notify the EPA region, or keep records of universal waste shipments.

Transporters of universal waste also are subject to less stringent requirements than the full Subtitle C hazardous waste transportation regulations. Universal waste transporters must comply with all applicable Department of Transportation (DOT) regulations and ensure transportation of universal waste to a universal waste handler or a destination facility. Transporters may store universal waste at a transfer facility for ten days or less and must contain any releases of universal waste. Transporters of universal waste do not have to comply with RCRA hazardous waste manifest requirements.

Destination facilities are those facilities that treat, dispose, or recycle universal wastes. Universal waste destination facilities are subject to all currently applicable requirements for hazardous waste treatment, storage, and disposal facilities and must receive a RCRA permit for such activities. Hazardous waste recycling facilities that do not store hazardous wastes prior to recycling may be exempt from permitting under federal regulations (40 CFR 261.6(c)(2)).

In the universal waste proposal, the Agency did not propose to include spent fluorescent lamps in the universal waste regulations because further investigation into the issue was necessary. However, EPA requested comment on several questions related to fluorescent lamps (58 FR 8110). First, EPA requested comment on the risks posed by these lamps in landfills or municipal waste combustors. Second, EPA requested information on the risks of current or developing mercury recovery technologies. The Agency received a number of comments in response to these questions. Some commenters supported including waste lamps in the Universal Waste Rule, and other commenters suggested other regulatory alternatives for managing these lamps. The comments addressing the management of waste mercury-containing lamps that were received in response to the universal waste proposed rule are addressed in the background documents for today's rulemaking.

E. Energy Efficient Lighting Programs

Prior to publication of the proposed rule, the Agency initiated a review of the potential risks represented by waste mercury-containing lamps and began to analyze the contribution of such lamps to total mercury emissions to the environment. The Agency undertook this evaluation in part because of the importance of promoting energy efficiency. The use of energy-efficient lighting can reduce mercury emissions from coal-burning power plants as well as reduce emissions of carbon dioxide and sulfur oxide. Energy-efficient lighting in all U.S. commercial floor space currently illuminated by less efficient fluorescent lamps would save an estimated 35 to 40 billion kilowatt hours of electricity annually. This saving would result in reduced emissions of mercury, carbon dioxide, sulfur dioxide and nitrogen dioxide, some of which are projected to cause greenhouse effects.

Replacing energy inefficient lighting systems with energy efficient lighting systems requires the use and eventual disposal of spent mercury-containing lamps. It was suggested that requiring the management of spent lamps in accordance with the full Subtitle C hazardous waste management requirements could discourage participation in energy efficient lighting programs, since facilities might avoid or postpone replacement of lamps because of potential disposal costs. If this were true, streamlined management standards for spent mercury-containing lamps could decrease the costs associated with managing the lamps and promote greater participation in energy-efficient lighting programs. However, as discussed below, the Agency has found that the cost of these programs appears to be largely independent of the regulatory options chosen by EPA.

F. Notice of Data Availability

On July 11, 1997 (62 FR 37183), the Agency made available to the public additional data on mercury emissions from managing spent lamps. The information provided as part of the Notice of Data Availability (NODA) consisted of an electronic model and a report that assessed mercury emissions from the management of waste mercury-containing lamps under different regulatory approaches. The report, titled "Mercury Emissions From the Disposal of Fluorescent Lamps," discusses the methodology, data and assumptions used in developing the *Mercury Emissions Model*. The report describes inputs used in the model for estimating potential mercury emissions during waste management and disposal activities (such as lamp properties, lamp disposal rates, and lamp mercury emissions rates from specific waste management practices). It also discusses inputs for estimating energy savings from using high-efficiency T8 lamps, and the effects on mercury emissions from electric utilities. The report estimates mercury emissions under baseline conditions (i.e., management of mercury-containing lamps in compliance with full hazardous waste requirements) and under other regulatory options, including the conditional exclusion and universal waste approaches proposed. These estimates include annual and cumulative emissions from disposal of mercury-containing lamps, and net mercury emissions.

The Agency received thirty-five public comments on this NODA, about twenty of which presented substantive information on the model. The Agency has reviewed these comments in great detail and revised the model and report, as appropriate. The Agency also has prepared a comprehensive response to comment document addressing each substantive issue. The revised model, report, and response to comment document are available in the RCRA docket established for this action. A brief summary of the major public comments and the Agency's responses is presented below.

Many commenters raised concerns about the model's Subtitle D landfill emissions rates. Several commenters believed the Agency should not have rounded the high emissions rate of 0.8 percent to one percent. EPA believes this is a valid concern and has revised the model to include the original 0.8 percent emissions rate.

Some commenters raised concerns that EPA had misinterpreted data from the State of Florida on its recycling emissions estimates. EPA has carefully reviewed available recycling emissions data and revised the model's central and low emissions factors for divalent mercury emissions. EPA revised the central estimate from three percent to 1.09 percent and the low estimate from one percent to 0.07 percent.

Various commenters believed that the model should clearly distinguish between CESQG and non-CESQG lamp mercury emissions. These commenters pointed out that CESQG lamp emissions are outside the scope of the rulemaking effort. The Agency agrees with this concern and has revised the model to segregate non-CESQG from CESQG lamp emissions.

Some commenters believed that higher spent lamp management costs would discourage certain building owners from conducting lighting upgrades. These commenters were concerned with the model assumption

that upgrades are independent of policy options. In response to the comments, EPA revisited its assumptions and performed additional calculations on the impact of disposal costs on a lighting upgrade's internal rate of return (IRR). The Agency has found that, holding all other lamp operating costs constant, the cost of lamp disposal has minimal impacts on an upgrading project's IRR. At a $0.50/lamp transportation and recycling cost, the IRR for a typical project over ten years is 51 percent. At a $1.00/lamp transportation and recycling cost, the IRR was 50 percent—only a slight decrease in IRR despite a 100 percent increase in waste management costs. For these reasons, EPA continues to believe that the decision to use T8 lamps is independent of the Agency's policy options.

A number of commenters indicated that the model underestimated lamp recycling rates under the baseline and overestimated the rate of Subtitle C landfilling. Commenters suggested that the national lamp recycling rate is approximately ten percent and that Subtitle C landfilling of lamps is near three percent. EPA believes these estimates may be reasonable, and has revised the baseline's recycling rate to ten percent and reduced the Subtitle C disposal rate to about two percent.

The Agency also conducted an internal review of the model and made additional revisions. First, the Agency revised the model assumptions regarding the effectiveness of pollution control equipment at municipal waste combustor (MWC) emissions from 80 to 95 percent. This revision has the effect of decreasing the MWC high emission factor for divalent mercury from 30 percent to 16 percent. Second, EPA revised the disposal trees under the baseline and options to account for the fact that some CESQGs voluntarily recycle their spent lamps.

II. Relationship to Other Agency Activities

A. Report to Congress on Mercury

As required by the Clean Air Act (CAA) Amendments of 1990, on December 19, 1997, the Agency issued the Mercury Study Report to Congress. The study estimates the quantity of mercury emissions to the air from a number of human activities, estimates the health and environmental impacts associated with these mercury emissions, and describes the technologies available to control mercury emissions from these sources.

The report estimates that annual anthropogenic U.S. emissions of mercury in 1994–1995 were 158 tons. Approximately 87 percent of these mercury emissions came from combustion sources. Approximately 1 percent of mercury emissions are estimated to come from spent mercury-containing lamps.

The report found that anthropogenic emissions of mercury to the air rival or exceed natural inputs. Recent estimates place the annual amounts of mercury released into the air by human activities at between 50 and 75 percent of the total yearly input to the atmosphere from all sources. Some of the air emissions are deposited on land and water within several hundred miles of the source. The remainder enters global circulation, from which it may be deposited on land or water at great distances from the source. Mercury deposited on land or water may be re-emitted and reenter the global circulation to be redeposited elsewhere. When mercury enters water bodies, either through direct deposition or through run-off of mercury deposited on land, a series of transformations occur resulting in conversion of some of the mercury into a methylated form which is more toxic and more conducive to bioaccumulation in fish.

While the report does not quantify the risk from mercury exposure, it concludes that there is cause to seek further reductions in mercury releases and exposures to mercury. The report recommends that cost-effective opportunities to deal with mercury during the product life cycle (rather than just at the point of disposal), should be pursued. The Agency believes that today's rule furthers that goal by including provisions related to management prior to disposal.

In addition, on February 19, 1998, EPA and the Department of Agriculture issued the Clean Water Action Plan, which describes important actions EPA and other federal agencies will take to reduce exposure to toxic pollutants (especially mercury) in the nation's water and fish. Mercury is identified as a pollutant of concern in 60 percent of state-issued fish consumption advisories. The Clean Water Action Plan outlines several important Agency actions aimed at reducing the exposure of people and wildlife to mercury-contaminated fish.

B. Health Effects on Children

In April 1997 President Clinton signed Executive Order 13045 (62 FR 19885), "Protection of Children From Environmental Health Risks and Safety Risks," requiring each federal agency to assess risks that disproportionately affect children, including risks from mercury. Mercury is a toxic, bioaccumulative pollutant. The primary health effects are on the neurological development of children exposed through fish consumption and fetuses exposed through their mothers' consumption of fish. Given equivalent exposure, children absorb more mercury as a percentage of their body weight than do adults. Children are, therefore, more susceptible to the negative health effects of mercury emissions. The results of EPA's analyses (as presented in Modification of the Hazardous Waste Program: Hazardous Waste Lamps—Economic Assessment) indicate that it is likely that emissions from regulated mercury-containing lamps will decrease somewhat as a result of today's final rule. Therefore, it is likely that children may experience a marginal benefit from this action due to these decreased emissions.

III. Rationale for Including Hazardous Waste Lamps in the Scope of the Universal Waste Rule

A. Why Management Controls Are Necessary for Spent Mercury-Containing Lamps

In today's rule, the Agency's primary objective is to promulgate regulations for management of hazardous waste lamps that both protect human health and the environment and are efficient and effective in doing so. EPA believes that management controls for spent mercury-containing lamps are necessary to minimize releases of mercury to the environment during accumulation and transport, to ensure safe handling of such lamps, and to keep spent mercury-containing lamps out of municipal waste management facilities (both landfills and solid waste incinerators). Studies reveal that significant threats of mercury releases from managing spent lamps result from incineration and from breakage during storage and transport. In addition, data available to the Agency show that mercury can be found in municipal landfill leachate, and EPA remains concerned that landfill releases may pose threats over the long term. For these reasons, the Agency has concluded that some management controls are essential for these wastes.

Mercury is easily volatilized; it can be dispersed widely through the air and transported thousands of miles. It undergoes complex chemical and physical changes as it cycles among air, land, and water. Humans, plants, and animals may be exposed to mercury and accumulate it during this cycle, potentially resulting in ecological and human health impacts. The primary health effects from mercury are on the neurological development of children

exposed through fish consumption and on fetuses exposed through their mother's consumption of fish.

Because of its low boiling point, elemental mercury is largely vaporized during municipal waste combustion and, without the use of control technologies specific to mercury, passes out of the municipal waste combustor into the atmosphere with the flue gas. On December 19, 1995, EPA's Office of Air Quality Planning and Standards (OAQPS) promulgated standards for new municipal waste combustors of a certain capacity (60 FR 65387). However, combustors at smaller plants would not be affected by the standards, nor do the standards address the problem of mercury emissions from lamp breakage.

When spent mercury-containing lamps break, the elemental mercury inside becomes available for evaporation, adsorption, or reaction. For example, a study performed by Research Triangle Institute (RTI) estimated emissions from lamps after breakage to be about 6.8 percent of the total mercury content of the broken lamp. The National Electrical Manufacturers Association (NEMA) estimated emissions from lamp breakage to be in the range of 1 percent of the mercury content of the broken lamp. The Electric Power Research Institute's (EPRI) measurements of mercury emissions from uncovered broken lamps totaled 2.8 percent of the total mercury content of the lamp.

Mercury may also be released to the environment as a result of lamp crushing operations. Available studies show that emission percentages from drum top crushing range from 10 to 100 percent of the total elemental mercury in the lamps, depending on the operating conditions and supplemental controls used.

To address these concerns, today's rule moves spent hazardous waste lamps into the universal waste regulatory program. Comments from stakeholders and from other regulatory agencies (especially state solid and hazardous waste authorities) support EPA's conclusion that this approach offers the most effective way to ensure environmentally protective management of these wastes.

B. Why the Universal Waste Approach is Preferable to a Conditional Exclusion for Spent Mercury-Containing Lamps

Although EPA has determined that spent mercury-containing lamps can safely be subject to management requirements that are less stringent than those of full Subtitle C (see discussion in Part III.C below), the Agency does not believe that its proposed conditional exclusion approach would sufficiently protect human health and the environment. It is clear to the Agency that mercury poses an environmental threat and that man-made sources of mercury emissions should be reduced or, where inevitable, managed properly. EPA therefore gave considerable weight to actions that would minimize mercury emissions to the environment while encouraging the collection and environmentally-sound management of spent lamps. The Agency is convinced that the universal waste approach is the best way to further these goals. EPA agrees with those commenters to the proposed rule who stated that the conditional exclusion approach would reduce the quantities of spent mercury-containing lamps that would be recycled, increase disposal of the lamps in municipal landfills, and increase the amount of mercury released to the environment due to increased breakage of lamps during storage, transport, and landfilling. The Agency's analysis predicts that uncontrolled mercury emissions under the conditional exclusion approach are likely to be somewhat greater than under the universal waste approach promulgated in today's rule (see the Economic Assessment discussed in section VII.B of today's preamble).

A principal reason for this conclusion is that some substantive and relatively detailed controls for managing spent mercury-containing lamps are necessary for protection of human health and the environment, although these controls can be structured in a much more simplified and streamlined way than the full Subtitle C management system. The Agency believes that such controls would be difficult to implement and to enforce using a conditional exclusion approach. Such an approach could be appropriate if the regulated universe was less numerous and varied, or more sophisticated about Subtitle C requirements. However, since handlers of spent mercury-containing lamps are widely varied, diffuse, and often not knowledgeable about RCRA regulations, it would be very difficult to monitor compliance and enforce controls such as those included in today's rule if these handlers were completely outside of the Subtitle C universe and the controls were implemented only as conditions for maintaining the exclusion. The Agency believes that the packaging standards and prohibition on treatment included in today's rule are important for preventing potential mercury emissions during storage and transport. Controls of this type can best be implemented through a universal waste-type approach where handlers are operating within a simple, streamlined management system with some limited oversight rather than completely outside of any regulatory structure.

A further reason for selecting the universal waste approach was the Agency's desire to promote further reductions in the quantity of mercury in spent lamps, which will lead to a reduction in total emissions of mercury to the environment. The conditional exclusion approach would have provided less incentive to reduce or eliminate the presence of mercury in lamps, since under that approach spent mercury-containing lamps would not have been classified as hazardous waste.

With respect to mercury, the most significant source reduction achievement has been the reduction and elimination of mercury from alkaline batteries. Although these batteries are still a significant contributor of mercury to municipal solid waste, this contribution is dropping dramatically. Spent mercury-containing lamps are one of the next highest sources of mercury in the municipal solid waste stream, possibly accounting for as much as 3.8 percent of all mercury now going to municipal landfills. Opportunities exist to further reduce mercury content in both standard 4-foot fluorescent lamps and the increasingly popular compact fluorescent lamps.

Commenters on the proposed rule stated that advances in lamp technology have resulted in a 14 percent reduction in lamp mercury content from 1985 to 1990. These commenters also pointed out that projections show an additional 35 percent decline in future mercury levels. Some manufacturers have made considerable progress in reducing levels of mercury in fluorescent lamps. Many commenters urged EPA to continue to encourage industry in these efforts.

The Agency believes that today's final rule will encourage lamp manufacturers to continue reducing or eliminating the amount of mercury used to manufacture lamps. Because mercury-bearing lamps that fail the TCLP are still considered to be hazardous wastes under the universal waste rule, lamp producers will have an incentive to design lamps with a mercury content below the level that will cause the lamps to fail the TCLP. If lamp manufacturers aggressively pursue source reduction, the contribution of mercury to the environment from lamps will continue to decrease over time.

EPA also notes that under the universal waste rule, handlers and destination facilities must comply with the substantive requirements of the

Land Disposal Restrictions (LDR) provisions of the Hazardous and Solid Waste Amendments of 1984 (HSWA). These include (1) a prohibition on accumulating prohibited wastes directly on the land; (2) a requirement to treat waste to meet treatment standards before disposal; (3) a prohibition on dilution; and (4) a prohibition on accumulation except for purposes of accumulating quantities sufficient for proper recovery, treatment, or disposal. Since mercury can be found in municipal landfill leachate and releases remain a concern (especially for the long term), the Agency believes that compliance with the substantive requirements of the LDR program is still necessary to minimize risks from managing spent mercury-containing lamps (studies on the movement of mercury in a variety of land disposal settings are ongoing). Again, the Agency believes that controls of this type are best implemented through a simple, streamlined regulatory approach such as the universal waste rule rather than as a conditional exclusion.

A further reason for today's rule finalizing the universal waste approach is that this approach will provide more consistency between federal and state regulations governing the management of spent hazardous waste lamps. Currently, several states have added mercury-containing lamps to their universal waste programs and others have proposed to do so in the near future. By placing hazardous waste lamps within the federal universal waste rule, EPA hopes to encourage additional states to regulate spent lamps as universal waste and therefore promote greater consistency in regulatory approaches across state borders. This will improve waste management efficiency and reduce compliance costs for waste handlers engaged in interstate commerce.

C. Why Relief From Full Subtitle C Requirements is Warranted Both for Mercury-Containing Hazardous Waste Lamps and Other Hazardous Waste Lamps

Although some controls for management of spent lamps are necessary for protection of human health and the environment, for several reasons the Agency believes that these controls can be successfully applied in a more simple, streamlined system than the full Subtitle C program, and that such an approach is appropriate both for mercury-containing hazardous waste lamps and any other spent lamps that are hazardous.

The Agency believes that relief from full Subtitle C requirements for handlers of hazardous waste lamps is justified (whether the lamps are hazardous because they exhibit the toxicity characteristic for mercury or another constituent, such as lead). First, the principal reason for this belief is that the full Subtitle C regulatory structure is not appropriate for the universe of people handling these materials, and adequate protections can be applied in the more appropriate structure of the universal waste rule. Many handlers of hazardous waste lamps are office buildings, retail establishments, and other building managers, most of whom are not familiar with or equipped to comply with the full Subtitle C regulatory structure. This structure was initially developed with industrial hazardous wastes in mind, and is most appropriate for these materials and for the types of facilities that generate these wastes. The streamlined universal waste structure is more appropriate for the numerous, widely varied universe of spent lamp handlers who are not familiar with or easily able to comply with the full hazardous waste regulatory structure.

In addition, the final universal waste rule included a number of factors to be used to evaluate whether candidate wastes are appropriate to be added to the universal waste regulations. The factors were designed to determine whether regulating a particular hazardous waste under the streamlined standards of the universal waste program would improve overall management of the waste. The factors, which are codified at 40 CFR 273.81, include: (a) The waste must be a hazardous waste generated by a wide variety of generators; (b) the waste, or category of waste, should not be exclusive to a particular industry or group of industries, but generated by a wide variety of establishments; (c) the waste should be generated by a large number of generators and generated frequently, but in relatively small quantities; (d) systems to be used for collecting the waste should ensure close stewardship of the waste; (e) the risks posed by the waste during accumulation and transport should be relatively low compared to the risks posed by other hazardous waste, and specific management standards would be protective of human health and the environment during accumulation and transport; (f) regulation of the waste, or category of wastes, under the universal waste rule should result in the diversion of the waste from management with non-hazardous waste streams (i.e., the municipal solid waste stream); (g) regulation of the waste as a universal waste should improve implementation of and compliance with the hazardous waste regulatory program and/or (h) other factors that may be appropriate.

As the Agency noted in the preamble to the final universal waste rule (60 FR 25513), not every factor must be met for a waste to be appropriately regulated under the universal waste system. However, consideration of all the factors should result in a conclusion that regulating a particular hazardous waste under 40 CFR part 273 will improve waste management. After evaluating spent hazardous waste lamps in the context of the regulatory criteria for adding wastes to the universal waste rule, EPA has determined that on balance, these wastes are highly appropriate for inclusion in the regulatory scheme of 40 CFR part 273. The results of the Agency's evaluation of how these wastes meet the universal waste factors are described below.

A. Spent lamps are often hazardous because they exhibit the characteristic of toxicity by exceeding the regulatory level for mercury or another constituent (most frequently lead).

B. Spent hazardous waste lamps are generated by a wide variety of generators, including retail establishments, manufacturing establishments and office buildings.

C. Spent hazardous waste lamps are generated frequently by a large number of generators; in fact, a large percentage of all office buildings, retail establishments, and manufacturing facilities generate such lamps. Spent lamps are often generated in relatively small quantities.

D. The packaging standards included in today's rule and increased recycling will encourage close stewardship of the waste.

E. The Agency is convinced that the requirements of the universal waste program can be highly effective in mitigating risks posed by breakage of hazardous waste lamps during storage and transport. The universal waste requirements for proper packaging and handling of the lamps to avoid breakage during accumulation and transport should prevent releases of mercury or lead to the environment before recycling or other management, which will make the risks posed during accumulation and transport extremely low.

F. The Agency believes that managing hazardous waste lamps under the universal waste program will result in diversion of at least some of this waste from management in the municipal waste stream. EPA believes that the streamlined requirements of today's rule will encourage all handlers of spent lamps (whether hazardous or not) to

manage them under the requirements of part 273. Under the current RCRA regulatory scheme, the management of a waste differs based on the source of the waste. Wastes (including spent lamps) generated by consumers in their homes are not regulated under Subtitle C when discarded, because they are excluded from the definition of hazardous waste under 40 CFR 261.4(b)(1). Similarly, many spent lamps are largely exempt from the hazardous waste regulations because they are generated by conditionally exempt small quantity generators (CESQGs). Spent lamps generated by households and CESQGs are not distinguishable from those generated by fully regulated generators. Because the waste looks the same, spent lamps that would be more protectively managed in the hazardous waste system are entering municipal solid waste landfills or combustors instead. The simplified regulations will provide an incentive for individuals and organizations to collect the unregulated portions of the waste stream and manage them using the same systems developed for the regulated portion, thereby removing spent mercury or lead-containing lamps from the municipal waste stream and minimizing the amount of hazardous constituents going to municipal landfills and combustors.

G. Finally, managing hazardous waste lamps under the universal waste program will improve implementation of and compliance with the hazardous waste regulatory program. Generation of hazardous waste lamps by facilities which otherwise generate no hazardous waste is widespread. Currently, if a mercury or lead-containing lamp is a hazardous waste, it must be managed under Subtitle C regulation. If more than 100 kilograms of hazardous waste (including spent lamps) are generated in a calendar month, generators are subject to full Subtitle C requirements for storage, packaging, manifesting, and record keeping. Many facilities are therefore required to undergo significant technical and paperwork burdens largely or solely because they replace or upgrade used hazardous waste lamps. These generators may not be in compliance with RCRA regulations because they are unfamiliar with the requirements. EPA believes that the streamlined requirements of the universal waste program will give such "episodic" generators a more accessible starting point for good environmental management. If regulatory requirements are simpler, the compliance rate will improve, more hazardous waste lamps will be handled properly, and more spent lamps will be sent for recycling (or to other Subtitle C facilities) instead of going to solid waste landfills or to municipal waste combustors. Improved management will therefore lead to a reduction in the total amount of hazardous waste emissions to the environment.

In summary, considering these factors, the Agency finds that the universal waste approach is highly appropriate for this waste stream, and that it is in fact exactly this type of waste that the universal waste system was designed for. The Agency believes that the universal waste approach promulgated in today's rule will improve management of hazardous waste lamps, will improve implementation of the hazardous waste regulatory program, and will adequately protect human health and the environment from the risks posed by management of this waste stream.

IV. Summary of Final Rule

A. Waste Covered by Today's Rule

Today's rule adds hazardous waste lamps (waste lamps that are hazardous due to exhibiting one or more of the characteristics of hazardous waste) to the federal universal waste rule. In the proposed mercury-containing lamps rule, the Agency provided definitions for "electric lamp" and "mercury-containing lamp." In response to comments received on the proposed definitions, and to reduce potential confusion regarding the scope of the final rule, in today's final rule the Agency is finalizing a single definition of "lamp" or "universal waste lamp." In addition, in the applicability section of today's rule, the Agency is clarifying that all hazardous waste lamps fall within the scope of the universal waste rule.

B. Summary of Management Requirements for Universal Waste Lamps

Today's final rule for hazardous waste lamps ensures consistency with the universal waste rule. Today's rule adds subsections to §§ 273.13 and 273.33 of the existing universal waste rule, specifically addressing requirements for hazardous waste lamps. New § 273.13(d) includes lamp handling requirements for small quantity handlers of universal waste, and new § 273.33(d) provides lamp handling requirements for large quantity handlers of universal waste lamps. Management standards for transporters of universal waste lamps are the same as those applicable to transporters of other types of universal waste. Destination facilities (e.g., recycling facilities and treatment and disposal facilities) remain subject to all applicable hazardous waste permitting and management requirements under RCRA.

The universal waste management requirements for different participants handling hazardous waste lamps are summarized below. A discussion of the public comments that the Agency received in response to the management requirements for spent lamps contained in the proposed rule is found in Section V of this preamble, along with EPA's responses to comments received on the proposed requirements.

1. Categories of Participants in the Universal Waste System

There are four categories of participants in the universal waste management system: small quantity handlers of universal waste (SQHUW), large quantity handlers of universal waste (LQHUW), transporters, and destination facilities. When the proposed spent lamps rule was published, the Agency chose to categorize the lamps in a manner that was consistent with the proposed universal waste rule. Both proposed rules classified regulated persons managing universal waste into one of four types: generators, consolidation points, transporters, or destination facilities. When the final universal waste rule was published, the Agency modified the four categories. The transporter and destination facility categories were retained essentially as proposed. However, the generator and consolidation point categories were merged to create two new categories of participants: small quantity handlers of universal waste (SQHUWs) and large quantity handlers of universal waste (LQHUWs). In today's final rule, the Agency is categorizing handlers of hazardous waste lamps in a manner consistent with the existing universal waste regulations.

2. Small and Large Quantity Handlers

The term "universal waste handler" is defined under existing 40 CFR 273.6 as a generator of universal waste or the owner or operator of a facility (including all contiguous property) that receives universal waste from other universal waste handlers, accumulates universal waste, and sends universal waste to another universal waste handler, to a destination facility, or to a foreign destination. The definition of "universal waste handler" does not include: (1) A person who treats (except under the provision of §§ 273.13(a) or (c), or §§ 273.33(a) or (c)), disposes of, or recycles universal waste; or (2) a

person engaged in the off-site transportation of universal waste by air, rail, highway, or water, including a universal waste transfer facility. Persons who treat, recycle, or dispose of universal waste remain subject to all applicable hazardous waste regulations as discussed below in Section IV.F. Transporters of universal waste are regulated as discussed below in Section IV.E.

There are two types of entities that are considered handlers of universal waste lamps. The first is a person who generates the lamps, i.e., the person who used the lamps, then determined that they are no longer usable and thus should be discarded. Contractors who remove universal waste lamps from service are considered handlers and co-generators of the waste. The second type of handler is a person who receives universal waste lamps from generators or other handlers, consolidates the lamps, and then sends the lamps on to other universal waste handlers, recyclers, or treatment and disposal facilities. Facilities that accumulate universal waste lamps but do not treat, recycle, or dispose of them are handlers of the lamps. Each separate location, (e.g., generating location or collecting location) is considered a separate handler.

Whether a universal waste handler is a SQHUW or LQHUW depends on the amount of universal waste being accumulated at any time. A small quantity handler of universal waste is defined under 40 CFR 273.6 as a universal waste handler who accumulates 5,000 kilograms or less of universal waste (i.e., batteries, pesticides, thermostats, or lamps, calculated collectively) at any time. A large quantity handler of universal waste is defined under 40 CFR 273.6 as a universal waste handler who accumulates 5,000 kilograms or more of total universal waste (i.e., batteries, pesticides, thermostats, or lamps, calculated collectively) at any time. The 5,000 kilogram accumulation cut-off level refers to the total quantity of all universal waste handled on-site, regardless of the category of universal waste.

On occasion, SQHUWs may accumulate greater than 5,000 kilograms of universal waste on-site at any one time, thus requiring them to comply with the LQHUW regulations. A large quantity handler of universal waste retains this designation for the remainder of the calendar year in which more than 5,000 kilograms of universal waste was accumulated at any given time. A handler may re-evaluate his status as a LQHUW in the following calendar year.

3. Universal Waste Transporters

Under 40 CFR 273.6, the definition of a universal waste transporter is "a person engaged in the off-site transportation of universal waste by air, rail, highway, or water." Persons meeting the definition of universal waste transporter include those persons who transport universal waste from one universal waste handler to another, to a destination facility, or to a foreign destination. These persons are subject to the universal waste transporter requirements of subpart D of part 273.

The proposed regulations for transporters of hazardous waste lamps were designed to be consistent with the proposed universal waste rule. Since the proposed regulations for universal waste transporters were not modified significantly in the final rule, today's requirements for universal waste lamps are essentially identical.

4. Universal Waste Destination Facilities

The definition of "destination facility," found in 40 CFR 273.6, is "a facility that treats, disposes of, or recycles a particular category of universal waste, except those management activities described in paragraphs (a) and (c) of §§ 273.13 and 273.33 of this chapter (40 CFR part 273). A facility at which a particular category of universal waste is only accumulated is not a destination facility for purposes of managing that category of universal waste." Persons meeting the definition of destination facility are subject to the universal waste destination facility requirements of Subpart E of Part 273.

Like the regulations for transporters, the final regulations for destination facilities have changed very little from the proposed rule.

C. Management Requirements for Small and Large Quantity Handlers of Universal Waste Lamps

As mentioned above, the universal waste rule includes different requirements for small and large quantity handlers of universal wastes. Small quantity handlers are those who accumulate 5,000 kilograms or less of all universal waste categories combined at their location at any time. The requirements for small quantity handlers of universal waste are located in subpart B of part 273. Large quantity handlers are those who accumulate more than 5,000 kilograms of all universal waste categories combined at any time. The requirements for large quantity handlers of universal waste are located in subpart C of part 273.

Both small and large quantity handlers must follow specified requirements when handling universal waste lamps. 40 CFR 273.13 specifies packaging standards for waste lamps to prevent breakage of spent lamps during accumulation, storage, and transport of universal waste lamps. Handlers of universal waste lamps must label each universal waste lamp or container holding the lamps with the words "Universal Waste—Lamp(s)" or "Waste Lamp(s)" or "Used Lamp(s)."

In addition, the final rule requires that spent lamps be managed in a way that prevents releases of mercury or other hazardous constituents to the environment during accumulation, storage, and transport. Handlers may accumulate universal waste lamps for one year. If the lamps are stored for longer than one year, the handler must be able to demonstrate that such accumulation is solely for the purpose of accumulating such quantities of universal waste as are necessary to facilitate proper recovery, treatment, or disposal. (Handlers are not required to notify EPA or the authorized state of storage for longer than one year.)

The requirements for responding to releases applicable to small and large quantity handlers of universal wastes (including universal waste lamps) are found in §§ 273.17 and 273.37. Today's rule does not amend these sections. All handlers of universal waste lamps must immediately contain any releases from the lamps and must handle the residues according to all applicable regulatory requirements. The Agency notes that any releases of universal waste not cleaned up could constitute illegal disposal and could incur enforcement action under RCRA. In addition, any releases of hazardous substances (universal wastes are hazardous wastes, and thus are hazardous substances) must be reported under CERCLA if they are above reportable quantity thresholds.

The employee training requirements for small and large handlers of universal waste are found in §§ 273.16 and 273.36. The Agency today is applying these standards to handlers of universal waste lamps. Large quantity handlers must ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures related to their responsibilities during normal facility operations and emergencies. Small quantity handlers must inform all employees that handle or have responsibilities for managing universal waste lamps of proper handling and emergency procedures appropriate to such lamps. The Agency believes that basic employee training is

necessary to ensure that employees are specifically familiar with waste lamp handling procedures. Training that is required under other programs (such as OSHA or RCRA) will generally fulfill the part 273 training requirements.

Small quantity handlers are not required to notify EPA of their universal waste management activities and need not obtain an EPA identification number. However, large quantity handlers must notify EPA (or the authorized state) of their universal waste activities and they must obtain an EPA identification number, if they do not already have one.

The Agency has decided to adopt the off-site shipment provisions included in the final universal waste rule for hazardous waste lamps in order to remain consistent with the current universal waste regulations. Handlers of universal waste are prohibited from sending universal waste to a place other than another universal waste handler, a destination facility, or a foreign destination. Handlers who transport universal waste off-site themselves are considered universal waste transporters and must comply with the universal waste transporter requirements. Universal wastes being offered for off-site transportation that meet the Department of Transportation (DOT) definition of hazardous material must comply with the applicable DOT requirements. Large quantity handlers must track waste lamp shipments by maintaining records documenting shipments received by and sent from the facility.

Handlers of universal waste must also comply with requirements for rejected shipments of universal waste. To prevent or limit rejected shipments, facilities that offer universal waste for shipment off-site must ensure, before the shipment is sent, that the receiving facility (another universal waste handler or destination facility) will agree to receive the load. If the shipment is rejected, the handler must take the waste back or agree with the receiving facility on a destination facility to which the shipment will be sent. If a handler rejects a shipment or a portion of a shipment, the handler must contact the originating handler to discuss re-shipment of the load. The handler may send the shipment back to the originating handler or send the shipment to a destination facility agreed upon by both handlers. If a handler receives a shipment containing hazardous waste that is not universal waste, the handler must notify the EPA Regional office of the illegal shipment and receive instruction on further management of the waste. If the handler receives a shipment containing non-hazardous, non-universal waste, the handler may manage the waste according to applicable federal, state, or local solid waste regulations.

D. Effect of Today's Rule on Conditionally-Exempt Small Quantity Generators

Under the universal waste system, conditionally-exempt small quantity generators (CESQGs) can choose to manage their universal waste lamps in accordance with either the CESQG regulations under 40 CFR 261.5 or as universal waste under part 273 (40 CFR 273.8(a)(2)). In addition, handlers and destination facilities that mix universal waste lamps from CESQGs with other universal waste regulated under part 273 are required to manage the combined waste as universal waste under part 273 (40 CFR 273.8(b)).

As discussed in the proposal, hazardous waste lamps that are managed as universal waste under 40 CFR part 273 do not have to be included in a facility's determination of hazardous waste generator status (40 CFR 261.5(c)(6)). Therefore, if a generator manages such lamps under the universal waste system and does not generate any other hazardous waste, that generator is not subject to other Subtitle C hazardous waste management regulations, such as the hazardous waste generator regulations in part 262. A generator that generates more than 100 kilograms of hazardous waste in addition to universal waste lamps would be regulated as a small or large quantity hazardous waste generator and would be required to manage all hazardous wastes not included within the scope of the universal waste rule in accordance with all applicable Subtitle C hazardous waste management standards, depending on the amount of other hazardous waste generated.

E. Requirements for Transporters of Universal Waste Lamps

Transporters of universal waste lamps are subject to the requirements of subpart D of part 273. Under the universal waste system, hazardous waste manifests need not accompany off-site shipments of universal waste. Transporters of universal wastes must, however, comply with any applicable Department of Transportation (DOT) requirements. The Agency notes that the Hazardous Materials Regulations (HMR, 49 CFR parts 171–180) define a hazardous waste as any material that is subject to the Uniform Hazardous Waste Manifest Requirements of U.S. EPA, specified in 40 CFR part 262. Since shipments of universal waste are not required to be accompanied by a manifest, universal wastes are not considered "hazardous wastes" under DOT regulations. Therefore, for any universal waste shipments, transporters of universal waste must decide if the waste falls under any of the other DOT hazard classes to determine if compliance with the DOT requirements for "hazardous materials" under 49 CFR parts 171 through 180 is required. If the waste material does not meet the definition in the HMR for hazardous waste or any other hazardous material, its shipping description on shipping papers will not include a hazard class or identification number shown in the HMR.

Transporters may store universal waste lamps for up to ten days at a transfer facility during the course of transportation. A transporter storing universal waste lamps for more than ten days at one location must comply with the appropriate universal waste handler requirements in managing the wastes accumulated at the site, in addition to complying with the applicable universal waste transporter requirements. Universal waste transporters must transport a shipment of universal waste to a small quantity handler, large quantity handler, or a destination facility.

Today's final rule adopts the release response requirements promulgated in the universal waste rule for transporters of universal waste lamps. These requirements are found in § 273.54. The release response requirements have been adopted essentially as proposed and remain consistent with the current requirements for all universal waste transporters.

F. Requirements for Destination Facilities

A destination facility is a facility that treats, disposes of, or recycles universal wastes. The requirements for destination facilities are found under subpart E of part 273. Under the universal waste rule, destination facilities are subject to all hazardous waste management requirements applicable to permitted or interim status hazardous waste treatment, storage and disposal facilities under parts 264 and 265, as well as applicable standards in parts 268 and 270. Facilities that recycle universal waste lamps without accumulating the lamps before they are recycled are subject to the recycling requirements of § 261.6(c)(2).

G. Import and Export Requirements

The proposed rule for spent lamps did not include provisions for the importation of lamps. Several

commenters on the universal waste proposal pointed out that the Agency did not address the issue of imports. The Agency's intent was that once universal waste entered the United States, it should be subject to the same standards as any other universal waste. The final universal waste regulations therefore included import requirements in § 273.70. Under today's rule, the same requirements apply to universal waste lamps. Universal waste lamps that are imported from another country must be managed, upon entry into the country, in compliance with the appropriate universal waste requirements for transporters, handlers, or destination facilities, depending on the universal waste management activities conducted within the United States. To determine whether a handler importing universal waste is a small or large quantity handler, the universal waste imported from a foreign country is counted toward the quantity of waste accumulated as would any other universal waste. In addition, handlers managing universal waste that is imported from an Organization for Economic Cooperation and Development (OECD) country are subject to the requirements of 40 CFR part 262 subpart H.

The proposed provisions for exports of spent lamps were equivalent to the proposed provisions for exports of universal waste in the universal waste proposal. The requirements for handlers sending universal wastes (including spent hazardous waste lamps) to a foreign destination are found in § 273.20 for small quantity handlers and § 273.40 for large quantity handlers. Handlers exporting universal wastes are subject to the same provisions as generators of hazardous waste in subparts E and H of part 262. The exporting requirements for transporters of universal wastes to a foreign destination are found in § 273.56. Transporters may only accept shipments of universal wastes bound for foreign destinations that conform to the EPA Acknowledgment of Consent. They must ensure delivery of the universal waste to the facility designated by the person initiating the shipment.

The Agency notes that on April 12, 1996 (61 FR 16290), EPA revised the final universal waste regulations on importing and exporting of universal waste to reflect the Organization for Economic Cooperation and Development (OECD) Council Decision Concerning the Control of Transfrontier Movements of Wastes Destined for Recovery Operations (March 30, 1992). These revised regulations are today adopted for universal waste lamps.

H. Land Disposal Restriction Requirements

The proposed spent lamps rule did not include specific provisions on land disposal restrictions (LDR) requirements. However, the proposed and final universal waste regulations included a provision that exempted generators, transporters, and facilities that consolidated universal waste from the notification requirements in 40 CFR 268.7 and the storage prohibition in § 268.50. Destination facilities are subject to the full LDR program.

Pursuant to the LDR provisions of the Hazardous and Solid Waste Amendments of 1984 (HSWA), hazardous wastes listed or identified in accordance with RCRA section 3001 cannot be land disposed until they meet treatment standards (established by EPA), which are sufficient to minimize the short-and long-term threats potentially posed by land disposal. The regulations for the LDR program in 40 CFR part 268 apply to persons who generate or transport hazardous waste, as well as hazardous waste treatment, storage, and disposal facilities, unless they are specifically excluded from regulation in parts 261 or 268. Universal waste, as hazardous waste, remains subject to the requirements of the LDR program.

The applicability of the LDR requirements to universal waste lamps remains the same as the existing requirements for universal waste. Universal waste handlers and transporters must comply with the substantive requirements of the LDR program but are not required to comply with the administrative requirements (e.g., notification to all handlers of applicable treatment standards). The Agency believes that because of the unique nature of universal wastes (i.e., the wastes and treatment standards are easily identifiable), the substantive requirements would be sufficient to ensure that the goals of the LDR program are met for universal waste managed under part 273.

Destination facilities are required to comply with all of the part 268 LDR requirements for universal waste, including both the substantive and administrative requirements. Therefore, all universal waste must be treated or disposed of in compliance with LDR treatment standards, and the appropriate documentation regarding such compliance must be maintained by the destination facilities.

V. Discussion of Comments Received in Response to Proposed Rulemaking and Agency's Response

The following section describes the principal comments the Agency received in response to the proposed rulemaking on mercury-containing lamps. Complete comments and the Agency's responses are located in the docket for this rulemaking.

A. Universe of Lamps Covered Under the Final Rule

1. Summary of Proposed Scope and Definition

The Agency proposed to include within the scope of the universal waste rule those spent mercury-containing lamps that are hazardous because they exhibit the characteristic of toxicity. Common types of electric lamps that may contain sufficient concentrations of mercury (or other constituents) to cause them to be hazardous include, but are not limited to, incandescent, fluorescent, high intensity discharge, and neon lamps. In the proposed rule, the Agency also proposed definitions for "electric lamp" and "mercury-containing lamp" and requested comment on these definitions.

In addition, the Agency requested comment on whether the universal waste approach should address all types of spent lamps that fail the toxicity characteristic. The Agency also requested comment on whether and how frequently other types of spent lamps (such as incandescent and neon lamps) fail the toxicity characteristic test or exhibit other characteristics.

2. Summary of Comments Received

The Agency received a significant number of comments on the proposed definitions of "electric lamp" and "mercury-containing lamp." Many commenters requested that EPA clarify which type of lamps would be included within the scope of the final rule. Other commenters provided suggestions on the types of lamps to include within the definition. Many commenters confirmed that mercury-containing lamps include, but are not limited to, fluorescent lamps, mercury vapor lamps, high pressure sodium vapor lamps, and metal halide lamps.

Many commenters concurred with EPA's findings that mercury lamps consistently fail the toxicity characteristic test for mercury. A few commenters stated that many types of spent mercury-containing lamps (especially HID lamps and incandescent lamps) also frequently exhibit the toxicity characteristic for lead, generally because of lead soldered bases and

leaded glass. These commenters generally supported adding all hazardous waste lamps to the universal waste scheme, because they all fit within the universal waste criteria and it would be more convenient to have the same management requirements for all spent lamps. However, a few other commenters opposed adding lamps other than mercury-containing lamps to the universal waste system, mainly because the Agency lacked data on the effects of other constituents. One commenter claimed to have tested incandescent bulbs at one of its facilities and determined that all the bulbs failed the test for lead, and many failed for cadmium as well.

Some commenters believed that spent fluorescent lamps do not exhibit the toxicity characteristic for mercury under certain circumstances. One commenter, who conducted its own testing of fluorescent light bulbs, stated that test results were highly variable and concluded that the test results on lamps are inconclusive. Some commenters stated that the percentage of lamps that pass the test is rising and will continue to rise due to new technologies employed in lamp manufacturing.

Many commenters said that spent mercury-containing lamps meet the established criteria to be classified as a universal waste, and that managing lamps under the universal waste system will encourage recycling and keep lamps out of the municipal solid waste combustors and landfills. Commenters also stated that the universal waste system for lamps will provide a more consistent national management approach, since many states regulate lamps under regulatory programs that are more stringent than the proposed conditional exclusion option. Many states are also currently adding lamps to the scope of their universal waste programs or have already done so.

3. Agency's Response to Comments and Summary of Promulgated Standards

To simplify the proposed definitions, and in response to comments, the Agency is today finalizing a single definition of "lamp" or "universal waste lamp" which is derived from the proposed definitions of "electric lamp" and "mercury-containing lamp."

The Agency agrees with those commenters who believed that all hazardous waste lamps would be appropriately included in the universal waste program. These lamps appear to meet all of the criteria for inclusion in the universal waste rule (see Section III.C above), and EPA does not believe that the presence of other hazardous constituents (principally lead) in spent lamps should preclude such lamps from being managed as universal wastes. Hazardous waste batteries (including lead-acid batteries) are already part of the universal waste scheme, in part because EPA determined that the environmental risks associated with collection and transportation of these materials was relatively low and can be successfully controlled with the universal waste standards. Lead in hazardous waste lamps is largely found in endcaps and in the glass. Lead is not volatile or widely dispersible in the case of lamp breakage, and EPA also notes that the packaging requirements in today's rule will minimize breakage. For these reasons, the Agency is including all waste lamps that exhibit a characteristic in today's rulemaking.

With respect to incandescent lamps, we note that most of these lamps are generated by households or small facilities. Waste lamps that are household waste remain excluded from hazardous waste regulation under 40 CFR 261.4(b)(1). Facilities that generate less than 100 kilograms of hazardous waste in a calendar month, including any hazardous waste lamps that are not managed as universal waste, qualify as conditionally exempt small quantity generators subject to reduced regulation under 40 CFR 261.5. Spent lamps that do not exhibit any hazardous waste characteristic are not subject to Subtitle C regulation.

EPA also notes that waste lamps must be solid waste (i.e., discarded) before they are considered hazardous wastes and thus subject to regulation under RCRA. Section 273.5(c) describes when lamps become wastes. A used lamp becomes a waste on the date that it is discarded. An unused lamp becomes a waste on the date a handler decides to discard it.

B. Requirements for Handlers of Universal Waste Lamps

1. Prohibition on Treatment

a. Summary of Proposed Provision. The Agency requested comments on the same prohibitions for generators and consolidation points that were proposed in the February 11, 1993 universal waste proposal. The Agency had proposed that generators of hazardous waste lamps and consolidation points managing hazardous waste lamps be prohibited from diluting or disposing of the lamps and from treating them except in response to releases.

The Agency requested comments on management practices for lamps, the risks posed by these practices, and appropriate technical controls to minimize these risks which would not inhibit collection and proper management. The Agency requested comment on whether requirements should be included in the final rule to minimize mercury emissions during storage and transport of the lamps.

The definition of treatment under RCRA (40 CFR 260.10) includes any method, technique or process designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste, or so as to recover energy or material resources from, or render such waste non-hazardous or less hazardous, safer to transport, store or dispose of, amenable for recovery, or storage, or reduced in volume. The crushing of spent mercury-containing lamps clearly falls within this definition. The Agency therefore requested comment on whether generators or consolidation points should be allowed to crush lamps intentionally to minimize volume for storage or shipment and which, if any, standards should be imposed to protect against mercury releases during crushing or the subsequent management of crushed lamps.

b. Summary of Comments Received. Several commenters stated that the Agency should maintain its proposed prohibition on waste treatment, including lamp crushing. These commenters said that lamp crushers are a significant source of mercury emissions and that many lamp recyclers prefer to receive whole lamps. Other commenters stated that generators should be allowed to separate, consolidate, and crush their own lamps. Many commenters supported allowing crushing if it were safely performed, and some commenters stated that crushing is necessary to reduce storage and transportation costs. Information submitted to the Agency on drum top crushing systems for lamps indicates that there is a wide range of air emissions of mercury from these units, depending on the type of controls, and that in some units emissions of mercury exceed the OSHA limit of 0.05 mg/m^3.

c. Agency's Response to Comments and Summary of Promulgated Standards. The Agency is adopting for universal waste lamps the prohibitions in the final universal waste rule promulgated on May 11, 1995. In general, as explained in the preamble to the universal waste rule (60 FR 25519), the Agency does not believe that universal waste handlers, who are not required to comply with the full Subtitle C management standards, should treat universal wastes. Therefore, under today's rule, both small and large quantity handlers of universal waste

lamps are prohibited from diluting or treating universal waste lamps except by responding to releases as provided in §§ 273.17 and 273.37. Prohibitions for small quantity handlers are found in § 273.11 and for large quantity handlers in § 273.31. The prohibition against treatment includes a prohibition of crushing of lamps. EPA is particularly concerned that uncontrolled crushing of universal waste lamps in containers meeting only the general performance standards of the universal waste rule would not sufficiently protect human health and the environment. As stated earlier, the prevention of mercury emissions during collection and transport is one of the principal reasons that the Agency selected the universal waste approach. Allowing uncontrolled crushing would be inconsistent with this goal.

The Agency is aware that a number of states have already added spent lamps to their universal waste programs. Available information indicates that some of these state programs prohibit crushing of spent lamps, but that at least some state programs may allow crushing under regulatory requirements designed to control emissions of hazardous constituents, particularly mercury. The Agency believes that some state programs may include standards for controlling emissions from mercury-containing lamps during crushing that could be equivalent, per RCRA Section 3006, to the federal prohibition.

Therefore, EPA will consider authorization of state programs that include provisions for controlling treatment or crushing of universal waste lamps, where the state program application includes a demonstration of equivalency to the federal prohibition. Factors the Agency would expect such an application to address include the effectiveness of technical requirements in controlling emissions of hazardous constituents, the level of interaction of regulated entities with the regulatory agency to ensure compliance with control requirements, and other factors demonstrating that the state regulatory program would be equivalent to the federal treatment prohibition.

2. Notification Requirement

a. Summary of Proposed Provision. The Agency proposed a notification requirement for generators and consolidation points (i.e., handlers of universal waste lamps) storing more than 35,000 spent lamps. The Agency proposed a numerical rather than a weight limit because lamp packaging (the cardboard boxes in which new replacement lamps are shipped) may constitute a large proportion of the total weight of a shipment or stored quantity of lamps. In addition, industry practice is generally to count lamps by number rather than by weight, calculated by multiplying the number of boxes of lamps in storage or in a shipment by the number of lamps per box. Since a full truckload of fluorescent lamps consists of approximately 35,000 lamps, the Agency proposed that universal waste handlers storing 35,000 lamps or more at any time be required to send a written notification of universal waste lamp storage to the applicable EPA Regional Administrator (or authorized state director) and obtain an EPA Identification Number.

b. Summary of Comments Received. The Agency received only a few comments on the proposed quantity limit for the notification requirement. One commenter suggested increasing the limit to 80,000 lamps. About half the commenters supported the general notification requirement for generators and consolidation points. Other commenters stated that the notification requirement was unnecessary and burdensome since generators may already possess an EPA identification number.

c. Agency's Response to Comments and Summary of Promulgated Standards. In the interest of consistency with the final universal waste rule, the Agency has decided that the 5,000 kilogram limit for the accumulation of all universal wastes will apply to all universal waste handlers (i.e., handlers of batteries, pesticides, mercury thermostats, and lamps). As explained in the preamble to that rule, the Agency believes that the total amount of universal waste at a handler's site is a better indicator of potential risk than the quantity of individual universal wastes being accumulated and handled at that site. EPA has determined that the 5,000 kilogram limit is appropriate for facilities handling universal waste lamps. The Agency believes that it is just as practical to set the notification requirement on the basis of a quantity (or weight) of waste accumulated as on the total number of items generated. Handlers can weigh the amount of waste as easily as they can count the total number of individual light bulbs accumulated, and can also subtract the weight of the packaging.

In response to commenters who said that the notification requirement will be burdensome, the Agency points out that those generators who have already notified EPA of their hazardous waste management activities are not required by the universal waste rule or today's final rule to re-notify EPA or obtain a new identification number. Prior to today's rulemaking, many lamps that are hazardous waste were required to be managed in accordance with all applicable Subtitle C hazardous waste management standards, including the RCRA notification provisions. Therefore, the notification requirement in today's rule is a new requirement only for generators of universal waste lamps that have never generated more than 100 kg of hazardous waste in a calendar month, but now accumulate more than 5,000 kg of universal waste lamps.

3. Prevention of Releases/Packaging Requirements

a. Summary of Proposed Provision. The Agency proposed that generators and consolidation points be required to manage hazardous waste lamps in a manner that minimizes lamp breakage. The proposal required that unbroken lamps be contained in packaging that will minimize breakage during normal handling conditions, and broken lamps be contained in packaging that will minimize releases of lamp fragments and residues.

The Agency requested comment on appropriate management controls for handlers of spent mercury-containing lamps that would minimize potential releases of mercury during collection, accumulation, storage and transport. Approaches suggested by the Agency included requiring performance standards for packaging to minimize lamps breakage. EPA expected that the packaging in which new replacement lamps are shipped from the manufacturer would frequently be reused to store and transport removed, used lamps. The Agency also suggested that requirements could be imposed on storing and transporting spent lamps that are inadvertently broken to prevent further mercury emissions. For example, 55-gallon steel drums or any enclosed container could be used to hold broken lamps for transportation to a recycling facility or a disposal site.

b. Summary of Comments Received. A number of commenters, including both lamp manufacturers and mercury lamp recycling facilities, supported container or packaging standards to minimize lamp breakage during accumulation, storage, and transport. Lamp recycling facilities in particular voiced a preference for spent lamps to be stored and transported in packaging that protects the spent lamps from potential breakage. Commenters representing recycling facilities pointed out that proper packaging will prevent releases of mercury to the environment before the lamps arrive at recycling facilities. These commenters stated that lamp

recycling facilities prefer to receive intact, unbroken lamps so that the lamps can be crushed in a closed, controlled environment at the recycling facility to allow for the capture and recycling of the available mercury. In addition, commenters pointed out that broken lamps and potential releases of mercury can endanger the safety of employees at the recycling facility. Commenters representing both lamp manufacturers and lamp recyclers recommended that intact lamps be stored in original cartons or specially designed containers (e.g., fiber containers with closed lids) that will protect the spent lamps from breakage. Commenters pointed out that unintentionally broken lamps should be stored and transported in closed drums or other puncture-proof containers that are sealed and properly labeled.

Although many commenters supported the promulgation of packaging or container requirements to reduce lamp breakage and reduce mercury emissions during storage and transport, other commenters stated that mercury emissions from broken lamps do not pose a threat to human health and the environment and that therefore protective package may not be necessary.

c. Agency's Response to Comments and Summary of Promulgated Standards. The Agency agrees with the commenters who stated that universal waste lamps should be stored and packaged in a way that minimizes lamp breakage. Recent studies (such as that performed by the Research Triangle Institute) show that significant releases of mercury during storage and transport can occur as a result of lamp breakage. EPA therefore disagrees with those commenters who stated that breakage presents no threat to human health and the environment. Today's final rule adds a subsection (d) for universal waste lamps to the universal waste management §§ 273.13 and 273.33 for small quantity handlers and large quantity handlers respectively. The Agency believes that these standards generally satisfy the concerns of commenters for environmental protection. The packaging provisions generally resemble the universal waste packaging requirements for mercury-containing thermostats.

The final rule requires universal waste handlers to manage universal waste lamps in a way that prevents releases of the lamps or the components of the lamps to the environment. Spent lamps must be packed to minimize breakage and packaging materials must be designed to contain potential releases due to breakage during transport. Universal waste lamps must be stored in containers or packages that remain closed, are structurally sound, adequate to prevent breakage, compatible with contents of lamps, and lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions. Examples of acceptable packaging could include placing the lamps evenly spaced in double or triple-ply cardboard containers with closed lids. Handlers also must contain any universal waste lamps that show evidence of breakage, leakage, or damage that could cause the release of mercury or other hazardous constituents to the environment. An example of such containment could include placing unintentionally broken lamps in closed wax fiberboard drums.

The Agency points out that in addition to these container and packaging provisions, universal waste handlers, including handlers of universal waste lamps, must comply with the provisions of 40 CFR 273.17 and 273.37 for responding to releases of universal waste. Handlers of universal waste must immediately contain all releases of universal waste and any residues from universal wastes. In addition, universal waste handlers must determine whether any material resulting from a release is a hazardous waste and, if so, must manage the hazardous waste in compliance with all applicable provisions of 40 CFR parts 260 through 268, as well as all other applicable statutory provisions.

4. Accumulation Time

a. Summary of Proposed Provision. In the proposed spent mercury-containing lamps rule, the Agency proposed to limit the time period in which handlers may accumulate such lamps on-site to one year following the date that a lamp becomes a waste. In addition, the Agency proposed several alternative ways to demonstrate compliance with this provision, and solicited comment on the alternatives. The proposed regulations required that generators and consolidation points either mark the container, mark the individual lamps, maintain an inventory system, or place lamps in a specific storage area while identifying the earliest date a lamp was placed in that area.

b. Summary of Comments Received. Generally, most commenters supported the proposed one-year storage time limitation and compliance demonstration requirements. A few commenters stated that each lamp should be dated as soon as it is removed from the lamp fixture to verify compliance with the one-year time limit. Some commenters stated that the one year storage limit was too long and increased the probability of broken lamps. These commenters suggested reducing the time limit to 180 days, 90 days, or 10 days. Other commenters stated that the one-year limit was too restrictive and did not allow for proper recovery, treatment, or disposal. One commenter suggested that a provision be included for case-by-case extensions to the storage time limit if necessary.

c. Agency's Response to Comments and Summary of Promulgated Standards. In today's rule, the Agency has decided to adopt the accumulation time limit requirements in the universal waste rule (§§ 273.15 and 273.35) for small and large quantity handlers of spent lamps. These requirements are similar to the provisions for the accumulation time limit in the proposed spent mercury-containing lamps rule. However, to remain consistent with the universal waste rule, handlers of universal waste lamps are allowed accumulation for more than one year if such accumulation is solely for accumulating such quantities of universal waste as are necessary to facilitate proper recovery, treatment, or disposal. For any accumulation longer than one year, the handler must be able to prove that such accumulation is solely for accumulating quantities necessary to facilitate proper recovery, treatment, or disposal (it is assumed that any accumulation up to one year is for this purpose). Notification to the EPA Regional Administrator of extended storage is not required; however, authorized states may have more stringent requirements.

The final rule requires that handlers of universal waste lamps comply with one of the following measures to demonstrate compliance with the accumulation time limit: mark the container holding the lamp, mark the individual lamp, maintain an inventory system, place the lamps in a specific storage area marked with the earliest date a lamp is placed in the area identified, or use any other method which demonstrates the length of time that the lamp has been accumulated from the date the lamp becomes a waste or is received.

In response to comments requesting a different accumulation time, the Agency believes that this issue was addressed in the final universal waste rule (60 FR 25526). In that rule, the Agency recognized that one year may not be sufficient for some handlers to accumulate enough universal waste to properly recover, treat, or dispose of the waste. By allowing accumulation for longer than one year, certain facilities will have the additional time they need

to facilitate proper recovery, treatment, or disposal. However, for any accumulation longer than one year, the burden of proof is on the handler to demonstrate that such accumulation is solely for accumulating quantities necessary to facilitate proper recovery, treatment, or disposal. Although the Agency agrees with commenters that it is possible to send spent lamps to a management facility in a shorter period of time, there does not appear to be a strong environmental justification for such a requirement.

Also in response to comments received, the Agency is not modifying the proposed demonstration requirement to show compliance with the accumulation time limit (40 CFR 273.15 and 273.35). Labeling each individual tube with the date that it is removed from the fixture is an acceptable means of identifying the accumulation time. However, the Agency believes that the other measures for showing compliance with the accumulation time limit are adequate and impose a smaller burden, particularly upon small quantity handlers.

5. Tracking of Shipments

a. Summary of Proposed Provision. The Agency requested comment on several ways to track off-site shipments of waste lamps. One suggested approach required the use of a hazardous waste manifest (and thus a hazardous waste transporter) for shipments from the last consolidation point to the destination facility. However, no manifests or other records (or hazardous waste transporters) would be required for shipments from generators to consolidation points or from generators to destination facilities. This approach is the same as that presented in the universal waste proposal. Another approach suggested by the Agency was to require that persons initiating and receiving shipments of spent lamps retain shipping papers documenting all shipments. The last approach suggested was requiring that persons claiming an exemption from the hazardous waste manifesting requirements must keep documentation to show that they qualified for such an exemption (specific shipment records need not be retained). In the proposed spent mercury-containing lamps rule, the Agency stated that because of the large volume of lamp shipments, such shipments are more likely than other universal wastes to be made directly from the generator to the destination facility. Records would be available for such shipments because destination facilities are already required under the hazardous waste regulations to maintain records, including the description and quantity of each hazardous waste received.

b. Summary of Comments Received. Some commenters opposed any tracking and recordkeeping requirements for the shipment of spent lamps. Several commenters said that the use of manifests for generators and consolidation points is not necessary to track the transportation of spent lamps, and that this requirement would create an unnecessary cost burden. These commenters believed that the increased costs and administrative burden of using manifests and hazardous waste transporters would discourage the collection of universal waste and would inhibit removal of these wastes from solid waste landfills and incinerators. Commenters suggested that the documentation requirements for generators and consolidation points should be flexible. However, many commenters, including some of those who opposed manifests, supported some form of tracking requirement to document the transport of universal wastes. These commenters argued that a less burdensome tracking requirement would not inhibit participation in collection programs. Further benefits might include reduction of liability for persons managing universal waste, increased enforceability of the universal waste system, and decreased potential for abuse of the streamlined universal waste requirements. Some commenters supported stringent tracking requirements, and a few stated that all consolidation points should be required to accompany lamp shipments with a manifest to protect generators from potential liability. One commenter stated that receiving facilities should keep documentation of all shipments received until the facility closes.

c. Agency's Response to Comments and Summary of Promulgated Standards. In the final universal waste rule, the Agency decided to require tracking only for large quantity handlers of universal waste. EPA believed that tracking was needed only in cases where facilities are handling larger quantities of universal waste, thus posing potentially greater environmental risk. The Agency decided not to impose these requirements on small quantity handlers of universal waste because it agreed with those commenters who said that the administrative burden of tracking would discourage retail establishments, service centers, and other "front line" collectors managing small quantities of waste from participating in collection programs, thus undermining the goal of the universal waste program. In addition, because these operations accumulate smaller quantities of universal wastes, they will generally pose less risk than facilities accumulating larger quantities.

EPA believes that these arguments apply with equal force to handlers of universal waste lamps. In today's rule, the Agency is therefore adopting the universal waste tracking requirements in part 273 for such lamps. The tracking provisions for small and large quantity handlers of universal waste are found in §§ 273.19 and 273.39, respectively. The universal waste rule includes a recordkeeping requirement to track waste shipments arriving at and leaving from large quantity handlers. Large quantity handlers are required to keep records of each shipment of universal waste lamps received and keep records of each shipment of lamps sent off-site. The record may take the form of a log, invoice, manifest, bill of lading, or other shipping document. The Agency believes that standard business records that are normally kept by businesses will fulfill this requirement. Records must be retained for at least three years from the date of receipt of a shipment of lamps or the date a shipment of lamps leaves the facility. Small quantity handlers are not required to keep records of shipments of universal waste lamps. The Agency believes that these requirements provide consistency with the current universal waste rule and adequately respond to concerns raised by commenters on the proposed rule, including those commenters requesting flexibility in recordkeeping requirements.

C. Storage Time Limitation for Transporters of Universal Waste Lamps

1. Summary of Proposed Provision

The proposed regulations for transporters of mercury-containing lamps were designed to be consistent with the proposed universal waste rule. The Agency proposed to allow transporters of universal waste lamps to store spent lamps for up to ten days at a transfer facility during the course of transportation. A transporter storing spent lamps for more than ten days at one location would have to comply with the appropriate universal waste handler requirements in managing the wastes accumulated at the accumulation site, in addition to complying with the applicable universal waste transporter requirements.

2. Summary of Comments Received

In response to the proposed universal waste rule, the Agency received

comments from two commenters who argued for a longer storage time limit for transporters. In addition, one commenter argued that the Agency should limit the total transportation time allowed for a waste to reach its destination, rather than impose a time limit for storing the waste during transport. The commenters, however, provided little information to justify a longer in-transit storage time limit. The Agency proposed the same accumulation time limit for transporters of universal waste lamps in the proposed rulemaking on mercury-containing lamps. The transporter accumulation time limit in the proposed universal waste rule was not significantly changed in the final universal waste rule, except to clarify that if the waste is stored for greater than 10 days, the transporter is subject to the standards for small or large quantity handlers.

3. Agency's Response to Comments and Summary of Promulgated Standards

Today's final rule adopts the storage time limit standards for transporters of universal waste lamps as promulgated in the universal waste rule. Under 40 CFR 273.53 of the universal waste regulations, transporters can store universal waste at a transfer facility for ten days or less. If the ten day limit is exceeded, the transporter becomes a universal waste handler and must comply with the applicable small or large quantity handler requirements under subparts B or C of part 273 while storing the universal waste. The Agency chose to retain the proposed 10-day accumulation limit for transporters of universal waste, consistent with the limit for transfer facilities handling other types of hazardous waste. In response to the commenter requesting that the Agency limit total transport time, rather than set a limit on the accumulation time at transfer facilities, EPA does not believe that a limit on total transportation time is practicable because of the extreme variation in the time needed to deliver shipments to different parts of the country. It is generally in the economic self-interest of transporters to make deliveries as quickly as possible. Delays in transport usually imply the likelihood of storage, so a limit on such storage seems the most efficient way to protect human health and the environment.

D. Destination Facility Requirements/ Lamp Recycling Facilities

1. Summary of Proposed Provision

Today's rule does not amend the existing standards for destination facilities receiving universal waste. Destination facilities remain subject to full subtitle C regulation, including all applicable requirements of parts 264, 265, 266, 268, 270, and 124. A recycling facility that does not store universal waste lamps before recycling them must comply with § 261.6(c)(2).

The existing requirements for destination facilities (i.e., hazardous waste treatment, storage, and disposal (TSD) facilities, or recycling facilities that do not store hazardous waste before recycling) are found in subpart E of part 273. Subpart E requires that destination facilities remain subject to full subtitle C regulation. These provisions are the same as those proposed in the proposed spent mercury-containing lamps rule.

The proposed spent mercury-containing lamps rule required that destination facilities recycling hazardous waste lamps prior storage must comply with 40 CFR 261.6(c)(2), which requires that facilities recycling universal waste obtain an EPA identification number. If a recycling facility stores hazardous waste lamps before recycling or performs treatment other than recycling, the facility is subject to full subtitle C hazardous waste management regulations, including the RCRA permitting requirements.

2. Summary of Comments Received

The Agency received many comments addressing the regulation of mercury lamp recycling facilities. Some commenters stated that mercury lamp recyclers are a potential threat to the environment because these facilities lack substantive regulation. A number of commenters suggested that the Agency implement standards for recycling facilities, and suggested best management practices that would reduce releases of mercury into the environment from these facilities.

3. Agency's Response to Comments and Summary of Promulgated Standards

Today's rule does not amend the existing standards for recycling facilities receiving universal waste. In general, destination facilities, including recycling facilities, remain subject to full hazardous waste regulation. A recycling facility that does not store universal waste lamps prior to recycling the lamps is subject only to 40 CFR 261.6(c)(2).

The Agency believes that changing requirements for destination facilities (including lamp recyclers) is beyond the scope of today's regulation, which addresses the generation and collection of universal waste lamps rather than final treatment, disposal, or recycling. EPA believes that with adequate state oversight, universal waste lamps can be safely recycled, allowing the mercury and other economically viable materials to be reclaimed. Safe recycling should ensure that residuals from recovery operations are managed in accordance with all applicable solid and hazardous waste management requirements. Residuals that exhibit a characteristic of hazardous waste must be managed as hazardous waste.

The Agency received no comments concerning the provisions for universal waste destination facilities, other than those addressing lamp recycling facilities. Therefore, today's rule does not amend the existing standards for treatment and disposal facilities receiving universal waste. Treatment and disposal facilities that receive universal waste lamps are subject to the same standards that apply to permitted or interim status hazardous waste treatment, storage, and disposal facilities. These standards include notification requirements, general facility standards, unit-specific management standards, and permitting requirements. The Agency notes that facilities that store universal waste lamps, but do not treat, dispose, or recycle them, are considered handlers and not destination facilities.

E. Sunset Provision

1. Summary of Proposed Provision

In the proposed lamps rule, the Agency requested comments on whether to include a three to five-year sunset provision in the final rule. A sunset provision would require EPA to re-evaluate the effectiveness of the universal waste system in addressing the disposal of lamps after three to five years. At that time, the Agency could decide whether fewer controls or more controls were needed to maintain the safe management of lamps.

2. Summary of Comments Received

More than half of the comments received generally supported a three to five year sunset provision. Commenters stated that a sunset provision would allow the Agency to examine any new information on lamp management and the fate and transport of mercury, and re-evaluate options as necessary.

Other commenters did not support the proposed three to five year sunset provision. Commenters stated that a sunset provision or other deadline was not necessary and that the Agency already had the authority to re-evaluate the rule at any time.

3. Agency's Response to Comments and Summary of Promulgated Standards

Today's final rule does not include a sunset provision. The Agency believes that the data and information provided to the Agency, along with the Agency's own studies and analyses (available in the docket for this rulemaking) provide adequate evidence of the behavior of mercury in the environment and potential releases of mercury to support today's final rule. The Agency notes, however, that if additional information about the behavior of mercury becomes available in the future, the Agency may re-evaluate the standards promulgated in today's final rule.

VI. State Authority

A. Applicability of Rules in Authorized States

Under section 3006 of RCRA, EPA may authorize qualified States to administer and enforce the RCRA hazardous waste 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 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 or enacted, 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 promulgates federal requirements that are more stringent or broader in scope than existing federal requirements. RCRA section 3009 allows the States to impose standards more stringent than those in the federal program. See also 40 CFR 271.1(i). Therefore, authorized States can, but do not have to, adopt federal regulations, both HSWA and non-HSWA, that are considered less stringent.

B. Effect on State Authorization

Today's rule is not promulgated pursuant to HSWA. Therefore the rule is applicable on the effective date only in those States that do not have final RCRA authorization. Today's rule is also less stringent than the current federal program. Because States are not required to adopt less stringent regulations, they do not have to adopt the universal waste regulations for spent lamps. A number of States have added spent lamps to their universal waste programs or are in the process of doing so. While these actions are specifically allowed under the universal waste rule, if a State's standards for spent lamps are less stringent than those in today's rule, the State will need to amend its regulations to make them equivalent to today's standards and pursue authorization.

As noted earlier, EPA recognizes that States have been proactive in adopting universal waste standards for spent lamps. Some of these standards allow crushing of lamps under certain conditions. Although today's rule does not provide for crushing, EPA believes that State programs could have standards for crushing which will be equivalent to the federal rules and thus appropriate for authorization. EPA also believes that this flexibility will allow for a minimal level of disruption to existing State programs. The Agency will determine at the time of authorization whether a State regulation that allows crushing is equivalent to the federal standard.

C. Interstate Transport

Due to the fact that not all States will choose to seek authorization for today's rulemaking, there may be only a few destination facilities that will accept and manage universal waste lamps. The Agency believes that it is important to explain how the regulations will apply because interstate transportation will be necessary for these wastes.

First, a waste which is subject to the universal waste regulations may be sent to a State, or through a State, where it is not a universal waste and where it would be subject to the full hazardous waste regulations. In this scenario, for the portion of the trip through the originating State, and any other States where the waste is a universal waste, neither a transporter with an EPA identification number per 40 CFR 263.11 (hazardous waste transporter) nor a manifest would be required. However, for the portion of the trip through the receiving State, and any other States that do not consider the waste to be a universal waste, the transporter must have a manifest, and must move the waste in compliance with 40 CFR Part 263. In order for the final transporter and the receiving facility to fulfill their requirements concerning the manifest (40 CFR 263.20, 263.21, 263.22; 264.71, 264.72, 264.76 or 265.71, 265.72, and 265.76), the initiating facility should complete a manifest and forward it to the first transporter to travel in a State where the waste is not a universal waste. The receiving facility must then sign the manifest and send a copy to the initiating facility. EPA recommends that the initiating facility note in block 15 of the manifest (Special Handling Instructions and Additional Information) that the wastes are covered under the universal waste regulations in the initiating State but not in the receiving facility's State.

Second, a hazardous waste generated in a State which does not regulate it as a universal waste may be sent to a State where it is a universal waste. In this scenario, the waste must be moved by a hazardous waste transporter while the waste is in the generator's State or any other States where it is not a universal waste. The initiating facility would complete a manifest and give copies to the transporter as required under 40 CFR 262.23(a). Transportation within the receiving State and any other States that regulate the waste as a universal waste would not require a manifest and need not be conducted by a hazardous waste transporter. However, it is the initiating facility's responsibility to ensure that the manifest is forwarded to the receiving facility by any non-hazardous waste transporter and sent back to the initiating facility by the receiving facility (see 40 CFR 262.23 and 262.42). EPA recommends that the generator note in block 15 of the manifest (Special Handling Instructions and Additional Information) that the waste is covered under the universal waste regulations in the receiving facility's State but not in the generator's State.

Third, a waste may be transported across a State in which it is subject to the full hazardous waste regulations although other portions of the trip may be from, through, and to States in which it is covered under universal waste regulations. Transport through the State must be conducted by a hazardous waste transporter and must be accompanied by a manifest. In order for the transporter to fulfill its requirements concerning the manifest (Subpart B of Part 263), the initiating facility must complete a manifest as required under the manifest procedures and forward it to the first transporter to travel in a State where the waste is not a universal waste. The transporter must deliver the manifest to, and obtain the signature of, either the next transporter or the receiving facility.

As noted previously, States are not required to adopt today's rule. However, EPA strongly encourages them to do so. As more States add spent lamps in their universal waste program, not only will this assist in achieving the most benefits of the universal waste program, it will also reduce the complexity of interstate transport of these universal wastes.

VII. Regulatory Requirements

A. Executive Order 12866

Under Executive Order 12866 (58 FR 51735), the Agency must determine whether this regulatory action is "significant" and therefore subject to formal review by the Office of Management and Budget (OMB) and to the requirements of the Executive Order, which include assessing the costs and benefits anticipated as a result of the proposed regulatory action. 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 Executive Order 12866, the Agency has determined that today's final rule is a significant regulatory action because this final rule contains novel policy issues. As such, this action was submitted to OMB for review. Changes made in response to OMB suggestions or recommendations are documented in the public record. Although this rule is not "economically significant", the Agency has prepared the supporting analysis: Modification of the Hazardous Waste Program: Hazardous Waste Lamps—Final Economic Assessment (Economic Assessment). The findings from this analysis are presented below.

B. Economic Assessment

The Economic Assessment conducted in support of today's final rule analyzed impacts associated with this final universal waste action, plus the primary alternative of promulgating a conditional exclusion for lamps. Although the final rule includes all hazardous waste lamps in the universal waste program, this Economic Assessment addresses only mercury-containing fluorescent lamps. The Agency estimates that non-fluorescent lamps represent approximately 0.8 to 1.7 percent of the total universe of lamps addressed under today's rulemaking. The comparatively negligible proportion of other hazardous waste lamps is not expected to appreciably affect the impact estimates presented in this analysis.

Fluorescent lamps contain a small amount of mercury that emits light when stimulated with electrical current. When a fluorescent lamp breaks, the mercury in the lamp is released into the environment and may cause health risks, primarily through consumption of fish. Neurotoxicity is the health effect of greatest concern for humans; death, reduced reproductive success, impaired growth and development, and behavioral abnormalities are effects of concern to fish, birds, and mammals. Lamp mismanagement scenarios indicate that, without government intervention, market failures will likely lead to disposal activities resulting in unnecessarily high releases of mercury to the environment.

Prior to today's final action, spent lamps that failed the toxicity characteristic leaching procedure (TCLP) test were automatically considered hazardous wastes under RCRA and subject to full Subtitle C management requirements, unless the lamps are generated by a household or a conditionally-exempt small quantity generated. EPA recognized the confusion and mismanagement patterns historically associated with maintaining spent hazardous waste lamps within the Subtitle C system. The Agency is taking today's final action of adding spent lamps to the scope of universal waste regulations in an effort to streamline the current regulations governing the management of such lamps, increase lamp management efficiency, and ultimately to cause a potential reduction in aggregate mercury emissions. The Agency's final action of adding spent lamps to the scope of the universal waste system, however, is not expected to completely determine how these lamps will be managed in individual states. States already have the option of including lamps within their universal waste programs. Furthermore, states that have not chosen to adopt universal waste programs, or have not included lamps within their universal waste programs, are not obligated to do so in response to EPA's decision.

The universal waste regulations include requirements for the proper packaging of spent lamps, storage of spent lamps, EPA notification, and responses to releases. EPA selected this action over the other proposed option which would have been based on a conditional exclusion (CE). The CE would have excluded spent mercury-containing lamps from regulation as hazardous waste. The addition of spent lamps to the universal waste regulations is considered a deregulatory action and imposes fewer requirements on generators and transports of spent lamps than the hazardous waste management standards under RCRA Subtitle C. The proposed conditional exclusion would have been deregulatory as well.

The Economic Assessment conducted in support of today's final rule analyzed impacts associated with the final universal waste action, plus the primary alternative of promulgating a conditional exclusion for lamps. Two different compliance scenarios are examined in the baseline, and under each option in an effort to incorporate alternative management practices. The first (high) compliance scenario assumes 100 percent compliance under all regulatory schemes. The second (low) compliance scenario assumes 20 percent compliance under a scenario where handlers of spent mercury-containing lamps are subject to full Subtitle C, 80 percent compliance under the universal waste option, and 90 percent compliance under the conditional exclusion option. The reader should refer to the report: Mercury Emissions From The Disposal of Fluorescent Lamps—Revised Model, Final Report, for a detailed discussion of estimated compliance rates. This report is available in the RCRA docket established for today's action.

The total national annualized costs of compliance and disposal under the baseline are estimated at $80.01 million

and $54.37 million under the high and low compliance scenarios, respectively. Under the universal waste final action these costs are projected at $78.52 million under the high compliance scenario and $56.14 million for the low compliance scenario. In the high compliance scenario, the costs under full Subtitle C and universal waste are close because transportation and disposal costs, which account for approximately 76 percent of total costs, are virtually the same. Under the low compliance scenario, costs under the universal waste final action are higher than under the full Subtitle C baseline because of the higher compliance rate assumed under the universal waste scheme. While costs could increase for some non-exempt entities under the universal waste approach, this would be the result of non-compliance in the baseline. These costs would not appropriately be attributable to this rulemaking. Compliance and disposal costs under the conditional exclusion option also were examined. Aggregate annualized costs under the conditional exclusion option are estimated at $73.90 million and $52.60 million for the high and low compliance scenarios, respectively.

The Economic Assessment also examined economic impacts on affected facilities. EPA's final universal waste action is projected to result in cost savings to affected generators under the high compliance scenario. Adverse impacts on generators, therefore, are not anticipated. However, actual costs to some generators may increase under the low compliance scenario. The magnitude of the potential cost increase under this scenario, however, would not result in meaningful impacts on affected generators. In addition to generators, the Assessment also examined potential economic impacts on consolidation and recycling facilities. The Agency found that few, if any, spent fluorescent lamp consolidation facilities exist at present or are likely to exist in the future as independent economic entities. Impacts on consolidated facilities dedicated to spent fluorescent lamps, therefore, were not examined. Recycling facilities may benefit indirectly due to today's final, which may result in additional revenues for firms owning or operating recycling facilities.

The Economic Assessment projected changes in total nationwide mercury emissions resulting from the universal waste final action and the conditional exclusion option. Average annual emissions corresponding to the management of spent mercury-containing fluorescent lamps (four-foot equivalents) were projected over the 1998 through 2007 period. Under the high compliance scenario, average annual baseline emissions were estimated at 790.4 kilograms. Emissions under the universal waste final action were projected at 790.5 kilograms, resulting in an incremental increase of 0.1 kilograms, or 0.013 percent above the baseline. Emissions under the conditional exclusion option are projected at 798.4 kilograms, or 1.012 percent beyond the baseline. Under the low compliance scenario, average annual baseline emissions are estimated at 822 kilograms. The universal waste final action is projected to result in average annual emissions of 819.2 kilograms. This is a reduction of 2.8 kilograms, or 0.341 percent. Emissions under the conditional exclusion option increase by 10.5 kilograms, or 1.277 percent beyond the baseline.

The examination of cost-effectiveness may help put the above emission increments into perspective. Cost-effectiveness allows for the direct comparison of costs, or cost savings on a per kilogram basis. Under the high compliance scenario, shifting from the baseline to the universal waste final action is projected to result in cost savings of $10.5 million per additional kilogram of mercury emitted. This implies that it would be very expensive, on a per kilogram basis, to keep emissions low by holding to a high compliance baseline. Under the low compliance scenario, shifting from the baseline to the universal waste final action is projected to result in a cost increase of $0.63 million per kilogram of mercury reduced. Furthermore, today's final action is projected to cut emissions by over thirteen kilograms per year compared to the conditional exclusion option, at a cost of approximately $0.27 million per kilogram.

For more information on the cost and emissions impacts associated with today's final rule see the EPA report: Modification of The Hazardous Waste Program: Hazardous Waste Lamps—Economic Assessment. This report is available from the RCRA docket established for this action.

C. Regulatory Flexibility Analysis

Pursuant to the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*, as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996) whenever an Agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effect of the rule on small entities (i.e., small businesses, small organizations, and small governmental jurisdictions). However, no regulatory flexibility analysis is required if the head of an agency certifies the rule will not have a significant economic impact on a substantial number of small entities. SBREFA amended the Regulatory Flexibility Act to require Federal agencies to provide a statement of the factual basis for certifying that a rule will not have a significant economic impact on a substantial number of small entities. The following discussion explains EPA's determination.

The small entity analysis conducted for today's final action indicates that the addition of spent lamps to the universal waste system would generally result in savings to affected entities relative to baseline requirements. Under the full compliance scenario, the rule is not expected to result in a net cost to any affected entity. Thus, adverse impacts are not anticipated. Costs could increase for entities that are not complying with current requirements, but even these costs (which are not properly attributable to the current rulemaking) would not be expected to result in significant impacts on a substantial number of small entities. Based on the foregoing discussion, I hereby certify that this rule will not have a significant adverse economic impact on a substantial number of small entities. Consequently, the Agency has determined that preparation of a formal Regulatory Flexibility Analysis is unnecessary.

For more information on small entity impacts potentially associated with today's final rule see the EPA report: Modification of the Hazardous Waste Program: Hazardous Waste Lamps—Regulatory Flexibility Screening Analysis. This report is available from the RCRA docket established for this action.

D. Environmental Justice

Under Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," as well as through EPA's April 1995 "Environmental Justice Strategy, OSWER Environmental Justice Task Force Action Agenda Report", and the National Environmental Justice Advisory Council, EPA has undertaken to incorporate environmental justice into its policies and programs. EPA is committed to addressing environmental justice concerns, and is assuming a leadership role in environmental justice initiatives to enhance environmental quality for all residents of the United States. The Agency's goals are to ensure that no segment of the population,

regardless of race, color, national origin, or income, bears disproportionately high and adverse human health and environmental effects as a result of EPA's policies, programs, and activities, and all people live in clean and sustainable communities. To address this goal, EPA conducted a qualitative analysis of the environmental justice issues under this final rule. Potential environmental justice impacts are identified consistent with the EPA's Environmental Justice Strategy and the OSWER Environmental Justice Action Agenda. In addition, public comments received on the 1994 proposal that relate to environmental justice were reviewed for this analysis.

As mentioned before, the primary concern regarding management of spent mercury-containing lamps is the air emissions as a result of crushing and accidental breakage during transport, lamp management, or disposal. Mercury air emissions can have human health effects through direct contact or indirect human contact by consuming fish and shellfish, or through contamination of drinking water (perhaps from inadequate disposal measures).

From a direct exposure standpoint, the transient nature of mercury air emissions results in less concern to the location of minority and low-income populations than might be expected. Since atmospheric mercury can travel thousands of miles (and beyond U.S. borders), an environmental justice analysis does not require a detailed geographic analysis. However, populations immediately surrounding transportation, incineration, recycling, crushing, or disposal facilities may be exposed to a higher concentration of emissions than those populations living further away. If these types of facilities are located more often in communities characterized by low-income or minority populations, there may be disproportionate impacts to those populations from the promulgation of today's final rule. If the location of such facilities is random with respect to race or income, disproportionate impacts could be said not to exist. The low compliance scenario is examined for the environmental justice analysis.

Of the indirect exposure pathways, the ingestion of mercury-contaminated fish and shellfish has been shown to be of the highest concern due to mercury's propensity to bioaccumulate in the aquatic environment. This can present an environmental justice issue since the bulk of subsistence fisher populations consist of low-income people. These subsistence fisher populations rely on locally-caught fish as an inexpensive source of protein or due to cultural reasons. However, since today's rule is expected to improve compliance, and thus adequate management of mercury-containing lamps, it is expected that there will be a positive impact on these populations, with less mercury available to contaminate aquatic environments.

No disproportional impacts for low-income or minority communities are expected as a result of the final action for the following reasons:

(1) The environmental impact of the final universal waste action is small. The 10-year modeling period projects a net decrease in emissions (low compliance scenario) at approximately 30 kilograms under the universal waste final action. The conditional exclusion option would have shown an increase (approximately 105 kg) in mercury emissions over 10 years. In either case, the wide distribution of mercury emissions is unlikely to create significant impacts on any particular community.

(2) The distribution of the municipal waste combustors and recycling facilities throughout minority and/or low income counties in the United States does not suggest any distributional pattern around communities of concern. Lamps crushing, legal or illegal, is difficult to measure because any building in any area is a potential source. Specific impacts on low income or minority communities, therefore, are undetermined. The Agency believes that emissions during transportation would not be a major contributor to communities of concern through which lamps may be transported. Any lamps broken during transport would be contained in the packaging. The Agency recognizes, however, the potential for some increased risk to transportation workers. Overall, no disproportional impacts to minority and/or low income communities are expected.

For more information on the environmental justice analysis conducted in support of today's final rule see the EPA report: Modification of the Hazardous Waste Program: Hazardous Waste Lamps—Economic Assessment. This report is available from the RCRA docket established for this action.

E. National Technology Transfer and Advancement Act of 1995 (NTTAA)

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 ("NTTAA"), Public Law 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, though OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards. This rule does not establish technical standards. Therefore, EPA did not consider the use of any voluntary consensus standards.

F. Executive Order 13045—Children's Health

"Protection of Children From Environmental Health Risks and Safety Risks" (62 FR 19885, April 23, 1997) applies to any rule that EPA determines (1) "economically significant" as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, the Agency must: Evaluate the environmental health or safety effects of the planned rule on children; and explain the environmental health or safety effects of the planned rule on children; and explain why the planned regulation is preferable to other potential effective and reasonably feasible alternatives considered by the Agency. We believe this final rule is not subject to E.O. 13045, entitled "Protection of Children from Environmental Health Risks and Safety Risks" (62 FR 19885, April 23, 1997) because it is intended to be deregulatory. However, an analysis of the potential effects of this action on children's health in the spirit of the Executive Order and consistent with the Agency's ongoing concern with children's health, is included in section II of today's preamble.

G. Regulatory Issues—Unfunded Mandates

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, EPA generally must prepare a written statement, including a cost-benefit analysis, for the proposed and final rules with "federal mandates" that may result in expenditures by state, local, and tribal governments, in the aggregate, or to the private sector, of $100 million or more in any one year.

Before promulgating a rule for which a written statement is needed, section 205 of the UMRA generally requires EPA 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. Moreover, section 205 allows EPA 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 EPA established 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, enable officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

The Agency's analysis of compliance with the Unfunded Mandates Reform Act (UMRA) of 1995 found that today's final rule imposes no enforceable duty on any State, local or tribal government or the private sector. This final rule contains no federal mandates (under the regulatory provisions of Title II of the UMRA) for state, local, or tribal governments or the private sector. In addition, EPA has determined that this rule contains no regulatory requirements that might significantly or uniquely affect small governments. The Act generally excludes from the definition of "federal intergovernmental mandate" (in sections 202, 203, and 205) duties that arise from participation in a voluntary federal program. Adopting today's final action, because it is less stringent, is optional. The universal waste final action, therefore, could be interpreted as voluntary and not subject to the Unfunded Mandates Analysis requirement. Furthermore, today's final action is deregulatory and will not impose incremental costs in excess of $100 million to the private sector, or to state, local, or tribal governments in the aggregate.

H. Paperwork Reduction Act

The Information Collection Request (ICR) detailing the information collection requirements associated with today's rule will be submitted for approval to the Office of Management and Budget (OMB) under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* A copy of the ICR document (ICR No. 1699.02) may be obtained from Sandy Farmer by mail at OPPE Regulatory Information Division; U.S. Environmental Protection Agency (2137); 401 M St., SW.; Washington, DC 20460, by e-mail at farmer.sandy@epamail.epa.gov, or by calling (202) 260–2740. A copy may also be downloaded off the Internet at http://www.epa.gov.icr. The information requirements are not effective until OMB approves them.

The information requirements established for this action, and identified in the Information Collection Request (ICR) supporting today's final rulemaking, are largely a self-implementing process. This process will ensure that: (i) Handlers of lamp wastes are held accountable to the universal waste requirements; and (ii) state inspectors can verify compliance when needed. For example, the universal waste standards require LQHUWs and SQHUWs to demonstrate the length of time that the lamp waste has been accumulated from the date it was received or became a waste. The standards also require LQHUWs and destination sites to keep records of all shipments received and sent. Further, the standards require waste handlers to notify EPA when needed (e.g., notification of illegal shipment).

EPA will use the collected information to ensure that lamp waste is being managed in a protective manner. These data aid the Agency in tracking lamp waste shipments and identifying improper management practices. In addition, information kept in facility records helps handlers and destination sites to ensure that they and other facilities are managing lamp wastes properly. Section 3007(b) of RCRA and 40 CFR part 2, subpart B, which define EPA's general policy on the public disclosure of information, contain provisions for confidentiality. However, no questions of a sensitive nature are included in any of the information collection requirements associated with today's action.

EPA has carefully considered the burden imposed upon the regulated community by the regulations. EPA is confident that those activities required of respondents are necessary and, to the extent possible, has attempted to minimize the burden imposed. EPA believes strongly that if the minimum requirements specified under the regulations are not met, neither the facilities nor EPA can ensure that hazardous waste lamps are being managed in a manner protective of human health and the environment.

The aggregate burden to respondents over the three-year period covered by this ICR is estimated at 385,461 hours, with a cost of approximately $15,247,245. The aggregate burden to the Agency is estimated at 5,583 hours, with a cost of $320,910. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, disclose, or provide information to or for a federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

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

I. Executive Order 13084

Under Executive Order 13084, EPA may not issue a regulation that is not required by statute, that significantly or uniquely affects the communities of Indian tribal governments, and that imposes substantial direct compliance costs on those communities, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by the tribal governments, or EPA consults with those governments. If EPA complies by consulting, Executive Order 13084 requires EPA to provide to the Office of Management and Budget, in a separately identified section of the preamble to the rule, a description of the extent of EPA's prior consultation with representatives of affected tribal governments, a summary of the nature of their concerns, and a statement supporting the need to issue the regulation. In addition, Executive Order 13084 requires EPA to develop an effective process permitting elected officials and other representatives of Indian tribal governments "to provide meaningful and timely input in the development of regulatory policies on matters that

significantly or uniquely affect their communities."

EPA has determined that the requirements of Executive Order 13084 do not apply to today's final rule because the rule does not significantly or uniquely affect Indian tribal governments or communities. Furthermore, the rule does not impose any enforceable duties on these entities, and is not likely to impose substantial direct compliance costs on tribal governments and their communities.

J. Executive Order 12875

Under Executive Order 12875, EPA may not issue a regulation that is not required by statute and that creates a mandate upon a State, local or tribal government, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by those governments, or EPA consults with those governments. If EPA complies by consulting, Executive Order 12875 requires EPA to provide to the Office of Management and Budget a description of the extent of EPA's prior consultation with representatives of affected State, local and tribal governments, the nature of their concerns, any written communications from the governments, and a statement supporting the need to issue the regulation. In addition, Executive Order 12875 requires EPA to develop an effective process permitting elected officials and other representatives of State, local and tribal governments "to provide meaningful and timely input in the development of regulatory proposals containing significant unfunded mandates."

Today's rule does not create a mandate on State, local, or tribal governments. The rule does not impose any enforceable duties on these entities. Accordingly, the requirements of section 1(a) of Executive Order 12875 do not apply to this rule.

VIII. Submission to Congress and General Accounting Office

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A "major rule" cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a "major rule" as defined by 5 U.S.C. 804(2). This rule will be effective six months from the date of publication.

List of Subjects

40 CFR Part 260

Administrative practice and procedure, Confidential business information, Hazardous materials, Recycling, Reporting and recordkeeping, Waste treatment or disposal.

40 CFR Parts 261

Hazardous materials, Recycling, Waste treatment and disposal.

40 CFR Parts 264 and 265

Hazardous materials, Packaging and containers, Reporting and recordkeeping requirements, Security measures, Surety bonds, Waste treatment and disposal.

40 CFR Part 268

Hazardous waste, Reporting and recordkeeping requirements.

40 CFR Part 270

Hazardous materials, Packaging and containers, Reporting and recordkeeping requirements, Waste treatment and disposal.

40 CFR Part 273

Environmental protection, Hazardous materials, Packaging and containers.

Dated: June 28, 1999.

Carol M. Browner,

Administrator.

For the reasons set out in the preamble, title 40, chapter I of the Code of Federal Regulations, parts 260 261, 264, 265, 268, 270 and 273, are amended as follows:

PART 260—HAZARDOUS WASTE MANAGEMENT SYSTEM: GENERAL

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

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

Subpart B—Definitions

2. Section 260.10 is amended by adding in alphabetical order the definition of "Lamp" and by revising the definition of "Universal Waste" to read as follows:

§ 260.10 Definitions.

* * * * *

Lamp, also referred to as "universal waste lamp", is defined as the bulb or tube portion of an electric lighting device. A lamp is specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infra-red regions of the electromagnetic spectrum. Examples of common universal waste electric lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps.

* * * * *

Universal Waste means any of the following hazardous wastes that are managed under the universal waste requirements of part § 273 of this chapter:

(1) Batteries as described in § 273.2 of this chapter;

(2) Pesticides as described in § 273.3 of this chapter;

(3) Thermostats as described in § 273.4 of this chapter; and

(4) Lamps as described in § 273.5 of this chapter.

* * * * *

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 261.9 is amended by revising paragraphs (b) and (c), and adding paragraph (d) to read as follows:

§ 261.9 Requirements for universal waste.

* * * * *

(b) Pesticides as described in § 273.3 of this chapter;

(c) Thermostats as described in § 273.4 of this chapter; and

(d) Lamps as described in § 273.5 of this chapter.

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

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

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

Subpart A—General

6. Section 264.1 is amended by revising paragraphs (g)(11)(ii) and (g)(11)(iii) and adding a new paragraph (g)(11)(iv) to read as follows:

§ 264.1 Purpose, scope, and applicability.

* * * * *

(g) * * *

(11) * * *

(ii) Pesticides as described in § 273.3 of this chapter;
(iii) Thermostats as described in § 273.4 of this chapter; and
(iv) Lamps as described in § 273.5 of this chapter.
* * * * *

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

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

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

Subpart A—General

8. Section 265.1 is amended by revising paragraphs (c)(14)(ii) and (c)(14)(iii) and adding a new paragraph (c)(14)(iv) to read as follows:

§ 265.1 Purpose, scope and applicability.
* * * * *
(c) * * *
(14) * * *
(ii) Pesticides as described in § 273.3 of this chapter;
(iii) Thermostats as described in § 273.4 of this chapter; and
(iv) Lamps as described in § 273.5 of this chapter.
* * * * *

PART 268—LAND DISPOSAL RESTRICTIONS

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

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

Subpart A—General

10. Section 268.1 is amended by revising paragraphs (f)(2) and (f)(3) and adding a new paragraph (f)(4) to read as follows:

§ 268.1 Purpose, scope, and applicability.
* * * * *
(f) * * *
(2) Pesticides as described in § 273.3 of this chapter;
(3) Thermostats as described in § 273.4 of this chapter; and
(4) Lamps as described in 40 CFR 273.5.
* * * * *

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

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

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

Subpart A—General Information

12. Section 270.1 is amended by revising paragraphs (c)(2)(viii)(B) and (c)(2)(viii)(C) and adding a new paragraph (c)(2)(viii)(D) to read as follows:

§ 270.1 Purpose and scope of these regulations.
* * * * *
(c) * * *
(2) * * *
(viii) * * *
(B) Pesticides as described in § 273.3 of this chapter;
(C) Thermostats as described in § 273.4 of this chapter; and
(D) Lamps as described in § 273.5 of this chapter.
* * * * *

PART 273—STANDARDS FOR UNIVERSAL WASTE MANAGEMENT

13. The authority citation for part 273 continues to read as follows:

Authority: 42 U.S.C. 6922, 6923, 6924, 6925, 6930, and 6937.

Subpart A—General

14. Section 273.1 is amended by revising paragraphs (a)(2) and (a)(3) and adding a new paragraph (a)(4) to read as follows:

§ 273.1 Scope.
(a) * * *
(2) Pesticides as described in § 273.3;
(3) Thermostats as described in § 273.4; and
(4) Lamps as described in § 273.5.
* * * * *

15. Section 273.2 is amended by revising paragraphs (a)(1), (b)(2), and (b)(3) to read as follows:

§ 273.2 Applicability—batteries.
(a) * * *
(1) The requirements of this part apply to persons managing batteries, as described in § 273.9, except those listed in paragraph (b) of this section.
* * * * *
(b) * * *
(2) Batteries, as described in § 273.9, that are not yet wastes under part 261 of this chapter, including those that do not meet the criteria for waste generation in paragraph (c) of this section.
(3) Batteries, as described in § 273.9, that are not hazardous waste. A battery is a hazardous waste if it exhibits one or more of the characteristics identified in part 261, subpart C of this chapter.
* * * * *

16. Section 273.3 is amended by revising paragraph (a) introductory text to read as follows:

§ 273.3 Applicability—pesticides.
(a) *Pesticides covered under this part 273.* The requirements of this part apply to persons managing pesticides, as described in § 273.9, meeting the following conditions, except those listed in paragraph (b) of this section:
* * * * *

17. Section 273.4 is amended by revising paragraph (a) to read as follows:

§ 273.4 Applicability—mercury thermostats.
(a) *Thermostats covered under this part 273.* The requirements of this part apply to persons managing thermostats, as described in § 273.9, except those listed in paragraph (b) of this section.
* * * * *

18. Section 273.5 is revised to read as follows:

§ 273.5 Applicability—Lamps.
(a) *Lamps covered under this part 273.* The requirements of this part apply to persons managing lamps as described in § 273.9, except those listed in paragraph (b) of this section.
(b) *Lamps not covered under this part 273.* The requirements of this part do not apply to persons managing the following lamps:
(1) Lamps that are not yet wastes under part 261 of this chapter as provided in paragraph (c) of this section.
(2) Lamps that are not hazardous waste. A lamp is a hazardous waste if it exhibits one or more of the characteristics identified in part 261, subpart C of this chapter.
(c) *Generation of waste lamps.* (1) A used lamp becomes a waste on the date it is discarded.
(2) An unused lamp becomes a waste on the date the handler decides to discard it.

§ 273.6 [Redesignated as § 273.9]

§§ 273.6 and 273.7 [Reserved]

19. Section 273.6 is redesignated as § 273.9 and §§ 273.6 and 273.7 are added and reserved.

20. Section 273.8 is added to read as follows:

§ 273.8 Applicability—household and conditionally exempt small quantity generator waste.
(a) Persons managing the wastes listed below may, at their option, manage them under the requirements of this part:
(1) Household wastes that are exempt under § 261.4(b)(1) of this chapter and

are also of the same type as the universal wastes defined at § 273.9; and/or

(2) Conditionally exempt small quantity generator wastes that are exempt under § 261.5 of this chapter and are also of the same type as the universal wastes defined at § 273.9.

(b) Persons who commingle the wastes described in paragraphs (a)(1) and (a)(2) of this section together with universal waste regulated under this part must manage the commingled waste under the requirements of this part.

21. Newly designated § 273.9 is amended by adding, in alphabetical order, the definition of "Lamp" and revising the definitions of "Large Quantity Handler of Universal Waste," "Small Quantity Handler of Universal Waste" and "Universal Waste" to read as follows:

§ 273.9 Definitions.

* * * * *

Lamp, also referred to as "universal waste lamp" is defined as the bulb or tube portion of an electric lighting device. A lamp is specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infra-red regions of the electromagnetic spectrum. Examples of common universal waste electric lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps.

* * * * *

Large Quantity Handler of Universal Waste means a universal waste handler (as defined in this section) who accumulates 5,000 kilograms or more total of universal waste (batteries, pesticides, thermostats, or lamps, calculated collectively) at any time. This designation as a large quantity handler of universal waste is retained through the end of the calendar year in which 5,000 kilograms or more total of universal waste is accumulated.

* * * * *

Small Quantity Handler of Universal Waste means a universal waste handler (as defined in this section) who does not accumulate 5,000 kilograms or more total of universal waste (batteries, pesticides, thermostats, or lamps, calculated collectively) at any time.

* * * * *

Universal Waste means any of the following hazardous waste that are subject to the universal waste requirements of this part 273:

(1) Batteries as described in § 273.2

(2) Pesticides as described in § 273.3

(3) Thermostats as described in § 273.4; and

(4) Lamps as described in § 273.5.

* * * * *

Subpart B—Standards for Small Quantity Handlers of Universal Waste

22. Section 273.10 is revised to read as follows:

§ 273.10 Applicability.

This subpart applies to small quantity handlers of universal waste (as defined in 40 CFR 273.9).

23. Section 273.13 is amended by adding a new paragraph (d) to read as follows:

§ 273.13 Waste Management.

* * * * *

(d) *Lamps.* A small quantity handler of universal waste must manage lamps in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(1) A small quantity handler of universal waste must contain any lamp in containers or packages that are structurally sound, adequate to prevent breakage, and compatible with the contents of the lamps. Such containers and packages must remain closed and must lack evidence of leakage, spillage or damage that could cause leakage under reasonably foreseeable conditions.

(2) A small quantity handler of universal waste must immediately clean up and place in a container any lamp that is broken and must place in a container any lamp that shows evidence of breakage, leakage, or damage that could cause the release of mercury or other hazardous constituents to the environment. Containers must be closed, structurally sound, compatible with the contents of the lamps and must lack evidence of leakage, spillage or damage that could cause leakage or releases of mercury or other hazardous constituents to the environment under reasonably foreseeable conditions.

24. Section 273.14 is amended by adding a new paragraph (e) to read as follows:

§ 273.14 Labeling/marking.

* * * * *

(e) Each lamp or a container or package in which such lamps are contained must be labeled or marked clearly with one of the following phrases: "Universal Waste—Lamp(s)," or "Waste Lamp(s)," or "Used Lamp(s)."

Subpart C—Standards for Large Quantity Handlers of Universal Waste

25. Section 273.30 is revised to read as follows:

§ 273.30 Applicability.

This subpart applies to large quantity handlers of universal waste (as defined in § 273.9).

26. Section 273.32 is amended by revising paragraphs (b)(4) and (b)(5) as follows:

§ 273.32 Notification.

* * * * *

(b) * * *

(4) A list of all the types of universal waste managed by the handler (e.g., batteries, pesticides, thermostats, lamps);

(5) A statement indicating that the handler is accumulating more than 5,000 kg of universal waste at one time and the types of universal waste (e.g., batteries, pesticides, thermostats, and lamps) the handler is accumulating above this quantity.

27. Section 273.33 is amended by adding a new paragraph (d) to read as follows:

§ 273.33 Management.

* * * * *

(d) *Lamps.* A large quantity handler of universal waste must manage lamps in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(1) A large quantity handler of universal waste must contain any lamp in containers or packages that are structurally sound, adequate to prevent breakage, and compatible with the contents of the lamps. Such containers and packages must remain closed and must lack evidence of leakage, spillage or damage that could cause leakage under reasonably foreseeable conditions.

(2) A large quantity handler of universal waste must immediately clean up and place in a container any lamp that is broken and must place in a container any lamp that shows evidence of breakage, leakage, or damage that could cause the release of mercury or other hazardous constituents to the environment. Containers must be closed, structurally sound, compatible with the contents of the lamps and must lack evidence of leakage, spillage or damage that could cause leakage or releases of mercury or other hazardous constituents to the environment under reasonably foreseeable conditions.

28. Section 273.34 is amended by adding a new paragraph (e) to read as follows:

§ 273.34 Labeling/marking.

* * * * *

(e) Each lamp or a container or package in which such lamps are

contained must be labeled or marked clearly with any one of the following phrases: "Universal Waste—Lamp(s)," or "Waste Lamp(s)," or "Used Lamp(s)."

Subpart D—Standards for Universal Waste Transporters

29. Section 273.50 is revised to read as follows:

§ 273.50 Applicability.

This subpart applies to universal waste transporters (as defined in § 273.9).

Subpart E—Standards for Destination Facilities

30. Section 273.60 is amended by revising paragraph (a) to read as follows:

§ 273.60 Applicability.

(a) The owner or operator of a destination facility (as defined in § 273.9) is subject to all applicable requirements of parts 264, 265, 266, 268, 270, and 124 of this chapter, and the notification requirement under section 3010 of RCRA.

* * * * *

Subpart G—Petitions to Include Other Wastes Under 40 CFR Part 273

31. Section 273.81 is amended by revising paragraph (a) to read as follows:

§ 273.81 Factors for petitions to include other wastes under this part 273.

(a) The waste or category of waste, as generated by a wide variety of generators, is listed in subpart D of part 261 of this chapter, or (if not listed) a proportion of the waste stream exhibits one or more characteristics of hazardous waste identified in subpart C of part 261 of this chapter. (When a characteristic waste is added to the universal waste regulations of this part 273 by using a generic name to identify the waste category (e.g., batteries), the definition of universal waste in § 260.10 of this chapter and § 273.9 will be amended to include only the hazardous waste portion of the waste category (e.g., hazardous waste batteries).) Thus, only the portion of the waste stream that does exhibit one or more characteristics (i.e., is hazardous waste) is subject to the universal waste regulations of this part 273;

* * * * *

[FR Doc. 99–16930 Filed 7–2–99; 8:45 am]
BILLING CODE 6560–50–U

Federal Register

Wednesday,
March 8, 2000

Part IV

Environmental Protection Agency

40 CFR Part 262
180-Day Accumulation Time Under RCRA for Waste Water Treatment Sludges From the Metal Finishing Industry; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 262

[FRL–6547–6]

RIN 2050–AE60

180-Day Accumulation Time Under RCRA for Waste Water Treatment Sludges From the Metal Finishing Industry

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: As part of the Common Sense Initiative, the Environmental Protection Agency (EPA) is today finalizing a cleaner, cheaper, and smarter opportunity for environmental protection for the Metal Finishing industry. EPA is promulgating regulations that allow large quantity generators of F006 sludges (certain sludges from the treatment of electroplating wastewaters) up to 180 days (or up to 270 days, as applicable) to accumulate F006 waste without a hazardous waste storage permit or interim status, provided that these generators recycle the F006 through metals recovery and meet certain conditions. On February 1, 1999, EPA proposed the 180-day (or 270-day, as applicable) accumulation time to address existing economic barriers to the recycling of F006 waste through metals recovery and to provide large quantity generators of F006 waste with an incentive to choose metals recovery instead of treatment and land disposal as their final waste management option. Today's final rule adopts that proposal, with some modifications made in response to public comments.

EFFECTIVE DATE: This final rule is effective on March 8, 2000.

ADDRESSES: Supporting materials are available for viewing in the RCRA Information Center (RIC), located at Crystal Gateway I, First Floor, 1235 Jefferson Davis Highway, Arlington, VA. The docket identification number is F–2000–F06F–FFFFF. The RIC is open from 9 a.m. to 4 p.m., Monday through Friday, excluding Federal holidays. To review docket materials, it is recommended that members of the public make appointments by calling (703) 603–9230. Members of the public may copy a maximum of 100 pages from any regulatory docket at no charge. Additional copies cost $0.15/page. The index and some supporting materials are available electronically. See the "Supplementary Information" section for information on accessing them.

FOR FURTHER INFORMATION CONTACT: For general information, contact the RCRA Hotline at (800) 424–9346 or TDD (800) 553–7672 (hearing impaired). In the Washington, DC, metropolitan area, call (703) 412–9810 or TDD (703) 412–3323. For more detailed information on specific aspects of this rulemaking, contact Kathy Blanton, Office of Solid Waste (5304W), U.S. Environmental Protection Agency, Ariel Rios Building, 1200 Pennsylvania Avenue NW, Washington, DC 20460–0002, (703) 605–0761, blanton.katherine@epa.gov

SUPPLEMENTARY INFORMATION:

Internet Availability

This rule is available on the Internet. You can find it at: *http://www.epa.gov/epaoswer/hazwaste/gener/f006acum.htm*

Preamble Outline

I. Authority

These regulations are promulgated under the authority of sections 2002 and 3002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976 (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA), 42 U.S.C. 6912 and 6922.

II. Background

A. Purpose and Context of Final Rule

The Resource Conservation and Recovery Act (RCRA) directs EPA to promulgate standards for generators of hazardous waste as necessary to protect human health and the environment (RCRA Section 3002). Section 1003 of RCRA establishes a national objective of "minimizing the generation of hazardous waste and the land disposal of hazardous waste by encouraging process substitutions, materials recovery, properly conducted recycling and reuse, and treatment." In response to these provisions, EPA has endeavored to develop regulations that promote legitimate recycling of solid and hazardous waste while protecting human health and the environment against the development and use of unsafe or sham recycling practices. On February 1, 1999, in an effort to promote the legitimate materials recovery of F006 hazardous wastes (sludges from the treatment of electroplating wastewaters) and to reduce the volume of F006 that is land disposed, EPA proposed to allow large quantity generators of F006 up to 180 days (or

270 days in certain circumstances) to accumulate F006 on-site without a RCRA permit or interim status, if the F006 waste would be recycled through metals recovery and if the generators complied with certain conditions while the F006 was being accumulated on-site (64 FR 4818). Today's final rule adopts that proposal, with some modifications made in response to public comments.

Today's final rule allows large quantity generators of F006 waste up to 180 days (or 270 days in certain circumstances) to accumulate F006 waste on-site, without a RCRA permit or interim status, as an incentive to encourage metals recovery and pollution prevention practices for this waste. Under this final rule, F006 wastes that are not destined for metals recovery would not be eligible for the 180-day (or 270-day, as applicable) accumulation time. In order to ensure that on-site accumulation of F006 waste is protective of human health and the environment, the management standards for 180-day (or 270-day, as applicable) on-site accumulation of F006 are the same as those that currently apply to 90-day on-site accumulation.

Currently, generators who generate greater than 1,000 kilograms of hazardous waste in a calendar month (i.e., large quantity generators (LQGs)) may accumulate hazardous waste on-site, without having to obtain a RCRA permit for the on-site accumulation activities, for a period of up to 90 days. Many generators of F006 wastewater treatment sludges have indicated that this 90-day accumulation limit restricts their ability to generate a large enough volume of F006 sludge to make recycling economically feasible when compared to treatment and land disposal. This is principally due to: (1) The relatively high cost of transportation of the hazardous sludge from a generator's establishment to a recycling or smelting facility (due, in part, to longer distances to metals recovery facilities and shipment of partial truckloads) and (2) the surcharge that metals recovery facilities generally charge generators and waste brokers managing small quantities of F006 waste.

In this final rule, EPA is allowing large quantity generators of F006 electroplating sludge to accumulate F006 waste on-site for up to 180 days (or 270 days under certain circumstances) in tanks, containers, or containment buildings without a RCRA permit or interim status, if the generator: (1) implements pollution prevention practices that reduce the amount of any hazardous substance, pollutant or contaminant entering F006 or otherwise released into the environment prior to its recycling, (2) recycles the F006 waste through metals recovery, (3) accumulates no more than 20,000 kilograms of F006 waste on-site at any one time, and (4) complies with the applicable management standards in the rule. This proposal does not change any other requirements applicable to generators of hazardous waste. Large quantity generators of F006 are only required to meet the conditions of today's rule if they accumulate F006 on-site, without a RCRA permit or interim status, for more than 90 days. However, the conditions of today's rule must be met for the entire accumulation period. Large quantity generators of F006 who accumulate waste for 90 days or less without a RCRA permit or interim status may continue to comply with the conditions of 40 CFR 262.34(a).

EPA is basing this final rule in part on discussions and information gathered as part of the Agency's Common Sense Initiative for the Metal Finishing Industry. The Common Sense Initiative, as well as broader changes in the regulation of F006 waste being considered as part of the Common Sense Initiative, are discussed in more detail below. The Agency notes that this final rule only affects the amount of time large quantity generators of F006 waste may accumulate that waste on-site, without a RCRA permit or interim status, prior to having it processed for metals recovery. At this time, EPA is making no other changes to the hazardous waste management standards governing generator activities. All other provisions governing large quantity generators under 40 CFR part 262 (e.g. unit specific standards, recordkeeping and reporting, and manifesting requirements) remain unchanged and in effect for large quantity generators of F006 waste.

B. Common Sense Initiative (CSI) for the Metal Finishing Industry and the National Advisory Council for Environmental Policy and Technology (NACEPT) Committee on Sectors

This final rule is an outgrowth of activities conducted under the EPA's Common Sense Initiative (CSI) for the metal finishing industry sector. These activities, including further work on F006 issues, are continuing as part of the Agency's Standing Committee on Sectors of the National Advisory Council for Environmental Policy and Technology (NACEPT).

The CSI, an innovative approach to environmental protection and pollution prevention, was established on October 17, 1994, through a charter pursuant to the Federal Advisory Committee Act (FACA). The goal of the CSI was to use multi-stakeholder consensus decision-making to recommend policy and program changes to the CSI Council and the EPA Administrator. EPA selected six industries to serve as CSI pilot industries: automobile manufacturing, computer and electronics, iron and steel, metal finishing, petroleum refining, and printing. These six industries comprise over 11 percent of the U.S. gross domestic product, employ over 4 million people, and account for over 12 percent of the toxic releases reported by United States industry. As such, they offered excellent opportunities to test and refine CSI concepts, to create environmental solutions that could operate across industries, and to identify opportunities to expand CSI concepts to other relevant industries.

CSI was organized through an advisory committee referred to as the "CSI Council" that was comprised of high-level representatives from various stakeholder groups, including all involved industries. For each industry, known as a "sector" in CSI, the CSI Council established a subcommittee of stakeholders to look for cleaner, cheaper, and smarter opportunities for environmental protection in that sector. Sector subcommittees and work groups met frequently to develop and discuss various projects, policy recommendations, and other issues. Sector options, proposals, issues, and data were forwarded to the CSI Council for further action. The CSI Council considered matters from the sector subcommittees and made recommendations to the Administrator. The CSI process produced better, tailored environmental protection strategies that were developed, in part, by the regulated community, in concert with regulatory agencies and public interest groups.

Since beginning their work in January 1995 the sector subcommittees developed nearly 40 projects involving more than 150 stakeholders who actively participated in sector subcommittees and subcommittee workgroups. Some of the projects were specific to individual sectors. Other projects explored solutions to common issues such as alternative flexible regulatory systems, pollution prevention, reporting, compliance, permitting, and environmental technology.

This final rule stems primarily from CSI efforts in the metal finishing industry sector. The metal finishing industry consists of more than eight thousand "captive" metal finishers that

operate within larger manufacturing facilities and operate within the financial structure of a larger company, as well as more than three thousand "job shops" (i.e. independent metal plating firms that complete jobs on contract). Seventy-one percent of job shops employ fewer than 20 employees and operate with limited capital and personnel. The industry is geographically diverse and is most concentrated in heavily industrialized states. Because of the cross-media impacts of their operations, metal finishers face a broad range of federal, state, and local environmental requirements (especially with regard to water use and waste disposal).

The CSI metal finishing subcommittee had 24 members representing metal finishing companies, trade associations, suppliers, environmental and community groups, organized labor, and state and local governments. Some of the representative organizations included the American Electroplaters and Surface Finishers Society, the National Association of Metal Finishers, the Natural Resources Defense Council, the American Federation of Labor and Congress of Industrial Organizations (AFL–CIO), the Barrio Planners of Los Angeles, the Water Environment Federation, and the Association of Metropolitan Sewerage Agencies. As part of its work under CSI, the metal finishing subcommittee developed a set of ambitious voluntary performance goals to promote pollution prevention and environmental management beyond what is currently required for the industry under federal regulations (known as the Strategic Goals Program). The goals address resource utilization, hazardous emissions, economic paybacks, and compliance costs.

As a means towards meeting these goals, the metal finishing subcommittee endorsed 14 projects and supported an additional CSI small business sector project. In addition to these 14 projects, the action plan also contains "enabling actions" that all stakeholders have committed to undertake to help the industry meet the Strategic Goals. The focus of today's rule, allowing large quantity generators of F006 waste to accumulate the sludge for up to 180 days (or 270 days, as applicable), is an enabling action identified that would remove some unnecessary barriers to recycling and would promote the goals of the CSI effort. Specifically, the final rule is an outgrowth of the CSI stakeholders' efforts and is designed to encourage more recycling of F006 waste through metals recovery.

Another of the enabling actions is a project to examine whether the physical nature of F006 waste has changed as a result of process improvements in the last twenty years, and if so, whether some type of regulatory, administrative, or other relief for the management of F006 waste is warranted. Phase I of this study was a *Metal Finishing F006 Benchmark Study* issued by EPA in September 1998. This study is included in the docket for this rulemaking. Phase II of the study is now in process. This phase involves identifying additional data needs, if any, and examining potential regulatory and administrative strategies that may promote metals recovery of F006 waste, encourage pollution prevention practices related to the generation of F006 waste, and reduce or remove possible RCRA barriers to metals recovery of F006 waste.

The CSI charter expired on February 17, 1999. However, EPA and the CSI Council felt it was important for EPA to continue to receive stakeholder input on its progress toward a sector-based approach for environmental protection. The Agency found that the National Advisory Council for Environmental Policy and Technology (NACEPT) was the appropriate vehicle to help the Agency incorporate the sector-based approach to environmental protection into EPA's core functions. The NACEPT Standing Committee on Sectors' first meeting was April 15–16, 1999, in Washington, DC. The Committee on Sectors' role is to provide advice and recommendations to the Administrator through the NACEPT Council. Three of the six CSI Subcommittees (Printing, Petroleum Refining, and Metal Finishing) have been set up as work groups under the new NACEPT Standing Committee on Sectors. The Committee on Sectors will provide the workgroups with a forum to continue their work. Thus, the metal finishing sector's further work on F006 issues is continuing under the NACEPT structure. The workgroups are not authorized to advise EPA directly; they will provide advice to the Standing Committee on Sectors which, in turn, provides advice and recommendations to the Administrator through the NACEPT Council.

C. Current Accumulation Time for Large Quantity Generators

The current standards under 40 CFR part 262 for generators of hazardous waste who generate greater than 1,000 kilograms of hazardous waste per calendar month (large quantity generators (LQGs)) limit the amount of time hazardous waste can be accumulated on-site without a RCRA permit. Under the existing 40 CFR 262.34, LQGs may accumulate any quantity of hazardous waste on-site for up to 90 days without having to obtain a RCRA permit. This provision was established to provide generators sufficient time in all reasonable situations for waste accumulation to occur prior to waste management without interfering with generator manufacturing processes. 51 FR 25487 (July 14, 1986).

Under the existing 90-day accumulation rule, LQGs must comply with certain unit-specific standards for accumulation units (e.g. standards for tanks, containers, containment buildings, and drip pads), and standards for marking and labeling, preparedness and prevention, contingency plan and emergency procedures, personnel training, and land disposal restrictions (40 CFR 262.34(a)). Large quantity generators may also petition the EPA Regional Administrator for an extension of up to 30 days to the 90-day accumulation time limit due to unforeseen, temporary, and uncontrollable circumstances, on a case-by-case basis under 40 CFR 262.34(b).

As outlined above, and explained below in Section III, the Agency is promulgating regulations to allow large quantity generators of F006 wastewater treatment sludges to accumulate the waste prior to metals recovery for up to 180 days (or 270 days in certain circumstances) without a RCRA permit, provided the generators comply with certain conditions. Today's final rule makes no changes to the existing conditions for 90-day accumulation under the current regulations, and does not in any way re-open those regulations for review.

III. Rationale for Allowing 180 (or 270) Days to Accumulate F006 Wastes Recycled by Metals Recovery

A. Increased Recycling of F006

Today's rule is designed to provide incentives to large quantity generators of F006 waste to recycle their F006 waste through metals recovery.

EPA data indicates that about 40 percent of large quantity generators of F006 waste potentially affected by this final rule recycle their waste; the remainder use land disposal. EPA believes that some large quantity generators of F006 may be choosing land disposal over recycling for economic reasons, since transportation and costs for recycling by metals recovery can be more expensive for many large quantity generators of F006 than the costs for land disposal.

Of the estimated 1,934 large quantity generators of F006, an estimated 1,483

generally do not generate enough F006 to fill a hazardous waste transporter truck within 90 days. Because under the current regulations large quantity generators may only accumulate hazardous waste on-site without a RCRA permit for 90 days, these 1,483 large quantity generators must ship partial truck loads. The transportation costs for these partial truck loads are disproportionately higher than they would be for full truck loads because there is generally some fixed cost associated with having a truck pick up a load of F006 waste, regardless of whether the truck is picking up a partial or full load. For the fixed cost portion of the load, the cost per unit of F006 waste for shipping the waste is more for partial loads than full loads (i.e., the cost per unit of F006 waste for the fixed cost portion of the truck is twice as much for a half-filled truck compared to a full truck). Allowing large quantity generators of F006 waste to accumulate a full truck load of such waste will therefore decrease the cost per unit of F006 waste associated with shipping the waste off-site for metals recovery.

In the United States, there are significantly more landfills than metals recovery facilities that handle F006 wastes. Because there are fewer recycling facilities in the U.S. that can recover metals from F006 waste than landfills that accept F006 waste for disposal, the distances from generators' sites to metals recovery facilities are generally greater than to landfills. Accordingly, many generators seek to minimize shipping costs (which are usually based on a per-mile unit cost) by finding the nearest RCRA permitted treatment, storage or disposal facility, which is most often a landfill. Thus, many large quantity generators may not choose metals recovery for their F006 waste due to the higher costs associated with longer transport distances to recycling facilities as compared to landfills.

In order to facilitate more F006 waste metals recovery and less F006 land disposal, EPA has, in this final rule, provided an accumulation period of up to 180 days (or 270 days, as applicable) only if a large quantity generator chooses to recycle F006 for metals recovery. EPA estimates, based on its analysis of waste generation and management patterns in the industry, that 1,483 more large quantity generators of F006 waste will be able to accumulate larger amounts (some of which will be full truck loads) and ship less frequently during the 180-day (or 270-day, as applicable) period. Shipping a fuller truck load of F006 waste will make F006 waste metals recovery more cost effective for a significant percentage of large quantity generators who currently land dispose F006, thereby encouraging more F006 waste metals recovery. Shipping a fuller truck load of F006 waste will also make F006 waste metals recovery even more cost effective for large quantity generators who are already recycling F006 waste. In the Regulatory Impact Analysis for this rulemaking (available in the docket for this rulemaking), the Agency estimated that 72% to 89% of the 1,483 generators affected by this rule will take advantage of the flexibility provided in today's final rule. F006 waste metals recovery also promotes resource conservation because metals recovered from the sludges may serve as alternative feedstocks for primary metals in production and manufacturing processes.

In addition, EPA believes that the rationale supporting the 180-day (or 270-day, as applicable) accumulation time in today's rule is consistent with the rationale for the 90-day accumulation rule. In promulgating the 90-day accumulation rule, EPA allowed large quantity generators to accumulate waste on-site without a RCRA permit or interim status, partly because such activity was consistent with typical generator activities. The 180-day (or 270-day, as applicable) accumulation time in today's rule will facilitate the appropriate handling of F006 waste by a large quantity generator prior to its being recycled for metals recovery. EPA believes that accumulating F006 waste on-site for up to 180 days, or up to 270 days, as applicable (to facilitate more recycling through metals recovery), is more consistent with generator activities than with typical treatment, storage, or disposal facility activities, because the 180-day (or 270-day, as applicable) accumulation is part of the initial handling and consolidation of hazardous waste that a generator undertakes prior to moving that waste on for recovery or for final treatment, storage, or disposal. Today's proposed rule maintains the rationale of the 90-day accumulation rule.

B. Protective of Human Health and the Environment

The provisions of today's rule also ensure that on-site accumulation of F006 for 180 days (or 270 days under certain circumstances) is protective of human health and the environment. The same conditions that apply to 90-day accumulation of any hazardous waste apply to the 180-day (or 270-day, as applicable) accumulation of F006. The F006 waste must be accumulated in tanks, containers, or containment buildings that meet applicable management standards.[1] These units and relevant standards are designed to minimize releases of hazardous waste to the environment. F006 waste generators commonly accumulate F006 waste in super sacks (sacks that are reinforced woven resin and designed to accommodate bulk shipments) or bulk accumulation containers. These super sack containers are designed to prevent releases of F006 (see 62 FR 25998, 26013 (1997)). The regulations governing accumulation of hazardous waste in containers require such measures as ensuring that the container is closed except when adding or removing waste, and that the container is never handled in a manner which may cause it to rupture or leak.[2] In addition, as with 90-day accumulation, in order to accumulate F006 on-site for 180 days (or 270 days, as applicable), large quantity generators of F006 are required to follow personnel training, preparedness and prevention, and contingency plan and emergency procedure requirements. With these conditions in place, EPA believes that allowing large quantity generators of F006 waste to accumulate F006 for 180 days (or 270 days as applicable) does not pose any significantly increased potential harm to human health or the environment.

EPA received a number of comments relating to the Agency's rationale for taking this action. Some of the key comments and EPA's responses to these comments are summarized below and in subsequent sections. The docket for today's rule contains responses to all comments. EPA received some comments arguing that accumulating F006 on-site for 180 days (or 270, as applicable) could result in increased risks to human health and the environment. One commenter suggested that the longer accumulation time will create more potential for a release through deterioration, damage, or mismanagement, and that F006 wastes pose particular risks of harm when accumulated for longer periods because many of these wastes are corrosive and highly alkaline, resulting in a higher risk of drum deterioration and leaking if not properly managed. Another commenter stated that having larger amounts of F006 on-site may result in increased risks because human or equipment malfunction may affect more

[1] Today's final rule does not allow accumulation of F006 waste on drip pads (as is provided in the existing accumulation regulations in 40 CFR 262.34) because F006 waste is not managed on drip pads, nor does the Agency believe that it would be appropriate to accumulate F006 waste on drip pads.

[2] 40 CFR 265.173.

than one super sack (container) which will therefore cause a release of more F006. This commenter was also concerned that the proposal would allow additional on-site treatment of F006, resulting in increased air emissions and increased chronic health risks. This commenter believes that much of the F006 treatment occurs in exempted wastewater treatment units (WWTUs) and accumulation units subject to subpart CC (which only addresses volatile organic air emissions), and that EPA should improve subpart CC standards and/or repeal the WWTU exclusion.

EPA disagrees that accumulating F006 on-site for a longer period of time, and in greater amounts, will lead to a greater likelihood of releases, and believes this rule is most likely to result in reduced releases overall. As discussed above, large quantity generators of F006 operating under the terms of today's rule must comply with the same unit-specific and general site operation provisions (e.g. personnel training, contingency planning, emergency response) that apply to generators operating under the existing 90-day regulations.

The unit-specific standards are not based on the length of time a hazardous waste is accumulated. Rather, these standards are essentially the same for small quantity generators of F006 (180–270 day accumulation), large quantity generators of F006 (90 day accumulation), and F006 permitted facilities (where the length of time a waste is stored may be a year or longer). With respect to the general site operation standards, EPA believes the 90-day accumulation standards are also sufficient to ensure protection of human health and the environment for F006 accumulation. In general, these standards require a generator to evaluate his or her particular site circumstances (which would include, for example, the length of time the F006 remains on-site and the total quantity accumulated on-site at any one time) and implement training, planning, and response measures appropriate to those circumstances. For example, in order to be in compliance with § 262.34(g)(4)(v) (which incorporates the existing 90-day general site operation provisions), generators accumulating F006 on-site under the terms of today's final rule should consider whether their current general site operation procedures (e.g. personnel training, contingency planning, etc.) should be modified in light of having more F006 on-site than they would under the 90-day limit.

Thus, EPA believes that these provisions are protective of human health and the environment even when the F006 waste is accumulated for more than 90 days. If an F006 waste is corrosive (F006 was not listed as a hazardous waste due to any corrosive characteristics), the Agency believes that the required inspections will ensure that any deterioration of containers caused by corrosion will be discovered prior to any significant release into the environment.

EPA also does not agree that having larger amounts of F006 on-site is likely to result in increased risks because human or equipment malfunction may affect more than one super sack (container) which will, therefore, cause a release of more F006. The *F006 Benchmark Study* indicates, and other information confirms, that most generators dewater F006 into a cake-like material to remove free liquids and to decrease the costs of accumulation, shipping, recycling and/or disposal. In the event of a spill of dewatered F006 sludge (e.g., a release caused by a rip or tear in a super sack), EPA believes the potential risk of harm to human health and the environment would be low compared to a spill of a free liquid or dust. Other available information corroborates this conclusion, indicating that the cake-like consistency of dewatered F006 sludge ensures that a spill of F006 waste, even of multiple containers, could be contained relatively easily. Spilled dewatered F006 sludge resulting from a release caused by a rip or tear in a super sack (or break in another accumulation unit) retains its solid-like consistency (because it still retains some moisture) and is not likely to run off as a free liquid or disperse in the wind like a dust, which will also result in a lower likelihood of air emissions from F006 accumulated on-site.

In addition, EPA believes the 180-day (or 270-day, as applicable) accumulation time could decrease the potential for releases of hazardous constituents from the handling of F006 waste. A recent review of damage incidents associated with the management of F006 waste (contained in the docket for this rulemaking) indicates that most of the reported incidents of releases of F006 waste were associated with the transfer of F006 waste from accumulation to transport vehicle, from transport vehicle to receiving facility, or while in transport. Because the 180-day (or 270-day, as applicable) accumulation time will mean that the F006 waste is transferred from generator to transporter to receiving facility less often, and that fewer shipments of F006 waste will be made, today's final rule should decrease the potential for releases of F006 waste into the environment. Similarly, workers will be required to handle the F006 waste less often (because transfers will occur less often), thereby decreasing their potential exposure to the F006 waste.

Finally, EPA does not agree with the comment that today's rule will lead to additional treatment activities resulting in significantly increased chronic health risks. For purposes of this discussion, it is important to distinguish between the treatment of electroplating wastewater and the treatment of electroplating wastewater treatment sludge. Most on-site "treatment" that occurs at metal finishing sites is treatment of electroplating wastewaters (not wastewater treatment sludge) in wastewater treatment units (WWTUs)—exempt units not affected by this rule. Increased wastewater generation, and subsequent wastewater treatment, would only be expected to occur as a result of increased process output (i.e., increased metal finishing activity), but this rule will not affect process output, nor will it change generators' treatment of wastewaters. The process output at electroplating facilities is dictated by market demand for electroplating services not by any factors related to how long the electroplater can accumulate the waste on-site. In addition, this rule does not affect exempt WWTUs. Thus issues related to wastewater treatment in exempt WWTUs are outside the scope of this rulemaking.

EPA also does not expect significant, if any, increases in treatment of wastewater treatment sludge as a result of this rule. Although the commenter is correct that the rule will allow longer accumulation time, this does not lead to the inference that they will undertake more treatment. Generators treat electroplating wastewater treatment sludge for a specific purpose and there is no reason to believe they would undertake additional treatment activities simply because they can hold the waste for a longer period of time. First, data from the F006 Benchmark Study indicate, and other available information confirms, that most F006 generators already conduct sludge drying or dewatering. Sludge drying and dewatering reduce the weight of the sludge and thus are usually conducted to save on transportation, disposal and recovery costs, which are largely based on weight. Because transportation and recovery costs for most affected facilities will be less under the final rule than they are currently, this rulemaking does not create an additional economic incentive to conduct additional sludge treatment. Second, this rule will not

result in increased production at electroplating shops and consequently, is not expected to increase the volume of electroplating wastewater sludge generated, or the rate at which it is generated. The process output at electroplating facilities is dictated by market demand for electroplating services not by any factors related to how long the electroplater can accumulate the waste on-site. Third, electroplaters generally do not have excess space to put in additional treatment units. If there were excess space, information available to EPA indicates that plant managers would opt to install additional production units. Finally, new treatment units would require additional investment and resources to install and operate, with little clear benefit to be derived from these added costs, compared to the advantages of installing additional production equipment.

Although unlikely, if, as a consequence of this rule, a generator were to conduct any additional on-site treatment of electroplating wastewater treatment sludge in accumulation units, EPA does not agree that such treatment will result in increased risk. With the exception of the changes in accumulation periods contained in the rule, all other conditions for 90-day accumulation apply. EPA believes the standards for accumulation which the generator of F006 must meet ensure protection of human health and the environment, even if the amount of F006 accumulated (including treatment) on-site increases. In order to accumulate F006 without a RCRA permit, F006 generators operating under the terms of this rule must comply with the same unit-specific and general site operation (*e.g.*, personnel training, contingency planning, emergency response) provisions that apply to generators of F006 operating under the existing 90-day regulations. The unit-specific standards are not based on the amount of F006 hazardous waste accumulated. To the contrary, these standards are essentially the same for small quantity generators of F006 (180–270 day accumulation), large quantity generators of F006 (90 day accumulation), and F006 permitted facilities. The commenter is correct that the 40 CFR part 265 subpart CC standards do not control inorganic emissions. However, metals, with the exception of mercury, which is unlikely to be found in significant concentrations in F006, have a high melting point and low volatility and are therefore unlikely to release volatile emissions. Thus, EPA does not agree there will be increased risk from on-site treatment of F006 in accumulation units simply because generators may accumulate a greater quantity of F006 under this rule.

Finally, to accumulate F006 under the terms of this rule, generators must implement pollution prevention measures, which occur prior to generation of F006. Because some of these pollution prevention activities are designed to reduce the toxicity of the F006 generated at a particular facility, they should also result in reduced risks from any on-site treatment activities.

Some commenters were concerned that sludge drying and dewatering, which were identified in the proposal as pollution prevention practices, could increase air emissions. In response to this and other comments, EPA has narrowed the pollution prevention condition in the final rule to include "practices that reduce the amount of any hazardous substances, pollutants or contaminants entering F006 or otherwise released to the environment prior to its recycling." This change, and explanatory language in the preamble (see section IV.A.), clarifies that sludge drying and dewatering (or any other measure that merely reduces the volume of the waste) are not considered pollution prevention for purposes of meeting the pollution prevention condition of this rule. Thus, as indicated above, EPA does not expect this activity to increase as a result of this rule.

IV. Special Conditions for Accumulating F006 for 180 (or 270) Days

In today's final rule, large quantity generators of F006 waste are allowed up to 180 days (or up to 270 days, under certain circumstances) to accumulate F006 waste on-site in tanks, containers or containment buildings without a RCRA permit or interim status, provided that the generator: (1) Has implemented pollution prevention practices that reduce the amount of any hazardous substances, pollutant, or contaminant entering F006 or otherwise released into the environment prior to its recycling, (2) recycles the F006 waste by metals recovery, (3) accumulates no more than 20,000 kilograms of F006 waste at any one time, and (4) complies with the applicable management standards in this rule. A detailed discussion of the first three conditions follows in the next three subsections of this preamble. Further detail about the applicable management standards is in Section V.E. of this preamble.

A. Pollution Prevention Practices

The primary goal of today's rule is to encourage more recycling through metals recovery of F006. It also has the goal of increasing pollution control measures, prior to the generation of F006, which can make F006 less hazardous for subsequent management and more amenable for metals recovery. Thus, today's rule includes a condition that in order to accumulate the F006 on-site for 180 days (or 270 days, as applicable), large quantity generators of F006 must implement pollution prevention practices that reduce the amount of any hazardous substance, pollutant or contaminant entering F006 or otherwise released into the environment prior to its recycling. In response to comments, this condition of the final rule has been slightly modified from the proposal. This modification is discussed below.

Within the metal finishing industry, generators have implemented a variety of pollution prevention practices (including product substitution, drag-out and counter-current flow rinse systems, flow restrictors, evaporation recovery systems, plating bath reuse, ion exchange systems, and segregation of wastewater streams) to improve process efficiency, cut waste generation and waste management costs, and improve compliance. Table 1 summarizes several categories of pollution prevention practices that are commonly used within the metal finishing industry. These practices reduce the volume and toxicity of the F006 waste generated or make the F006 waste more amenable for metals recovery. Any generator that already has pollution prevention practices in place which reduce the amount of hazardous substances, pollutants or contaminants entering F006 or otherwise entering the environment prior to its recycling would not be required to implement additional pollution prevention practices.

For example, rinse water reduction techniques reduce the volume of effluents discharged from metal finishing processes. Drag-out reduction measures reduce the volume and can reduce the toxicity of effluents discharged from metal finishing processes. Implementation of these methods of pollution prevention promotes protection of human health and the environment because the F006 sludge produced is reduced in volume or toxicity.

Pollution prevention measures such as these may, however, also increase the concentration of pollutants in F006 sludge, including recyclable metals (*e.g.*

copper, zinc, nickel) and non-recyclable toxic pollutants (*e.g.* cyanide, cadmium). Increasing the concentration of recoverable metals in F006 sludge can increase the sludge's value as a secondary material, but increasing the concentration of non-recyclable pollutants (*e.g.* cyanide, cadmium), which pass through the recovery process and must be properly managed and disposed of can pose potential problems for the management and handling of recycling residues. Of course, this relationship between pollution prevention practices and metals recovery is highly dependent on the specific production process and the pollution prevention practices that are employed. For example, some recovery technologies such as ion exchange work better on dilute wastewaters than on wastewaters with higher metal content.

Chemical substitution pollution prevention measures reduce or eliminate toxic substances that are used in the plating process and found in the wastes and therefore are desirable from an environmental perspective wherever they can appropriately be applied. For example, trivalent chromium can be substituted for highly toxic hexavalent chromium in a few applications. In many applications, this substitution may not be possible. Many metal finishers have reduced or eliminated cyanide and cadmium use by substituting other materials, or by ceasing certain plating operations. Chemical substitution pollution prevention practices are generally more protective of human health and the environment because they eliminate or reduce the amount of toxic pollutants in the sludge, and produce sludge that is more amenable for metals recovery (by reducing the amount of non-recyclable toxic pollutants in the sludge).

The number and type of pollution prevention measures used by individual generators vary broadly. The most common pollution prevention measures include drag-out and rinse water reduction methods, which may improve effluent quality and the amount of metals recovered from F006 sludge. The data available to EPA suggest that chemical substitution pollution prevention measures are used less frequently than rinse water and drag-out reduction techniques. EPA encourages generators to make greater progress in reducing the quantity of non-recyclable toxic pollutants that pass through recovery processes and are ultimately disposed of in landfills. The Agency, therefore, urges generators operating under the provisions of today's rule to implement chemical substitution pollution prevention measures to reduce or eliminate the amount of toxic pollutants (*e.g.* cadmium, cyanide, arsenic, hexavalent chromium, or halogenated or chlorinated solvents) contained in F006 sludge that are not economically recoverable from F006 waste.

In its proposed rule, EPA placed the following condition in § 262.34(g)(1) to promote source reduction and recycling of F006 wastes:

"(1) The generator has implemented pollution prevention practices that reduce the volume or toxicity of the F006 waste or that make it more amenable for metals recovery."

EPA requested comment generally on this condition and asked specifically whether more specific pollution prevention practices should be included in this rule. One commenter believed that EPA should be more specific in its pollution prevention condition in order to make the condition more meaningful. Several other commenters did not believe that a generator should be required to implement any specific set of pollution prevention practices in order to qualify for use of the 180-day (or 270-day, as applicable) accumulation time, and that a generator that already implements pollution prevention practices should not have to adopt new ones in order to qualify for the longer accumulation period. In addition, many commenters felt that the proposal did not clearly define "pollution prevention," that the proposal allowed activities that are not source reduction activities (*e.g.* sludge dewatering and sludge drying), and that EPA should consider dropping the pollution prevention requirement altogether (or requiring waste minimization instead). One commenter questioned how a generator would demonstrate compliance with this condition.

For purposes of this rule, EPA defines "pollution prevention" to mean the source reduction of metal and other toxic raw materials that would otherwise enter a waste stream or be released to the environment prior to recycling, treatment, or disposal. EPA agrees with the commenters who expressed concern that the proposed condition could allow activities that would not be source reduction activities. The wording of the proposed condition ("pollution prevention practices that reduce the *volume or toxicity* of the F006 waste *or that make it more amenable for metals recovery*" (emphasis added)) may have allowed activities that are clearly not source reduction activities. For example, activities that merely reduce waste volume, such as sludge dewatering and sludge drying, do make F006 more amenable for metals recovery, but they are not considered source reduction, and thus they are not pollution prevention activities. Table 1, discussed in the preamble to the proposed rule and in today's preamble, illustrates a large variety of pollution prevention practices that are widely used in the metal finishing industry to reduce volume or toxicity of materials that enter the waste stream (*i.e.* prior to waste generation), and also make it more amenable to metals recovery. Filter presses, sludge dewatering and sludge drying practices, incorrectly identified as pollution prevention measures in the proposed rule, merely remove water after the F006 is generated to reduce weight and volume and to make the sludge more amenable to subsequent recovery techniques. Filter presses, sludge dewatering and sludge drying practices are not consistent with the widely accepted definition of pollution prevention through source reduction contained in the Pollution Prevention Act of 1990.[3] A generator using only filter presses, dewatering or sludge drying practices would not be considered in compliance with the pollution prevention condition in today's rule. Therefore, in response to this and other comments, the Agency has modified the regulatory language to include a more precise description of "pollution prevention" and the scope of activities that may be implemented in accordance with this condition. Section 262.34(g)(1) has been revised to read:

"(1) The generator has implemented pollution prevention practices that reduce the amount of any hazardous substances, pollutants or contaminants entering F006 or otherwise released to the environment prior to its recycling;" This revised language in today's rule removes the unintended ambiguity that was contained in the previous language and is consistent with the definition of pollution prevention through source reduction contained in the Pollution Prevention Act.

EPA agrees with commenters who warn against requiring a specific set of pollution prevention practices. The technical and economic variables that affect the feasibility of using one or more specific pollution prevention practices at a particular generator's site are so broad and complex that EPA does not believe it is possible or appropriate to specify by rule any particular approach for all generators. The best approach for one generator may be quite different than the best approach for

[3] Pub. L. 101–508, November 5, 1990 (Omnibus Budget Reconciliation Act of 1990), as amended by Pub. L. 102–389, October 6, 1992.

existing framework legitimacy determinations are largely self-implementing and misuse will not be avoided until there are clear and more objective legitimacy criteria and/or there is greater and more timely review of the legitimacy claims.

The same commenter stated that several factors result in an implementation structure incapable of ensuring that the materials recovery practices employed under the proposal will be legitimate. These include the wide variety of F006 operations; the wide array of constituents in the wastes (many of which would not be recycled); the lack of generator resources; and the lack of Agency oversight. In addition, according to the commenter, nothing in the proposal requires the generator to segregate waste streams so that toxics "along for the ride" are minimized.

EPA agrees that recovery of materials from F006 wastes, like any recovery of materials, must be legitimate to prevent participants from disposing of materials rather than actually recovering and reusing them. EPA also agrees that this rule will encourage F006 recovery operations.

EPA, however, does not agree that its current rules and policies to prevent "sham" recycling operations are insufficient. For example, the Agency has adequately described the F006 legitimacy criteria in existing regulatory and policy documents (see discussion below). In addition, any revision to the criteria is outside the scope of this rulemaking. EPA has promulgated many rules that encourage recycling which rely on the existing policy and regulatory structure to ensure that the recycling involves legitimate reuse of materials. See, for example, the conditional exemption for secondary materials used for recovery within the primary mineral processing industry in 40 CFR 261.4(a)(16) (which requires that materials be "legitimately recycled" without promulgating new rules to define the term). Although EPA acknowledges that this scheme is complex, EPA believes that recycling, under current regulatory restraints and policy, is beneficial, and its regulations have long reflected this. The commenter has not presented any data or examples showing that the current approach is generally inadequate, nor has the commenter submitted any information showing that factors unique to F006 recovery operations make the current approach less effective or less suitable than it is for other wastes.

EPA has existing policy guidance on legitimacy (see discussions at 53 FR 522 (January 8, 1988), 54 FR 17013 (May 6, 1987), 50 FR 638 (January 4, 1985) and F006 Recycling Memo, signed by Sylvia Lowrance on April 26, 1989). As described in this guidance, evaluating legitimacy can in some cases require complex analysis of site specific characteristics and factors to determine whether the secondary material is "commodity-like." The presence of toxics "along for the ride" is a factor in this determination. EPA currently believes that determining whether recycling processes are legitimate requires case-by-case evaluations of many factors that vary depending on the specific materials and processes used. EPA does acknowledge that such evaluations are often complex and time-consuming since F006 wastes and recovery operations involve a fairly wide variety of materials and operations which must be evaluated on a case-by-case basis.

In addition, the commenter did not present any specific proposal for improving assessment of the legitimacy of F006 recovery operations that could be applied in this rulemaking. It would be difficult (if not impossible) to evaluate F006 legitimacy generically rather than on a case-by-case basis. EPA is not aware of any information undercutting its longstanding view that this case-by-case approach has been effective at ensuring legitimate recycling. In the regulatory language being promulgated in this final rule (see new § 262.34(g)(2)), EPA has added the word "legitimate" to clarify that the F006 must be processed using legitimate recycling in order to meet this condition of the rule. The addition of the word "legitimate" does not change any existing Agency regulations or policies on recycling, but merely emphasizes the Agency's intent.

Another issue raised by this commenter was that less legitimate recycling would occur as a result of the pollution prevention condition because there will be more toxics "along for the ride." EPA acknowledges that it is possible that some pollution prevention practices that increase the concentration of non-recoverable toxics in the waste may be implemented under this rule, but the amount of non-recoverable toxics in the wastes (as opposed to the concentration of such toxics) will not increase. However, the Agency encourages metal finishers to carefully and thoughtfully select pollution prevention practices that will reduce levels of toxics that are not recovered, based on the specifics of their processes and design. The Agency also encourages implementing agencies to actively discuss the issues with metal finishers and to assist them, where possible, in choosing pollution prevention technologies. However, whether less legitimate recycling will occur depends on the pollution prevention technology used and the composition of the F006 sludge. As discussed previously, legitimacy determinations are better made on a case-by-case basis, and it is possible that in a situation where an F006 sludge contains a very high concentration of non-recoverable toxic constituents, the Agency could decide that it is not a legitimate recycling scenario under its existing policies on legitimacy.

Finally, given that most recycling processes generate residues, the Agency notes that generators may want to discuss the management of any residues from recycling operations with the recyclers to ensure that they are managed properly and to avoid any future liability from improper management (*e.g.*, under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)).

C. Limit on the Amount of F006 Waste That Can Be Accumulated

As discussed above, the purpose of today's rule is to remove an existing regulatory impediment to increased recycling of F006. The current 90-day limit on accumulating waste without a RCRA permit is preventing some large quantity generators of F006 from choosing recycling as a final waste management option. Although large quantity generators are not currently subject to any limits on how much waste they can accumulate on-site at any one time, many generators' process generation rates are such that they do not accumulate sufficient quantities of F006 to make recycling the waste a cost-effective option. EPA believes that it is appropriate to limit the flexibility provided by today's rule to what is reasonably necessary to advance the recycling objectives of the proposal. For this reason, the proposal, and today's final rule, include a limit on the total amount of F006 waste that may be accumulated on-site at any time. In response to comments, EPA has modified this portion of the rule from the proposal.

In the proposed rule, the Agency proposed setting a limit of 16,000 kilograms of F006 that could be accumulated on-site. The Agency proposed this limit because we believed that this amount was approximately the size of a truckload used to transport bulk solids. EPA requested comment on whether it was appropriate to impose any quantity limit to the on-site accumulation of F006 and whether

16,000 kg was an appropriate limit (as opposed to a different amount).

EPA received several comments on these issues. One commenter felt that the limit should be 6,000 kg, which is consistent with the quantity limit for small quantity generators. All other commenters on this issue stated that 16,000 kilograms did not accurately reflect the true size of a truckload for bulk solids (the physical form in which F006 is most commonly transported) based on experience with transportation of F006. In response, although EPA believes it is appropriate to limit the amount of F006 that can be accumulated on-site at any one time, EPA does not believe that the provisions for small quantity generators necessitate a similar 6,000 kg limit for large quantity generators, nor is it an appropriate amount in light of the recycling objectives of the rule. In addition, EPA proposed the 16,000 kg limit believing that it accurately represented a full truckload. In considering the comments disputing this assumption, the Agency investigated the issue further, and located existing information [4] which is consistent with many commenters' views on the weight of bulk solids that can be shipped in a full truckload. According to this confirmatory information, 20,000 kg is more representative of the full amount of bulk solids that would fill a truck. As discussed above, the purpose of the quantity limit is to delineate the minimum amount reasonably necessary to advance the recycling objectives of the proposal. Therefore, since the main goal of this final rule is to allow large quantity generators of F006 to accumulate enough F006 to facilitate the most economically efficient off-site shipment, the Agency has modified the rule to allow 20,000 kilograms of F006 to be accumulated on-site within the 180-day (or 270-day, as applicable) accumulation period in order to accomplish the maximum recycling benefit under this final rule.

Once a generator has accumulated 20,000 kilograms of F006 waste (regardless of whether the waste has been accumulated for less than 180 days, or 270 days if applicable), the generator is required to ship the F006 waste off-site for metals recovery, conduct metals recovery on-site, obtain an exception to the quantity limit under 40 CFR 262.34(i), or obtain a RCRA permit.

[4] U.S. EPA, Office of Regulatory Enforcement (DPRA, SAIC), Estimating Costs for the Economic Benefits of RCRA Noncompliance, September 1997, p. 5–3.

The Agency also requested comments on whether the accumulation limit should apply to the total quantity of F006 waste accumulated on-site or to the quantity of each separate mono-metal F006 waste stream (or other F006 waste streams segregated on the basis of metal content) that must be sent off-site to different metals recovery facilities. This request was based on the idea that a F006 generator could make F006 waste more amenable for metals recovery by generating mono-metal sludges.

EPA received several comments concerning the accumulation of mono-metal F006 sludges. Some commenters opposed expanding the proposal in this way, citing, among other things, concerns with increased risk and enforcement challenges. EPA also received comments requesting that the Agency apply the accumulation limit to each separate mono-metal F006 sludge generated at a site to facilitate metals recovery from each of these mono-metal sludges. The Agency encourages segregation of waste streams to make wastes more amenable to metals recovery, and does not believe that doing so would necessarily increase risks. However, at this time, the Agency does not have a standard for differentiating among the different types of F006 wastes, and none of the commenters suggested any such standard. Without further information, it would be extremely difficult to develop a standard that would be effective and implementable. For example, no definition exists for what constitutes a mono- or bi-metal sludge or how one F006 waste sludge differs compositionally from another F006 waste sludge (*i.e.*, what levels of other metals would be acceptable). Lacking such definitions or standards, it would not be possible at this time for the Agency to develop a regulatory provision allowing separate accumulation quantity limits for different F006 waste types. In addition, implementing and enforcing a separate accumulation limit for different types of F006 wastes would impose a significant burden on both generators and regulators with little or no corresponding benefit.

Finally, data from the *F006 Benchmark Study* shows, and other available information confirms, that very few metal finishers currently utilize separate wastewater treatment units to generate sludges that are compositionally different to improve recovery (*e.g.*, mono- or bi-metal sludges). Thus, at this time EPA believes that very few generators would benefit from separate limits for separate mono-metal sludges (or other sludges that differ from one another by composition). Past discussions with metal finishers in the CSI effort (as well as observations at metal finishing plants) corroborate this conclusion, indicating that most small metal finishing shops generally do not have the space or capital to install separate wastewater treatment units, filter presses or containers in which to manage mono-metal sludges.

Thus, although the Agency strongly encourages segregation of waste types to improve the recyclability of F006, for the reasons discussed above the quantity limit in the final rule applies to the total amount of F006 accumulated on-site at any one time, as was proposed.

V. Summary of Final Rule

A. Scope and Applicability

This final rule is limited to large quantity generators of F006 waste who accumulate F006 on-site for more than 90 days without a RCRA permit or interim status.

In 40 CFR 261.31, F006 waste is defined as:

> Wastewater treatment sludges generated from electroplating operations, except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc, and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.

In listing electroplating wastewater treatment sludges as hazardous waste, EPA identified several hazardous constituents, including cadmium, hexavalent chromium, nickel, and complexed cyanides that could pose a substantial hazard to human health and the environment if the sludge was mismanaged. The potential hazards associated with the constituents of concern in the sludge and the potential for improper management of the electroplating wastewater treatment sludges served as the basis for listing the sludge as hazardous waste F006. The listing status of the waste is not affected by this final rule.

The physical form of F006 waste can generally be described as a mixed metal hydroxide wastewater treatment precipitate which is 24 to 50 percent solids by weight. Other physical forms of this material can include spent ion exchange columns or iron precipitation solids. F006 sludges may contain metals with commercial value that can be recovered from the sludges. The metals recovered from these sludges are most often concentrates and intermediate materials that require further processing

before a commercially usable metal is produced. Often, the metals contained in these industrial sludges are recovered in the form of a metal oxide or salt (e.g., lead oxide, lead chloride, lead sulfate) through High Temperature Metals Recovery (HTMR) such as smelting operations.

Any large quantity generator (generators of 1,000 kilograms or more of hazardous waste per calendar month) who generates F006 may accumulate the F006 waste generated on-site for up to 180 days (or 270 days, under certain circumstances) without a RCRA permit or interim status, provided they meet the conditions of this final rule. Large quantity generators of F006 are only required to meet the conditions of today's rule if they accumulate F006 on-site, without a RCRA permit or interim status, for more than 90 days; however, the conditions of today's rule must be met for the entire accumulation period. In response to comments, EPA has modified the regulatory language to clarify that 40 CFR 262.34(g), (h), and (i) apply only to generators who accumulate F006 on-site for more than 90 days, but not more than 180 (or 270) days. Any large quantity generator who generates some quantity of F006 hazardous waste may accumulate the F006 waste under the terms of today's final rule. The 180-day (or 270-day, if applicable) accumulation time, however, is only applicable to the F006 waste destined for metals recovery. Other hazardous waste accumulated on-site (including any F006 which will not be recycled by metals recovery) must be accumulated in accordance with the existing provisions for large quantity generators (e.g. 262.34(a), or parts 264, 265, and 270).

Currently, large quantity generators are allowed only 90 days to accumulate hazardous wastes on-site without a RCRA permit, and there is no limit on the amount of hazardous waste that can be accumulated on-site within that 90-day time period. In order to accumulate hazardous waste on-site without a RCRA permit, these large quantity generators must also comply with a number of unit-specific standards (e.g., tank and container standards), and standards for marking and labeling, preparedness and prevention, contingency plan and emergency procedures, personnel training, and land disposal restrictions, in order to accumulate hazardous waste on-site without a RCRA permit. The Agency is not changing any of the existing regulations applicable to large quantity generators in today's final rule, except to allow 180 days (or 270 days, as applicable) for accumulation of F006 wastes with a corresponding limit of 20,000 kilograms on the amount of F006 waste that may be accumulated on-site at one time. Large quantity generators of F006 must still comply with the standards required for all large quantity generators to accumulate hazardous waste on-site without a permit: unit-specific standards (e.g., tank and container standards) for accumulation units; marking and labeling, preparedness and prevention, contingency plan and emergency procedures, personnel training, and land disposal restrictions. These conditions are explained in more detail below in Section V. E. of this preamble.

Today's final rule does not apply to small quantity generators of hazardous waste (between 100–1000 kg per calendar month) and we have added language to the rule to clarify this. Currently, small quantity generators are allowed 180 days to accumulate hazardous wastes on-site without a RCRA permit or interim status. However, the existing regulations do not allow small quantity generators to accumulate more than 6,000 kilograms of hazardous waste on-site at any one time without a RCRA storage permit. Small quantity generators accumulating hazardous waste without a RCRA permit must also comply with unit-specific and general facility standards that are similar to those for large quantity generators. Today's final rule does not change any of the provisions currently applicable to small quantity generators accumulating hazardous waste without a permit.

The Agency believes that there is no need to specifically allow small quantity generators to take advantage of the benefits of today's final rule. First, these generators are already allowed to accumulate their waste on-site for up to 180 days (or 270 days, if applicable); thus, the 180-day time limit of today's rule is unnecessary for them. Second, the Agency believes that any small quantity generators who generate hazardous waste at a rate which would cause them to exceed their existing 6,000 kilogram on-site accumulation limit will actually be large quantity generators, and therefore will be able to take advantage of the flexibility in this final rule for accumulating larger quantities of F006, as long as they meet the conditions of today's rule.

B. Special Conditions for 180-Day (or 270-Day) Accumulation Time

Today's rule includes several conditions that do not typically apply to the accumulation of hazardous waste by large quantity generators. These conditions are that the generator: (1) Has implemented pollution prevention practices that reduce the amount of any hazardous substances, pollutants or contaminants entering F006 or otherwise released to the environment prior to its recycling, (2) recycles the F006 waste by metals recovery, and (3) accumulates no more than 20,000 kilograms of F006 waste at any one time. EPA has included these conditions in the rule to ensure that the recycling objectives of this rule are met, and to ensure that the flexibility provided by today's rule is limited to that which is reasonably necessary to achieve those recycling objectives. Each of these conditions is discussed in further detail in Section IV above.

C. Additional Accumulation Time Under Certain Circumstances

1. Transport 200 Miles or More

Under today's final rule, large quantity generators of F006 waste have up to 270 days to accumulate F006 waste on-site without a RCRA permit or interim status if the generator must transport the waste, or offer the waste for transport, a distance of 200 miles or more for off-site metals recovery. The generator must still meet the other conditions of today's rule—i.e., implement pollution prevention practices that reduce the amount of any hazardous substances, pollutants or contaminants entering F006 or otherwise released to the environment prior to its recycling, recycle the F006 waste by metals recovery, not accumulate more than 20,000 kilograms of F006 waste at any one time, and comply with the applicable management standards in the proposed rule.

As with the other provisions of this final rule, this provision is intended to allow large quantity generators sufficient time to accumulate enough F006 waste to make recycling this waste by metals recovery more cost effective. Shipping F006 waste to a metals recovery facility that is located more than 200 miles away will cost more than shipping F006 waste to a local (i.e., less than 200 miles away) hazardous waste landfill. For those large quantity generators of F006 waste that do not accumulate enough F006 waste to fill a truck load (i.e., 20,000 kilograms of F006 waste) within 180 days and are located more than 200 miles from a metals recovery facility, treatment and disposal of the F006 waste in the local hazardous waste landfill may be a less expensive management option than metals recovery. For those large quantity generators of F006 waste that are located long distances from a metals recovery

facility, allowing up to 270 days for accumulation is reasonable to allow generators to accumulate more F006 waste to get closer to a full truckload for off-site shipment. The 270-day accumulation period will be particularly helpful for large quantity generators of relatively small amounts of F006 waste (i.e., those that do not accumulate more than 20,000 kilograms of F006 waste in 180 days and that must ship the F006 off-site more than 200 miles to a metals recovery facility) and may provide them with an incentive to send their F006 waste to a metals recovery facility rather than to a treatment and disposal facility.

2. Unforeseen, Temporary, and Uncontrollable Circumstances

Today's final rule also provides for an extension of the accumulation period if the generator's F006 waste must remain on-site for longer than 180 days (or 270 days, if applicable) due to unforeseen, temporary, and uncontrollable circumstances. Under these circumstances, the generator may request that the EPA Regional Administrator or authorized state grant an extension of up to 30 days. This provision is intended to provide the generator with some temporary relief until the unforeseen, temporary, and uncontrollable circumstances can be rectified. The Agency has previously identified the following circumstances as possible rationales for granting this extension: a facility's refusal to accept waste, transportation delays, or labor strikes (see 47 FR 1248, 1249, January 11, 1982). These extensions will be granted at the discretion of the EPA Regional Administrator or the authorized state on a case-by-case basis. This provision is the same as the provision for large quantity generators in the existing regulations at 40 CFR 262.34(b).

In addition to this extension to the time limit, exceptions to the quantity limit are also available at the EPA Regional Administrator's discretion. Because this final rule sets an accumulation limit of 20,000 kilograms of F006 waste that can be accumulated on-site at any one time, today's final rule also allows a large quantity generator to request permission to accumulate more than 20,000 kilograms of F006 waste if more than 20,000 kilograms must remain on-site due to unforeseen, temporary, and uncontrollable circumstances. The rationale for requiring additional time to accumulate F006 waste on-site due to unforeseen, temporary, and uncontrollable circumstances is equally applicable for accumulating more than 20,000 kilograms under the same kinds of circumstances.

In response to a comment, the regulatory text in this final rule has been modified from the proposal to clarify that, in addition to time limit extensions, accumulation limit exceptions are available.

D. Summary of Applicable Management Standards

Under today's final rule, the same standards applicable to 90-day on-site accumulation of hazardous waste under 40 CFR 262.34, other than the length of time that large quantity generators of F006 waste can accumulate the waste on-site without a RCRA permit,[5] apply to 180-day (or 270-day, as applicable) accumulation of F006 waste. These include technical standards for units used to accumulate hazardous wastes, recordkeeping standards to document the length of time hazardous wastes are accumulated on-site, preparedness and emergency response procedures, and personnel training. While EPA is not changing any of these existing standards in today's rulemaking, the Agency would like to note that in order to be in compliance with § 262.34(g)(4)(v) (which incorporates the existing general site operation provisions), generators accumulating F006 on-site under the terms of today's rule may need to consider whether their current general site operation procedures (*e.g.*, personnel training, contingency planning) should be modified in light of having more F006 on-site than they would under the 90-day limit. The existing management standards as they apply to large quantity generators of F006 waste under this final rule are summarized below. The Agency is not making any changes or amendments to these standards in today's final rule, other than clarifying that these standards apply to large quantity generators of F006 accumulating the waste up to 180 days (or 270 days where applicable) without a RCRA permit.

1. Accumulation Units

A large quantity generator of F006 waste may only accumulate the F006 waste on-site for up to 180 days (or 270 days, if applicable) in tanks, containers, or containment buildings which comply with the unit-specific technical standards of 40 CFR part 265 for containers (subpart I), tanks (subpart J), and containment buildings (subpart DD). In addition, generators accumulating F006 in containers or tanks must also comply with the air emission standards of 40 CFR part 265, subparts AA, BB, and CC.

The unit-specific standards in 40 CFR part 265 include provisions for the design, installation and general condition of each unit. The requirements governing each type of unit include standards for ensuring the compatibility of the waste and the unit and special requirements for ignitable, reactive or incompatible wastes. In addition, there are provisions for performing inspections to monitor for leaks and deterioration of the unit and for proper response to and containment of releases. For example, the container standards specify that a container holding hazardous waste must always be closed except when adding or removing waste and also that the container must not be handled in a manner which may cause it to rupture or leak. As with 90-day accumulation, large quantity generators of F006 waste that comply with the applicable regulatory provisions may treat the waste in the accumulation unit without a RCRA permit during the 180-day (or 270-day, if applicable) accumulation period (see 51 FR 10168, March 24, 1986).

2. Measures to Ensure Wastes Are Not Accumulated for More Than 180 Days (or 270 Days)

Large quantity generators of F006 waste operating under the terms of today's rule must also comply with provisions which indicate that the length of time the wastes remain on-site in certain accumulation units must not exceed 180 days (or 270 days if applicable) from the date the waste is generated. For those accumulating F006 in containers, the date upon which each period of accumulation begins must be clearly marked and visible for inspection on each container. Those who choose to accumulate F006 in containment buildings must, among other things, develop a written description of the procedures to ensure that each waste volume remains in the unit for no more than 180 days (or 270 days, as applicable). Today's final rule does not impose documentation standards for generators of F006 waste in addition to those already required for large quantity generators accumulating F006 waste up to 90 days under the existing regulations (see 40 CFR 262.34(a)(2)).

EPA recognizes that there may be circumstances under which a generator may discover that he will not be able to recycle F006 waste that he has accumulated on-site for more than 90 days in anticipation of recycling. The

[5] Today's final rule will not affect any RCRA Subtitle C requirements for generators of F006 waste, other than the changes to 40 CFR 262.34 specified in this final rule.

generator may then be forced to send this material for disposal. In those instances EPA encourages self-disclosure of this violation to the appropriate regulatory agency under the terms of either the Policy on Compliance Incentives for Small Businesses (June 10, 1996) or Incentives for Self-Policing: Discovery, Disclosure, Correction and Prevention of Violations (the "audit policy," December 22, 1995). Many states have adopted similar policies for self-disclosed violations. The generator should be prepared to demonstrate that the F006 waste was accumulated for more than 90 days based on a good faith belief that he would be able to send it to a recycling facility.

3. Labeling and Marking Accumulation Units

Large quantity generators of F006 waste operating under the terms of today's rule are required to clearly label or mark each tank or container used to accumulate hazardous waste with the words "Hazardous Waste."

4. Preparedness and Prevention (40 CFR Part 265, Subpart C)

Under today's final rule, large quantity generators of F006 waste who accumulate F006 waste on-site under the terms of today's rule for up to 180 days (or 270 days, as applicable) must comply with subpart C of part 265 which contains standards for facility preparedness and prevention. These generator facilities must be maintained and operated in a manner that minimizes the possibility of fire, explosion, or any unplanned release of hazardous waste or hazardous waste constituents to the environment. The standards specify that generator facilities must generally be equipped with emergency devices, such as an internal communications or alarm system, a telephone or other device capable of summoning emergency assistance, and appropriate fire control equipment, unless none of the wastes handled at the generation site requires a particular kind of equipment. Equipment must be tested and maintained, as necessary, to assure its proper functioning. All persons involved in hazardous waste handling operations must have immediate access to either an internal or external alarm or communications equipment, unless such a device is not required.

Additionally, large quantity generators are also required to maintain sufficient aisle space to allow for the unobstructed movement of personnel and equipment to any area of the facility operations in an emergency, unless aisle space is not needed for any of these purposes. Large quantity generators also must attempt to make arrangements with police, fire departments, state emergency response teams, and hospitals, as appropriate, to familiarize these officials with the layout of the generator's site and the properties of each type of waste handled at the site in preparation for the potential need for the services of these organizations. If state or local authorities decline to enter into such arrangements, the owner or operator must document the refusal.

5. Contingency Plan and Emergency Procedures (40 CFR Part 265, Subpart D)

Large quantity generators of F006 waste who accumulate that waste on-site for up to 180 days (or 270 days, as applicable) under the terms of today's final rule must comply with the contingency plan and emergency procedures provisions of 40 CFR part 265, subpart D. A large quantity generator's contingency plan must include, where necessary, a description of the generator's planned response to emergencies at the facility, any arrangements with local and state agencies to provide emergency response support, a list of the generator's emergency response coordinators, a list of the generator's emergency equipment, and an evacuation plan. Requirements for distributing and amending the contingency plan are specified. In addition, a facility emergency coordinator must be either present, or on call, whenever the facility is in operation.

Provisions for emergency procedures specified in subpart D of part 265 include immediate notification of employees and local, state, and Federal authorities of any imminent or actual emergencies; measures to preclude the spread of fires and explosions to other wastes; proper management of residues; rehabilitation of emergency equipment and notification of authorities before operations are resumed; and recordkeeping and reporting to EPA on the nature and consequences of any incident that requires implementing the contingency plan.

6. Personnel Training (40 CFR 265.16)

As finalized in today's rule, large quantity generators of F006 waste who accumulate that waste on-site for up to 180 days (or 270 days, as applicable) under the terms of today's rule are subject to the provisions for personnel training in 40 CFR 265.16. These requirements are designed to ensure that personnel are adequately prepared to manage hazardous waste and respond to any emergencies that are likely to arise. Personnel training can be in the form of on-the-job or classroom training, but must be performed by an instructor who is trained in hazardous waste management procedures. Personnel training must be performed within six months of initial employment and must be renewed annually. The generator's owner or operator also must maintain records in accordance with 40 CFR 265.16(d) to document completion of the training requirements for employees.

7. Waste Analysis and Record Keeping (40 CFR 268.7(a)(5))

Under today's final rule, large quantity generators of F006 wastes who accumulate F006 waste on-site for up to 180 days (or 270 days, as applicable) under the terms of today's rule and who treat their wastes in accumulation tanks, containers, or containment buildings located at the generator's site to meet the applicable land disposal treatment standards under 40 CFR part 268, subpart D, must prepare and follow a written waste analysis plan. The waste analysis plan must describe the procedures the generator will use to comply with the treatment standards for the waste. The waste analysis plan must be based upon a chemical and physical analysis of a representative sample of the generator's waste stream. Hazardous waste generators are required to submit a copy of their waste analysis plans for hazardous wastes treated in 180-day (or 270-day, as applicable) accumulation units to either the authorized state or EPA Regional office prior to conducting treatment. Generators also are required to retain a copy of the waste analysis plan in the generator's files.

VI. State Authority

A. Applicability of Rules in Authorized States

Under section 3006 of RCRA, EPA may authorize qualified states to administer and enforce the RCRA hazardous waste program within the state. (See 40 CFR part 271 for the standards and requirements for authorization). Following authorization, EPA maintains enforcement authority under sections 3008, 7003, and 3013 of RCRA, although authorized states have primary enforcement responsibility.

Prior to the Hazardous and Solid Waste Amendments (HSWA) of 1984, a state with final 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 facility in the state that the state was

authorized to permit. When new, more stringent federal requirements were promulgated or enacted, authorized states had to enact equivalent authority within specified time frames, but new federal requirements did not take effect in an authorized state until the state adopted the requirements as state law.

In contrast, under section 3006(g) of RCRA, 42 U.S.C. 6926(g), new requirements and prohibitions imposed under the HSWA take effect in authorized states at the same time that they take effect in non-authorized states. EPA is directed to implement HSWA requirements and prohibitions in an authorized state, 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, HSWA applies in authorized states until the states revise their programs and receive authorization for the new provision.

B. Effect on State Authorization

Today's final rule will promulgate regulations that are not effective under HSWA in authorized states. This rule will, therefore, be applicable only in those states that do not have final authorization.

Authorized states are only required to modify their programs when EPA promulgates federal regulations that are more stringent or broader in scope than the authorized state regulations. For those changes that are less stringent than the federal programs, states are not required to modify their programs. This is a result of section 3009 of RCRA, which allows states to impose more stringent regulations than the federal program. Today's final rule for additional accumulation time for large quantity generators of F006 waste is considered less stringent than the existing federal regulations because it allows more than the existing 90 days of accumulation time that is in the existing regulations. Authorized states are not, therefore, required to modify their programs to adopt regulations consistent with, and equivalent to, today's final rule.

Even though states are not required to adopt the additional accumulation time for large quantity generators of F006 waste in this final rule, EPA strongly encourages states to do so as quickly as possible. As discussed above, this final rule is intended to encourage and facilitate recycling of F006 waste. In addition, states participated as stakeholders in the CSI process and presently participate in the NACEPT Committee on Sectors, and EPA is encouraging all states to participate in the metal finishing sector projects and Strategic Goals implementation programs. States are, therefore, urged to adopt today's final rule, and EPA is committed to making efforts to expedite review of authorized state program revision applications that incorporate this final rule.

VII. Effective Date

This final rule is effective immediately. Section 3010(b)(1) of RCRA allows EPA to promulgate an immediately effective rule where the Administrator finds that the regulated community does not need additional time to come into compliance with the rule. Similarly, the Administrative Procedures Act (APA) provides for an immediate effective date for rules that relieve a restriction (see 5 U.S.C. 553(d)(1)).

This rule does not impose any requirements on the regulated community; rather, the rule provides flexibility in the regulations with which the regulated community is required to comply. The Agency finds that the regulated community does not need six months to come into compliance.

VIII. Technical Correction

The Agency is correcting a reference to section 268 that appears in § 262.34(a)(4). § 262.34(a) identifies the conditions under which a generator may accumulate hazardous waste on-site for 90 days without a permit and refers to the Land Disposal Restriction Testing, Tracking and Recordkeeping Requirements for generators in § 268.7(a). The LDR Phase IV Rule, finalized on May 12, 1997 (62 FR 26091), changed the numbering of § 268.7(a) so that what used to be § 268.7(a)(4) became § 268.7(a)(5). However, the corresponding reference to this section in 262.34(a)(4) was not changed. Therefore the Agency is making this correction today. A similar correction in the accumulation time regulations for Small Quantity Generators (generators of over 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month) in § 262.34(d)(4) was finalized on May 11, 1999 (64 FR 25414). In the proposed rule, § 262.34(g)(v) included this same incorrect reference. In the final rule this has been changed to refer to § 268.7(a)(5) instead.

IX. Regulatory Analyses

A. Executive Order 12866: Determination of Significance

Under Executive Order 12866, (58 FR 51,735, October 4, 1993) the Agency must determine whether a regulatory action is "significant" and therefore subject to Office of Management and Budget 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."

The Agency estimated the costs of today's final rule to determine if it is a significant regulation as defined by the Executive Order. The analysis considered compliance costs and economic impacts for F006 wastes affected by this rule. EPA estimates the total cost of the rule to be a savings in the range of $4.2 million to $5.3 million annually, and concludes that this rule is not economically significant according to the definition in E.O. 12866. Moreover, the Agency believes that this rule is not significant because it does not create serious inconsistency with actions taken or planned by another agency, or materially alter budgetary impact or rights and obligations of recipients. The Office of Management and Budget, however, has deemed this rule to be significant for novel policy reasons and has reviewed this rule.

Detailed discussions of the methodology used for estimating the costs, the economic impacts, and the benefits attributable to today's proposed rule for on-site accumulation of F006 wastes, followed by a presentation of the cost, economic impact, and benefit results, may be found in the background document: "Regulatory Impact Analysis of the Proposed Rule for a 180-Day Accumulation Time for F006 Wastewater Treatment Sludges," which is placed in the docket for today's final rule. A summary of this methodology and the results follows.

1. Methodology of Regulatory Impact Analysis

The Agency examined reported values for F006 waste generation from the 1995 Biennial Reporting Systems (BRS) database to estimate the volumes of F006 waste affected by today's rule, to

determine the national level incremental costs (for both the baseline and post-regulatory scenarios), economic impacts (including first-order measures such as the estimated percentage of compliance cost to industry or firm revenues), and benefits.

EPA evaluated two options in completing the economic analysis for this rule. The first option (hereafter Option 1) evaluated a maximum accumulation of 17.7 tons (16,000 kg) of material in a 180-day time period (or 270 days if the modeled shipment exceed 200 miles). The second option (hereafter Option 2) evaluated a maximum accumulation of 22 tons (20,000 kg) in a 180-day time period (or 270 days if the modeled shipment exceeded 200 miles). The second option was added based on information (presented by commenters and confirmed by the Agency) that a 20 to 22 ton load more accurately represented a full truck load.

2. Results

a. Volume Results

The BRS database reports that in 1995 there were 1,483 metal finishing firms potentially affected by today's rule. The data report that these firms generated 35,976 tons of F006 waste annually that are eligible to benefit from today's proposed rule. EPA is aware that this estimate on the number of firms that could benefit from today's proposal probably underestimates the total number of firms affected by today's rulemaking. Information available from other sources indicates that there are more than 11,000 metal finishing establishments in the United States. For example, one source estimates that there are 8,000 "captive" shops (where the metal finishing operation is contained inside a larger manufacturing operation) and 3,000 "job shops" or "independent" metal finishing operations (usually small businesses that operate on a contract basis). In contrast, the most recent BRS data only account for about three thousand of this total. Thus, it is likely that cost savings and benefits associated with this rulemaking are greater than estimated below.

b. Cost Results

For today's final rule, EPA has estimated a cost savings associated with a 180-day accumulation time (or 270 days where transport distance exceeds 200 miles) for large quantity generators of F006 waste. The total annual incremental savings is estimated to be between $3.9 million and $5.0 million for Option 1 and $4.2 million and $5.3 million for Option 2.[6] These savings may result from reducing the total number of shipments of F006 waste off-site for recycling. Savings also may result from a lower cost per ton of transportation because generators are able to accumulate more F006 waste for a shipment off-site and the cost per unit of F006 waste transportation (for the fixed cost portion of the transportation) is less for a full truck as compared to a partial truck load. In addition, literature reviewed in the development of this rulemaking indicates that recyclers sometimes assess a surcharge for small volumes of material due to increased handling and administrative costs.[7] It is possible that a 180-day (or 270-day, if applicable) accumulation time will allow some F006 waste generators to reduce this surcharge.

3. Economic Impact Results

To estimate potential economic impacts resulting from today's proposed rule, EPA has used first order economic impacts measures such as the estimated cost savings of today's proposed rule as a percentage of sales/revenues. EPA has applied this measure to affected F006 waste generators. For affected F006 waste generators, EPA has estimated the cost savings to be less than one percent of a typical metal finisher's sales or revenues. More detailed information on this estimate can be found in the regulatory impact analysis placed into today's docket.

a. Benefits Assessment

The Agency has performed a qualitative benefits assessment for today's final rule. EPA believes that a relatively small, but significant percentage of total F006 waste generated would be diverted from land disposal to off-site recycling. This shift from land disposal to recycling should result in a conservation of natural resources associated with primary mineral extraction, including reduced water and energy inputs as well as reduced solid waste outputs (*e.g.*, slag, tailings, and overburden). Other benefits expected from today's proposed rule include conservation of hazardous waste landfill capacity, reduced balance of payments for nonferrous mineral commodities, and conservation of strategic metals.[8]

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

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

For purposes of assessing the impacts of today's rule on small entities, small entity is defined as: (1) A small business that has fewer than 1000, 750, or 500 employees per firm depending upon the SIC code the firm is primarily classified in;[9] (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; or (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of today's final rule on small entities, we have determined that this action will not have a significant economic impact on a substantial number of small entities.

In determining whether a rule has a significant economic impact on a substantial number of small entities, the

[6] This range of estimated savings results from uncertainty surrounding a number of other factors that affect a generator's ability and interest in sending F006 to either recycling or landfilling. These factors include: (1) The metal value of sludge, (2) the proximity to the nearest landfill, (3) the presence of tramp constituents in the sludge, (4) real or perceived risk of Superfund liability, (5) the ability of several generators to accumulate a full truck load in less than 90 days, and other factors. For more information, see Section 2.3 of the Regulatory Impact Analysis for this final rule.

[7] George C. Cushnie Jr., National Center for Manufacturing Sciences & National Association of Metal Finishers, Pollution Prevention and Control Technology for Plating Operations (Ann Arbor, MI: National Center for Manufacturing Sciences, 1994), p.312.

[8] For more information on balance of trade for nonferrous minerals and conservation of strategic metals, see U.S. Environmental Protection Agency, Report to Congress on Metal Recovery, Environmental Regulation and Hazardous Wastes (Washington D.C., U.S.EPA, 1994), Chapter 7.

[9] F006 is generated by manufacturing firms across a number of SIC codes including 3471, Electroplating, Plating, Polishing, Anodizing and Coloring; 3672, Printed Circuit Boards and other manufacturing SICs. The Small Business Administration has classified firms in the manufacturing sector (SIC Codes 20–39) as small businesses within the sector based on the number of employees per firm. The classification system uses either 500, 750 or 1000 employees depending upon which SIC code. See Small Business Size Standards, 61 FR 3280, 3289 (January 31, 1996). Thus, to determine if a generator of F006 is a small business, the primary SIC code of the firm would have to be determined. Most independent electroplaters or "job shops" are in the 3471 SIC code which has a size standard of 500 employees. Captive platers (those plating operations within a larger manufacturing operation) will have size standards of either 500, 750 or 1000 employees.

impact of concern is any significant *adverse* economic impact on small entities, since the primary purpose of the regulatory flexibility analyses is to identify and address regulatory alternatives "which minimize any significant economic impact of the proposed rule on small entities" (5 U.S.C. 603 and 604). Thus, an agency may certify that a rule will not have a significant economic impact on a substantial number of small entities if the rule relieves regulatory burden, or otherwise has a positive economic effect on all of the small entities subject to the rule. Data indicate that virtually all independent electroplaters or job shops are small entities.[10] Captive shops contain both large and small entities. Data on captive plating operations is, however, more limited. The regulatory impact analysis completed for this final rule indicated that of 3,296 job shops, all but 2 are small entities. BRS data indicates that a total of 1,934 plating facilities, including both captive and independent operations, generate F006 waste and 1,483 of these firms are potentially affected by today's rule. Although the BRS data does not indicate what proportion of these affected generators are small entities, it is likely that the majority of these affected generators are small entities, because the plating firms most likely to be affected by this final rule generate the smallest quantities of F006 (which is related to both facility size and product output). This final rule would not have a significant economic impact on a substantial number of small entities because today's final rule would relieve regulatory burden for metal finishers and captive operations by allowing them up to 180 days (or 270 days under certain circumstances) instead of 90 days to accumulate F006 wastes on-site. The Agency estimates that this final rule would lead to an overall cost savings in the range of $4.2 to $5.3 million annually. The rule does not impose new burdens on small entities. We have therefore concluded that today's final rule will relieve regulatory burden for all small entities.

C. Paperwork Reduction Act

The Office of Management and Budget (OMB) has approved the information collection requirements contained in this final rule under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*) and has assigned OMB control number 2050–0035. An Information Collection Request (ICR) document was prepared by EPA (ICR Control Number 0820.07) and a copy may be obtained from Sandy Farmer by mail at OP Regulatory Information Division; U.S. Environmental Protection Agency (2137); Ariel Rios Building; 1200 Pennsylvania Avenue, NW; Washington, DC 20460, by e-mail at farmer.sandy@epamail.epa.gov, or by calling (202) 260–2740. A copy may also be downloaded off the internet at http://www.epa.gov/icr.

EPA believes the changes in this final rule do not constitute a substantive or material modification to the information collection requirements. This final rule will not change any of the information collection requirements that are currently applicable to large quantity generators of F006 waste that accumulate the waste on-site. The recordkeeping and reporting requirements of this final rule are identical to the requirements already promulgated and covered under the existing Information Collection Request (ICR). There is no net increase in recordkeeping and reporting requirements. As a result, the reporting, notification, or recordkeeping (information) provisions of this rule will not need to be submitted for approval to the Office of Management and Budget (OMB) under section 3504(b) of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*).

The Agency estimates total projected burden hours associated with the information collection requirements of this final rule to be approximately 13.19 hours per year for each generator. This is the same burden associated with the information collection requirements for large quantity generators who currently accumulate waste on-site for less than 90 days under the existing regulations. These information collection requirements include: (1) Pre-transport informational requirements specific to large quantity generators (e.g., personnel training, contingency planning and emergency procedures, tank systems, containment buildings, and requests for extension of accumulation period); (2) air emission standards for process vents; (3) air emission standards for equipment leaks; and (4) recordkeeping and reporting. 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; to 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; to adjust the existing ways to comply with any previously applicable instructions and requirements; to train personnel to be able to respond to a collection of information; to search data sources; to complete and review the collection of information; and to transmit or otherwise disclose the information.

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

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, EPA generally must prepare a written statement, 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. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA 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. Moreover, section 205 allows EPA 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 EPA 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 of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

Today's rule contains no Federal mandates (under the regulatory

[10] See U.S.E.P.A. Office of Solid Waste and Emergency Response, Regulatory Impact Analysis of 180-day Accumulation Time for F006 Wastewater Treatment Sludges, September 30, 1999, p. 13.

provisions of Title II of the UMRA) for State, local, or tribal governments or the private sector. The rule would not impose any federal intergovernmental mandate because it imposes no enforceable duty upon State, tribal or local governments. States, tribes and local governments would have no compliance costs under this rule. It is expected that states will adopt similar rules, and submit those rules for inclusion in their authorized RCRA programs, but they have no legally enforceable duty to do so. Thus, today's rule is not subject to the requirements of Sections 202 and 205 of the UMRA. For the same reasons, EPA also has determined that this rule contains no regulatory requirements that might 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." The term "policies that have federalism implications" is defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government." Under Section 6 of Executive Order 13132, EPA may not issue a regulation that has federalism implications, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by State and local governments, or EPA consults with State and local officials early in the process of developing the proposed regulation. EPA also may not issue a regulation that has federalism implications and that preempts State law unless the Agency consults with State and local officials early in the process of developing the proposed regulation.

This final rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. This rule imposes no intergovernmental obligations on States. As discussed in Section VI (State Authority), today's rule is less stringent than the existing federal RCRA program; therefore, authorized states are not required to modify their programs to adopt regulations consistent with, and equivalent to, today's final rule. States that do not have a final authorized RCRA program also have no regulatory obligations as a result of today's rule because EPA will be responsible for implementing this rule in non-authorized states. Thus, the requirements of section 6 of the Executive Order do not apply to this rule.

Although section 6 of Executive Order 13132 does not apply to this rule, EPA did consult with State and local officials in developing this rule. The CSI metal finishing subcommittee included members representing state and local governments. Please refer to Section II.B. of this preamble for further information on the role of the CSI metal finishing subcommittee in developing this rule.

F. Executive Order 13084: Consultation and Coordination With Indian Tribal Governments

Under Executive Order 13084, EPA may not issue a regulation that is not required by statute, that significantly or uniquely affects the communities of Indian tribal governments, and that imposes substantial direct compliance costs on those communities, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by the tribal governments, or EPA consults with those governments. If EPA complies by consulting, Executive Order 13084 requires EPA to provide to the Office of Management and Budget, in a separately identified section of the preamble to the rule, a description of the extent of EPA's prior consultation with representatives of affected tribal governments, a summary of the nature of their concerns, and a statement supporting the need to issue the regulation. In addition, Executive Order 13084 requires EPA to develop an effective process permitting elected officials and other representatives of Indian tribal governments "to provide meaningful and timely input in the development of regulatory policies on matters that significantly or uniquely affect their communities."

This final rule does not create a mandate for tribal governments, nor does it impose any enforceable duties on these entities. Accordingly, the requirements of section 3(b) of Executive Order 13084 do not apply to this rule.

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

Executive Order 13045, entitled "Protection of Children from Environmental Health Risks and Safety Risks" (62 FR 19885, April 23, 1997), applies to any rule that (1) is "economically significant" as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that an agency has reason to believe may disproportionately affect children. If the regulatory action meets both criteria, the Agency must evaluate the environmental health or safety effects of the planned rule on children and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency. This final rule is not subject to Executive Order 13045, because this is not an economically significant regulatory action as defined by Executive Order 12866 and the Agency does not have reason to believe the environmental health risks or safety risks addressed by this action present a disproportionate risk to children.

Because this rulemaking retains current waste management standards for large quantity generators accumulating hazardous wastes on-site without a permit (40 CFR 262.34), EPA believes that the new 180-day (or 270-day, where applicable) accumulation period will not result in increased exposures to children. These provisions are discussed in detail in Section V.E. of this rule. EPA believes that these provisions are protective of human health and the environment and minimize the likelihood of exposure to hazardous waste held in these units.

H. National Technology Transfer and Advancement Act of 1995

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA), Public Law 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 rulemaking does not involve

technical standards. EPA has not, therefore, used any voluntary consensus standards.

I. Executive Order 12898: Environmental Justice

EPA is committed to addressing environmental justice concerns and is assuming a leadership role in environmental justice initiatives to enhance environmental quality for all populations in the United States. The Agency's goals are to ensure that no segment of the population, regardless of race, color, national origin, or income bears disproportionately high and adverse human health or environmental impacts as a result of EPA's policies, programs, and activities, and that all people live in safe and healthful environments. In response to Executive Order 12898 and to concerns voiced by many groups outside the Agency, EPA's Office of Solid Waste and Emergency Response formed an Environmental Justice Task Force to analyze the array of environmental justice issues specific to waste programs and to develop an overall strategy to identify and address these issues (OSWER Directive No. 9200.3–17).

Today's final rule covers F006 wastes from metal finishing operations. It is not certain whether the environmental problems addressed by this rule could disproportionately affect minority or low-income communities, due to the location of some metal finishing operations. Metal finishing operations are distributed throughout the country and many are located within highly populated areas. Because today's final rule retains provisions for large quantity generators of F006 waste to accumulate F006 waste in protective Subpart J tanks, Subpart I containers or Subpart DD container buildings, the Agency does not believe that today's rule will increase risks from F006 waste. These provisions are discussed in further detail in Section V.E. of this rule. It is, therefore, not expected to have any disproportionately high adverse human health or environmental effects on minority or low-income communities relative to affluent or non-minority communities.

J. Submission to Congress and General Accounting Office

The Congressional Review Act (5 U.S.C. 801(a)(1)(A)) 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 report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the General Accounting Office prior to the publication of this rule in this **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This rule is not a "major rule" as defined by 5 U.S.C. 804(2). This rule will be effective on March 8, 2000.

List of Subjects in 40 CFR Part 262

Environmental protection, Hazardous materials transportation, Hazardous waste, Labeling, Packaging and containers, Reporting and recordkeeping requirements.

Dated: March 1, 2000.

Carol M. Browner,

Administrator.

For the reasons set forth in the preamble, EPA is amending 40 CFR part 262 as follows:

PART 262—STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE

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

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

2. Section 262.34 is amended by revising paragraph (a)(4) and adding new paragraphs (g), (h), and (i) to read as follows:

§ 262.34 Accumulation time.

* * * * *

(a) * * *

(4) The generator complies with the requirements for owners or operators in Subparts C and D in 40 CFR part 265, with § 265.16, and with 40 CFR 268.7(a)(5).

* * * * *

(g) A generator who generates 1,000 kilograms or greater of hazardous waste per calendar month who also generates wastewater treatment sludges from electroplating operations that meet the listing description for the RCRA hazardous waste code F006, may accumulate F006 waste on-site for more than 90 days, but not more than 180 days without a permit or without having interim status provided that:

(1) The generator has implemented pollution prevention practices that reduce the amount of any hazardous substances, pollutants or contaminants entering F006 or otherwise released to the environment prior to its recycling;

(2) The F006 waste is legitimately recycled through metals recovery;

(3) No more than 20,000 kilograms of F006 waste is accumulated on-site at any one time; and

(4) The F006 waste is managed in accordance with the following:

(i) The F006 waste is placed:

(A) In containers and the generator complies with the applicable requirements of subparts I, AA, BB, and CC of 40 CFR part 265; and/or

(B) In tanks and the generator complies with the applicable requirements of subparts J, AA, BB, and CC of 40 CFR part 265, except §§ 265.197(c) and 265.200; and/or

(C) In containment buildings and the generator complies with subpart DD of 40 CFR part 265, and has placed its professional engineer certification that the building complies with the design standards specified in 40 CFR 265.1101 in the facility's operating record prior to operation of the unit. The owner or operator must maintain the following records at the facility:

(*1*) A written description of procedures to ensure that the F006 waste remains in the unit for no more than 180 days, a written description of the waste generation and management practices for the facility showing that they are consistent with the 180-day limit, and documentation that the generator is complying with the procedures; or

(*2*) *Documentation that the unit is emptied at least once every 180 days.*

(ii) In addition, such a generator is exempt from all the requirements in subparts G and H of 40 CFR part 265, except for §§ 265.111 and 265.114.

(iii) The date upon which each period of accumulation begins is clearly marked and visible for inspection on each container;

(iv) While being accumulated on-site, each container and tank is labeled or marked clearly with the words, "Hazardous Waste;" and

(v) The generator complies with the requirements for owners or operators in subparts C and D in 40 CFR part 265, with 40 CFR 265.16, and with 40 CFR 268.7(a)(5).

(h) A generator who generates 1,000 kilograms or greater of hazardous waste per calendar month who also generates wastewater treatment sludges from electroplating operations that meet the listing description for the RCRA hazardous waste code F006, and who must transport this waste, or offer this waste for transportation, over a distance of 200 miles or more for off-site metals recovery, may accumulate F006 waste on-site for more than 90 days, but not more than 270 days without a permit or without having interim status if the generator complies with the

requirements of paragraphs (g)(1) through (g)(4) of this section.

(i) A generator accumulating F006 in accordance with paragraphs (g) and (h) of this section who accumulates F006 waste on-site for more than 180 days (or for 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), or who accumulates more than 20,000 kilograms of F006 waste on-site is an operator of a storage facility and is subject to the requirements of 40 CFR parts 264 and 265 and the permit requirements of 40 CFR part 270 unless the generator has been granted an extension to the 180-day (or 270-day if applicable) period or an exception to the 20,000 kilogram accumulation limit. Such extensions and exceptions may be granted by EPA if F006 waste must remain on-site for longer than 180 days (or 270 days if applicable) or if more than 20,000 kilograms of F006 waste must remain on-site due to unforeseen, temporary, and uncontrollable circumstances. An extension of up to 30 days or an exception to the accumulation limit may be granted at the discretion of the Regional Administrator on a case-by-case basis.

[FR Doc. 00–5503 Filed 3–7–00; 8:45 am]

BILLING CODE 6560–50–P

another generator, and the Agency believes it is important to allow generators the flexibility to maximize the effectiveness of their pollution prevention activities by selecting and designing the approach that best fits their specific situation. Under today's rule, large quantity generators of F006 waste may implement pollution prevention practices that are best suited to their specific metal finishing processes and plating operations. It is important to note that EPA believes that generators that are already implementing pollution prevention practices should not have to adopt new pollution prevention practices to comply with this rule. However, the Agency encourages, but does not require, metal finishers to thoroughly explore additional available pollution prevention techniques and to implement those that most effectively reduce the amount of any hazardous substance, pollutant or contaminant in F006 prior to onsite recycling activities that occur after the sludge is generated (*e.g.* dewatering and sludge drying).

EPA believes it is overly broad to refer to the pollution prevention condition of today's rule as "waste minimization." Waste minimization includes both source reduction and recycling. By using the term "pollution prevention," EPA intends to capture only one element of "waste minimization," *i.e.* source reduction, which is consistent with the definition contained in the Pollution Prevention Act. As mentioned previously, this requirement was included in the rule because pollution prevention measures can make F006 less hazardous for subsequent management and possibly more amenable for metals recovery. Today's rule, therefore, retains the condition that generators must implement pollution prevention measures.

Regarding what kind of demonstration must be made to verify compliance with the pollution prevention condition, the final rule does not include any recordkeeping or reporting requirements specific to this condition. Generators accumulating F006 on-site under the terms of this rule should be prepared to demonstrate, at the request of EPA or the State, that they are implementing pollution prevention measures for F006. Such a demonstration could include, for example, indicating to the requesting official particular technologies or process changes that have been installed to reduce the amount of toxic materials entering the on-site wastewater treatment system or directly discharging into navigable waters. EPA believes it is relatively simple to determine through discussion or direct observation whether a particular facility is using pollution prevention technologies. The Metal Finishing Workgroup, for example, used a checklist to profile operations in 29 facilities (which is available in the docket for this rule). Also, many State pollution prevention and compliance assistance offices have developed checklists for assessing pollution prevention activities, particularly for metal finishing operations (see, for example, http://www.p2.org). Consequently, EPA believes regulated industry can easily identify what practices would qualify as pollution prevention, and that EPA and State field inspectors, compliance assistance personnel, and pollution prevention technical assistance staff can easily determine whether or not companies are using pollution prevention in compliance with this rule.

TABLE 1.—EXAMPLES OF POLLUTION PREVENTION MEASURES

Method	Pollution prevention benefits
Improved Operating Practices	
Remove cadmium and zinc anodes from bath when it is idle. Anode baskets can be placed on removable bars that are lifted from tank by an overhead hoist.	—Eliminates cadmium/zinc buildup causing decanting of solution due to galvanic cell set up between steel anode basket and cadmium/zinc anodes. —Maintains bath within narrow Cd/Zn concentration providing more predictable plating results.
Eliminate obsolete processes and/or unused or infrequently used processes.	—Reduces risks associated with hazardous chemicals. —Creates floor space to add countercurrent rinses or other P2 methods. —Creates safer and cleaner working environment.
Waste stream segregation of contact and non-contact wastewaters	—Eliminates dilution of process water prior to treatment which can increase treatment efficiency. —Reduces treatment reagent usage and operating costs.
Establish written procedures for bath make-up and additions. Limit chemical handling to trained personnel. Keep tank addition logs.	—Prevents discarding process solutions due to incorrect formulations or contamination. —Improves plating solution and work quality consistency. —Improves shop safety.
Install overflow alarms on all process tanks to prevent tank overflow when adding water to make up for evaporative losses.	—Minimizes potential for catastrophic loss of process solutions via overflow. —Prevents loss of expensive chemicals.
Conductivity and pH measurement instruments and alarm system for detecting significant chemical losses.	—Identifies process solution overflows and leaks before total loss occurs. —Alerts treatment operators to potential upset condition. —Reduces losses of expensive plating solutions.
Control material purchases to minimize obsolete material disposal	—Reduces hazardous waste generation. —Reduces chemical purchases.
Use process baths to maximum extent possible before discarding. Eliminate dump schedules. Perform more frequent chemical analysis.	—Prevents discarding of solutions prematurely. —Reduces chemical costs. —Improves work quality with chemical adjustments of baths.
Reduce bath dumps by using filtration to remove suspended solids contamination.	—Extends bath life. —Reduces solid waste generation by reusing filter cartridges. —Improves bath performance.
Process/Chemical Substitution	
Substitute cyanide baths with alkaline baths when possible	—Eliminates use of CN.

TABLE 1.—EXAMPLES OF POLLUTION PREVENTION MEASURES—Continued

Method	Pollution prevention benefits
Substitute trivalent chromium for hexavalent chromium when product specifications allow.	—Reduces/eliminates use of hexavalent chromium.
Eliminate use of cadmium plating if product specifications allow	—Elminates the use of cadmium.
Drag-Out Reduction Methods That Reduce Waste Generation	
Install fog rinses or sprays over process tanks to remove drag out as rack/part exits bath.	—Can inexpensively recover a substantial portion of drag out and does not require additional tankage. —Reduces pollutant mass loading on treatment processes, treatment reagent usage, and resultant sludge generation.
Minimize the formation of drag out by: redesigning parts and racks/barrels to avoid cup shapes, etc. that hold solution; properly racking parts; and reducing rack/part withdraw speed.	—May improve treatment operation/removal efficiency. —Reduces chemical purchases and overall operating costs.
Rinse Water Reduction Methods That Reduce Waste Generation	
Install flow restrictors to control the flow rate of water	—Reduces water and aids in reducing variability in wastewater flow. —Is very inexpensive to purchase and install.
Install conductivity or timer rinse controls to match rinse water needs with use.	—Coordinates water use and production when properly implemented. —Provides automatic control of water use.
Use counter-current rinse arrangement with two to four tanks in series depending on drag-out rate.	—Can achieve major water reduction. —Has high impact on water bills. —May reduce the size of recovery/treatment equipment that is needed.
Track water use with flow meters and accumulators. Keep logs on water use for individual operations.	—Identifies problem areas including inefficient processes or personnel. —Helps management to determine cost for individual plating processes.

B. Metals Recovery

This final rule is designed to create an incentive for large quantity generators of F006 waste to choose recycling through metals recovery instead of treatment and land disposal as their final waste management option for F006 waste. As discussed in Section III.A., EPA is providing 180 days (or 270 days under certain circumstances) for accumulation to eliminate the impediment to F006 recycling created by the 90-day limit for on-site accumulation. The longer accumulation period is available only if the accumulated F006 waste is recycled through metals recovery. In response to comments, EPA has made one change to this requirement from the proposal.

As proposed, only large quantity generators of F006 who send the F006 waste off-site for metals recovery (as well as meeting the other conditions) would have been allowed 180 days (or 270 days, as applicable) to accumulate those wastes on-site. At the time of proposal, the Agency stated that, although reduced transportation costs would not affect on-site metals recovery, there may be other problems related to on-site metals recovery that a longer accumulation period could address. For example, it may be necessary to accumulate enough F006 waste to make some type of on-site batch metals recovery process more cost effective. The Agency, therefore, requested comment on whether large quantity generators who recycle their F006 on-site by metals recovery should also be allowed 180 days to accumulate those wastes on-site.

The Agency received several comments on the proposal in favor of including large quantity generators of F006 who recycle through on-site metals recovery. Some pointed out that the decrease in transportation of F006 waste over highways may lessen overall potential risks to human health and the environment. One commenter stated that on-site recovery methods may prove environmentally superior to off-site methods, but that some recovery methods could result in increased cross-media impacts which may not be adequately controlled by the standards imposed by the proposal. This commenter suggested that EPA should further investigate these and other issues rather than expand the rule.

After considering these comments, EPA has decided to modify the rule to include large quantity generators of F006 who recycle F006 on-site for metals recovery. EPA is not currently aware of any generators who are presently performing metals recovery on-site. Members of the metal finishing industry stated during the CSI process that, due to space considerations at their electroplating sites, installation of on-site metals recovery equipment would be unlikely, and, if space did become available, they would be more likely to install extra electroplating equipment rather than recycling equipment. While EPA does not have any data indicating whether on-site recycling will increase, the Agency is concerned that a rule providing a longer accumulation period only for off-site metals recovery may inadvertently create an incentive against utilizing, and thereby discourage the development of, on-site metals recovery. This result may be of particular importance because, as some commenters suggested, on-site metals recovery may be environmentally superior to off-site metals recovery. The Agency believes that the technologies that would be employed for on-site recycling of F006 would be the same as those presently used for off-site recycling of F006 that are appropriate for small volumes. Also, the unit-specific regulatory controls would be the same. The Agency further believes that the recycling of F006 through metals recovery on-site may be more protective overall of human health and the environment because it will require less transportation of the F006, and transportation-related activities have been the cause of most of the F006 releases to date. In addition, including on-site recovery in today's rule is consistent with the primary goal of encouraging recycling over treatment and land disposal. Because the 180-day accumulation period would only be available for large quantity generators who recycle F006 for metals recovery, and we are not aware that on-site metals recovery is currently occurring or contemplated, EPA expects that generators who are not sending F006 off-site for metals recovery would only

take advantage of the 180-day accumulation period where it would actually facilitate on-site metals recovery. Therefore, today's final rule allows large quantity generators of F006 180 days (or 270 days, as applicable) to accumulate those wastes prior to metals recovery performed either on-site (*i.e.*, at the generator's site) or off-site, provided all other conditions of today's final rule are met. The standards for 180-day (or 270-day, as applicable) accumulation included in today's rule will ensure that on-site accumulation is protective of human health and the environment, whether that accumulation precedes on-site or off-site metals recovery. Only the amount of time large quantity generators may accumulate F006 (without a permit or interim status) on-site if they are recycling F006 on-site for metals recovery is affected by today's final rule.

EPA received several comments on other issues related to the metals recovery condition of the rule. Several commenters sought clarification of whether F006 must be sent directly to a metals recovery facility in order to meet the metals recovery condition of the rule. Specifically, questions were raised regarding intermediate processors, waste brokers, and other intermediate handlers. Additionally, some commenters questioned whether facilities that recycle wastes into animal feed or soil amendments and primary metals smelters are considered metals recovery facilities.

In response, EPA notes that the proposed condition that F006 must be "sent off-site for metals recovery" did not require that F006 be sent directly from the generator to the metals recovery facility. It was never EPA's intent to preclude generators from sending F006 for metals recovery by way of intermediate handlers (*e.g.*, persons conducting transportation, intermediate storage, repackaging or reshipping) or intermediate processors (*e.g.*, persons conducting pre-metals recovery processing steps). Rather, EPA believes including such multi-step management processes in the rule will ensure that the largest number of generators are able to take advantage of the rule, and that the amount of F006 recycled is maximized. The Regulatory Impact Analysis (RIA) conducted in support of the proposed rule included both metal recovery facilities and intermediate processors as shipment destinations when estimating transportation and other costs. Specifically, data used in the model that estimated transportation costs was based on observed shipments to metals recovery from the 1995 Biennial Report Survey. These observations included both shipments directly to metals recovery facilities and to intermediate processors who subsequently ship to metals recovery facilities. Similarly, the cost model used fees charged both by metals recovery facilities and by intermediate processors. The RIA demonstrates that generators who are able to accumulate larger loads of F006 will experience lower transportation costs and administrative costs whether they are shipping directly to a metals recovery facility or to an intermediate processor. Since the transportation patterns would be the same, the same transportation cost analysis would also apply to intermediate handlers who simply repackage or consolidate F006 prior to delivery to a metals recovery facility.

Today's rule retains this metals recovery condition essentially as proposed (it has been modified to include on-site metals recovery). Specifically, EPA considers F006 sent by a generator to an intermediate processor to be sent for "metals recovery" if the intermediate processor then sends the processed material to a facility which extracts the metals (such as a smelter or a metallurgical extraction facility). For purposes of this rule, EPA defines an intermediate processor as a recycler who handles the F006 after the generator and before the ultimate metals extraction facility (*e.g.*, the smelter) and who makes the F006 more amenable for metals recovery through processes such as drying, blending, and/or concentrating. Large quantity generators of F006 who perform intermediate processing activities on-site before sending the waste to a metals reclamation facility are also allowed up to 180 days (or 270 days, if applicable) to accumulate that waste under today's final rule. However, generators performing intermediate processing on-site who need to hold the waste after the accumulation period has expired are required to have a RCRA permit.

In response to the question of whether primary metals smelters and facilities that recycle wastes into animal feed or soil amendments are considered metals recovery facilities, under EPA regulations, recycling is defined as either the use, reuse or reclamation of a material (40 CFR 261.1(c)(7)). EPA defines reclamation as either recovery of a useful product or regeneration of a product for its original use (40 CFR 261.1(c)(4). Under EPA's hazardous waste regulations, recovery is defined as the recovery of *distinct components of a secondary material as separate end products* (40 CFR 261.1(c)(5)(i)). Examples of recovery and regeneration are recovering copper from electroplating sludge like F006 or regenerating a spent solvent for its original use. When distinct components, such as metals, are not separated from the material in which they are constituents, recovery has not occurred. Thus, if F006 were to be incorporated directly into either animal feed or fertilizer without first separating the metals, this would not constitute metals recovery. Therefore, F006 sent for this type of recycling would not be sent for "metals recovery." However, as long as legitimate metals recovery occurs (*i.e.*, distinct components of the F006 waste are recovered as separate end products) the rule would apply, regardless of the ultimate use of the end products.

Regarding primary metals smelters, one commenter appeared to be unclear about whether F006 processed at smelters was considered to be used or reused as an ingredient in an industrial process to make a product, or used or reused as an effective substitute for a commercial product (see 40 CFR 261.2(e)(1)(i) and (ii)). If F006 were used or reused in these ways, it would not be considered a solid or hazardous waste and would therefore would not be subject to hazardous waste managements controls, including use of a hazardous waste manifest. However, the Agency believes that these use/reuse exemptions do not apply to F006 sent to a primary smelter for metals recovery.

40 CFR 261.2(e)(1)(i) specifically provides that materials are not considered to be used or reused as an ingredient in an industrial process to make a product if they are being reclaimed. 40 CFR 261.1(c)(5)(i) provides additionally that materials will not satisfy the "use as an ingredient" exclusion of 40 CFR 261.2(e)(1)(i) "if distinct components of the material are recovered as separate end products (as when metals are recovered from metal-containing secondary materials.)" For these reasons, EPA is today clarifying that F006 sent to a smelter is generally not eligible for the exclusions at 40 CFR 261.2(e)(1)(i) and 261.2(e)(1)(ii) since the purpose of sending F006 to a smelter is to recover its metal components. The material would therefore generally be considered a solid and hazardous waste and subject to all applicable RCRA hazardous waste management controls (including use of a hazardous waste manifest).

Another commenter on the metals recovery condition of the rule stated that neither the proposal nor the existing regulatory framework are structured so that only legitimate materials recovery is encouraged. According to this commenter, under the

existing framework legitimacy determinations are largely self-implementing and misuse will not be avoided until there are clear and more objective legitimacy criteria and/or there is greater and more timely review of the legitimacy claims.

The same commenter stated that several factors result in an implementation structure incapable of ensuring that the materials recovery practices employed under the proposal will be legitimate. These include the wide variety of F006 operations; the wide array of constituents in the wastes (many of which would not be recycled); the lack of generator resources; and the lack of Agency oversight. In addition, according to the commenter, nothing in the proposal requires the generator to segregate waste streams so that toxics "along for the ride" are minimized.

EPA agrees that recovery of materials from F006 wastes, like any recovery of materials, must be legitimate to prevent participants from disposing of materials rather than actually recovering and reusing them. EPA also agrees that this rule will encourage F006 recovery operations.

EPA, however, does not agree that its current rules and policies to prevent "sham" recycling operations are insufficient. For example, the Agency has adequately described the F006 legitimacy criteria in existing regulatory and policy documents (see discussion below). In addition, any revision to the criteria is outside the scope of this rulemaking. EPA has promulgated many rules that encourage recycling which rely on the existing policy and regulatory structure to ensure that the recycling involves legitimate reuse of materials. See, for example, the conditional exemption for secondary materials used for recovery within the primary mineral processing industry in 40 CFR 261.4(a)(16) (which requires that materials be "legitimately recycled" without promulgating new rules to define the term). Although EPA acknowledges that this scheme is complex, EPA believes that recycling, under current regulatory restraints and policy, is beneficial, and its regulations have long reflected this. The commenter has not presented any data or examples showing that the current approach is generally inadequate, nor has the commenter submitted any information showing that factors unique to F006 recovery operations make the current approach less effective or less suitable than it is for other wastes.

EPA has existing policy guidance on legitimacy (see discussions at 53 FR 522 (January 8, 1988), 54 FR 17013 (May 6, 1987), 50 FR 638 (January 4, 1985) and F006 Recycling Memo, signed by Sylvia Lowrance on April 26, 1989). As described in this guidance, evaluating legitimacy can in some cases require complex analysis of site specific characteristics and factors to determine whether the secondary material is "commodity-like." The presence of toxics "along for the ride" is a factor in this determination. EPA currently believes that determining whether recycling processes are legitimate requires case-by-case evaluations of many factors that vary depending on the specific materials and processes used. EPA does acknowledge that such evaluations are often complex and time-consuming since F006 wastes and recovery operations involve a fairly wide variety of materials and operations which must be evaluated on a case-by-case basis.

In addition, the commenter did not present any specific proposal for improving assessment of the legitimacy of F006 recovery operations that could be applied in this rulemaking. It would be difficult (if not impossible) to evaluate F006 legitimacy generically rather than on a case-by-case basis. EPA is not aware of any information undercutting its longstanding view that this case-by-case approach has been effective at ensuring legitimate recycling. In the regulatory language being promulgated in this final rule (see new § 262.34(g)(2)), EPA has added the word "legitimate" to clarify that the F006 must be processed using legitimate recycling in order to meet this condition of the rule. The addition of the word "legitimate" does not change any existing Agency regulations or policies on recycling, but merely emphasizes the Agency's intent.

Another issue raised by this commenter was that less legitimate recycling would occur as a result of the pollution prevention condition because there will be more toxics "along for the ride." EPA acknowledges that it is possible that some pollution prevention practices that increase the concentration of non-recoverable toxics in the waste may be implemented under this rule, but the amount of non-recoverable toxics in the wastes (as opposed to the concentration of such toxics) will not increase. However, the Agency encourages metal finishers to carefully and thoughtfully select pollution prevention practices that will reduce levels of toxics that are not recovered, based on the specifics of their processes and design. The Agency also encourages implementing agencies to actively discuss the issues with metal finishers and to assist them, where possible, in choosing pollution prevention technologies. However, whether less legitimate recycling will occur depends on the pollution prevention technology used and the composition of the F006 sludge. As discussed previously, legitimacy determinations are better made on a case-by-case basis, and it is possible that in a situation where an F006 sludge contains a very high concentration of non-recoverable toxic constituents, the Agency could decide that it is not a legitimate recycling scenario under its existing policies on legitimacy.

Finally, given that most recycling processes generate residues, the Agency notes that generators may want to discuss the management of any residues from recycling operations with the recyclers to ensure that they are managed properly and to avoid any future liability from improper management (*e.g.*, under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)).

C. Limit on the Amount of F006 Waste That Can Be Accumulated

As discussed above, the purpose of today's rule is to remove an existing regulatory impediment to increased recycling of F006. The current 90-day limit on accumulating waste without a RCRA permit is preventing some large quantity generators of F006 from choosing recycling as a final waste management option. Although large quantity generators are not currently subject to any limits on how much waste they can accumulate on-site at any one time, many generators' process generation rates are such that they do not accumulate sufficient quantities of F006 to make recycling the waste a cost-effective option. EPA believes that it is appropriate to limit the flexibility provided by today's rule to what is reasonably necessary to advance the recycling objectives of the proposal. For this reason, the proposal, and today's final rule, include a limit on the total amount of F006 waste that may be accumulated on-site at any time. In response to comments, EPA has modified this portion of the rule from the proposal.

In the proposed rule, the Agency proposed setting a limit of 16,000 kilograms of F006 that could be accumulated on-site. The Agency proposed this limit because we believed that this amount was approximately the size of a truckload used to transport bulk solids. EPA requested comment on whether it was appropriate to impose any quantity limit to the on-site accumulation of F006 and whether

16,000 kg was an appropriate limit (as opposed to a different amount).

EPA received several comments on these issues. One commenter felt that the limit should be 6,000 kg, which is consistent with the quantity limit for small quantity generators. All other commenters on this issue stated that 16,000 kilograms did not accurately reflect the true size of a truckload for bulk solids (the physical form in which F006 is most commonly transported) based on experience with transportation of F006. In response, although EPA believes it is appropriate to limit the amount of F006 that can be accumulated on-site at any one time, EPA does not believe that the provisions for small quantity generators necessitate a similar 6,000 kg limit for large quantity generators, nor is it an appropriate amount in light of the recycling objectives of the rule. In addition, EPA proposed the 16,000 kg limit believing that it accurately represented a full truckload. In considering the comments disputing this assumption, the Agency investigated the issue further, and located existing information [4] which is consistent with many commenters' views on the weight of bulk solids that can be shipped in a full truckload. According to this confirmatory information, 20,000 kg is more representative of the full amount of bulk solids that would fill a truck. As discussed above, the purpose of the quantity limit is to delineate the minimum amount reasonably necessary to advance the recycling objectives of the proposal. Therefore, since the main goal of this final rule is to allow large quantity generators of F006 to accumulate enough F006 to facilitate the most economically efficient off-site shipment, the Agency has modified the rule to allow 20,000 kilograms of F006 to be accumulated on-site within the 180-day (or 270-day, as applicable) accumulation period in order to accomplish the maximum recycling benefit under this final rule.

Once a generator has accumulated 20,000 kilograms of F006 waste (regardless of whether the waste has been accumulated for less than 180 days, or 270 days if applicable), the generator is required to ship the F006 waste off-site for metals recovery, conduct metals recovery on-site, obtain an exception to the quantity limit under 40 CFR 262.34(i), or obtain a RCRA permit.

[4] U.S. EPA, Office of Regulatory Enforcement (DPRA, SAIC), Estimating Costs for the Economic Benefits of RCRA Noncompliance, September 1997, p. 5–3.

The Agency also requested comments on whether the accumulation limit should apply to the total quantity of F006 waste accumulated on-site or to the quantity of each separate mono-metal F006 waste stream (or other F006 waste streams segregated on the basis of metal content) that must be sent off-site to different metals recovery facilities. This request was based on the idea that a F006 generator could make F006 waste more amenable for metals recovery by generating mono-metal sludges.

EPA received several comments concerning the accumulation of mono-metal F006 sludges. Some commenters opposed expanding the proposal in this way, citing, among other things, concerns with increased risk and enforcement challenges. EPA also received comments requesting that the Agency apply the accumulation limit to each separate mono-metal F006 sludge generated at a site to facilitate metals recovery from each of these mono-metal sludges. The Agency encourages segregation of waste streams to make wastes more amenable to metals recovery, and does not believe that doing so would necessarily increase risks. However, at this time, the Agency does not have a standard for differentiating among the different types of F006 wastes, and none of the commenters suggested any such standard. Without further information, it would be extremely difficult to develop a standard that would be effective and implementable. For example, no definition exists for what constitutes a mono- or bi-metal sludge or how one F006 waste sludge differs compositionally from another F006 waste sludge (*i.e.*, what levels of other metals would be acceptable). Lacking such definitions or standards, it would not be possible at this time for the Agency to develop a regulatory provision allowing separate accumulation quantity limits for different F006 waste types. In addition, implementing and enforcing a separate accumulation limit for different types of F006 wastes would impose a significant burden on both generators and regulators with little or no corresponding benefit.

Finally, data from the *F006 Benchmark Study* shows, and other available information confirms, that very few metal finishers currently utilize separate wastewater treatment units to generate sludges that are compositionally different to improve recovery (*e.g.*, mono- or bi-metal sludges). Thus, at this time EPA believes that very few generators would benefit from separate limits for separate mono-metal sludges (or other sludges that differ from one another by composition). Past discussions with metal finishers in the CSI effort (as well as observations at metal finishing plants) corroborate this conclusion, indicating that most small metal finishing shops generally do not have the space or capital to install separate wastewater treatment units, filter presses or containers in which to manage mono-metal sludges.

Thus, although the Agency strongly encourages segregation of waste types to improve the recyclability of F006, for the reasons discussed above the quantity limit in the final rule applies to the total amount of F006 accumulated on-site at any one time, as was proposed.

V. Summary of Final Rule

A. Scope and Applicability

This final rule is limited to large quantity generators of F006 waste who accumulate F006 on-site for more than 90 days without a RCRA permit or interim status.

In 40 CFR 261.31, F006 waste is defined as:

> Wastewater treatment sludges generated from electroplating operations, except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc, and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.

In listing electroplating wastewater treatment sludges as hazardous waste, EPA identified several hazardous constituents, including cadmium, hexavalent chromium, nickel, and complexed cyanides that could pose a substantial hazard to human health and the environment if the sludge was mismanaged. The potential hazards associated with the constituents of concern in the sludge and the potential for improper management of the electroplating wastewater treatment sludges served as the basis for listing the sludge as hazardous waste F006. The listing status of the waste is not affected by this final rule.

The physical form of F006 waste can generally be described as a mixed metal hydroxide wastewater treatment precipitate which is 24 to 50 percent solids by weight. Other physical forms of this material can include spent ion exchange columns or iron precipitation solids. F006 sludges may contain metals with commercial value that can be recovered from the sludges. The metals recovered from these sludges are most often concentrates and intermediate materials that require further processing

before a commercially usable metal is produced. Often, the metals contained in these industrial sludges are recovered in the form of a metal oxide or salt (e.g., lead oxide, lead chloride, lead sulfate) through High Temperature Metals Recovery (HTMR) such as smelting operations.

Any large quantity generator (generators of 1,000 kilograms or more of hazardous waste per calendar month) who generates F006 may accumulate the F006 waste generated on-site for up to 180 days (or 270 days, under certain circumstances) without a RCRA permit or interim status, provided they meet the conditions of this final rule. Large quantity generators of F006 are only required to meet the conditions of today's rule if they accumulate F006 on-site, without a RCRA permit or interim status, for more than 90 days; however, the conditions of today's rule must be met for the entire accumulation period. In response to comments, EPA has modified the regulatory language to clarify that 40 CFR 262.34(g), (h), and (i) apply only to generators who accumulate F006 on-site for more than 90 days, but not more than 180 (or 270) days. Any large quantity generator who generates some quantity of F006 hazardous waste may accumulate the F006 waste under the terms of today's final rule. The 180-day (or 270-day, if applicable) accumulation time, however, is only applicable to the F006 waste destined for metals recovery. Other hazardous waste accumulated on-site (including any F006 which will not be recycled by metals recovery) must be accumulated in accordance with the existing provisions for large quantity generators (e.g. 262.34(a), or parts 264, 265, and 270).

Currently, large quantity generators are allowed only 90 days to accumulate hazardous wastes on-site without a RCRA permit, and there is no limit on the amount of hazardous waste that can be accumulated on-site within that 90-day time period. In order to accumulate hazardous waste on-site without a RCRA permit, these large quantity generators must also comply with a number of unit-specific standards (e.g., tank and container standards), and standards for marking and labeling, preparedness and prevention, contingency plan and emergency procedures, personnel training, and land disposal restrictions, in order to accumulate hazardous waste on-site without a RCRA permit. The Agency is not changing any of the existing regulations applicable to large quantity generators in today's final rule, except to allow 180 days (or 270 days, as applicable) for accumulation of F006 wastes with a corresponding limit of 20,000 kilograms on the amount of F006 waste that may be accumulated on-site at one time. Large quantity generators of F006 must still comply with the standards required for all large quantity generators to accumulate hazardous waste on-site without a permit: unit-specific standards (e.g., tank and container standards) for accumulation units; marking and labeling, preparedness and prevention, contingency plan and emergency procedures, personnel training, and land disposal restrictions. These conditions are explained in more detail below in Section V. E. of this preamble.

Today's final rule does not apply to small quantity generators of hazardous waste (between 100–1000 kg per calendar month) and we have added language to the rule to clarify this. Currently, small quantity generators are allowed 180 days to accumulate hazardous wastes on-site without a RCRA permit or interim status. However, the existing regulations do not allow small quantity generators to accumulate more than 6,000 kilograms of hazardous waste on-site at any one time without a RCRA storage permit. Small quantity generators accumulating hazardous waste without a RCRA permit must also comply with unit-specific and general facility standards that are similar to those for large quantity generators. Today's final rule does not change any of the provisions currently applicable to small quantity generators accumulating hazardous waste without a permit.

The Agency believes that there is no need to specifically allow small quantity generators to take advantage of the benefits of today's final rule. First, these generators are already allowed to accumulate their waste on-site for up to 180 days (or 270 days, if applicable); thus, the 180-day time limit of today's rule is unnecessary for them. Second, the Agency believes that any small quantity generators who generate hazardous waste at a rate which would cause them to exceed their existing 6,000 kilogram on-site accumulation limit will actually be large quantity generators, and therefore will be able to take advantage of the flexibility in this final rule for accumulating larger quantities of F006, as long as they meet the conditions of today's rule.

B. Special Conditions for 180-Day (or 270-Day) Accumulation Time

Today's rule includes several conditions that do not typically apply to the accumulation of hazardous waste by large quantity generators. These conditions are that the generator: (1) Has implemented pollution prevention practices that reduce the amount of any hazardous substances, pollutants or contaminants entering F006 or otherwise released to the environment prior to its recycling, (2) recycles the F006 waste by metals recovery, and (3) accumulates no more than 20,000 kilograms of F006 waste at any one time. EPA has included these conditions in the rule to ensure that the recycling objectives of this rule are met, and to ensure that the flexibility provided by today's rule is limited to that which is reasonably necessary to achieve those recycling objectives. Each of these conditions is discussed in further detail in Section IV above.

C. Additional Accumulation Time Under Certain Circumstances

1. Transport 200 Miles or More

Under today's final rule, large quantity generators of F006 waste have up to 270 days to accumulate F006 waste on-site without a RCRA permit or interim status if the generator must transport the waste, or offer the waste for transport, a distance of 200 miles or more for off-site metals recovery. The generator must still meet the other conditions of today's rule—i.e., implement pollution prevention practices that reduce the amount of any hazardous substances, pollutants or contaminants entering F006 or otherwise released to the environment prior to its recycling, recycle the F006 waste by metals recovery, not accumulate more than 20,000 kilograms of F006 waste at any one time, and comply with the applicable management standards in the proposed rule.

As with the other provisions of this final rule, this provision is intended to allow large quantity generators sufficient time to accumulate enough F006 waste to make recycling this waste by metals recovery more cost effective. Shipping F006 waste to a metals recovery facility that is located more than 200 miles away will cost more than shipping F006 waste to a local (i.e., less than 200 miles away) hazardous waste landfill. For those large quantity generators of F006 waste that do not accumulate enough F006 waste to fill a truck load (i.e., 20,000 kilograms of F006 waste) within 180 days and are located more than 200 miles from a metals recovery facility, treatment and disposal of the F006 waste in the local hazardous waste landfill may be a less expensive management option than metals recovery. For those large quantity generators of F006 waste that are located long distances from a metals recovery

facility, allowing up to 270 days for accumulation is reasonable to allow generators to accumulate more F006 waste to get closer to a full truckload for off-site shipment. The 270-day accumulation period will be particularly helpful for large quantity generators of relatively small amounts of F006 waste (i.e., those that do not accumulate more than 20,000 kilograms of F006 waste in 180 days and that must ship the F006 off-site more than 200 miles to a metals recovery facility) and may provide them with an incentive to send their F006 waste to a metals recovery facility rather than to a treatment and disposal facility.

2. Unforeseen, Temporary, and Uncontrollable Circumstances

Today's final rule also provides for an extension of the accumulation period if the generator's F006 waste must remain on-site for longer than 180 days (or 270 days, if applicable) due to unforeseen, temporary, and uncontrollable circumstances. Under these circumstances, the generator may request that the EPA Regional Administrator or authorized state grant an extension of up to 30 days. This provision is intended to provide the generator with some temporary relief until the unforeseen, temporary, and uncontrollable circumstances can be rectified. The Agency has previously identified the following circumstances as possible rationales for granting this extension: a facility's refusal to accept waste, transportation delays, or labor strikes (see 47 FR 1248, 1249, January 11, 1982). These extensions will be granted at the discretion of the EPA Regional Administrator or the authorized state on a case-by-case basis. This provision is the same as the provision for large quantity generators in the existing regulations at 40 CFR 262.34(b).

In addition to this extension to the time limit, exceptions to the quantity limit are also available at the EPA Regional Administrator's discretion. Because this final rule sets an accumulation limit of 20,000 kilograms of F006 waste that can be accumulated on-site at any one time, today's final rule also allows a large quantity generator to request permission to accumulate more than 20,000 kilograms of F006 waste if more than 20,000 kilograms must remain on-site due to unforeseen, temporary, and uncontrollable circumstances. The rationale for requiring additional time to accumulate F006 waste on-site due to unforeseen, temporary, and uncontrollable circumstances is equally applicable for accumulating more than 20,000 kilograms under the same kinds of circumstances.

In response to a comment, the regulatory text in this final rule has been modified from the proposal to clarify that, in addition to time limit extensions, accumulation limit exceptions are available.

D. Summary of Applicable Management Standards

Under today's final rule, the same standards applicable to 90-day on-site accumulation of hazardous waste under 40 CFR 262.34, other than the length of time that large quantity generators of F006 waste can accumulate the waste on-site without a RCRA permit,[5] apply to 180-day (or 270-day, as applicable) accumulation of F006 waste. These include technical standards for units used to accumulate hazardous wastes, recordkeeping standards to document the length of time hazardous wastes are accumulated on-site, preparedness and emergency response procedures, and personnel training. While EPA is not changing any of these existing standards in today's rulemaking, the Agency would like to note that in order to be in compliance with § 262.34(g)(4)(v) (which incorporates the existing general site operation provisions), generators accumulating F006 on-site under the terms of today's rule may need to consider whether their current general site operation procedures (*e.g.*, personnel training, contingency planning) should be modified in light of having more F006 on-site than they would under the 90-day limit. The existing management standards as they apply to large quantity generators of F006 waste under this final rule are summarized below. The Agency is not making any changes or amendments to these standards in today's final rule, other than clarifying that these standards apply to large quantity generators of F006 accumulating the waste up to 180 days (or 270 days where applicable) without a RCRA permit.

1. Accumulation Units

A large quantity generator of F006 waste may only accumulate the F006 waste on-site for up to 180 days (or 270 days, if applicable) in tanks, containers, or containment buildings which comply with the unit-specific technical standards of 40 CFR part 265 for containers (subpart I), tanks (subpart J), and containment buildings (subpart DD). In addition, generators accumulating F006 in containers or tanks must also comply with the air emission standards of 40 CFR part 265, subparts AA, BB, and CC.

The unit-specific standards in 40 CFR part 265 include provisions for the design, installation and general condition of each unit. The requirements governing each type of unit include standards for ensuring the compatibility of the waste and the unit and special requirements for ignitable, reactive or incompatible wastes. In addition, there are provisions for performing inspections to monitor for leaks and deterioration of the unit and for proper response to and containment of releases. For example, the container standards specify that a container holding hazardous waste must always be closed except when adding or removing waste and also that the container must not be handled in a manner which may cause it to rupture or leak. As with 90-day accumulation, large quantity generators of F006 waste that comply with the applicable regulatory provisions may treat the waste in the accumulation unit without a RCRA permit during the 180-day (or 270-day, if applicable) accumulation period (see 51 FR 10168, March 24, 1986).

2. Measures to Ensure Wastes Are Not Accumulated for More Than 180 Days (or 270 Days)

Large quantity generators of F006 waste operating under the terms of today's rule must also comply with provisions which indicate that the length of time the wastes remain on-site in certain accumulation units must not exceed 180 days (or 270 days if applicable) from the date the waste is generated. For those accumulating F006 in containers, the date upon which each period of accumulation begins must be clearly marked and visible for inspection on each container. Those who choose to accumulate F006 in containment buildings must, among other things, develop a written description of the procedures to ensure that each waste volume remains in the unit for no more than 180 days (or 270 days, as applicable). Today's final rule does not impose documentation standards for generators of F006 waste in addition to those already required for large quantity generators accumulating F006 waste up to 90 days under the existing regulations (see 40 CFR 262.34(a)(2)).

EPA recognizes that there may be circumstances under which a generator may discover that he will not be able to recycle F006 waste that he has accumulated on-site for more than 90 days in anticipation of recycling. The

[5] Today's final rule will not affect any RCRA Subtitle C requirements for generators of F006 waste, other than the changes to 40 CFR 262.34 specified in this final rule.

generator may then be forced to send this material for disposal. In those instances EPA encourages self-disclosure of this violation to the appropriate regulatory agency under the terms of either the Policy on Compliance Incentives for Small Businesses (June 10, 1996) or Incentives for Self-Policing: Discovery, Disclosure, Correction and Prevention of Violations (the "audit policy," December 22, 1995). Many states have adopted similar policies for self-disclosed violations. The generator should be prepared to demonstrate that the F006 waste was accumulated for more than 90 days based on a good faith belief that he would be able to send it to a recycling facility.

3. Labeling and Marking Accumulation Units

Large quantity generators of F006 waste operating under the terms of today's rule are required to clearly label or mark each tank or container used to accumulate hazardous waste with the words "Hazardous Waste."

4. Preparedness and Prevention (40 CFR Part 265, Subpart C)

Under today's final rule, large quantity generators of F006 waste who accumulate F006 waste on-site under the terms of today's rule for up to 180 days (or 270 days, as applicable) must comply with subpart C of part 265 which contains standards for facility preparedness and prevention. These generator facilities must be maintained and operated in a manner that minimizes the possibility of fire, explosion, or any unplanned release of hazardous waste or hazardous waste constituents to the environment. The standards specify that generator facilities must generally be equipped with emergency devices, such as an internal communications or alarm system, a telephone or other device capable of summoning emergency assistance, and appropriate fire control equipment, unless none of the wastes handled at the generation site requires a particular kind of equipment. Equipment must be tested and maintained, as necessary, to assure its proper functioning. All persons involved in hazardous waste handling operations must have immediate access to either an internal or external alarm or communications equipment, unless such a device is not required.

Additionally, large quantity generators are also required to maintain sufficient aisle space to allow for the unobstructed movement of personnel and equipment to any area of the facility operations in an emergency, unless aisle space is not needed for any of these purposes. Large quantity generators also must attempt to make arrangements with police, fire departments, state emergency response teams, and hospitals, as appropriate, to familiarize these officials with the layout of the generator's site and the properties of each type of waste handled at the site in preparation for the potential need for the services of these organizations. If state or local authorities decline to enter into such arrangements, the owner or operator must document the refusal.

5. Contingency Plan and Emergency Procedures (40 CFR Part 265, Subpart D)

Large quantity generators of F006 waste who accumulate that waste on-site for up to 180 days (or 270 days, as applicable) under the terms of today's final rule must comply with the contingency plan and emergency procedures provisions of 40 CFR part 265, subpart D. A large quantity generator's contingency plan must include, where necessary, a description of the generator's planned response to emergencies at the facility, any arrangements with local and state agencies to provide emergency response support, a list of the generator's emergency response coordinators, a list of the generator's emergency equipment, and an evacuation plan. Requirements for distributing and amending the contingency plan are specified. In addition, a facility emergency coordinator must be either present, or on call, whenever the facility is in operation.

Provisions for emergency procedures specified in subpart D of part 265 include immediate notification of employees and local, state, and Federal authorities of any imminent or actual emergencies; measures to preclude the spread of fires and explosions to other wastes; proper management of residues; rehabilitation of emergency equipment and notification of authorities before operations are resumed; and recordkeeping and reporting to EPA on the nature and consequences of any incident that requires implementing the contingency plan.

6. Personnel Training (40 CFR 265.16)

As finalized in today's rule, large quantity generators of F006 waste who accumulate that waste on-site for up to 180 days (or 270 days, as applicable) under the terms of today's rule are subject to the provisions for personnel training in 40 CFR 265.16. These requirements are designed to ensure that personnel are adequately prepared to manage hazardous waste and respond to any emergencies that are likely to arise. Personnel training can be in the form of on-the-job or classroom training, but must be performed by an instructor who is trained in hazardous waste management procedures. Personnel training must be performed within six months of initial employment and must be renewed annually. The generator's owner or operator also must maintain records in accordance with 40 CFR 265.16(d) to document completion of the training requirements for employees.

7. Waste Analysis and Record Keeping (40 CFR 268.7(a)(5))

Under today's final rule, large quantity generators of F006 wastes who accumulate F006 waste on-site for up to 180 days (or 270 days, as applicable) under the terms of today's rule and who treat their wastes in accumulation tanks, containers, or containment buildings located at the generator's site to meet the applicable land disposal treatment standards under 40 CFR part 268, subpart D, must prepare and follow a written waste analysis plan. The waste analysis plan must describe the procedures the generator will use to comply with the treatment standards for the waste. The waste analysis plan must be based upon a chemical and physical analysis of a representative sample of the generator's waste stream. Hazardous waste generators are required to submit a copy of their waste analysis plans for hazardous wastes treated in 180-day (or 270-day, as applicable) accumulation units to either the authorized state or EPA Regional office prior to conducting treatment. Generators also are required to retain a copy of the waste analysis plan in the generator's files.

VI. State Authority

A. Applicability of Rules in Authorized States

Under section 3006 of RCRA, EPA may authorize qualified states to administer and enforce the RCRA hazardous waste program within the state. (See 40 CFR part 271 for the standards and requirements for authorization). Following authorization, EPA maintains enforcement authority under sections 3008, 7003, and 3013 of RCRA, although authorized states have primary enforcement responsibility.

Prior to the Hazardous and Solid Waste Amendments (HSWA) of 1984, a state with final 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 facility in the state that the state was

authorized to permit. When new, more stringent federal requirements were promulgated or enacted, authorized states had to enact equivalent authority within specified time frames, but new federal requirements did not take effect in an authorized state until the state adopted the requirements as state law.

In contrast, under section 3006(g) of RCRA, 42 U.S.C. 6926(g), new requirements and prohibitions imposed under the HSWA take effect in authorized states at the same time that they take effect in non-authorized states. EPA is directed to implement HSWA requirements and prohibitions in an authorized state, 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, HSWA applies in authorized states until the states revise their programs and receive authorization for the new provision.

B. Effect on State Authorization

Today's final rule will promulgate regulations that are not effective under HSWA in authorized states. This rule will, therefore, be applicable only in those states that do not have final authorization.

Authorized states are only required to modify their programs when EPA promulgates federal regulations that are more stringent or broader in scope than the authorized state regulations. For those changes that are less stringent than the federal programs, states are not required to modify their programs. This is a result of section 3009 of RCRA, which allows states to impose more stringent regulations than the federal program. Today's final rule for additional accumulation time for large quantity generators of F006 waste is considered less stringent than the existing federal regulations because it allows more than the existing 90 days of accumulation time that is in the existing regulations. Authorized states are not, therefore, required to modify their programs to adopt regulations consistent with, and equivalent to, today's final rule.

Even though states are not required to adopt the additional accumulation time for large quantity generators of F006 waste in this final rule, EPA strongly encourages states to do so as quickly as possible. As discussed above, this final rule is intended to encourage and facilitate recycling of F006 waste. In addition, states participated as stakeholders in the CSI process and presently participate in the NACEPT Committee on Sectors, and EPA is encouraging all states to participate in the metal finishing sector projects and Strategic Goals implementation programs. States are, therefore, urged to adopt today's final rule, and EPA is committed to making efforts to expedite review of authorized state program revision applications that incorporate this final rule.

VII. Effective Date

This final rule is effective immediately. Section 3010(b)(1) of RCRA allows EPA to promulgate an immediately effective rule where the Administrator finds that the regulated community does not need additional time to come into compliance with the rule. Similarly, the Administrative Procedures Act (APA) provides for an immediate effective date for rules that relieve a restriction (see 5 U.S.C. 553(d)(1)).

This rule does not impose any requirements on the regulated community; rather, the rule provides flexibility in the regulations with which the regulated community is required to comply. The Agency finds that the regulated community does not need six months to come into compliance.

VIII. Technical Correction

The Agency is correcting a reference to section 268 that appears in § 262.34(a)(4). § 262.34(a) identifies the conditions under which a generator may accumulate hazardous waste on-site for 90 days without a permit and refers to the Land Disposal Restriction Testing, Tracking and Recordkeeping Requirements for generators in § 268.7(a). The LDR Phase IV Rule, finalized on May 12, 1997 (62 FR 26091), changed the numbering of § 268.7(a) so that what used to be § 268.7(a)(4) became § 268.7(a)(5). However, the corresponding reference to this section in 262.34(a)(4) was not changed. Therefore the Agency is making this correction today. A similar correction in the accumulation time regulations for Small Quantity Generators (generators of over 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month) in § 262.34(d)(4) was finalized on May 11, 1999 (64 FR 25414). In the proposed rule, § 262.34(g)(v) included this same incorrect reference. In the final rule this has been changed to refer to § 268.7(a)(5) instead.

IX. Regulatory Analyses

A. Executive Order 12866: Determination of Significance

Under Executive Order 12866, (58 FR 51,735, October 4, 1993) the Agency must determine whether a regulatory action is "significant" and therefore subject to Office of Management and Budget 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."

The Agency estimated the costs of today's final rule to determine if it is a significant regulation as defined by the Executive Order. The analysis considered compliance costs and economic impacts for F006 wastes affected by this rule. EPA estimates the total cost of the rule to be a savings in the range of $4.2 million to $5.3 million annually, and concludes that this rule is not economically significant according to the definition in E.O. 12866. Moreover, the Agency believes that this rule is not significant because it does not create serious inconsistency with actions taken or planned by another agency, or materially alter budgetary impact or rights and obligations of recipients. The Office of Management and Budget, however, has deemed this rule to be significant for novel policy reasons and has reviewed this rule.

Detailed discussions of the methodology used for estimating the costs, the economic impacts, and the benefits attributable to today's proposed rule for on-site accumulation of F006 wastes, followed by a presentation of the cost, economic impact, and benefit results, may be found in the background document: "Regulatory Impact Analysis of the Proposed Rule for a 180-Day Accumulation Time for F006 Wastewater Treatment Sludges," which is placed in the docket for today's final rule. A summary of this methodology and the results follows.

1. Methodology of Regulatory Impact Analysis

The Agency examined reported values for F006 waste generation from the 1995 Biennial Reporting Systems (BRS) database to estimate the volumes of F006 waste affected by today's rule, to

determine the national level incremental costs (for both the baseline and post-regulatory scenarios), economic impacts (including first-order measures such as the estimated percentage of compliance cost to industry or firm revenues), and benefits.

EPA evaluated two options in completing the economic analysis for this rule. The first option (hereafter Option 1) evaluated a maximum accumulation of 17.7 tons (16,000 kg) of material in a 180-day time period (or 270 days if the modeled shipment exceed 200 miles). The second option (hereafter Option 2) evaluated a maximum accumulation of 22 tons (20,000 kg) in a 180-day time period (or 270 days if the modeled shipment exceeded 200 miles). The second option was added based on information (presented by commenters and confirmed by the Agency) that a 20 to 22 ton load more accurately represented a full truck load.

2. Results

a. Volume Results

The BRS database reports that in 1995 there were 1,483 metal finishing firms potentially affected by today's rule. The data report that these firms generated 35,976 tons of F006 waste annually that are eligible to benefit from today's proposed rule. EPA is aware that this estimate on the number of firms that could benefit from today's proposal probably underestimates the total number of firms affected by today's rulemaking. Information available from other sources indicates that there are more than 11,000 metal finishing establishments in the United States. For example, one source estimates that there are 8,000 "captive" shops (where the metal finishing operation is contained inside a larger manufacturing operation) and 3,000 "job shops" or "independent" metal finishing operations (usually small businesses that operate on a contract basis). In contrast, the most recent BRS data only account for about three thousand of this total. Thus, it is likely that cost savings and benefits associated with this rulemaking are greater than estimated below.

b. Cost Results

For today's final rule, EPA has estimated a cost savings associated with a 180-day accumulation time (or 270 days where transport distance exceeds 200 miles) for large quantity generators of F006 waste. The total annual incremental savings is estimated to be between $3.9 million and $5.0 million for Option 1 and $4.2 million and $5.3 million for Option 2.[6] These savings may result from reducing the total number of shipments of F006 waste off-site for recycling. Savings also may result from a lower cost per ton of transportation because generators are able to accumulate more F006 waste for a shipment off-site and the cost per unit of F006 waste transportation (for the fixed cost portion of the transportation) is less for a full truck as compared to a partial truck load. In addition, literature reviewed in the development of this rulemaking indicates that recyclers sometimes assess a surcharge for small volumes of material due to increased handling and administrative costs.[7] It is possible that a 180-day (or 270-day, if applicable) accumulation time will allow some F006 waste generators to reduce this surcharge.

3. Economic Impact Results

To estimate potential economic impacts resulting from today's proposed rule, EPA has used first order economic impacts measures such as the estimated cost savings of today's proposed rule as a percentage of sales/revenues. EPA has applied this measure to affected F006 waste generators. For affected F006 waste generators, EPA has estimated the cost savings to be less than one percent of a typical metal finisher's sales or revenues. More detailed information on this estimate can be found in the regulatory impact analysis placed into today's docket.

a. Benefits Assessment

The Agency has performed a qualitative benefits assessment for today's final rule. EPA believes that a relatively small, but significant percentage of total F006 waste generated would be diverted from land disposal to off-site recycling. This shift from land disposal to recycling should result in a conservation of natural resources associated with primary mineral extraction, including reduced water and energy inputs as well as reduced solid waste outputs (*e.g.*, slag, tailings, and overburden). Other benefits expected from today's proposed rule include conservation of hazardous waste landfill capacity, reduced balance of payments for nonferrous mineral commodities, and conservation of strategic metals.[8]

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

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

For purposes of assessing the impacts of today's rule on small entities, small entity is defined as: (1) A small business that has fewer than 1000, 750, or 500 employees per firm depending upon the SIC code the firm is primarily classified in;[9] (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; or (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of today's final rule on small entities, we have determined that this action will not have a significant economic impact on a substantial number of small entities.

In determining whether a rule has a significant economic impact on a substantial number of small entities, the

[6] This range of estimated savings results from uncertainty surrounding a number of other factors that affect a generator's ability and interest in sending F006 to either recycling or landfilling. These factors include: (1) The metal value of sludge, (2) the proximity to the nearest landfill, (3) the presence of tramp constituents in the sludge, (4) real or perceived risk of Superfund liability, (5) the ability of several generators to accumulate a full truck load in less than 90 days, and other factors. For more information, see Section 2.3 of the Regulatory Impact Analysis for this final rule.

[7] George C. Cushnie Jr., National Center for Manufacturing Sciences & National Association of Metal Finishers, Pollution Prevention and Control Technology for Plating Operations (Ann Arbor, MI: National Center for Manufacturing Sciences, 1994), p.312.

[8] For more information on balance of trade for nonferrous minerals and conservation of strategic metals, see U.S. Environmental Protection Agency, Report to Congress on Metal Recovery, Environmental Regulation and Hazardous Wastes (Washington D.C., U.S.EPA, 1994), Chapter 7.

[9] F006 is generated by manufacturing firms across a number of SIC codes including 3471, Electroplating, Plating, Polishing, Anodizing and Coloring; 3672, Printed Circuit Boards and other manufacturing SICs. The Small Business Administration has classified firms in the manufacturing sector (SIC Codes 20–39) as small businesses within the sector based on the number of employees per firm. The classification system uses either 500, 750 or 1000 employees depending upon which SIC code. See Small Business Size Standards, 61 FR 3280, 3289 (January 31, 1996). Thus, to determine if a generator of F006 is a small business, the primary SIC code of the firm would have to be determined. Most independent electroplaters or "job shops" are in the 3471 SIC code which has a size standard of 500 employees. Captive platers (those plating operations within a larger manufacturing operation) will have size standards of either 500, 750 or 1000 employees.

impact of concern is any significant *adverse* economic impact on small entities, since the primary purpose of the regulatory flexibility analyses is to identify and address regulatory alternatives "which minimize any significant economic impact of the proposed rule on small entities" (5 U.S.C. 603 and 604). Thus, an agency may certify that a rule will not have a significant economic impact on a substantial number of small entities if the rule relieves regulatory burden, or otherwise has a positive economic effect on all of the small entities subject to the rule. Data indicate that virtually all independent electroplaters or job shops are small entities.[10] Captive shops contain both large and small entities. Data on captive plating operations is, however, more limited. The regulatory impact analysis completed for this final rule indicated that of 3,296 job shops, all but 2 are small entities. BRS data indicates that a total of 1,934 plating facilities, including both captive and independent operations, generate F006 waste and 1,483 of these firms are potentially affected by today's rule. Although the BRS data does not indicate what proportion of these affected generators are small entities, it is likely that the majority of these affected generators are small entities, because the plating firms most likely to be affected by this final rule generate the smallest quantities of F006 (which is related to both facility size and product output). This final rule would not have a significant economic impact on a substantial number of small entities because today's final rule would relieve regulatory burden for metal finishers and captive operations by allowing them up to 180 days (or 270 days under certain circumstances) instead of 90 days to accumulate F006 wastes on-site. The Agency estimates that this final rule would lead to an overall cost savings in the range of $4.2 to $5.3 million annually. The rule does not impose new burdens on small entities. We have therefore concluded that today's final rule will relieve regulatory burden for all small entities.

C. Paperwork Reduction Act

The Office of Management and Budget (OMB) has approved the information collection requirements contained in this final rule under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*) and has assigned OMB control number 2050–0035. An Information Collection Request (ICR) document was prepared by EPA (ICR Control Number 0820.07) and a copy may be obtained from Sandy Farmer by mail at OP Regulatory Information Division; U.S. Environmental Protection Agency (2137); Ariel Rios Building; 1200 Pennsylvania Avenue, NW; Washington, DC 20460, by e-mail at farmer.sandy@epamail.epa.gov, or by calling (202) 260–2740. A copy may also be downloaded off the internet at http://www.epa.gov/icr.

EPA believes the changes in this final rule do not constitute a substantive or material modification to the information collection requirements. This final rule will not change any of the information collection requirements that are currently applicable to large quantity generators of F006 waste that accumulate the waste on-site. The recordkeeping and reporting requirements of this final rule are identical to the requirements already promulgated and covered under the existing Information Collection Request (ICR). There is no net increase in recordkeeping and reporting requirements. As a result, the reporting, notification, or recordkeeping (information) provisions of this rule will not need to be submitted for approval to the Office of Management and Budget (OMB) under section 3504(b) of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*).

The Agency estimates total projected burden hours associated with the information collection requirements of this final rule to be approximately 13.19 hours per year for each generator. This is the same burden associated with the information collection requirements for large quantity generators who currently accumulate waste on-site for less than 90 days under the existing regulations. These information collection requirements include: (1) Pre-transport informational requirements specific to large quantity generators (e.g., personnel training, contingency planning and emergency procedures, tank systems, containment buildings, and requests for extension of accumulation period); (2) air emission standards for process vents; (3) air emission standards for equipment leaks; and (4) recordkeeping and reporting. 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; to 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; to adjust the existing ways to comply with any previously applicable instructions and requirements; to train personnel to be able to respond to a collection of information; to search data sources; to complete and review the collection of information; and to transmit or otherwise disclose the information.

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

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, EPA generally must prepare a written statement, 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. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA 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. Moreover, section 205 allows EPA 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 EPA 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 of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

Today's rule contains no Federal mandates (under the regulatory

[10] See U.S.E.P.A. Office of Solid Waste and Emergency Response, Regulatory Impact Analysis of 180-day Accumulation Time for F006 Wastewater Treatment Sludges, September 30, 1999, p. 13.

provisions of Title II of the UMRA) for State, local, or tribal governments or the private sector. The rule would not impose any federal intergovernmental mandate because it imposes no enforceable duty upon State, tribal or local governments. States, tribes and local governments would have no compliance costs under this rule. It is expected that states will adopt similar rules, and submit those rules for inclusion in their authorized RCRA programs, but they have no legally enforceable duty to do so. Thus, today's rule is not subject to the requirements of Sections 202 and 205 of the UMRA. For the same reasons, EPA also has determined that this rule contains no regulatory requirements that might 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." The term "policies that have federalism implications" is defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government." Under Section 6 of Executive Order 13132, EPA may not issue a regulation that has federalism implications, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by State and local governments, or EPA consults with State and local officials early in the process of developing the proposed regulation. EPA also may not issue a regulation that has federalism implications and that preempts State law unless the Agency consults with State and local officials early in the process of developing the proposed regulation.

This final rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. This rule imposes no intergovernmental obligations on States. As discussed in Section VI (State Authority), today's rule is less stringent than the existing federal RCRA program; therefore, authorized states are not required to modify their programs to adopt regulations consistent with, and equivalent to, today's final rule. States that do not have a final authorized RCRA program also have no regulatory obligations as a result of today's rule because EPA will be responsible for implementing this rule in non-authorized states. Thus, the requirements of section 6 of the Executive Order do not apply to this rule.

Although section 6 of Executive Order 13132 does not apply to this rule, EPA did consult with State and local officials in developing this rule. The CSI metal finishing subcommittee included members representing state and local governments. Please refer to Section II.B. of this preamble for further information on the role of the CSI metal finishing subcommittee in developing this rule.

F. Executive Order 13084: Consultation and Coordination With Indian Tribal Governments

Under Executive Order 13084, EPA may not issue a regulation that is not required by statute, that significantly or uniquely affects the communities of Indian tribal governments, and that imposes substantial direct compliance costs on those communities, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by the tribal governments, or EPA consults with those governments. If EPA complies by consulting, Executive Order 13084 requires EPA to provide to the Office of Management and Budget, in a separately identified section of the preamble to the rule, a description of the extent of EPA's prior consultation with representatives of affected tribal governments, a summary of the nature of their concerns, and a statement supporting the need to issue the regulation. In addition, Executive Order 13084 requires EPA to develop an effective process permitting elected officials and other representatives of Indian tribal governments "to provide meaningful and timely input in the development of regulatory policies on matters that significantly or uniquely affect their communities."

This final rule does not create a mandate for tribal governments, nor does it impose any enforceable duties on these entities. Accordingly, the requirements of section 3(b) of Executive Order 13084 do not apply to this rule.

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

Executive Order 13045, entitled "Protection of Children from Environmental Health Risks and Safety Risks" (62 FR 19885, April 23, 1997), applies to any rule that (1) is "economically significant" as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that an agency has reason to believe may disproportionately affect children. If the regulatory action meets both criteria, the Agency must evaluate the environmental health or safety effects of the planned rule on children and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency. This final rule is not subject to Executive Order 13045, because this is not an economically significant regulatory action as defined by Executive Order 12866 and the Agency does not have reason to believe the environmental health risks or safety risks addressed by this action present a disproportionate risk to children.

Because this rulemaking retains current waste management standards for large quantity generators accumulating hazardous wastes on-site without a permit (40 CFR 262.34), EPA believes that the new 180-day (or 270-day, where applicable) accumulation period will not result in increased exposures to children. These provisions are discussed in detail in Section V.E. of this rule. EPA believes that these provisions are protective of human health and the environment and minimize the likelihood of exposure to hazardous waste held in these units.

H. National Technology Transfer and Advancement Act of 1995

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA), Public Law 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 rulemaking does not involve

technical standards. EPA has not, therefore, used any voluntary consensus standards.

I. Executive Order 12898: Environmental Justice

EPA is committed to addressing environmental justice concerns and is assuming a leadership role in environmental justice initiatives to enhance environmental quality for all populations in the United States. The Agency's goals are to ensure that no segment of the population, regardless of race, color, national origin, or income bears disproportionately high and adverse human health or environmental impacts as a result of EPA's policies, programs, and activities, and that all people live in safe and healthful environments. In response to Executive Order 12898 and to concerns voiced by many groups outside the Agency, EPA's Office of Solid Waste and Emergency Response formed an Environmental Justice Task Force to analyze the array of environmental justice issues specific to waste programs and to develop an overall strategy to identify and address these issues (OSWER Directive No. 9200.3–17).

Today's final rule covers F006 wastes from metal finishing operations. It is not certain whether the environmental problems addressed by this rule could disproportionately affect minority or low-income communities, due to the location of some metal finishing operations. Metal finishing operations are distributed throughout the country and many are located within highly populated areas. Because today's final rule retains provisions for large quantity generators of F006 waste to accumulate F006 waste in protective Subpart J tanks, Subpart I containers or Subpart DD container buildings, the Agency does not believe that today's rule will increase risks from F006 waste. These provisions are discussed in further detail in Section V.E. of this rule. It is, therefore, not expected to have any disproportionately high adverse human health or environmental effects on minority or low-income communities relative to affluent or non-minority communities.

J. Submission to Congress and General Accounting Office

The Congressional Review Act (5 U.S.C. 801(a)(1)(A)) 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 report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the General Accounting Office prior to the publication of this rule in this **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This rule is not a "major rule" as defined by 5 U.S.C. 804(2). This rule will be effective on March 8, 2000.

List of Subjects in 40 CFR Part 262

Environmental protection, Hazardous materials transportation, Hazardous waste, Labeling, Packaging and containers, Reporting and recordkeeping requirements.

Dated: March 1, 2000.

Carol M. Browner,

Administrator.

For the reasons set forth in the preamble, EPA is amending 40 CFR part 262 as follows:

PART 262—STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE

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

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

2. Section 262.34 is amended by revising paragraph (a)(4) and adding new paragraphs (g), (h), and (i) to read as follows:

§ 262.34 Accumulation time.

* * * * *

(a) * * *

(4) The generator complies with the requirements for owners or operators in Subparts C and D in 40 CFR part 265, with § 265.16, and with 40 CFR 268.7(a)(5).

* * * * *

(g) A generator who generates 1,000 kilograms or greater of hazardous waste per calendar month who also generates wastewater treatment sludges from electroplating operations that meet the listing description for the RCRA hazardous waste code F006, may accumulate F006 waste on-site for more than 90 days, but not more than 180 days without a permit or without having interim status provided that:

(1) The generator has implemented pollution prevention practices that reduce the amount of any hazardous substances, pollutants or contaminants entering F006 or otherwise released to the environment prior to its recycling;

(2) The F006 waste is legitimately recycled through metals recovery;

(3) No more than 20,000 kilograms of F006 waste is accumulated on-site at any one time; and

(4) The F006 waste is managed in accordance with the following:

(i) The F006 waste is placed:

(A) In containers and the generator complies with the applicable requirements of subparts I, AA, BB, and CC of 40 CFR part 265; and/or

(B) In tanks and the generator complies with the applicable requirements of subparts J, AA, BB, and CC of 40 CFR part 265, except §§ 265.197(c) and 265.200; and/or

(C) In containment buildings and the generator complies with subpart DD of 40 CFR part 265, and has placed its professional engineer certification that the building complies with the design standards specified in 40 CFR 265.1101 in the facility's operating record prior to operation of the unit. The owner or operator must maintain the following records at the facility:

(*1*) A written description of procedures to ensure that the F006 waste remains in the unit for no more than 180 days, a written description of the waste generation and management practices for the facility showing that they are consistent with the 180-day limit, and documentation that the generator is complying with the procedures; or

(*2*) *Documentation that the unit is emptied at least once every 180 days.*

(ii) In addition, such a generator is exempt from all the requirements in subparts G and H of 40 CFR part 265, except for §§ 265.111 and 265.114.

(iii) The date upon which each period of accumulation begins is clearly marked and visible for inspection on each container;

(iv) While being accumulated on-site, each container and tank is labeled or marked clearly with the words, "Hazardous Waste;" and

(v) The generator complies with the requirements for owners or operators in subparts C and D in 40 CFR part 265, with 40 CFR 265.16, and with 40 CFR 268.7(a)(5).

(h) A generator who generates 1,000 kilograms or greater of hazardous waste per calendar month who also generates wastewater treatment sludges from electroplating operations that meet the listing description for the RCRA hazardous waste code F006, and who must transport this waste, or offer this waste for transportation, over a distance of 200 miles or more for off-site metals recovery, may accumulate F006 waste on-site for more than 90 days, but not more than 270 days without a permit or without having interim status if the generator complies with the

requirements of paragraphs (g)(1) through (g)(4) of this section.

(i) A generator accumulating F006 in accordance with paragraphs (g) and (h) of this section who accumulates F006 waste on-site for more than 180 days (or for 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), or who accumulates more than 20,000 kilograms of F006 waste on-site is an operator of a storage facility and is subject to the requirements of 40 CFR parts 264 and 265 and the permit requirements of 40 CFR part 270 unless the generator has been granted an extension to the 180-day (or 270-day if applicable) period or an exception to the 20,000 kilogram accumulation limit. Such extensions and exceptions may be granted by EPA if F006 waste must remain on-site for longer than 180 days (or 270 days if applicable) or if more than 20,000 kilograms of F006 waste must remain on-site due to unforeseen, temporary, and uncontrollable circumstances. An extension of up to 30 days or an exception to the accumulation limit may be granted at the discretion of the Regional Administrator on a case-by-case basis.

[FR Doc. 00–5503 Filed 3–7–00; 8:45 am]

BILLING CODE 6560–50–P