

*Executive Order 13771: Reducing Regulations and Controlling Regulatory Costs*

This action is an Executive Order 13771 (82 FR 9339, January 30, 2017) regulatory action because this action is not significant under Executive Order 12866.

*Paperwork Reduction Act*

This action does not impose an information collection burden under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*).

*Regulatory Flexibility Act*

This action merely approves state law as meeting Federal requirements and imposes no additional requirements beyond those imposed by state law. Accordingly, the Administrator certifies that this state operating permit program will not have a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*).

*Unfunded Mandates Reform Act*

Because this action approves pre-existing requirements under state law and does not impose any additional enforceable duty beyond that required by state law, it does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4).

*Executive Order 13132: Federalism*

This action also does not have Federalism implications because it does 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 (64 FR 43255, August 10, 1999). This action merely approves a state operating permit program, and does not alter the relationship or the distribution of power and responsibilities established in the Act.

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

In addition, the state operating permit program is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the state operating permit program does not have tribal implications and will not impose substantial direct costs on tribal governments or preempt tribal law as

specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

*Executive Order 13045: Protection of Children from Environmental Health and Safety Risks*

This action also is not subject to Executive Order 13045 “Protection of Children from Environmental Health Risks and Safety Risks” (62 FR 19885, April 23, 1997), because it proposes to approve a state operating permit program.

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

Because it is not a “significant regulatory action” under Executive Order 12866 or a “significant energy action,” this action is also not subject to Executive Order 13211, “Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use” (66 FR 28355, May 22, 2001).

*National Technology Transfer Advancement Act*

In reviewing state submissions, EPA’s role is to approve state choices, provided that they meet the criteria of the Act. In this context, in the absence of a prior existing requirement for the state to use voluntary consensus standards (VCS), EPA has no authority to disapprove a state submission for failure to use VCS. It would thus be inconsistent with applicable law for EPA, when it reviews a state submission, to use VCS in place of a state submission that otherwise satisfies the provisions of the Act. Thus, the requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) do not apply.

*Executive Order 12898: Federal Actions to Address Environmental*

*Justice in Minority Populations and Low-Income Populations*

Executive Order 12898 (59 FR 7629 (Feb. 16, 1994)) establishes Federal executive policy on environmental justice. Its main provision directs Federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the United States.

EPA lacks the discretionary authority to address environmental justice in this action. In reviewing state operating

permit program submissions, EPA’s role is to approve or disapprove state choices, based on the criteria of the Act. Accordingly, this action merely approves certain state requirements and will not in-and-of itself create any new requirements. Accordingly, it does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898.

**List of Subjects in 40 CFR Part 70**

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

Dated: November 19, 2019.

**Cathy Stepp,**

*Regional Administrator, Region 5.*

40 CFR part 70 is amended as follows:

**PART 70—STATE OPERATING PERMIT PROGRAMS**

■ 1. The authority citation for part 70 continues to read as follows:

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

■ 2. Amend appendix A to part 70 by adding paragraph (d) under Wisconsin to read as follows:

**Appendix A to Part 70—Approval Status of State and Local Operating Permits Programs**

\* \* \* \* \*

*Wisconsin*

\* \* \* \* \*

(d) Department of Natural Resources: Title V operating permit program revisions and updates received on March 8, 2017. Wisconsin’s Title V program is hereby updated to include these requested changes.

\* \* \* \* \*

[FR Doc. 2019–26296 Filed 12–6–19; 8:45 am]

**BILLING CODE 6560–50–P**

**ENVIRONMENTAL PROTECTION AGENCY**

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

**[EPA–HQ–OLEM–2017–0463; FRL–10002–49–OLEM]**

**RIN 2050–AG92**

**Increasing Recycling: Adding Aerosol Cans to the Universal Waste Regulations**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Final rule.

**SUMMARY:** The Environmental Protection Agency (EPA or the Agency) is adding hazardous waste aerosol cans to the universal waste program under the Federal Resource Conservation and Recovery Act (RCRA) regulations. This change will benefit the wide variety of establishments generating and managing hazardous waste aerosol cans, including the retail sector, by providing a clear, protective system for managing discarded aerosol cans. The streamlined universal waste regulations are expected to ease regulatory burdens on retail stores and others that discard hazardous waste aerosol cans; promote the collection and recycling of these cans; and encourage the development of municipal and commercial programs to reduce the quantity of these wastes going to municipal solid waste landfills or combustors.

**DATES:** This final rule is effective on February 7, 2020.

**ADDRESSES:** The EPA has established a docket for this action under Docket ID No. EPA-HQ-RCRA-2017-0463. All documents in the docket are listed on

the <http://www.regulations.gov> website. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the internet and will be publicly available only in hard copy form. Publicly available docket materials are available electronically through <http://www.regulations.gov>.

**FOR FURTHER INFORMATION CONTACT:** Laura Stanley, Office of Land and Emergency Management (5304P), Environmental Protection Agency, 1200 Pennsylvania Avenue NW, Washington, DC 20460; telephone number: 703-308-7285; email address: [stanley.laura@epa.gov](mailto:stanley.laura@epa.gov), or Tracy Atagi, Office of Land and Emergency Management (5304P), Environmental Protection Agency, 1200 Pennsylvania Avenue NW, Washington, DC 20460; telephone number: 703-308-8672; email address: [atagi.tracy@epa.gov](mailto:atagi.tracy@epa.gov).

**SUPPLEMENTARY INFORMATION:**

**I. General Information**

*A. Does this action apply to me?*

This final rule will affect persons who generate, transport, treat, recycle, or dispose of hazardous waste aerosol cans, herein referred to as aerosol cans, unless those persons are households or very small quantity generators (VSQGs). Entities potentially affected by this action include over 25,000 industrial facilities in 20 different industries (at the 2-digit North American Industry Classification System (NAICS) code level). An estimated 7,483 of these facilities are large quantity generators (LQG). Most of these industries have relatively few entities that are potentially affected. The two top economic sectors (at the 2-digit NAICS code level) with the largest percentage of potentially affected entities are the retail trade industry (NAICS code 44-45), representing 69% of the affected LQG universe, and manufacturing (NAICS code 31-33), representing 17% of the affected LQG universe. Potentially affected categories and entities include, but are not necessarily limited to:

2 Digit NAICS code	Primary NAICS description	Total affected large quantity generators	Generated tons
44-45	Retail Trade	5,194	303
31-33	Manufacturing	1,238	7,771
48-49	Transportation and Warehousing	168	1,033
62	Health Care and Social Assistance	184	13
81	Other Services (except Public Administration)	169	4
92	Public Administration	113	190
61	Educational Services	116	32
54	Professional, Scientific, and Technical Services	89	16
42	Wholesale Trade	75	511
22	Utilities	40	14
56	Administrative and Support and Waste Management and Remediation Services	51	1,906
	All Other NAICS Codes	46	49
<b>Total</b>		<b>7,483</b>	<b>11,843</b>

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. Other entities not listed in the table could also be regulated. To determine whether your entity is regulated by this action, you should carefully examine the applicability criteria found in section V of this action. If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the **FOR FURTHER INFORMATION CONTACT** section.

*B. What action is the agency taking?*

The Environmental Protection Agency (EPA) is adding hazardous waste aerosol cans to the list of universal wastes regulated under the RCRA regulations.

This revision will benefit the wide variety of establishments generating and managing aerosol cans, including the retail sector, by providing a clear, practical system for handling discarded aerosol cans.

*C. What is the agency's authority for taking this action?*

These regulations are promulgated under the authority of sections 2002(a), 3001, 3002, 3004, and 3006 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA), and as amended by the Hazardous and Solid Waste Amendments (HSWA), 42 U.S.C. 6922, 6923, 6924, 6925, 6930, and 6937.

*D. What are the incremental costs and benefits of this action?*

This final action is estimated to result in an annual cost savings of \$5.3 million to \$47.8 million. Information on the estimated economic impacts of this action is presented in section VIII of this document, as well as in the Regulatory Impact Analysis (RIA) available in the docket for this final action. In addition to cost savings, EPA's analysis shows qualitative benefits to adding aerosol cans to the universal waste program, including improved implementation of and compliance with the hazardous waste program and increased recovery and recycling of aerosol cans.

**II. List of Acronyms**

CFR Code of Federal Regulations

DOT Department of Transportation  
 EPA Environmental Protection Agency  
 E.O. Executive Order  
 FR Federal Register  
 LQG Large Quantity Generator  
 LQHUUW Large Quantity Handler of  
 Universal Waste  
 NAICS North American Industry  
 Classification System  
 NODA Notice of Data Availability  
 OMB Office of Management and Budget  
 RCRA Resource Conservation and Recovery  
 Act  
 SQG Small Quantity Generator  
 SQHUW Small Quantity Handler of  
 Universal Waste  
 TSDF Treatment, Storage and Disposal  
 Facility  
 VSQG Very Small Quantity Generator

### III. Background

#### A. Summary of Proposal

On March 16, 2018, EPA published the proposal to add aerosol cans to the Federal universal waste program (83 FR 11654). EPA's proposal recognized that inclusion of this common waste stream as universal waste could better ensure that aerosol cans are managed appropriately at the end of their lives, remove these wastes from the municipal waste stream, potentially encourage recycling, and reduce unnecessary burden for generators.

In its proposal, EPA analyzed the factors for inclusion of a waste stream in the universal waste program and took public comment on its conclusions. In addition, EPA defined what materials would qualify as aerosol cans for the purposes of management as universal waste. EPA proposed management standards for handlers of these materials and took public comment on the proposed standards.

In addition to the universal waste management standards that apply to all universal waste handlers, such as labeling and marking, accumulation time limits, employee training, responses to releases, export requirements, and, for large quantity handlers of universal waste, notification and tracking, EPA proposed specific standards that relate to the puncturing and draining of aerosol cans.

EPA proposed that puncturing and draining of aerosol cans be conducted by a commercial device specifically designed to safely puncture aerosol cans and effectively contain the residual contents as well as any emissions from the puncturing and draining activities. In addition, EPA proposed that handlers establish written procedures for safely puncturing and draining universal waste aerosol cans and ensure that employees operating the device be trained in the proper procedures. EPA proposed that puncturing of aerosol

cans be done in a manner designed to prevent fires and releases and that any residuals from puncturing cans be transferred to a tank or container, at which point the handler must make a hazardous waste determination on the residuals, as required in 40 CFR 262.11. The proposal also included that written procedures be in place in the event of a spill or release, that a spill clean-up kit be provided, and that any spills or leaks be cleaned up promptly.

In addition to these proposed standards, EPA analyzed the existing state universal waste programs that include aerosol cans and requested comment on including further limitations on puncturing and draining of cans that might contain materials that pose an incompatibility hazard with other materials or establishing further limits on which types of handlers are allowed to puncture and drain aerosol cans within the universal waste program.

EPA has analyzed all the comments received in response to its proposed rule and responds to those comments in this final rule or in the Response to Comment document available in the docket for this rulemaking.

#### B. Description of Aerosol Cans

Aerosol cans are widely used for dispensing a broad range of products including paints, solvents, pesticides, food and personal care products, and many others. The Household and Commercial Products Association estimates that 3.75 billion aerosol cans were filled in the United States in 2016 for use by commercial and industrial facilities as well as by households.<sup>1</sup>

A typical aerosol can consists of several components, including (but not limited to) the following: (1) The can or container storing both propellant and the product; (2) an actuator or button at the top of the can that is pressed to deliver the product; (3) a valve, which controls delivery or flow of the product; (4) the propellant (a compressed gas or liquefied gas), which provides the pressure in the container to expel or release the product when the actuator is pressed to open the valve; (5) the product itself; and (6) a dip tube, which is connected to the valve to bring the product up through the can to be released when the actuator is pressed.<sup>2</sup>

<sup>1</sup> Household and Commercial Products Association, *Aerosol Products Survey Shows Strong, Stable Industry*, May 2017. <https://www.thehcpa.org/aerosol-products-survey-shows-strong-stable-industry/> retrieved October 21, 2019.

<sup>2</sup> National Aerosol Association, *History of the Aerosol*, <http://www.nationalaerosol.com/history-of-the-aerosol/>, retrieved December 11, 2017.

The can itself is typically a small steel or aluminum container, designed to be hand-held, which is sealed with its contents under pressure. The can's design is intended to prevent unwanted releases of the contents to the environment under normal handling and storage conditions. However, when aerosol cans are mismanaged, particularly when exposed to excessive heat, the resulting increase in internal pressure can reach a point beyond the design strength of the can, thereby causing it to burst and release its contents. At the point of bursting, the contents of the can have been heated to a temperature and pressure far above ambient environmental conditions, causing the contents to rapidly vaporize and be forcefully released. If the propellant or product is ignitable, the contents of the can may readily catch fire as they are released and exposed to atmospheric oxygen, creating a rapidly burning vapor "fireball." In addition, the bottom of the can may detach as a result of a manufacturing defect or an external force, potentially causing the upper part of the can to become a projectile.

Aerosol cans frequently contain flammable propellants such as propane or butane which can cause the aerosol can to demonstrate the hazardous characteristic for ignitability (40 CFR 261.21).<sup>3</sup> In addition, the aerosol can may also be a hazardous waste for other reasons when discarded. More specifically, an aerosol can may contain materials that exhibit hazardous characteristics per 40 CFR part 261, subpart C. Similarly, a discarded aerosol can may also be a P- or U-listed hazardous waste if it contains a commercial chemical product found at 40 CFR 261.33(e) or (f).

#### C. Current Federal Regulation of Aerosol Cans

##### 1. Regulation of Aerosol Cans Under RCRA

Any person who generates a solid waste, as defined in 40 CFR 261.2, must determine whether the solid waste qualifies as hazardous waste. The waste may be hazardous either because it is listed as a hazardous waste in subpart D of 40 CFR part 261 or because it exhibits one or more of the characteristics of hazardous waste, as provided in subpart C of 40 CFR part 261. As discussed above, aerosol cans are frequently hazardous due to the ignitability characteristic and in some cases may also contain listed waste or

<sup>3</sup> University of Vermont, *Paint and Aerosol Safety*, <http://www.uvm.edu/safety/art/paint-aerosol-safety>, retrieved December 11, 2017.

exhibit other hazardous waste characteristics.<sup>4</sup>

Until this rulemaking goes into effect, many, but not all, generators of aerosol cans identified or listed as a hazardous waste have been subject to the full RCRA Subtitle C hazardous waste management requirements, including all applicable requirements of 40 CFR parts 260 through 268. Depending on their activities, some generators have only to meet the requirements of part 262, including on-site management, pre-transport, and manifesting. Under 40 CFR 262.14, VSQGs, defined as facilities that generate less than or equal to 100 kilograms of hazardous waste in a calendar month, are not subject to the RCRA Subtitle C hazardous waste management standards, provided they send their waste to a municipal solid waste landfill or non-municipal nonhazardous waste facility approved by the state for the management of VSQG wastes and meet other conditions. In addition, households that generate waste aerosol cans are exempt from the Federal hazardous waste management requirements under the household hazardous waste exemption in 40 CFR 261.4(b)(1).<sup>5</sup>

Facilities that treat, store, and/or dispose of hazardous waste aerosol cans are subject to the requirements of 40 CFR part 264 (for permitted facilities) or the requirements of 40 CFR part 265 (for interim status facilities). However, when hazardous waste aerosol cans are recycled, the recycling process itself is not subject to regulation, except as indicated in 40 CFR 261.6(d). EPA has interpreted the current hazardous waste regulations to mean that puncturing and draining an aerosol can, if performed for the purpose of recycling (e.g., for scrap metal recycling), is considered part of the recycling process and is exempt from RCRA permitting requirements under 40 CFR 261.6(c).<sup>6</sup> However, until this rulemaking goes into effect, facilities receiving hazardous waste aerosol cans from off site would require a RCRA permit for storage prior to the recycling activity and the recycling process would be subject to subparts AA

and BB of 40 CFR part 264 or 265, or subject to part 267.

## 2. Regulation Under the Federal Insecticide, Fungicide, and Rodenticide Act

Hazardous waste aerosol cans that contain pesticides are also subject to the requirements of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), including compliance with the instructions on the label. In general, the statement on aerosol pesticide product FIFRA labels prohibits the puncturing of the cans. However, in April 2004, EPA issued a determination that puncturing aerosol pesticide containers in the process of recycling aerosol cans is consistent with the purposes of FIFRA. The purpose of the label prohibiting puncturing of pesticide-containing aerosol cans is to protect the ordinary users of pesticides from the hazards of pressurized containers. The hazards associated with recycling aerosol pesticide containers are adequately, and more appropriately, addressed under Federal, state and local laws concerning solid and hazardous wastes and occupational safety and health. Such puncturing is therefore lawful pursuant to FIFRA section 2(ee)(6) provided that the following conditions are met:

- The puncturing of the container is performed by a person who, as a general part of his or her profession, performs recycling and/or disposal activities;
- The puncturing is conducted using a device specifically designed to safely puncture aerosol cans and effectively contain the residual contents and any emissions thereof; and
- The puncturing, waste collection, and disposal, are conducted in compliance with all applicable Federal, state, and local waste (solid and hazardous waste) and occupational safety and health laws and regulations.<sup>7</sup>

## D. Retail Strategy and Aerosol Cans

The retail sector as a whole handles a very large number of diverse products, which change over time and may, in many instances, become regulated as hazardous waste under RCRA when discarded. As a result, retailers are required to make hazardous waste determinations for a variety of products being discarded at stores located across the country.

In 2014, EPA published a Notice of Data Availability (NODA) for the Retail

Sector as part of the Agency's continuing efforts to better understand concerns from all stakeholders regarding RCRA's applicability to the retail sector, as well as to obtain information and feedback on issues affecting the retail sector (79 FR 8926, February 14, 2014). In the NODA, EPA requested comment on a series of topics related to retail operations, waste management practices, and management of materials that may become hazardous waste when discarded. This specifically included requests for information regarding aerosol cans (e.g., quantity generated, classification, and management options, including handling them as universal waste), since aerosol cans comprise a large percentage of the retail sector's hazardous waste stream. Approximately 35% of NODA commenters specifically suggested that discarded aerosol cans be managed as universal waste.

In response to comments on the Retail Sector NODA, the Agency published the *Strategy for Addressing the Retail Sector under RCRA's Regulatory Framework*, which lays out a cohesive plan to address the unique challenges faced by the retail sector in complying with RCRA regulations while reducing burden and protecting human health and the environment.<sup>8</sup> One of the action items under the Retail Strategy is to explore adding hazardous waste aerosol cans to the Universal Waste Rule. This final rule, which adds aerosol cans to the Federal universal waste program, completes EPA's commitment in the Retail Strategy to explore this option. Further, with this action, EPA has completed all commitments made in the Retail Strategy.

## E. Universal Waste Rule

In 1995, EPA promulgated the Universal Waste Rule (60 FR 25492, May 11, 1995) to establish a streamlined hazardous waste management system for widely generated hazardous wastes as a way to encourage environmentally sound collection and proper management of the wastes within the system. Hazardous waste batteries, certain hazardous waste pesticides, mercury-containing equipment, and hazardous waste lamps are already included on the Federal list of universal wastes. The universal waste regulations in 40 CFR part 273 are a set of alternative hazardous waste management standards that operate in lieu of regulation under 40 CFR parts

<sup>4</sup> Aerosol cans that have not been discarded are not solid or hazardous wastes.

<sup>5</sup> Under 40 CFR 261.4(b)(1), "household waste" means any material (including garbage, trash and sanitary wastes in septic tanks) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds and day-use recreation areas).

<sup>6</sup> EPA first explained this interpretation in 1993. See U.S. EPA 1993 *Regulatory Status of Used Residential And Commercial/Industrial Aerosol Cans*, Memo from Jeff Denit, Acting Director, Office of Solid Waste to John DiFazio, Chemical Specialties Manufacturers Association, October 7, 1993. RO# 11780.

<sup>7</sup> 2004 U.S. EPA *Puncturing of Aerosol Pesticide Products Under FIFRA for the Purpose of Recycling*, Letter from Lois Rossi and William Diamond, Office of Pollution Prevention and Toxic Substances, U.S. EPA, to John A. Wildie, Randolph Air Force Base, April 30, 2004, Docket ID# EPA-HQ-OLEM-2017-0463-0007.

<sup>8</sup> EPA 2016. *Strategy for Addressing the Retail Sector under RCRA's Regulatory Framework*. September 12, 2016. <https://www.epa.gov/hwgenerators/strategy-addressing-retail-sector-under-resource-conservation-and-recovery-acts>, retrieved on January 24, 2018.

260 through 272 for specified hazardous wastes.

Handlers and transporters who generate or manage items designated as a universal waste are subject to the management standards under 40 CFR part 273, rather than the full RCRA Subtitle C regulations. Handlers include both facilities that generate universal waste and facilities that receive universal waste from other universal waste handlers, accumulate the universal waste, and then send the universal waste to another handler, a destination facility, or a foreign destination. Handlers do not include facilities that treat, dispose of, or recycle universal waste except as provided in the universal waste regulations. 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 limit applies to the quantity of all universal wastes accumulated. The streamlined standards include requirements for storage, labeling and marking, preparing the waste for shipment off site, employee training, response to releases, and, in the case of large quantity handlers, notification and tracking of universal waste shipments. Transporters of universal waste are also subject to less stringent requirements than the full Subtitle C hazardous waste transportation regulations.

Under the Universal Waste Rule, destination facilities are those facilities that treat, store, dispose, or recycle universal wastes. Universal waste destination facilities are subject to all currently applicable requirements for hazardous waste treatment, storage, and disposal facilities (TSDFs) and must receive a RCRA permit for such activities. Destination facilities that recycle universal waste and that do not store that universal waste prior to recycling in accordance with 40 CFR 261.6(c)(2) may be exempt from permitting under the Federal regulations (see 40 CFR 273.60(b)). Finally, states implementing the universal waste program are authorized to add wastes that are not Federal universal wastes to their lists of universal wastes. Therefore, in some states, aerosol cans are already regulated as a universal waste.

#### *F. State Universal Waste Programs That Include Aerosol Cans*

Five states—California, Colorado, New Mexico, Ohio, and Utah—already have universal waste aerosol can

programs in place, and Minnesota plans to propose to add aerosol cans to their universal waste regulations in 2019.<sup>9</sup> The universal waste programs in all these states include streamlined management standards similar to 40 CFR part 273 for small and large quantity handlers of universal waste and a one-year accumulation time limit for the aerosol cans. In addition, the five current state universal waste programs set standards for puncturing and draining of aerosol cans by universal waste handlers.

The aerosol can universal waste programs in California, Colorado, New Mexico, Ohio, and Utah allow for puncturing and draining of aerosol cans by universal waste handlers, as long as specific management standards and waste characterization requirements are met. In addition, California does not allow off-site commercial processors<sup>10</sup> to puncture and drain aerosol cans without a permit and requires those handlers that do puncture and drain cans to submit a notification. Guidance in effect in Minnesota at the time of publication of this final rule also allows handlers to puncture and drain their aerosol cans.

#### **IV. Rationale for Including Aerosol Cans in the Universal Waste Rule**

##### *A. Factors for Inclusion in the Universal Waste Rule*

EPA is adding aerosol cans to the list of universal wastes because this waste meets the factors found at 40 CFR 273.81 that describe hazardous waste appropriate for management under the streamlined universal waste system. Adding aerosol cans to the Universal Waste Rule simplifies handling and disposal of the wastes for generators, while ensuring that universal waste aerosol cans are sent to the appropriate destination facilities, where they will be managed as a hazardous waste with all applicable Subtitle C requirements to ensure protection of human health and the environment. Management as universal waste under the final requirements is also expected to facilitate environmentally sound

recycling of the metal used to make the cans.

The universal waste regulations include eight factors to consider in evaluating whether a waste is appropriate for including in the regulations as a universal waste. These factors, codified at 40 CFR 273.81, are to be used to determine whether regulating a particular hazardous waste under the streamlined standards would improve overall management of the waste, and, therefore, whether the waste is a good candidate to be a universal waste. 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 the weight of evidence should result in a conclusion that regulating a particular hazardous waste under 40 CFR part 273 will improve waste management.

EPA has examined information on aerosol cans, including information submitted in the public comments on the proposed rule and the public comments on the 2014 Retail NODA using the criteria in 40 CFR 273.81.<sup>11</sup> In light of its evaluation of this information, the Agency has determined that on balance, hazardous waste aerosol cans meet the factors in 40 CFR 273.81 warranting inclusion on the Federal list of universal wastes for management under part 273. EPA received numerous comments on the proposed rule agreeing that aerosol cans are appropriate for inclusion in the Universal Waste Rule. EPA believes that adding aerosol cans to the list of universal wastes will make collection and transportation of this waste to an appropriate facility easier, and therefore will help facilitate recycling and reduce the amount of aerosol cans disposed of in municipal landfills. A summary of how the criteria in 40 CFR 273.81 apply to aerosol cans is described below.

##### **1. The Waste, as Generated by a Wide Variety of Generators, Should Be a Listed or Characteristic Hazardous Waste (40 CFR 273.81)(a)**

As discussed in section III, aerosol cans frequently demonstrate the hazardous characteristic for ignitability (40 CFR 261.21) due to the nature of the propellant used. In addition, the contents (propellant or product) may also exhibit another hazardous characteristic per 40 CFR part 261, subpart C, and may also be a P- or U-

<sup>9</sup> See supporting document number 0004 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463). See also Minnesota Pollution Control Agency 2016, *Public Rulemaking Docket*, <https://www.pca.state.mn.us/sites/default/files/mm-rule1-00.pdf>, retrieved August 21, 2019.

<sup>10</sup> According to California’s guidance for their regulations, a “commercial processor” is any person that processes aerosol cans in exchange for compensation. Some examples include individuals from another generator’s site, registered hazardous waste transporters, operators of hazardous waste treatment, storage and/or disposal facilities, and operators of transportable treatment units.

<sup>11</sup> Public comments on the 2014 Retail NODA can be found in docket number EPA-HQ-RCRA-2012-0426.

listed hazardous waste found at 40 CFR 261.33(e) or (f).

2. 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 (40 CFR 273.81(b))

EPA has documented in the RIA for this final rule that large and small quantity generators managing hazardous waste aerosol cans can be found in 20 different industries (at the 2-digit NAICS code level). Thus, aerosol cans are commonly generated by a wide variety of types of establishments, including retail and commercial businesses, office complexes, very small quantity generators, small businesses, government organizations, as well as large industrial facilities.

3. The Waste Should Be Generated by a Large Number of Generators and Frequently Generated in Relatively Small Quantities (40 CFR 273.81(c))

As documented in the RIA, more than 25,000 large and small quantity generators manage hazardous waste aerosol cans. Quantities generated vary depending on the type of generator and the situations associated with generation. For example, a retail store may determine that large quantities of aerosol cans that can no longer be sold or donated must be discarded as hazardous waste. On the other hand, entities that use aerosol cans in their day-to-day operations may generate small quantities of partially-used hazardous waste aerosol cans on a sporadic basis. Data from the RIA demonstrate that in 2017, LQGs generated an average of 1.6 tons per year each (approximately 3,600 cans).

4. Systems to Be Used for Collecting the Waste (Including Packaging, Marking, and Labeling Practices) Would Ensure Close Stewardship of the Waste (40 CFR 273.81(d))

The baseline universal waste requirements of notification, labeling, training, and response to releases found in 40 CFR part 273, subparts B and C, and the final specific requirements for management of aerosol cans in 40 CFR 273.13 and 40 CFR 273.33, discussed in section V, are designed to ensure close stewardship of the hazardous waste aerosol cans.

5. 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 (40 CFR 273.81(e))

Aerosol cans are designed to contain the products they hold during periods of storage and transportation as they move from the manufacturer to the retailer, and ultimately to the final customer. Because of their design, hazardous waste aerosol cans present a relatively low risk compared to other types of hazardous waste that are not contained as-generated under normal management conditions and the risk posed by intact waste aerosol cans during storage and transport is similar to the risk posed by intact product aerosol cans. Retail and other entities that generate waste aerosol cans are accustomed to safely handling aerosol can products. In addition, the ignitability risk posed during accumulation and transport is addressed by standards set by local fire codes, the Office of Safety and Health Administration, and the Department of Transportation (DOT).<sup>12</sup> These standards include requirements for outer packaging, can design, and general pressure conditions.

Finally, the Agency has determined that the requirements of the universal waste program are effective in mitigating risks posed by hazardous waste aerosol cans. Specifically, the requirements for handlers to accumulate aerosol cans in a container that is structurally sound and compatible with the contents of the aerosol cans will ensure safe management and transport. In addition, the universal waste program requires proper training for employees when handling universal waste, responding to releases, and shipment in accordance with DOT regulations. These requirements will make the risks posed during accumulation and transport low. Additionally, the final specific requirements for management of aerosol cans that are punctured and drained at the handler, described in section V, address the ignitability risk and are designed to help prevent releases. Thus, the specific aerosol can universal waste management standards address the risks posed by hazardous waste aerosol cans.

<sup>12</sup> For example, DOT—49 CFR 173.306 for Shipping of Limited Quantities, Aerosol Cans and 49 CFR 173.115 for Flammable Gas, OSHA—29 CFR 1910.106(d)(6), Flammable Liquids, 2015 NFPA—Chapter 30, Flammable and Combustible Liquids Code, and Chapter 30B, Code for the Manufacture and Storage of Aerosol Products.

6. Regulation of the Waste Under 40 CFR Part 273 Will Increase the Likelihood That the Waste Will Be Diverted From Non-Hazardous Waste Management Systems (e.g., the Municipal Solid Waste Stream) to Recycling, Treatment, or Disposal in Compliance With Subtitle C of RCRA (40 CFR 273.81(f))

Managing hazardous waste aerosol cans under the universal waste program is expected to increase the number of these items collected and to increase the number of aerosol cans being diverted from the non-hazardous waste stream into the hazardous waste stream because it would allow generators, especially those that generate this waste sporadically, to send it to a central consolidation point. Under the Universal Waste Rule, a handler of universal waste can send the universal waste to another handler, where it can be consolidated into a larger shipment for transport to a destination facility. Therefore, under the final rule it will be more economical to send hazardous waste aerosol cans for recycling for recovery of metal values. The final rule will advance the RCRA goal of increased resource conservation and increase proper disposal of hazardous waste, making it less likely that aerosol cans will be sent for improper disposal in municipal landfills or municipal incinerators. In addition, because the streamlined structure of the universal waste regulations makes aerosol can collection programs more economical, hazardous waste aerosol cans that might otherwise be sent to a municipal landfill under a VSQG or household hazardous waste exemption will be more easily collected and consolidated for hazardous waste disposal. This waste will be diverted from the municipal solid waste stream to universal waste management.

7. Regulation of the Waste Under 40 CFR Part 273 Will Improve the Implementation of and Compliance With the Hazardous Waste Regulatory Program (40 CFR 273.81(g))

The structure and requirements of the Universal Waste Rule are well suited to the circumstances of handlers of hazardous waste aerosol cans and their inclusion in the universal waste program will improve compliance with the hazardous waste regulations. In particular, handlers of hazardous waste aerosol cans who are infrequent generators of hazardous waste and who might otherwise be unfamiliar with the more complex Subtitle C management structure, but who generate hazardous waste aerosol cans, will be able to more

easily send this waste for proper management. Therefore, adding aerosol cans to the list of universal wastes would offer a protective hazardous waste management system that is likely to be more accessible, particularly for the retail sector, which can face unique compliance challenges as compared to manufacturing and other “traditional” RCRA-regulated sectors.<sup>13</sup>

#### 8. Additional Factor (40 CFR 273.81(h)): States’ Experience Under Existing State Universal Waste Programs Indicates That Regulation Under 40 CFR Part 273 Will Improve Management of Aerosol Cans

The factors included in 40 CFR 273.81 are designed to determine whether regulating a particular hazardous waste under the streamlined standards for universal waste would improve the overall management of the waste; 40 CFR 273.81(h) includes other factors as may be appropriate. Under 40 CFR 273.81(h), EPA considered states’ experience of already managing aerosol cans under state universal waste programs. As discussed in section III, five states have added aerosol cans to their universal waste programs, and those states’ experiences with management of aerosol cans under their respective universal waste programs provides a useful source of information to inform EPA’s judgment on whether to add aerosol cans to the national universal waste program.

Information supplied to EPA from officials in those five states indicates that their programs improve the implementation of the hazardous waste program. Specifically, waste management officials from the four states whose programs were operating at the time of the proposed rule have represented to EPA that these programs have been operating well and achieving their objective of facilitating safe management of hazardous waste aerosol cans.<sup>14</sup> In particular, State officials from both California and Colorado stated to EPA that their respective aerosol can universal waste programs have been in effect since 2002 and they have not identified any problems with enforcing compliance with the standards. Accordingly, this information weighs in favor of concluding that management of aerosol cans under the Federal universal

waste regulations is likely to be successful.

#### B. Expected Changes in Management of Aerosol Cans

EPA expects that under this final rule, the number of aerosol cans that are diverted from municipal solid waste landfills and incinerators to recycling or disposal in Subtitle C facilities will increase. Small and large quantity generators are already required to manage their hazardous waste aerosol cans under RCRA Subtitle C. Following implementation of this rule, some of these generators will likely begin managing their aerosol cans as a universal waste, either to save money or to improve implementation of their existing waste management program. One of the streamlined provisions of the Universal Waste Rule allows consolidation of aerosol cans at central locations, which makes it easier for smaller generators to arrange for hazardous waste recycling or disposal of these materials when they are generated. Because the streamlined structure of the universal waste standards makes aerosol can collection programs more economical, hazardous waste aerosol cans that might otherwise be sent to a municipal landfill under a VSQG or household hazardous waste exemption would be more easily collected and consolidated for hazardous waste disposal by those who are interested in managing it this way. EPA intends to encourage individual households and VSQGs to participate in such programs.

In summary, EPA believes that management of hazardous waste aerosol cans will best be implemented through a universal waste approach where handlers are operating within a simple, streamlined management system. The universal waste program addresses the environmental concerns surrounding the management of such wastes, while at the same time putting into place a structure that will allow for and encourage increased collection of aerosol cans for recycling.

### V. Discussion of Final Rule

#### A. Waste Covered by Final Rule

##### 1. Definition of Aerosol Can

##### a. Discussion of Proposed Rule

EPA proposed that an “aerosol can” be defined as an “intact container in which gas under pressure is used to aerate and dispense any material through a valve in the form of a spray or foam.” This definition is the same as the definition of aerosol can in the California, Colorado, New Mexico and Utah universal waste programs, with the

exception of a twenty-four ounce size limit in Utah’s definition of aerosol can. EPA proposed to adopt this definition of aerosol can to be consistent with the existing state programs.

This proposed definition was intended be limited to sealed containers whose intended use is to dispense a material by means of a propellant or compressed gas. Aerosol cans are designed to contain those materials until they are intended for release and to present minimal risk during normal storage and transport. Other types of containers, including compressed gas canisters and propane cylinders, present a greater risk than aerosol cans and would not be included. EPA also requested comment on limiting the definition of aerosol cans to those under twenty-four ounces, consistent with Utah’s aerosol can universal waste program.

##### b. Summary of Comments

Several commenters recommended that EPA model the definition of aerosol can after language used in the DOT regulations in 49 CFR 171.8 and U.N. Model Regulations. An aerosol is defined in 49 CFR 171.8 as an article consisting of any non-refillable receptacle containing a gas compressed, liquefied, or dissolved under pressure, the sole purpose of which is to expel a liquid, paste, or powder and fitted with a self-closing release device allowing the contents to be ejected by the gas. Commenters noted that, in addition to harmonizing the RCRA regulations with DOT requirements, this language would be more inclusive, making it clear that aerosol cans containing products that are not dispensed as a spray or foam, such as aerosol cans that dispense product in the form of paste or powder, may be managed as universal waste. In addition, this definition would address the risk of gas cylinders if managed as universal waste, since those cylinders would not be considered “non-refillable receptacles” with a “self-closing release device” and therefore not eligible to be managed as universal waste under the alternative wording.

Most commenters supported EPA’s proposal to exclude compressed gas cylinders from the definition of universal waste aerosol can, noting that such devices pose a higher risk than aerosol cans pose. Two industry commenters requested that compressed gas cylinders be included as universal waste, with one commenter asserting that “as long as facilities have procedures in place to safely

<sup>13</sup> EPA 2016. *Strategy for Addressing the Retail Sector under RCRA’s Regulatory Framework*. September 12, 2016. <https://www.epa.gov/hwgenerators/strategy-addressing-retail-sector-under-resource-conservation-and-recovery-acts>, retrieved on January 24, 2018.

<sup>14</sup> See supporting document number 0004 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

depressurize these devices, potential risks can be mitigated.”<sup>15</sup>

Finally, most commenters (including industry, most states, and local government) supported EPA’s proposal to not set a specific size limit on aerosol cans. One state association and a few individual states did support limiting the size of aerosol cans to twenty-four ounces.

### c. Final Rule Provisions

EPA is finalizing a definition of “aerosol can” that is consistent with language in the DOT regulations.<sup>16</sup> In the final rule, aerosol can is defined as a non-refillable receptacle containing a gas compressed, liquefied or dissolved under pressure, the sole purpose of which is to expel a liquid, paste, or powder and fitted with a self-closing release device allowing the contents to be ejected by the gas. Using language from the DOT regulation will help ensure consistency across Federal regulatory programs, avoid unnecessarily narrowing the scope of the rule to aerosol cans that aerate their product, and will not inadvertently include compressed gas cylinders in the definition of aerosol can. Because compressed gas cylinders, unlike aerosol cans, require special procedures to safely depressurize, it would not be appropriate to include them in the final rule. Finally, because the DOT language is more inclusive than the proposed language, it better matches the intent of the proposal to apply to all types of aerosol cans, including cans that dispense product in the form of paste or powder, and would not require states that have already added aerosol cans to their universal waste program to change their regulations.

## 2. Applicability

### a. Discussion of Proposed Rule

The proposed rule excluded from the universal waste requirements those cans that are not yet a waste under 40 CFR part 261 and those cans that are not hazardous waste. In addition, at proposed 40 CFR 273.6(b)(1)–(3), the proposal specifically excluded aerosol cans that have been emptied of their contents (both propellant and product). Aerosol cans that fall under these categories would not be subject to hazardous waste requirements or universal waste requirements.

Finally, the proposed rule also proposed to exclude aerosol cans that show evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions. This proposed rule language would mean that hazardous waste aerosol cans that are not intact would continue to be subject to the full hazardous waste standards.

### b. Summary of Comments

Several commenters requested that EPA allow leaking and damaged aerosol cans to be managed as universal waste. Commenters point out that the rules for other types of universal wastes (lamps, pesticides, batteries, mercury-containing equipment) allow damaged or leaking items to be managed as universal waste as long as they are in an appropriate container (e.g., overpacked with absorbents). Commenters were concerned that determining whether an aerosol can shows “evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions” is a subjective standard that would be confusing to implement. Commenters noted that Colorado allows damaged aerosol cans to be managed as universal waste as long as they are managed in a separate individual container and that Ohio allows damaged aerosol cans to be managed as universal waste as long as they are overpacked with absorbents or immediately punctured to remove the contents of the can.

### c. Final Rule Provisions

EPA is finalizing as proposed the language in 40 CFR 273.6(b)(1)–(3). These provisions designate aerosol cans that are not subject to hazardous waste requirements because they are either not solid waste, not hazardous waste, or they met the definition of empty container in 40 CFR 261.7.

However, EPA is not finalizing the proposed language in 40 CFR 273.6(b)(4), which would have barred leaking or damaged aerosol cans from being managed as universal waste, instead leaving such cans subject to 40 CFR part 262 hazardous waste requirements. Rather, EPA is requiring that universal waste aerosol cans that show evidence of leakage must be packaged in a separate closed container or overpacked with absorbents, or immediately punctured and drained in accordance with the aerosol can universal waste requirements. (See 40 CFR 273.13(e)(2) and 40 CFR 273.33(e)(2)).

EPA agrees with those commenters who indicated that such an approach is more consistent with how other

universal wastes are regulated and how the states that currently regulate aerosol cans as universal waste operate their programs. In addition, setting specific protective management standards for leaking aerosol cans under the universal waste regulations would ensure the risk from these cans is addressed and that they are ultimately sent to appropriate destination facilities per 40 CFR 273.18 and 40 CFR 273.38 instead of potentially being diverted to municipal waste streams as VSQG waste per the requirements in 40 CFR 262.14. Such an approach is also consistent with DOT requirement that aerosols that are damaged, defective, or leaking to the point where they do not meet applicable design standards be transported in special aerosol salvage drums. See 49 CFR 173.306(k)(2).

## 3. Comments and Responses Related to “Emptied” Aerosol Cans

### a. Comment: Empty Aerosol Cans Should be Allowed To Be Managed as Universal Waste

*Summary of Comments.* Several commenters requested that EPA clarify that handlers should be able to continue to manage their punctured and drained aerosol cans as a universal waste and send them to another handler or destination facility. The proposed § 273.6(b)(3) designated aerosol cans that meet the standard for empty containers under § 261.7 of the chapter as being excluded from universal waste requirements, and the proposed definition for aerosol cans included the requirement that they be “intact,” implying that punctured aerosol cans would not meet the definition. Commenters stated that including empty aerosol cans would provide a clear decision process for generators to include all aerosol cans—empty, full, or partially full—for proper handling and disposal as universal waste. However, commenters noted it would not be necessary to require empty aerosol cans to be managed under the universal waste regulations because generators may still want to manage empty aerosol cans as scrap metal for recycling.

*EPA Response.* EPA agrees that while aerosol cans that meet the standard for empty containers found at 40 CFR 261.7 should not be required to meet the universal waste requirements, they also should not be barred from being managed as universal waste if a handler chooses to do so. Residues in empty containers that meet the requirements of 40 CFR 261.7 are not subject to RCRA hazardous waste requirements. However, a handler is nevertheless allowed under the regulation to manage

<sup>15</sup> See comment number 0088 in the docket for this rulemaking (EPA–HQ–RCRA–2017–0463).

<sup>16</sup> The DOT definition is also similar to the definition used in U.N. Model regulations. EPA chose the DOT version in order to promote consistency between the U.S. Federal regulatory programs.

aerosol cans that meet the empty container standards as universal waste if they would prefer to do so. Likewise, non-hazardous aerosol cans may be managed as universal waste, although they are not required to be managed as such. EPA notes that the final definition of aerosol can is based on the DOT definition and no longer specifies that the cans must be “intact,” thus removing a potential source of confusion.

**b. Comment: Additional Guidance Needed on How To Determine if an Aerosol Can Meets the Empty Container Standard**

*Summary of Comments.* Several commenters suggested that EPA provide additional guidance on how to determine if an aerosol can meets the empty container standard found at 40 CFR 261.7. One commenter suggested that EPA adopt guidance used by the State of Minnesota which recognizes an aerosol can as “empty” when (1) the container contains no compressed ignitable gas propellant or product; (2) all liquid product that can be dispensed through the valve has been; and (3) less than 3% of the product capacity of the container remains. Minnesota’s guidance also recognizes that documenting that an aerosol can meets this standard can be impractical and therefore provides that aerosol cans may be assumed empty when both of the following criteria are satisfied: (1) No liquid is felt or heard when the can is shaken by hand; and (2) no gas or liquid is released when the spray/discharge valve is activated and the container is rotated through all directions, and the valve is not observably or known to be clogged.<sup>17</sup> Another commenter suggested that EPA add a provision to 40 CFR 261.7 stating that an aerosol can is empty when it has been punctured and drained. The commenter stated that this provision should apply to cans that hold characteristic or listed wastes.<sup>18</sup>

*EPA Response.* Under 40 CFR 261.7(b),<sup>19</sup> a container that has held non-acute hazardous waste is “empty” if (1) all wastes have been removed that can be removed using the practices commonly employed to remove materials from that type of container, e.g., pouring, pumping, and aspirating (applicable in all cases), and (2) no more

than 2.5 centimeters (one inch) of residue remains on the bottom of the container or inner liner, or (3) no more than 3 percent by weight of the total capacity of the container remains in the container or inner liner if the container is less than or equal to 119 gallons in size. In addition, a container that has held a hazardous waste that is a compressed gas is empty when the pressure in the container approaches atmospheric pressure.

In the case of a container that has held an acute hazardous waste listed in 40 CFR 261.31 or 261.33(e), the container is considered empty when it has been triple rinsed or has been cleaned by another method that has been shown in scientific literature, or by tests conducted by the generator to achieve equivalent removal, per 40 CFR 261.7(b)(3). EPA also considers a container that has held an acute hazardous that is a compressed gas to meet the definition of empty when it approaches atmospheric pressure, as defined in 40 CFR 261.7(b)(2).<sup>20</sup> EPA is not aware of a chemical commonly found in aerosol cans that would be listed as an acute hazardous waste, but if such an aerosol can product does exist, it would have to meet the 40 CFR 261.7(b)(2) or (3) standard to be considered “empty” under the regulations. The commenter request for a revision to 40 CFR 261.7 that would allow aerosol cans that have held acutely hazardous waste to be disposed of without meeting the current standard in 40 CFR 261.7(b)(3) when punctured and drained is being beyond the scope of this rulemaking.

However, in the case of aerosol cans being recycled, rather than disposed of, aerosol cans that have been punctured and drained prior to recycling are considered exempt scrap metal under 40 CFR 261.6(a)(3)(ii), and therefore all such punctured cans would be exempt from hazardous waste requirements when recycled.

**c. Comment: EPA Should Clarify That an Aerosol Can Does Not Need To Be “Empty” To Be Exempt Scrap Metal**

*Summary of Comments.* One commenter noted that EPA said in the proposed rule that aerosol containers that meet the definition of empty in 40 CFR 261.7 are not subject to hazardous waste regulation and may be recycled as scrap metal. They found this statement misleading because it implies that the

aerosol can must be RCRA empty, per 40 CFR 261.7, to be classified as exempt scrap metal. The commenter stated that an aerosol container does not need to be completely empty or triple rinsed (if it held a P-listed waste) to be classified and recycled as scrap metal. However, it is a good management practice to remove as much of the waste from the aerosol can as possible.

*EPA Response.* Under 40 CFR 261.1, “scrap metal” is defined as bits and pieces of metal parts (e.g., bars, turnings, rods, sheets, wire) or metal pieces that may be combined together with bolts or soldering (e.g., radiators, scrap automobiles, railroad box cars), which when worn or superfluous can be recycled. Under 40 CFR 261.6(a)(3)(ii), exempt scrap metal is not subject to regulation under parts 262 through 268, part 270, or part 124, and is not subject to the notification requirements of section 3010 of RCRA.

However, an aerosol can that still contains hazardous liquid and/or hazardous compressed gas would not meet the definition of scrap metal and would not be eligible for the scrap metal exemption. As EPA has clearly stated, materials containing significant amounts of liquid cannot be eligible to be exempt scrap metal.<sup>21</sup> Thus while EPA agrees that aerosol cans do not need to be triple rinsed prior to being recycled as scrap metal, they do need to have their contents removed to be considered scrap metal.

**d. Comment: Universal Waste Handlers Should Not Be Required To Make a Hazardous Waste Determination on the Emptied Cans**

*Summary of Comments.* One commenter noted that 40 CFR 273.13(e)(3)(v) and 273.33(e)(3)(v) of the proposed rule require that the universal waste handler “Conduct a hazardous waste determination on the emptied aerosol can and its contents per 40 CFR 262.11.” While the commenter agreed on the need for a hazardous waste determination to be made on the contents, they stated that requiring it for the emptied cans contradicts prior EPA guidance regarding scrap metal. The proposed rule only allows for puncturing of cans on the condition that the empty punctured aerosol cans be recycled. EPA has previously stated that a formal hazardous waste determination is not required for scrap metal being recycled under 40 CFR 261.6(a)(3)(ii).<sup>22</sup>

<sup>17</sup> See comment number 0086 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

<sup>18</sup> See comment number 0085 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

<sup>19</sup> EPA did not request comment on or otherwise reopen the empty container provisions of 40 CFR 261.7 and comments requesting changes to the empty container regulations are outside the scope of this rule.

<sup>20</sup> EPA first explained this interpretation in 2017. See U.S. EPA 2017 RCRA Regulatory Status of Permeation Device, Memo from Barnes Johnson, Director, Office of Resource Conservation and Recovery to Alex Chaharom, GeNO LLC, February 9, 2017. RO# 14887

<sup>21</sup> EPA 1985 *Definition of Solid Waste Final Rule*, 50 FR 614 at 624–625, January 4, 1985.

<sup>22</sup> EPA 1993 Memorandum from Jeffrey D. Denit, Acting Director, Office of Solid Waste to Gregory L. Crawford, *Regulatory Status of Used Residential And Commercial/Industrial Aerosol Cans*, October

*EPA response.* EPA agrees with the comment and has removed the language in 40 CFR 273.13(e)(3)(v) and 273.33(e)(3)(v) requiring a waste determination to be made on the emptied aerosol can destined for recycling.

### *B. Management Requirements for Aerosol Cans*

#### 1. Requirements for Small and Large Quantity Handlers

Under the final rule, the existing universal waste requirements currently applicable to small quantity handlers of universal waste (SQHUW) and large quantity handlers of universal waste (LQHUW) are also applicable to handlers of discarded aerosol cans.<sup>23</sup> For both SQHUWs and LQHUWs, these requirements include waste management standards, labeling and marking, accumulation time limits, employee training, responses to releases, requirements related to off-site shipments, and export requirements. LQHUWs are subject to additional notification and tracking requirements. For the labeling requirement, EPA is finalizing in 40 CFR 273.14 and 273.34 that either each aerosol can, or a container in which the aerosol cans are contained, must be labeled or marked clearly with any of the following phrases: “Universal Waste—Aerosol Can(s),” “Waste Aerosol Can(s),” or “Used Aerosol Can(s).”

In addition, EPA is finalizing that small and large quantity universal waste handlers must follow certain specific management standards while handling their universal waste aerosol cans. Under the final rule, all handlers must manage their universal waste aerosol cans in a manner designed to prevent releases to the environment. This management includes accumulating universal waste aerosol cans in containers that are structurally sound and compatible with the contents of the can, and show no evidence of leaks, spills, or damage that could cause leaks under reasonably foreseeable conditions. The accumulation requirements in this final rule are similar to the existing accumulation requirements for small and large quantity universal waste handlers for other types of universal waste in 40 CFR

273.13 and 273.33 and are found in new paragraph (e) of each of these sections. Handlers may sort aerosol cans by type and consolidate intact aerosol cans in larger containers, remove actuators to reduce the risk of accidental release, and, under certain conditions, may puncture and drain aerosol cans when the emptied cans are to be recycled, as described below.

Other than the comments on the requirements for puncturing and draining at small and large quantity handlers, which are described below, EPA received few comments on the requirements for small and large quantity universal waste handlers. One state association urged EPA to place limits on the accumulation requirements for universal waste handlers by requiring separation of incompatible wastes because of the wide array of products aerosol cans contain.<sup>24</sup> EPA is finalizing the performance-based standard that handlers must manage their universal waste aerosol cans in a manner that prevents releases, but EPA is not requiring separation of specific types of aerosol cans whose contents may pose an incompatibility risk because EPA expects the intact aerosol cans will ensure the contents of these cans will not mix and therefore will not pose incompatibility risks. In addition, EPA is requiring that universal waste aerosol cans that show evidence of leakage must be packaged in a separate closed container or overpacked with absorbents, or immediately punctured and drained in accordance with the aerosol can universal waste requirements. (See 40 CFR 273.13(e)(2) and 40 CFR 273.33(e)(2)), thus removing the risk of incompatible contents mixing during storage and transport.

A waste management industry commenter suggested EPA require that handlers accumulate universal waste aerosol cans in strong outer packaging that will not be allowed to build pressure, that the contents of the aerosol cans are compatible, and that protective caps are in place or valve stems are removed to prevent the accidental release of the contents of the aerosol cans during storage and handling.<sup>25</sup> EPA is finalizing, as proposed, the performance-based standards that require the aerosol cans to be accumulated in containers that are structurally sound and compatible with the contents of the cans. EPA is not requiring handlers to remove the

actuators to reduce the risk of accidental release but is allowing handlers to do so prior to accumulation if they choose.

A state commenter suggested that EPA include more specific safety measures to address the risk of cans bursting when exposed to excessive heat during accumulation, regardless of whether the handler punctures and drains the universal waste aerosol cans.<sup>26</sup> In order to address this risk, EPA added language to 40 CFR 273.13(e)(1) and 40 CFR 273.33(e)(1) to require the universal waste aerosol cans be accumulated in a container that is protected from sources of heat. Sources of heat include, but are not limited to, open flames; lighting; smoking; cutting and welding; hot surfaces; frictional heat; static, electrical, and mechanical sparks; and heat-producing chemical reactions.<sup>27</sup> For example, handlers should not allow smoking or open flames near containers accumulating universal waste aerosol cans. It is the responsibility of the operator to ensure that the containers accumulating universal waste aerosol cans are protected from sources of heat.

#### 2. Requirements on Puncturing and Draining at Small and Large Quantity Handlers

##### a. Summary of Proposal

EPA proposed specific management standards for the puncturing and draining of aerosol cans at universal waste handlers, similar to the requirements being implemented in states that added aerosol cans to their list of universal waste. EPA proposed that puncturing and draining activities be conducted by a device specifically designed to safely puncture aerosol cans and effectively contain the residual contents and any emissions thereof.

EPA proposed that handlers must establish a written procedure detailing how to safely puncture and drain universal waste aerosol cans (including operation and maintenance of the unit; segregation of incompatible wastes; and proper waste management practices to prevent fires or releases), maintain a copy of the manufacturer’s specification and instruction on site, and ensure that employees operating the devices are trained in the proper procedures.

EPA also proposed that the actual puncturing of the cans should be done in a manner designed to prevent fires and to prevent the release of the aerosol can contents to the environment so as to minimize human exposure. This included, but was not limited to,

7, 1993, RO#11782; EPA 1994; Memorandum from to Michael H. Shapiro, Director, Office of Solid Waste, to Michael C. Campbell, *Regulatory Status of Waste Aerosol Cans*, January 1, 1994, RO#11806.

<sup>23</sup> Note that EPA did not ask for comment or otherwise reopen the pre-existing universal waste requirements that will now also apply to universal waste aerosol cans. Comments on the pre-existing universal waste requirements are beyond the scope of this rulemaking.

<sup>24</sup> See comment number 0073 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

<sup>25</sup> See comment number 0063 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

<sup>26</sup> See comment number 0085 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

<sup>27</sup> This list is derived from OSHA’s definition of “sources of ignition” in 29 CFR 1910.106(h)(7)(i)(a).

locating the equipment on a solid, flat surface in a well-ventilated area.

In addition, EPA proposed that the contents from the cans should be immediately transferred from the waste aerosol cans or puncturing device (if applicable), to a container or tank and that the contents are subject to a hazardous waste determination under 40 CFR 262.11. If the contents are hazardous waste, the handler becomes the hazardous waste generator of the hazardous aerosol can contents and must manage those wastes in accordance with applicable RCRA regulations.

The proposed rule also required that a written procedure be in place in the event of a spill or release and a spill clean-up kit must be provided. All spills or leaks of the contents must be cleaned up promptly.

EPA requested comment on establishing further limitations on the puncturing and draining of aerosol cans that may contain wastes incompatible with the puncturing and draining equipment or the contents of other cans being drained. EPA also requested comment on limiting puncturing and draining to handlers that are not commercial processors (*i.e.*, a person that processes aerosol cans received from other entities in exchange for compensation). Such a limitation would be consistent with California's universal waste program. Handlers that are off-site commercial processors could still accept aerosol cans and process the cans by sorting and consolidating them but would be unable to puncture and drain the cans. Under this option, off-site commercial processors that would like to puncture and drain aerosol cans would have to first meet the requirements for a universal waste destination facility (*e.g.*, obtaining a permit for the storage of the hazardous waste aerosol cans prior to recycling).

#### b. Summary of Comments

The most frequent comment EPA received on puncturing and draining was on limiting handlers from puncturing and draining aerosol cans received from off-site handlers. For example, waste management industry commenters and some state commenters requested that EPA not allow off-site handlers to puncture and drain aerosol cans collected from other handlers unless they first meet the requirements for a universal waste destination facility.<sup>28</sup> On the other hand, an industry commenter and a state

commenter requested that EPA not limit which handlers can puncture and drain aerosol cans.<sup>29</sup> Multiple industry commenters requested that, at a minimum, if EPA limits off-site handlers from puncturing and draining, EPA still allow off-site handlers to puncture and drain aerosol cans collected from other handlers in the same company or handlers that are related entities.<sup>30</sup>

EPA also received numerous comments on the specific management standards for the puncturing and draining of aerosol cans at universal waste handlers. EPA received broad comments from industry commenters supporting the proposed standards for the puncturing and draining of aerosol cans as sufficient and arguing that further limitations are not necessary.<sup>31</sup> EPA also received specific suggestions from industry commenters on the management standards. For example, one commenter recommended that EPA should not place additional limitations on puncturing and draining designed to address potential incompatibility concerns because they are not necessary.<sup>32</sup> On the other hand, one state requested that EPA prohibit handlers from puncturing and draining aerosol cans with possible incompatibility with the puncturing and draining equipment or the contents of other cans being drained.<sup>33</sup>

State associations commented that EPA should require puncturing and draining to be conducted in a commercially-manufactured device and not allow handlers to use "homemade" devices.<sup>34</sup> A commenter from the waste management industry argued that there is no basis for requiring puncturing and draining to be conducted in a commercial device and pointed out that many companies have designed and operated their own equipment for such purposes based on their engineering expertise.<sup>35</sup>

Commenters also asked for the requirement that puncturing and draining activities be conducted in a

device designed to effectively contain the residual contents and emissions to be clarified.<sup>36</sup> Specifically, commenters requested EPA clarify what "effectively contain" means in relation to emissions and what constitutes breakthrough.<sup>37</sup> A state association commenter wrote that the only way to ensure the puncturing and draining activities are containing emissions it to implement an air monitoring program or to ensure the devices are equipped with "end of life" filters that show when breakthrough is occurring.<sup>38</sup> An industry commenter wrote that a requirement that allows for no breakthrough is not practical, but that handlers can maximize collection of emissions by following manufacturer instructions.<sup>39</sup>

EPA also received comments from state associations urging EPA to require handlers that puncture and drain to establish and follow a written procedure detailing how to safely puncture aerosol cans rather than only require handlers to establish a written procedure as proposed.<sup>40</sup> Commenters also pointed out that it is common practice to operate puncturing and draining devices on spill catchment pallets to aid in capturing accidental leaks or spills and asked EPA to allow this under the final rule.<sup>41</sup>

#### c. Final Rule Provisions

EPA expects puncturing and draining activities at universal waste handlers will differ from those currently performed by hazardous waste generators. Because handlers receive universal waste from many other handlers, the volume of aerosol cans punctured and drained at a commercial universal waste handler is likely to be much greater than at a typical hazardous waste generator (which can only puncture and drain its own hazardous waste aerosol cans). In addition, under universal waste regulations, handlers may store their universal waste up to a year, which could increase the number of cans punctured and drained at one time if the facility processes the cans in batches. Thus, EPA believes it is appropriate to include performance-

<sup>28</sup> See comment numbers 0063, 0074, 0085, and 0091 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

<sup>29</sup> See comment numbers 0029 and 0080 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

<sup>30</sup> See comment numbers 0077, 0087, and 0093 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

<sup>31</sup> See comment numbers 0075 and 0083 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

<sup>32</sup> See comment number 0087 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

<sup>33</sup> See comment number 0077 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

<sup>34</sup> See comment numbers 0073 and 0085 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

<sup>35</sup> See comment number 0074 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

<sup>36</sup> See comment numbers 0073 and 0085 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

<sup>37</sup> See comment numbers 0001, 0073, and 0085 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

<sup>38</sup> See comment number 0073 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

<sup>39</sup> See comment number 0001 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

<sup>40</sup> See comment numbers 0073 and 0085 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

<sup>41</sup> See comment number 0064 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

based management standards to address the risk of puncturing and draining aerosol cans at universal waste handlers.

Despite the differences between recycling of aerosol cans at hazardous waste generators versus recycling of aerosol cans at universal waste handlers, under the final rule, EPA is not limiting off-site handlers from puncturing and draining aerosol cans collected from other handlers. Based on an observed lack of damage cases from puncturing and draining aerosol cans in the manner described in this rule, it appears that risks posed by universal waste handlers puncturing and draining aerosol cans collected from other handlers is relatively low. EPA has determined that the final management standards for the puncturing and draining of aerosol cans at universal waste handlers at 40 CFR 273.13(e)(4) and 40 CFR 273.33(e)(4) adequately address the low risks. Additionally, the five of the six states that have added aerosol cans to their list of universal wastes allow off-site handlers to puncture and drain aerosol cans collected from other handlers, and EPA is not aware of any damage cases resulting specifically from the puncturing and draining under universal waste in these states.<sup>42</sup> In particular, State officials from Colorado stated to EPA that their respective aerosol can universal waste programs have been in effect for over 15 years, and they have not identified any damage cases associated with puncturing and draining.<sup>43</sup>

As mentioned, EPA is finalizing management standards for the puncturing and draining of aerosol cans at universal waste handlers to increase protections. Under the final rule, puncturing and draining activities must be conducted by a device specifically designed to safely puncture aerosol cans and effectively contain the residual contents and any emissions thereof. EPA is not finalizing that the puncturing and draining activities must be conducted in a commercial device or a commercially-manufactured device and is instead finalizing a performance-based standard. In response to comments, EPA is not limiting universal waste handlers that have designed their own equipment for puncturing and draining and operated it safely from continuing to use that equipment. If a universal waste handler uses

specifically custom designed or retrofitted equipment to ensure that the device safely punctures aerosol cans, it should ensure the equipment is designed or retrofitted according to accepted engineering practices based on established codes, standards, published technical reports, or similar peer reviewed documents. Although EPA received comments from the waste management industry arguing that their members have safely designed and operated their own equipment for puncturing and draining aerosol cans, EPA expects most universal waste handlers will choose to purchase commercial devices designed to puncture aerosol cans. Puncturing and draining systems for aerosol cans are available from multiple commercial vendors. These devices generally consist of an enclosed puncturing device that punctures an aerosol can, allowing the contents to be drained into an attached container. In many cases, these containers are 55-gallon drums with a filter made of carbon or similar materials to capture any gases that may escape the 55-gallon drum during the puncturing and draining process.

Manufacturers of aerosol can puncturing and draining devices include instructions for their use.<sup>44</sup> These instructions include operating devices in a well-ventilated area that is free from sparks and ignition sources in order to prevent fires, use of personal protective equipment such as safety goggles, and segregating incompatible products from being drained into the same container. Operators of puncturing and draining devices are also instructed to ensure that the container remains closed, that it does not become overfilled, and that the container or tank storing the contents of the drained aerosol cans is also kept in a well-ventilated area free from sparks or ignition sources.

EPA received multiple comments arguing that the requirement that puncturing and draining activities be conducted in a device designed to effectively contain the residual contents and emissions needs to be clarified.<sup>45</sup> Specifically, commenters requested EPA clarify what “effectively contain” means in relation to emissions.<sup>46</sup> The performance of aerosol can puncturing and draining devices will vary by manufacturer and it remains the

responsibility of the operator to ensure breakthrough is not occurring. Although commenters pointed out that handlers could ensure devices are equipped with “end of life” filters that show when breakthrough is occurring, it is impractical to impose this requirement on all universal waste handlers who use puncturing and draining equipment because the manufacturer’s guidance with respect to containing emissions varies across the industry.<sup>47</sup> For example, some manufacturers recommend limiting the number of cans drained per filter while other manufacturers recommend weighing the filter before and during use.<sup>48</sup> Given the variability in the market, it is impractical for EPA to determine a single, appropriate standard for ensuring breakthrough is not occurring. Rather, EPA is finalizing as proposed the performance-based standard that universal waste handlers must use a device designed to safely puncture aerosol cans and effectively contain the residual contents and any emissions thereof. Universal waste handlers can minimize the potential for breakthrough by maintaining the puncturing and draining device and replacing air filters according to the manufacturer’s specifications.

Because handlers are responsible for ensuring that the puncturing device is properly draining the contents of the aerosol cans into the drum, EPA is finalizing that handlers must establish and follow a written procedure to ensure that handlers take the necessary precautions to protect human health and the environment while puncturing and draining universal waste aerosol cans. At a minimum, EPA is requiring that the written procedure address the operation and maintenance of the unit, including its proper assembly; segregation of incompatible wastes; and proper waste management practices (e.g., ensuring that ignitable wastes are stored away from heat or open flames). In order to increase protections, EPA is clarifying in the final rule that handlers must follow the written procedure. Additionally, EPA is finalizing that handlers must maintain a copy of the manufacturers’ instructions on site and ensure employees operating the device are trained in the proper procedures.

Although some states have issued guidelines for recommending against puncturing and draining certain types of aerosol cans, there is limited publicly

<sup>44</sup> See supporting document 0003 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

<sup>45</sup> See comment numbers 0073 and 0085 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

<sup>46</sup> See comment numbers 0001, 0073, and 0085 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

<sup>47</sup> See supporting document 0003 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

<sup>48</sup> See comment number 0005 and supporting document 0003 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

<sup>42</sup> See supporting document number 0004 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

<sup>43</sup> See docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

available data on the subset of aerosol cans that pose an incompatibility risk. Additionally, since new products enter the market and products are constantly changing, it is not practical to codify a finite list of aerosol cans that pose an incompatibility risk. Therefore, EPA is not providing a list of certain types of aerosol cans that might pose incompatibility issues with puncturing devices or the contents of other aerosol cans that are drained. However, it remains the responsibility of the operator to ensure that the puncturing device does not puncture aerosol cans that are incompatible with its materials or the contents of other aerosol cans that are being drained. Because aerosol cans are consumer products, aerosol cans have labels that identify the products contained within, including any hazardous posed by the contents which can assist handlers in ensuring they have addressed incompatibility issues. As mentioned above, EPA is requiring handlers to establish and follow a written procedure that addresses the operation of the unit, including the segregation of incompatible wastes. The operator can look to state guidance and manufacturer's guidance for information. For example, manufacturers make information available regarding potential incompatibilities between aerosol can propellants and puncturing devices container rubber seals or gaskets.<sup>49</sup>

EPA is also finalizing that the actual puncturing of the cans be done in a manner designed to prevent fires and to prevent the release of the aerosol can contents to the environment so as to minimize human exposure. This manner includes, but is not limited to, locating the equipment on a solid, flat surface in a well-ventilated area. Commenters pointed out that it is common practice to operate puncturing and draining devices on spill catchment pallets to aid in capturing accidental leaks or spills, which is allowed under the final rule if the spill catchment pallet is located on a solid, flat surface.

In addition, EPA is finalizing that the handler must immediately transfer the contents from the waste aerosol can, or the puncturing device (if applicable), to a container or tank and conduct a hazardous waste determination of the contents under 40 CFR 262.11. The handler becomes the generator of any hazardous aerosol can contents and must manage those wastes in

accordance with applicable RCRA regulations.

The final rule also requires that a written procedure be in place in the event of a spill or leak and a spill clean-up kit should be provided. All spills or leaks of the contents of the aerosol cans should be cleaned up promptly.

Finally, EPA notes that all puncturing, waste collection, and disposal must be conducted in compliance with all applicable Federal, state and local waste (solid and hazardous waste) and occupational safety and health laws and regulations.

### 3. Requirements for Transporters

This final rule will not change any of the existing requirements applicable to universal waste transporters. Under 40 CFR 273.9, 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 processor, to a destination facility, or to a foreign destination. These persons are subject to the universal waste transporter requirements of part 273, subpart D. EPA notes that this final rule also will not affect the applicability of shipping requirements under the hazardous waste materials regulations of DOT.

Transporters continue to be subject to these requirements, if applicable (e.g., 49 CFR 173.306 for shipping of limited quantities of aerosol cans, or 49 CFR 173.115(l), which sets limits in the definition of "aerosol" for the purpose of shipping flammable gas).

### 4. Requirements for Destination Facilities

This final rule will not change any of the existing requirements applicable to universal waste destination facilities (subpart E of part 273). Under 40 CFR 273.9, the definition of a destination facility is a facility that treats, disposes of, or recycles a particular category of universal waste (except certain activities specified in the regulations at §§ 273.13(a) and (c) and 273.33(a) and (c)).

### 5. Effect of This Rule on Household Wastes and Very Small Quantity Generators

Adding hazardous waste aerosol cans to the Federal definition of universal wastes would not impose any requirements on households or VSQGs for managing these cans. Household waste continues to be exempt from RCRA Subtitle C regulations under 40

CFR 261.4(b)(1). However, under the Universal Waste Rule provisions, VSQGs may choose to manage their hazardous waste aerosol cans in accordance with either the VSQG regulations under 40 CFR 262.14 or as a universal waste under part 273 (40 CFR 273.8(a)(2)). It should be noted, however, that 40 CFR 273.8(b) will continue to apply. Under this provision, if household or VSQG wastes are mixed with universal waste subject to the requirements of 40 CFR part 273 (i.e., universal waste that is not generated by households or VSQGs), the commingled waste must be handled as universal waste in accordance with part 273. Under this final rule, handlers of universal waste who accumulate 5,000 kilograms or more of this commingled aerosol can waste at any time will be considered large quantity handlers of universal waste and must meet the requirements of that category of universal waste handler.

Hazardous waste aerosol cans that are managed as a universal waste under 40 CFR part 273 will not be required to be included in a facility's determination of hazardous waste generator status (40 CFR 262.13(c)(6)). Therefore, a generator that manages such cans under the requirements for universal waste and does not generate any other hazardous waste will not be subject to other Subtitle C hazardous waste management regulations, such as the hazardous waste generator regulations in part 262. A universal waste handler that meets the definition of a small quantity generator or large quantity generator in 40 CFR 260.10 for its other hazardous waste will be subject to the hazardous waste generator regulations in part 262.

### 6. Applicability of Land Disposal Restriction Requirements

This final rule does not change the applicability of land disposal restriction (LDR) requirements to universal waste. Under the existing regulations (40 CFR 268.1(f)), universal waste handlers and transporters are exempt from the LDR requirements regarding testing, tracking, and recordkeeping in 40 CFR 268.7, and the storage prohibition in 40 CFR 268.50. EPA is amending 40 CFR 268.1(f) to add aerosol can universal waste for consistency. This final rule also does not change the regulatory status of destination facilities; they remain subject to the full LDR requirements.

### VI. Technical Corrections

As part of this rulemaking, EPA is finalizing four technical corrections to the universal waste standards for mercury-containing equipment in 40

<sup>49</sup> See *Compilation of Manufacturer's Guidance on Devices for Puncturing and Draining Aerosol Cans*, December 2017, in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

CFR 273.13(c)(2)(iii) and (iv) and 273.33(c)(2)(iii) and (iv). Each of these paragraphs contained a reference to 40 CFR 262.34, which was removed and reserved as part of the November 28, 2016, Hazardous Waste Generator Improvements Rule (81 FR 85732). EPA neglected to update these references as part of its corresponding changes in that rule and is correcting that mistake here. In all four places, EPA proposed revisions to make the regulations refer to 40 CFR 262.16 or 262.17, as applicable. As a result of a comment stating that this revision did not include references to other potentially applicable paragraphs of the hazardous waste generator regulations in part 262, EPA has revised the language and is finalizing language that matches references in §§ 273.13(a) and 273.33(a). The final language states that mercury from broken ampules must be transferred to a container subject to all applicable requirements of 40 CFR parts 260 through 272.

## VII. State Authority

### A. Applicability of Final Rule 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 enforcement responsibility. The standards and requirements for state authorization are found at 40 CFR part 271. Prior to enactment of the Hazardous and Solid Waste Amendments of 1984 (HSWA), a state with final RCRA authorization administered its hazardous waste program entirely in lieu of EPA administering the Federal program in that state. The Federal requirements no longer applied in the authorized state, and EPA could not issue permits for any facilities in that state, since only the state was authorized to issue RCRA permits. When EPA promulgated new, more stringent Federal requirements for these pre-HSWA regulations, the state was obligated to enact equivalent authorities within specified time frames. However, the new Federal requirements did not take effect in an authorized state until the state adopted the Federal requirements as state law. In contrast, under RCRA section 3006(g) (42 U.S.C. 6926(g)), which was added by HSWA, new requirements and prohibitions imposed under HSWA authority take effect in authorized states at the same time that they take effect in

unauthorized states. EPA is directed by the statute to implement these requirements and prohibitions in authorized states, including the issuance of permits, until the state is granted authorization to do so. While states must still adopt HSWA-related provisions as state law to retain final authorization, EPA implements the HSWA provisions in authorized states until the states do so.

Authorized states are required to modify their programs only when EPA enacts Federal requirements that are more stringent or broader in scope than existing Federal requirements. RCRA section 3009 allows the states to impose standards more stringent than those in the Federal program (see also 40 CFR 271.1). Therefore, authorized states may, but are not required to, adopt Federal regulations, both HSWA and non-HSWA, that are considered less stringent than previous Federal regulations.

### B. Effect on State Authorization

This final rule will be less stringent than the current Federal program. Because states are not required to adopt less stringent regulations, they will not have to adopt the universal waste regulations for aerosol cans, although EPA encourages them to do so. Some states have already added aerosol cans to the list of universal wastes, and others may do so in the future. If a state's standards for aerosol cans are less stringent than those in the final rule, the state would have to amend its regulations to make them at least equivalent to the Federal standards and pursue authorization.

## VIII. Statutory and Executive Order Reviews

Additional information about these statutes and Executive orders can be found at <http://www.epa.gov/laws-regulations/laws-and-executive-orders>.

### A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This regulatory action was determined to be not significant and was therefore not submitted to the Office of Management and Budget (OMB) for review. This regulatory action was determined to be not significant for purposed E.O. 12866 review. The Office of Management and Budget (OMB) waived review.

### B. Executive Order 13771: Reducing Regulations and Controlling Regulatory Costs

This action is considered an Executive Order 13771 deregulatory action. Details on the estimated cost savings of this final rule can be found in EPA's analysis of the costs and benefits associated with this action.

### C. Paperwork Reduction Act (PRA)

The information collection activities in this final rule have been submitted for approval to the Office of Management and Budget (OMB) under the PRA. The Information Collection Request (ICR) documents that the EPA prepared have been assigned EPA ICR number 1597.13 and ICR number 2513.04. You can find a copy of the ICRs in the docket for this rule, and they are briefly summarized here.

Because aerosol cans managed under the final rule are not counted toward a facility's RCRA generator status, respondents will see a reduction in burden. This reduction is because the aerosol cans will not be subject to recordkeeping and reporting requirements as hazardous waste, and the respondent may no longer be subject to hazardous waste generator recordkeeping and reporting requirements, depending on the quantity of hazardous waste they generate (that is not hazardous waste aerosol cans or other universal wastes). The existing universal waste requirements currently applicable to SQHUWs and LQHUWs will also be applicable to handlers of aerosol can universal waste. For both SQHUWs and LQHUWs, these requirements include labeling and marking, employee training, response to releases, and export requirements. LQHUWs are also subject to additional notification and tracking requirements. EPA ICR number 1597.13 focuses on the increased burden to the universal waste program resulting from new facilities becoming universal waste handlers. EPA ICR number 2513.04 focuses on the decrease in burden associated with this regulation.

*Respondents/affected entities:* The information collection requirements of the final rule affect facilities that handle aerosol can universal waste and vary based on facility generator and handler status.

*Respondent's obligation to respond:* The recordkeeping and notification requirements are required to obtain a benefit under 40 CFR part 273.

*Estimated number of respondents:* 970.

*Frequency of response:* One-time notification for LQHUWs; annual

training requirements for all universal waste handlers; per-shipment costs for labeling (all handlers) and tracking (LQHJWs).

*Total estimated burden:* EPA estimates the annual burden to respondents to be a net reduction in burden of approximately 62,621 hours. Burden is defined at 5 CFR 1320.3(b).

*Total estimated cost:* The total estimated annual cost of this rule is a cost savings of approximately \$2.77 million. This cost savings is composed of approximately \$2.65 million in annualized avoided labor costs and \$23,000 in avoided capital or operation and maintenance costs.

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 the EPA's regulations in 40 CFR are listed in 40 CFR part 9. When OMB approves this ICR, the Agency will announce that approval in the **Federal Register** and publish a technical amendment in 40 CFR part 9 to display the OMB control number for the approved information collection activities contained in this final rule.

#### *D. Regulatory Flexibility Act (RFA)*

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. In making this determination, the impact of concern is any significant adverse economic impact on small entities. 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, has no net burden or otherwise has a positive economic effect on the small entities subject to the rule. As documented in the Regulatory Impact Analysis found in the docket for this final rule, EPA does not expect the rule to result in an adverse impact to a significant number of small entities, since the rule is expected to result in net cost savings for all entities affected by the rule. We have therefore concluded that this action will either relieve regulatory burden or have no net regulatory burden for all directly regulated small entities.

#### *E. Unfunded Mandates Reform Act (UMRA)*

As documented in the Regulatory Impact Analysis found in the docket for this rule, this action does not contain an unfunded mandate of \$100 million or more as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments.

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

As documented in the Regulatory Impact Analysis found in the docket for this rule, this action 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.

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

This action does not have tribal implications as specified in Executive Order 13175. Because the rule is expected to result in net cost savings, EPA does not expect that it will result in any adverse impacts on tribal entities. Thus, Executive Order 13175 does not apply to this action.

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

This action is not subject to Executive Order 13045 because it is not economically significant as defined in Executive Order 12866, and because the EPA does not believe the environmental health or safety risks addressed by this action present a disproportionate risk to children. This action's health and risk assessments are contained in the Regulatory Impact Analysis found in the docket for this rule.

#### *I. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution or Use*

This action is not subject to Executive Order 13211, because it is not a significant regulatory action under Executive Order 12866.

#### *J. National Technology Transfer and Advancement Act (NTTAA)*

This rulemaking does not involve technical standards.

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

The EPA believes that this action does not have disproportionately high and adverse human health or environmental effects on minority populations, low-income populations and/or indigenous peoples, as specified in Executive Order 12898 (59 FR 7629, February 16, 1994). The documentation for this decision is contained in the Regulatory Impact Analysis found in the docket for this rule.

#### *L. Congressional Review Act (CRA)*

This action is subject to the CRA, and the EPA will submit a rule report to each House of the Congress and to the Comptroller General of the United States. This action is not a "major rule" as defined by 5 U.S.C. 804(2).

#### **List of Subjects**

##### *40 CFR Part 260*

Environmental protection, Administrative practice and procedure, Hazardous waste, Reporting and recordkeeping requirements.

##### *40 CFR Part 261*

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

##### *40 CFR Part 264*

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

##### *40 CFR Part 265*

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

##### *40 CFR Part 268*

Environmental protection, Hazardous waste, Reporting and recordkeeping requirements.

##### *40 CFR Part 270*

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

##### *40 CFR Part 273*

Environmental protection, Hazardous materials transportation, Hazardous waste.

Dated: November 15, 2019.

**Andrew R. Wheeler,**  
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, 6939g, and 6974.

Subpart B—Definitions

- 2. Section 260.10 is amended by:
a. Adding the definition of ‘‘Aerosol can’’ in alphabetical order;
b. Republishing the introductory text for the definition ‘‘Universal waste’’ and revising paragraphs (3) and (4) and adding paragraph (5); and
c. In the definition of ‘‘Universal waste handler,’’ revising paragraph (2)(i).

The additions and revisions read as follows:

§ 260.10 Definitions.

\* \* \* \* \*

Aerosol can means a non-refillable receptacle containing a gas compressed, liquefied, or dissolved under pressure, the sole purpose of which is to expel a liquid, paste, or powder and fitted with a self-closing release device allowing the contents to be ejected by the gas.

\* \* \* \* \*

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

\* \* \* \* \*

- (3) Mercury-containing equipment as described in § 273.4 of this chapter;
(4) Lamps as described in § 273.5 of this chapter; and
(5) Aerosol cans as described in § 273.6 of this chapter.

\* \* \* \* \*

Universal waste handler:

\* \* \* \* \*

- (2) \* \* \*
(i) A person who treats (except under the provisions of 40 CFR 273.13(a) or (c), or 40 CFR 273.33(a) or (c)), disposes of, or recycles (except under the provisions of 40 CFR 273.13(e) or 40 CFR 273.33(e)) universal waste; or

\* \* \* \* \*

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 (c) and (d) and adding paragraph (e) to read as follows:

§ 261.9 Requirements for Universal Waste.

\* \* \* \* \*

- (c) Mercury-containing equipment as described in § 273.4 of this chapter;

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

(e) Aerosol cans as described in § 273.6 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, 6925, and 6939g.

Subpart A—General

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

§ 264.1 Purpose, scope and applicability.

\* \* \* \* \*

- (g) \* \* \*
(11) \* \* \*
(iii) Mercury-containing equipment as described in § 273.4 of this chapter;
(iv) Lamps as described in § 273.5 of this chapter; and
(v) Aerosol cans as described in § 273.6 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, 6937, and 6939g.

Subpart A—General

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

§ 265.1 Purpose, scope, and applicability.

\* \* \* \* \*

- (c) \* \* \*
(14) \* \* \*
(iii) Mercury-containing equipment as described in § 273.4 of this chapter;
(iv) Lamps as described in § 273.5 of this chapter; and
(v) Aerosol cans as described in § 273.6 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)(3) and (4) and adding paragraph (f)(5) to read as follows:

§ 268.1 Purpose, scope, and applicability.

\* \* \* \* \*

- (f) \* \* \*
(3) Mercury-containing equipment as described in § 273.4 of this chapter;
(4) Lamps as described in § 273.5 of this chapter; and
(5) Aerosol cans as described in § 273.6 of this chapter.

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 the section heading and paragraphs (c)(2)(viii)(C) and (D) and adding paragraph (c)(2)(viii)(E) to read as follows:

§ 270.1 Purpose and scope of the regulations in this part.

\* \* \* \* \*

- (c) \* \* \*
(2) \* \* \*
(viii) \* \* \*
(C) Mercury-containing equipment as described in § 273.4 of this chapter;
(D) Lamps as described in § 273.5 of this chapter; and
(E) Aerosol cans as described in § 273.6 of this chapter.

\* \* \* \* \*

PART 273—STANDARDS FOR UNIVERSAL WASTE MANAGEMENT

- 13. The authority 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)(3) and (4) and adding paragraph (a)(5) to read as follows:

§ 273.1 Scope.

(a) \* \* \*

- (3) Mercury-containing equipment as described in § 273.4;

(4) Lamps as described in § 273.5; and  
(5) Aerosol cans as described in § 273.6.

\* \* \* \* \*

■ 15. Section 273.3 is amended by revising paragraph (b)(2) to read as follows:

§ 273.3 Applicability—pesticides.

\* \* \* \* \*

(b) \* \* \*

(2) Pesticides not meeting the conditions set forth in paragraph (a) of this section. These pesticides must be managed in compliance with the hazardous waste regulations in 40 CFR parts 260 through 272, except that aerosol cans as defined in § 273.9 that contain pesticides may be managed as aerosol can universal waste under § 273.13(e) or § 273.33(e);

\* \* \* \* \*

■ 16. Section 273.6 is added to read as follows:

§ 273.6 Applicability—Aerosol cans.

(a) *Aerosol cans covered under this part.* The requirements of this part apply to persons managing aerosol cans, as described in § 273.9, except those listed in paragraph (b) of this section.

(b) *Aerosol cans not covered under this part.* The requirements of this part do not apply to persons managing the following types of aerosol cans:

(1) Aerosol cans that are not yet waste under part 261 of this chapter. Paragraph (c) of this section describes when an aerosol can becomes a waste;

(2) Aerosol cans that are not hazardous waste. An aerosol can is a hazardous waste if the aerosol can exhibits one or more of the characteristics identified in part 261, subpart C, of this chapter or the aerosol can contains a substance that is listed in part 261, subpart D, of this chapter; and

(3) Aerosol cans that meet the standard for empty containers under § 261.7 of this chapter.

(c) *Generation of waste aerosol cans.*  
(1) A used aerosol can becomes a waste on the date it is discarded.

(2) An unused aerosol can becomes a waste on the date the handler decides to discard it.

■ 17. Section 273.9 is amended by:

■ a. Adding the definition of “Aerosol can” in alphabetical order;

■ b. Revising the definitions of “Large Quantity Handler of Universal Waste” and “Small Quantity Handler of Universal Waste”;

■ c. Revising the introductory text and paragraphs (3) and (4) and adding paragraph (5) to the definition of “Universal Waste”;

■ d. In the definition of “Pesticide”:

■ i. Redesignating paragraphs (a), (b), and (c) as paragraphs (1), (2), and (3), respectively;

■ ii. In newly redesignated paragraphs (1) and (2), removing the comma and adding a semicolon in its place; and

■ iii. In newly redesignated paragraph (3), removing “(a) or (b) of this section” and adding in its place “(1) or (2)” of this definition;

■ e. In the definition of “Universal Waste Handler”:

■ i. Removing “Waste Handler” and adding “waste handler” in its place;

■ ii. Redesignating paragraphs (a) introductory text, (a)(1) and (2), (b) introductory text, and (b)(1) and (2) as paragraphs (1) introductory text, (1)(i) and (ii), (2) introductory text, and (2)(i) and (ii), respectively; and

■ iii. Revising newly redesignated paragraph (2)(i);

■ f. In the definition of “Universal Waste Transfer Facility,” removing “Waste Transfer Facility” and adding “waste transfer facility” in its place; and

■ g. In the definition of “Universal Waste Transporter,” removing “Waste Transporter” and adding “waste transporter” in its place.

The revisions and additions read as follows:

§ 273.9 Definitions.

*Aerosol can* means a non-refillable receptacle containing a gas compressed, liquefied, or dissolved under pressure, the sole purpose of which is to expel a liquid, paste, or powder and fitted with a self-closing release device allowing the contents to be ejected by the gas.

\* \* \* \* \*

*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, mercury-containing equipment, lamps, or aerosol cans, 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 the 5,000-kilogram limit is met or exceeded.

\* \* \* \* \*

*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 of universal waste (batteries, pesticides, mercury-containing equipment, lamps, or aerosol cans, calculated collectively) at any time.

\* \* \* \* \*

*Universal waste* means any of the following hazardous wastes that are

subject to the universal waste requirements of this part:

\* \* \* \* \*

(3) Mercury-containing equipment as described in § 273.4;

(4) Lamps as described in § 273.5; and  
(5) Aerosol cans as described in § 273.6.

\* \* \* \* \*

*Universal waste handler:*

\* \* \* \* \*

(2) \* \* \*

(i) A person who treats (except under the provisions of § 273.13(a) or (c), or § 273.33(a) or (c)), disposes of, or recycles (except under the provisions of § 273.13(e) or § 273.33(e)) universal waste; or

\* \* \* \* \*

**Subpart B—Standards for Small Quantity Handlers of Universal Waste**

■ 18. Section 273.13 is amended by revising paragraphs (c)(2)(iii) and (iv) and adding paragraph (e) to read as follows:

§ 273.13 Waste management.

\* \* \* \* \*

(c) \* \* \*

(2) \* \* \*

(iii) Ensures that a mercury clean-up system is readily available to immediately transfer any mercury resulting from spills or leaks from broken ampules from that containment device to a container that is subject to all applicable requirements of 40 CFR parts 260 through 272;

(iv) Immediately transfers any mercury resulting from spills or leaks from broken ampules from the containment device to a container that is subject to all applicable requirements of 40 CFR parts 260 through 272;

\* \* \* \* \*

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

(1) Universal waste aerosol cans must be accumulated in a container that is structurally sound, compatible with the contents of the aerosol cans, lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions, and is protected from sources of heat.

(2) Universal waste aerosol cans that show evidence of leakage must be packaged in a separate closed container or overpacked with absorbents, or immediately punctured and drained in accordance with the requirements of paragraph (e)(4) of this section.

(3) A small quantity handler of universal waste may conduct the following activities as long as each individual aerosol can is not breached and remains intact:

- (i) Sorting aerosol cans by type;
  - (ii) Mixing intact cans in one container; and
  - (iii) Removing actuators to reduce the risk of accidental release; and
- (4) A small quantity handler of universal waste who punctures and drains their aerosol cans must recycle the empty punctured aerosol cans and meet the following requirements while puncturing and draining universal waste aerosol cans:

(i) Conduct puncturing and draining activities using a device specifically designed to safely puncture aerosol cans and effectively contain the residual contents and any emissions thereof.

(ii) Establish and follow a written procedure detailing how to safely puncture and drain the universal waste aerosol can (including proper assembly, operation and maintenance of the unit, segregation of incompatible wastes, and proper waste management practices to prevent fires or releases); maintain a copy of the manufacturer's specification and instruction on site; and ensure employees operating the device are trained in the proper procedures.

(iii) Ensure that puncturing of the can is done in a manner designed to prevent fires and to prevent the release of any component of universal waste to the environment. This manner includes, but is not limited to, locating the equipment on a solid, flat surface in a well-ventilated area.

(iv) Immediately transfer the contents from the waste aerosol can or puncturing device, if applicable, to a container or tank that meets the applicable requirements of 40 CFR 262.14, 262.15, 262.16, or 262.17.

(v) Conduct a hazardous waste determination on the contents of the emptied aerosol can per 40 CFR 262.11. Any hazardous waste generated as a result of puncturing and draining the aerosol can is subject to all applicable requirements of 40 CFR parts 260 through 272. The handler is considered the generator of the hazardous waste and is subject to 40 CFR part 262.

(vi) If the contents are determined to be nonhazardous, the handler may manage the waste in any way that is in compliance with applicable Federal, state, or local solid waste regulations.

(vii) A written procedure must be in place in the event of a spill or leak and a spill clean-up kit must be provided. All spills or leaks of the contents of the aerosol cans must be cleaned up promptly.

■ 19. Section 273.14 is amended by adding paragraph (f) to read as follows:

**§ 273.14 Labeling/markings.**

\* \* \* \* \*

(f) Universal waste aerosol cans (*i.e.*, each aerosol can), or a container in which the aerosol cans are contained, must be labeled or marked clearly with any of the following phrases: "Universal Waste—Aerosol Can(s)," "Waste Aerosol Can(s)," or "Used Aerosol Can(s)".

**Subpart C—Standards for Large Quantity Handlers of Universal Waste**

■ 20 Section 273.32 is amended by revising paragraph (b)(4) to read as follows:

**§ 273.32 Notification.**

\* \* \* \* \*

(b) \* \* \*

(4) A list of all the types of universal waste managed by the handler (*e.g.*, batteries, pesticides, mercury-containing equipment, lamps, and aerosol cans); and

\* \* \* \* \*

■ 21. Section 273.33 is amended by revising paragraphs (c)(2)(iii) and (iv) and adding paragraph (e) to read as follows:

**§ 273.33 Waste management.**

\* \* \* \* \*

(c) \* \* \*

(2) \* \* \*

(iii) Ensures that a mercury clean-up system is readily available to immediately transfer any mercury resulting from spills or leaks of broken ampules from that containment device to a container that is subject to all applicable requirements of 40 CFR parts 260 through 272;

(iv) Immediately transfers any mercury resulting from spills or leaks from broken ampules from the containment device to a container is subject to all applicable requirements of 40 CFR parts 260 through 272;

\* \* \* \* \*

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

(1) Universal waste aerosol cans must be accumulated in a container that is structurally sound, compatible with the contents of the aerosol cans, lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions, and is protected from sources of heat.

(2) Universal waste aerosol cans that show evidence of leakage must be

packaged in a separate closed container or overpacked with absorbents, or immediately punctured and drained in accordance with the requirements of paragraph (e)(4) of this section.

(3) A large quantity handler of universal waste may conduct the following activities as long as each individual aerosol can is not breached and remains intact:

- (i) Sorting aerosol cans by type;
- (ii) Mixing intact cans in one container; and

(iii) Removing actuators to reduce the risk of accidental release; and

(4) A large quantity handler of universal waste who punctures and drains their aerosol cans must recycle the empty punctured aerosol cans and meet the following requirements while puncturing and draining universal waste aerosol cans:

(i) Conduct puncturing and draining activities using a device specifically designed to safely puncture aerosol cans and effectively contain the residual contents and any emissions thereof.

(ii) Establish and follow a written procedure detailing how to safely puncture and drain the universal waste aerosol can (including proper assembly, operation and maintenance of the unit, segregation of incompatible wastes, and proper waste management practices to prevent fires or releases); maintain a copy of the manufacturer's specification and instruction on site; and ensure employees operating the device are trained in the proper procedures.

(iii) Ensure that puncturing of the can is done in a manner designed to prevent fires and to prevent the release of any component of universal waste to the environment. This includes, but is not limited to, locating the equipment on a solid, flat surface in a well ventilated area.

(iv) Immediately transfer the contents from the waste aerosol can or puncturing device, if applicable, to a container or tank that meets the applicable requirements of 40 CFR 262.14, 262.15, 262.16, or § 262.17.

(v) Conduct a hazardous waste determination on the contents of the emptied can per 40 CFR 262.11. Any hazardous waste generated as a result of puncturing and draining the aerosol can is subject to all applicable requirements of 40 CFR parts 260 through 272. The handler is considered the generator of the hazardous waste and is subject to 40 CFR part 262.

(vi) If the contents are determined to be nonhazardous, the handler may manage the waste in any way that is in compliance with applicable Federal, state, or local solid waste regulations.

(vii) A written procedure must be in place in the event of a spill or release and a spill clean-up kit must be provided. All spills or leaks of the contents of the aerosol cans must be cleaned up promptly.

■ 22. Section 273.34 is amended by adding paragraph (f) to read as follows:

**§ 273.34 Labeling/marketing.**

\* \* \* \* \*

(f) Universal waste aerosol cans (*i.e.*, each aerosol can), or a container in which the aerosol cans are contained, must be labeled or marked clearly with any of the following phrases: “Universal Waste—Aerosol Can(s)”, “Waste Aerosol Can(s)”, or “Used Aerosol Can(s)”.

[FR Doc. 2019-25674 Filed 12-6-19; 8:45 am]

BILLING CODE 6560-50-P

**FEDERAL COMMUNICATIONS COMMISSION**

**47 CFR Part 54**

[WC Docket No. 10-90; FCC 19-104]

**Connect America Fund**

**AGENCY:** Federal Communications Commission.

**ACTION:** Final rule.

**SUMMARY:** In this document, the Federal Communications Commission (Commission) reviews performance measures established by the Wireline Competition Bureau (WCB), the Wireless Telecommunications Bureau, and the Office of Engineering and Technology (collectively the Bureaus) for recipients of Connect America Fund (CAF) high-cost universal service support to ensure that those standards strike the right balance between ensuring effective use of universal service funds while granting the flexibility providers need given the practicalities of network deployment in varied circumstances.

**DATES:** Effective January 8, 2020.

**FOR FURTHER INFORMATION CONTACT:** Suzanne Yelen, Wireline Competition Bureau, (202) 418-7400 or TTY: (202) 418-0484.

**SUPPLEMENTARY INFORMATION:** This is a summary of the Commission’s Order on Reconsideration in WC Docket No. 10-90; FCC 19-104, adopted on October 25, 2019 and released on October 31, 2019. The full text of this document is available for public inspection during regular business hours in the FCC Reference Center, Room CY-A257, 445 12th Street SW, Washington, DC 20554 or at the following internet address:

<https://docs.fcc.gov/public/attachments/FCC-19-104A1.pdf>

**I. Introduction**

1. The Commission has long recognized that “[a]ll Americans [should] have access to broadband that is capable of enabling the kinds of key applications that drive the Commission’s efforts to achieve universal broadband, including education (*e.g.*, distance/online learning), health care (*e.g.*, remote health monitoring), and person-to-person communications (*e.g.*, Voice over internet Protocol (VoIP) or online video chat with loved ones serving overseas).” To that end, the Commission has invested significant Universal Service Fund support for the deployment of broadband-capable networks in high cost, rural areas.

2. But only fast and responsive networks will allow Americans to fully realize the benefits of connectivity. That is why the Commission requires recipients of universal service support in high cost areas to deploy broadband networks capable of meeting minimum service standards. These standards protect taxpayers’ investment and ensure that carriers receiving this support deploy networks that meet the performance standards they promised to deliver to rural consumers. At the same time, the Commission recognizes that each carrier faces unique circumstances, and that one set of prescriptive rules may not make sense for every one of them. To accommodate this practical reality, the Commission’s rules provide flexibility, taking into account the operational, technical, and size differences among providers when establishing minimum standards, to ensure that even the smallest rural carriers can meet testing requirements without facing excessive burdens.

3. In the Order on Reconsideration, the Commission reviews performance measures established by the Bureaus for recipients of CAF high-cost universal service support to ensure that those standards strike the right balance between ensuring effective use of universal service funds while granting the flexibility providers need given the practicalities of network deployment in varied circumstances. Several petitions for reconsideration and applications for review of the Performance Measures Order, 83 FR 42052, August 20, 2018, propose changes to these performance measures. Here, the Commission rejects the proposed changes where it finds that the Bureaus’ approach strikes the right balance. Where the Commission finds that the Bureaus’ approach does not—for example, where it concludes that

greater flexibility is warranted than was offered under the Bureaus’ original methodology—the Commission adjusts its rules accordingly. Finally, the Commission clarifies the Bureaus’ approach where doing so will help resolve stakeholder confusion.

**II. Discussion**

4. In the Order on Reconsideration, the Commission reexamines each of the described performance measure requirements in this document. As a result, the Commission adopts several modifications. The Commission believes these changes will alleviate concerns expressed by carriers by increasing the time for carriers to meet certain deadlines and further minimizing the costs associated with compliance, yet still ensure that carriers meet their performance obligations. In short, the refinements to the Bureau’s approach adopted in the Performance Measures Order will further the overarching goal of the *Performance Measures Order*; namely, to ensure that carriers deliver broadband services with the speed and latency required while providing flexibility to enable carriers of all sizes to choose how to conduct the required performance testing in the manner most appropriate for each individual carrier.

5. Under the *Performance Measures Order*, all high-cost support recipients serving fixed locations must perform speed and latency tests from the customer premises of an active subscriber to a remote test server located at or reached by passing through an FCC-designated internet Exchange Point (IXP). In the *USF/ICC Transformation Order*, 76 FR 73830, November 29, 2011, the Commission decided that speed and latency should be measured on each eligible telecommunications carriers (ETCs) access network from the end-user interface to the nearest internet access point, *i.e.*, the internet gateway, which is the closest peering point between the broadband provider and the public internet for a given consumer connection. Subsequently, in the *CAF Phase II Price Cap Service Obligation Order*, 78 FR 70881, November 27, 2013, WCB stated that latency should be tested to an IXP, defined as occurring in any of ten different U.S. locations, almost all of which are locations used in the MBA program because they are geographically distributed major peering locations. The Bureaus expanded the list to permit testing to six additional metropolitan areas to ensure that most mainland U.S. locations are within 300 miles of an FCC-designated IXP and that all are within approximately 500 air miles of one. Further, the Bureaus permitted providers to use any FCC-

case of a security issued by an open-end investment company registered under the Investment Company Act of 1940, the minimum or maximum quantity of such security which may be purchased or sold, or the value of such security in dollar amount which may be purchased or sold, at the price referred to in paragraph (d)(1)(ii)(B) of this section.

(2) A person who is a broker-dealer, reporting dealer, or bank which is a fiduciary with respect to an employee benefit plan solely by reason of the possession or exercise of discretionary authority or discretionary control in the management of the plan or the management or disposition of plan assets in connection with the execution of a transaction or transactions for the purchase or sale of securities on behalf of such plan which fails to comply with the provisions of paragraph (d)(1) of this section, shall not be deemed to be a fiduciary regarding any assets of the plan with respect to which such broker-dealer, reporting dealer or bank does not have any discretionary authority, discretionary control or discretionary responsibility, does not exercise any authority or control, does not render investment advice (as defined in paragraph (c)(1) of this section) for a fee or other compensation, and does not have any authority or responsibility to render such investment advice, provided that nothing in this paragraph shall be deemed to:

(i) Exempt such broker-dealer, reporting dealer, or bank from the provisions of section 405(a) of the Act concerning liability for fiduciary breaches by other fiduciaries with respect to any assets of the plan; or

(ii) Exclude such broker-dealer, reporting dealer, or bank from the definition, of the term “party in interest” (as set forth in section 3(14)(B) of the Act) with respect to any assets of the plan.

(e) *Affiliate and control.* (1) For purposes of paragraphs (c) and (d) of this section, an “affiliate” of a person shall include:

(i) Any person directly or indirectly, through one or more intermediaries, controlling, controlled by, or under common control with such person;

(ii) Any officer, director, partner, employee or relative (as defined in section 3(15) of the Act) of such person; and

(iii) Any corporation or partnership of which such person is an officer, director or partner.

(2) For purposes of this paragraph, the term “control” means the power to exercise a controlling influence over the

management or policies of a person other than an individual.

**Jeanne Klinefelter Wilson,**

*Acting Assistant Secretary, Employee Benefits Security Administration, U.S. Department of Labor.*

[FR Doc. 2020–14260 Filed 7–2–20; 8:45 am]

**BILLING CODE 4510–29–P**

## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Parts 63, 260, 261, and 278

[EPA–HQ–OLEM–2018–0830; FRL–10006–71–OLEM]

RIN 2050–AG93

### Modernizing Ignitable Liquids Determinations

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Final rule.

**SUMMARY:** The Environmental Protection Agency (EPA) is finalizing updates to the regulations for the identification of ignitable hazardous waste under the Resource Conservation and Recovery Act (RCRA) and to modernize the RCRA test methods that currently require the use of mercury thermometers. These revisions provide greater clarity to hazardous waste identification, provide flexibility in testing requirements, improve environmental compliance, and, thereby, enhance protection of human health and the environment.

**DATES:** This final rule is effective on September 8, 2020. The incorporation by reference of certain publications listed in the rule is approved by the Director of the Federal Register as of September 8, 2020.

**ADDRESSES:** The docket for this action, identified by docket identification (ID) number EPA–HQ–OLEM–2018–0830, is available at <https://www.regulations.gov> or at the Office of Land & Emergency Management Docket (OLEM Docket), Environmental Protection Agency Docket Center (EPA/DC), West William Jefferson Clinton Bldg., Rm. 3334, 1301 Constitution Ave. NW, Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the OLEM Docket is (202) 566–0270. Please review the visitor instructions and additional information about the docket available at <https://www.epa.gov/dockets>.

**FOR FURTHER INFORMATION CONTACT:** Daniel Fagnant, Materials Recovery and

Waste Management Division, Office of Resource Conservation and Recovery (5304P), Environmental Protection Agency, 1200 Pennsylvania Avenue NW, Washington, DC 20460; telephone number 703–308–0319; email address: [fagnant.daniel@epa.gov](mailto:fagnant.daniel@epa.gov); or Melissa Kaps, Materials Recovery and Waste Management Division, Office of Resource Conservation and Recovery (5304P), Environmental Protection Agency, 1200 Pennsylvania Avenue NW, Washington, DC 20460; telephone number 703–308–6787; email address: [kaps.melissa@epa.gov](mailto:kaps.melissa@epa.gov).

### SUPPLEMENTARY INFORMATION:

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## I. General information

### A. Does this action apply to me?

You may be potentially affected by this action if you conduct testing activities to determine the ignitability characteristics of certain wastes and/or use SW-846 air sampling and stack emissions Methods 0010, 0011, 0020, 0023A, or 0051. The following list of North American Industrial Classification System (NAICS) codes is not intended to be exhaustive, but rather provides a guide to help readers determine whether this document applies to them. If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the **FOR FURTHER INFORMATION CONTACT** section. Potentially affected entities may include:

- Other Electric Power Generation (NAICS code 221118).
- Petroleum Refineries (NAICS code 324110).
- Engineering Services (NAICS code 541330).
- Testing Laboratories (NAICS code 541380).
- Environmental Consulting Services (NAICS code 541620).
- Research and Development in the Physical, Engineering, and Life Sciences (except Biotechnology) (NAICS code 541712).
- All Other Support Services (NAICS code 561990).
- Hazardous Waste Treatment and Disposal (NAICS code 562211).

### B. What action is EPA taking?

First, EPA is updating the test methods required for measuring the flash point of a liquid waste when determining if that waste is an ignitable hazardous waste (*i.e.*, SW-846 Method 1010A (Pensky-Martens) or Method 1020B (Setaflash)) under 40 CFR 261.21. Second, EPA is codifying existing guidance regarding the definition of aqueous for purposes of 40 CFR 261.21(a)(1). Third, EPA is updating cross references to Department of Transportation (DOT) regulations and also making certain other conforming amendments and technical corrections. Finally, EPA is adding mercury thermometer alternatives in the air sampling and stack emissions test methods in *Test Methods for Evaluating*

*Solid Waste: Physical/Chemical Methods* (SW-846); specifically, Methods 0010, 0011, 0020, 0023A, and 0051.

### C. What is EPA's authority for taking this action?

The authority for this rule can be found in sections 1002, 1006, 2002, 3001-3009, 3013, and 3017 of the Solid Waste Disposal Act (SWDA) of 1970, as amended by the Resource Conservation and Recovery Act (RCRA) of 1976, as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA), 42 U.S.C. 6901, 6905, 6912, 6921-6929, 6934, and 6938; sections 101 *et seq.* of the Clean Air Act, as amended, 42 U.S.C. 7401 *et seq.*

### D. What are the incremental costs and benefits of this action?

EPA prepared an economic analysis of the potential costs and benefits associated with this action. The *Regulatory Impact Analysis of the Modernization of Ignitable Liquid Determinations Rule* is available in the docket. The final rule will modify SW-846 test methods while also retaining the current procedures to provide entities increased flexibility. For the purpose of the analysis, EPA assumes that every facility that currently conducts flash point testing: (1) Is compliant with the current test methods, (2) will use the updated test methods if cost effective, and (3) will continue to conduct flash point testing.

The universe of facilities affected by the updates to the ignitability test methods and SW-846 air sampling and stack emissions test methods includes: (1) Commercial laboratories, (2) EPA laboratories, and (3) state laboratories. EPA identified 217 unique commercial laboratories that conduct ignitability testing under either Method 1010A or 1020. EPA identified an additional 18 commercial laboratories accredited to conduct any of the air sampling and stack emissions test methods that would be updated under rule, for a total of 235 commercial labs affected by the rule. These 235 total laboratories are part of 177 unique firms, including several large commercial laboratories with multiple locations. EPA estimates that the total number of laboratories, including 20 state and nine federal laboratories, potentially affected by this rule is 264.

The economic analysis indicates that the rule is projected to result in annualized cost savings of about \$78,500 to \$477,000 (based on a discount rate of seven percent). The net present value of costs over 20 years is estimated to be a cost savings of

\$832,000 to \$5 million (seven percent discount rate). EPA's analysis shows qualitative benefits to human health and the environment through the reduced use of mercury thermometers. EPA does not expect the other parts of this action to affect any entity because they do not create new requirements or change existing requirements.

## II. Background

### A. What is a hazardous waste?

Subtitle C of RCRA and its implementing regulations establish a cradle-to-grave regulatory management scheme for certain solid wastes that qualify as hazardous wastes. Any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material is a "solid waste" under RCRA section 1004(27) (42 U.S.C. 6903(27)). EPA has further defined the term "solid waste" for purposes of its RCRA hazardous waste regulations (40 CFR 261.2). To be considered a hazardous waste, a material first must be classified as a solid waste. Generators of solid waste must determine whether their wastes are hazardous wastes (40 CFR 262.11). A solid waste is a hazardous waste if it exhibits characteristics of ignitability, corrosivity, reactivity, or toxicity (40 CFR 261.20 through 261.24), or is a listed waste (40 CFR 261.30 through 261.33). Listed wastes include wastes from non-specific sources, such as spent solvents; residuals such as by-products and sludges from specific industries; and discarded, unused commercial chemical products.

### B. What is the hazardous waste characteristic of ignitability?

Under 40 CFR 261.21, the characteristic of ignitability identifies solid waste as hazardous based on the properties of the waste that give it the potential to cause harm to human health or the environment through direct or indirect fire hazard, including contributing to or causing landfill fires. Waste that is identified as hazardous pursuant to 40 CFR 261.21 has the EPA Hazardous Waste Number of D001. Ignitable hazardous waste (D001) is regulated to minimize its opportunity to cause or contribute to fires during routine waste management activities. Solid wastes that are regulated as ignitable hazardous waste include: (1) Certain liquids with flash points less than 60 °C (140 °F); (2) non-liquid substances that are capable, under standard temperature and pressure, of

causing fire through friction, absorption of moisture, or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that they create a hazard; (3) ignitable compressed gases; and (4) oxidizers.

*C. What is the regulatory history of the ignitability characteristic?*

The ignitability characteristic was originally proposed in 1978 (43 FR 58945, December 18, 1978) with an objective of identifying wastes that present a fire hazard due to being ignitable under routine waste disposal and storage conditions. The ignitability characteristic was finalized in 1980 when EPA promulgated the first phase of regulations under Subtitle C of RCRA to protect human health and the environment from the improper management of hazardous waste (45 FR 33066, May 19, 1980). These regulations included 40 CFR part 261, which defined hazardous waste including the ignitability characteristic and incorporated two ASTM International (“ASTM”) voluntary consensus standards by reference as the required flash point tests for ignitable liquid hazardous waste determinations: ASTM D93–79 (Pensky-Martens) and ASTM D3278–78 (Setaflash). In a 1981 revision, EPA revised SW–846 Method 1010 to allow the use of D93–79 or D93–80 (46 FR 35246, July 7, 1981).

ASTM standards D3278–78, D93–79, and D93–80 were the test methods available for flash point testing at the time of the 1980 and 1981 rulemakings. Since that time, ASTM has updated D93 and D3278 multiple times to improve the standards and incorporate new technology.<sup>1</sup> EPA previously proposed to update the flash point test methods for ignitability in the 2002 proposed Methods Innovation Rule by replacing ASTM standard D3278–78 with D3278–96 and ASTM standards D93–79 and D93–80 with D93–99c (67 FR 66252, October 30, 2002). In that proposed rule, EPA also requested comment on whether D93–00 should instead replace D93–79 and D93–80. The public commenters raised concerns that the sampling procedures of the proposed versions of D93 may lead to a loss of flammable volatile constituents from a sample due to greater headspace in the sampling container. The Agency made the decision to not revise flash point

testing when the Methods Innovation Rule was finalized in 2005 (70 FR 34550, June 14, 2005), agreeing with public comments that EPA further study the changes in flash point testing standards.

EPA later issued a final rule to correct the ignitability characteristic at 40 CFR 261 by replacing obsolete references to DOT regulations related to definitions of ignitable compressed gases and oxidizers (71 FR 40254, July 14, 2006). That final rule amended the regulation by revising paragraphs (a)(3) and (a)(4) of § 261.21 and adding notes 1 through 4 to the end of that section. No change was made to § 261.21(a)(1).

*D. Summary of the Proposed Rule*

On April 2, 2019, EPA published a proposed rule to modernize standards for ignitable liquids determinations (84 FR 12539). EPA proposed to update the flash point test methods for the determination of characteristically ignitable hazardous waste along with other minor changes. EPA proposed to update required test methods that refer to outdated standards developed by ASTM and that require instrumentation that is no longer readily commercially available. For example, the standards require the use of mercury thermometers, which are becoming more difficult to acquire and calibrate due to their use and availability being phased out for environmental, health, and safety concerns. EPA also proposed to remove the requirements for mercury thermometers in the SW–846 air sampling and stack emissions test methods. In addition, EPA proposed to codify existing guidance regarding the regulatory exclusion in the ignitability characteristic for aqueous liquids containing alcohols and proposed to codify existing sampling guidance regarding waste mixtures having multiple phases when determining whether a waste exhibits the ignitability characteristic. Finally, EPA proposed to update cross references to DOT regulations, to remove obsolete information, and make certain technical corrections. The specific amendments and corrections proposed by EPA are summarized below.

*1. Flash point test methods.* EPA proposed to revise 40 CFR 261.21 to incorporate by reference ASTM standard D8175–18 as an alternative to ASTM standards D93–79 and D93–80 in Method 1010B (Pensky-Martens test method) (84 FR 12539, April 2, 2019). EPA similarly proposed to revise 40 CFR 261.21 to incorporate by reference the ASTM standard D8174–18 as an alternative to ASTM standard D3278–78 in Method 1020C (Setaflash test

method). The Agency also proposed to retain the ASTM standards D93–79, D93–80, and D3278–78 within Methods 1010B and 1020C. The Agency proposed that the original ASTM standards and the new ASTM standards referenced in Methods 1010 and 1020 are all technically acceptable for determinations of flash point for ignitable liquids. Therefore, a generator or laboratory may choose to use any of the ASTM standards listed in Methods 1010B and 1020C, which are being finalized today. The Agency anticipates that domestic and international efforts to reduce mercury usage, the environmental benefits of removing mercury from the workplace, and the economic benefits from reduced testing costs will result in generators and laboratories adopting the new test methods over time. The Agency also solicited comments from the public on whether it would be more appropriate to remove the older ASTM standards from the test methods at this time due to their required use of mercury thermometers.

*2. Air sampling and stack emissions requiring mercury thermometers.* EPA proposed to update the SW–846 air sampling and stack emissions test methods that presently require the use of mercury thermometers. These test methods are Methods 0010, 0011, 0020, 0023A, and 0051. The proposed rule provided users of these test methods the flexibility to use alternative temperature-measuring devices, while still allowing the use of mercury thermometers. Many of these air sampling and stack emissions test methods are modifications of, or are similar to, EPA Method 5 of Appendix A–3 of 40 CFR 60, Determination of Particulate Matter Emissions from Stationary Sources. For Method 5, EPA issued the proposed rule “Revisions to Test Methods and Testing Regulations at (77 FR 1130, January 9, 2012), and later finalized the rule at (79 FR 11228, February 27, 2014) for the use of alternative mercury-free thermometers if the thermometers are, at a minimum, equivalent in terms of performance or are suitably effective for the specific temperature measurement application. EPA proposed to add similar language, where appropriate, in SW–846 Methods 0010, 0011, 0020, 0023A, and 0051. The removal of the requirement to use mercury thermometers does not change the underlying technology of the test methods and is not expected to affect the precision or accuracy of the test methods. Therefore, in accordance with the SW–846 methods policy statement, the test method numbers and letters EPA uses to identify test methods,

<sup>1</sup> The Agency notes that while ASTM standards are subject to review and revision (a process that occurs every five years) because the regulation incorporates by reference the year-specific version of an ASTM standard, the version in the regulation remains in effect until changed by an EPA action. See 84 FR 12539 for more information about the use of method-defined parameters.

including subsequent versions, are not being revised due to these changes.<sup>2</sup>

3. *Aqueous alcohol exclusion.* EPA proposed to revise the aqueous alcohol exclusion in 40 CFR 261.21(a)(1) by codifying existing guidance into the regulatory text to clarify the exclusion's scope. As stated in the proposed rule, EPA proposed to change the text of the exclusion from "other than an aqueous solution containing less than 24 percent alcohol by volume" to "other than a solution containing less than 24 percent of any alcohol or combination of alcohols (except if the alcohol has been used for its solvent properties and is one of the alcohols specified in EPA Hazardous Waste No. F003 or F005) by volume and at least 50 percent water by weight." Specifically, EPA proposed the following revisions to the exclusion: (1) Replace the undefined term "aqueous" with "at least 50 percent water by weight" and (2) clarify that "alcohol" meant "any alcohol or combination of alcohols" except for alcohol that had "been used for its solvent properties and is one of the alcohols specified in EPA Hazardous Waste No. F003 or F005." These two proposed revisions to the current regulatory text for the aqueous alcohol exclusion are contained in existing EPA guidance published in the EPA Monthly Hotline Report, EPA530-R-92-014g (July 1992), pages 3-4. The Hotline Report states for the purpose of the ignitability characteristic in 40 CFR 261.21(a)(1), "aqueous" means a solution containing at least 50 percent water by weight, and that the term "alcohol" in 40 CFR 261.21(a)(1) refers to any alcohol or combination of alcohols. EPA also explained in the Hotline Report that, if the alcohol is one of those alcohols specified in EPA hazardous waste codes F001-F005 and has been used for its solvent properties, the waste must be evaluated to determine if it should be classified as an F-listed spent solvent waste." (55 FR 22543, June 1, 1990.)

In the proposed rule, EPA also asked for input on whether any additional revisions should be made to the aqueous alcohol exclusion in 40 CFR 261.21(a)(1) to limit the exclusion to its original intent. EPA suggested the following possible revisions to the exclusion: Explicitly identifying specific waste streams, narrowing the types of alcohol that would qualify, adding a minimum alcohol content, and raising the minimum water content for aqueous alcohol solutions. Also, EPA noted that any revisions made to the aqueous

alcohol exclusion in 40 CFR 261.21(a)(1) would have no effect on the applicability of the discharge prohibitions presented in the Agency's Clean Water Act (CWA) national pretreatment standards for existing and new sources of pollution (40 CFR 403.5). Section 403.5(b)(1) of the discharge prohibitions addresses waste streams with a closed cup flash point of less than 140 degrees Fahrenheit or 60 degrees Centigrade using the test methods specified in 40 CFR 261.21 and provides no exemption for aqueous alcohol solutions (55 FR 30082, July 24, 1990). The Agency's rationale for not exempting aqueous alcohol solutions under the CWA discharge prohibitions is explained in the final rule entitled "EPA Administered Permit Programs; the National Pollutant Discharge Elimination System; General Pretreatment Regulations for Existing and New Sources; Regulations To Enhance Control of Toxic Pollutant and Hazardous Waste Discharges to Publicly Owned Treatment Works" (55 FR 30082, July 24, 1990). Thus, EPA's proposed revisions to the aqueous alcohol exclusion in 40 CFR 261.21(a)(1) would not change its inapplicability to 40 CFR 403.5(b)(1).

4. *Sampling multiple phase wastes.* EPA proposed to codify its existing sampling guidance for multiphase wastes tested for ignitability in 40 CFR 261.21(a). EPA's proposed codification sought to put into regulatory text its existing policy on how to properly test multiphase wastes containing liquid(s) with or without solids for ignitability determinations. EPA's long-standing sampling guidance applies at initial generation and during the course of normal management of a waste. The Agency's existing guidance explains that a generator or laboratory (*i.e.*, those conducting the analysis) should separate multiphase waste samples into all of their different solid and/or liquid phases for individual evaluation, to the extent practicable. Each separated phase should be evaluated individually in accordance with 40 CFR 261.21(a) to determine whether that phase exhibits the characteristic of ignitability. The Agency's existing guidance further explains that the multiphase waste should be tested for flash point as a whole if the individual phases cannot be separated without an appreciable loss of volatiles such that the ignitability test results may be affected.

In the proposed rule, EPA also requested comment on whether language should be added to Chapter 7 of SW-846 as guidance regarding the use of the pressure filtration technique specified in Method 1311 for assessing

the presence of an ignitable liquid for wastes that do not yield a free liquid phase using Method 9095 (*i.e.*, Paint Filter Liquids Test or PFLT).

5. *Technical corrections.*

a. *Definition of ignitable compressed gas.* The Agency also proposed corrections to the ignitable compressed gas definitions in 40 CFR 261.21(a)(3)(ii). EPA proposed to revise 40 CFR 261.21(a)(3)(ii)(A) to specify the ASTM standard E 681-85 as the approved test for determining whether any waste that is a compressed gas exhibits the RCRA ignitability characteristic, and to remove reference to the Bureau of Explosives as an approving agency for sampling and test methods. Consistent with the current DOT regulations (49 CFR 173.115), EPA also proposed to correct its own regulations that reference identifying the agency responsible for approving other tests as equivalent for this purpose, by adding the phrase "approved by the Associate Administrator, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation." to 40 CFR 261.21(a)(3)(ii).

EPA also proposed to revise 40 CFR 261.21(a)(3)(ii)(B)-(D) to align with the existing DOT regulations for flammable gases. The Agency proposed to update the definition of ignitable compressed gas within 40 CFR 261.21(a)(3)(ii)(B)-(D), by removing references to Bureau of Explosives test methods and mirroring the definition and testing that DOT now requires. This change would allow generators to determine if their waste meets the definition of an ignitable compressed gas by determining if it meets the definition of a Division 2.1 flammable gas or a flammable aerosol (see 49 CFR 173.115(a) and (l)).

b. *Cross-reference to DOT explosives.* EPA proposed revising 40 CFR 261.21(a)(4)(i)(A) to replace the currently referenced "Class A explosive or a Class B explosive" with "Division 1.1, 1.2, or 1.3 explosive" to be consistent with DOT's revised classification system for explosives (55 FR 52402, December 21, 1990). In 2010, EPA incorporated into the RCRA hazardous waste regulations DOT's changes to its classification system for explosives (75 FR 12989, March 18, 2010). However, that rulemaking overlooked the reference to Class A and Class B explosives in 40 CFR 261.21(a)(4)(i)(A). This proposed change corrects that inadvertent omission by updating 40 CFR 261.21(a)(4)(i)(A) with the correct references.

c. *Deletion of notes.* EPA also proposed to delete the four notes at the end of 40 CFR 261.21, which are

<sup>2</sup> See <https://www.epa.gov/hw-sw846/policy-statement-about-test-methods-evaluating-solid-waste-physicalchemical-methods>.

outdated or unnecessary to understanding the regulation. For example, the Bureau of Explosives will no longer be the source for the test methods identified in 40 CFR 261.21(a)(3)(ii)(B)–(D), which makes Note 1 outdated. Notes 2 and 3 provide unnecessary historical information explaining that the Office of Hazardous Materials Technology (OHMT) and the Research and Special Programs Administration (RSPA), respectively, ceased operations on February 20, 2005 due to a DOT reorganization, and their programs were moved to the Pipeline and Hazardous Materials Safety Administration (PHMSA) in the DOT. Finally, Note 4, which provides the source of the definition of an oxidizer in 40 CFR 261.21(a)(4), may now be confusing because it references a DOT regulation as it existed in 1980 rather than its current form.

### III. Discussion of the Final Rule and Public Comments

#### A. Flash Point Test Methods

1. *Summary of the public comments.* The majority of public comments supported the Agency's proposal to add ASTM standards D8174–18 and D8175–18 to 40 CFR 261.21 as new, additional test methods options for flash point testing of ignitable liquids. Several public commenters requested that the Agency also continue to allow use of the currently required ASTM standards in the test methods. Some public commenters also asked the Agency to clarify whether results from any of the required flash point tests giving a nonhazardous determination for flash point are conclusive if test results from another flash point test would determine the waste to be hazardous. Commenters presented concerns that if conflicting test results are possible for a waste, then the public would be required to use all five ASTM standards referenced in the test methods for a waste determination.

2. *Provisions in the final rule.* The Agency is finalizing the proposed language in 40 CFR 261.21 that updates Methods 1010A and 1020B to include ASTM standards D8175–18 and D8174–18, respectively. This regulation will retain the three previously required flash point ASTM standards as part of a hazardous waste determination for ignitable liquids. The regulated community can continue to use the existing test methods or begin using the new flash point ASTM standards referenced in Methods 1010B and 1020C. Updates to cross-referenced language in 40 CFR 260.11 and

Appendix IX of 40 CFR part 261 are also being finalized in this action.

3. *Response to comments on waste determinations with conflicting flash point test results.* The Agency clarifies that generators are not required to use all of the ASTM standards specified in EPA Methods 1010B and 1020C when making a hazardous waste determination on a specific waste, and this remains unchanged under this rulemaking. The generator is responsible for making an accurate hazardous waste determination using testing or knowledge of the waste (40 CFR 262.11). If a generator does not have adequate knowledge to complete a hazardous waste identification and must test their waste, the generator should use the test method most appropriate for their waste based on knowledge of the waste. The ASTM standards referenced within EPA Methods 1010B and 1020C have similar precision and accuracy values. In many cases, use of any of the required test methods will be appropriate for a hazardous waste determination. The Agency expects that differences in test method results are more likely to occur due to uniquely challenging waste forms, differences in sampling or laboratory practices, or operator experience than with use of the different test methods. The Agency will revisit the required test methods if it is found that inconsistent results occur for specific wastes.

In some cases, the generator may be able to readily determine one test method is more appropriate. In the event that a generator of a waste does determine that multiple test methods would provide contrasting waste identifications, the generator should select and rely upon the test method that more accurately characterizes the hazards of the waste instead of selecting all of the test methods. If a generator suspects their waste presents unique challenges in identification through flash point testing, they may benefit from consulting with their authorized state program to avoid excessive testing.

#### B. Mercury Thermometer Requirements in Air Sampling and Stack Emissions Methods

1. *Summary of the public comments.* Public commenters supported the Agency's proposal to remove mercury thermometer requirements from the air sampling and stack emissions test methods. One commenter provided input that this change improves worker safety and reduces costs by avoiding potential mercury spills and cleanup. A second commenter indicated that replacement of mercury thermometers is already ongoing with similar test

methods, such as Method 5. A third commenter supported leaving the flexibility to use either mercury or non-mercury thermometers so that the transition to non-mercury thermometers can occur over time with normal equipment replacement.

2. *Provisions in the final rule.* The Agency is finalizing the proposed changes to Methods 0010, 0011, 0020, 0023A and 0051 and the proposed language incorporating these test methods by reference in 40 CFR 260.11 and 40 CFR part 261 Appendix IX, Tables 1 and 2 as proposed and discussed above. The changes will allow the use of non-mercury thermometers or mercury thermometers in these particular test methods, providing flexibility.

#### C. Technical Corrections to 40 CFR 261.21

1. *Summary of the public comments.* The Agency received several comments of broad support for these regulatory changes and no comments opposing these changes.

2. *Provisions in the final rule.* The Agency is finalizing the proposed changes to 40 CFR 261.21(a)(3) and 40 CFR 261.21(a)(4) and deleting the four notes at the end of 40 CFR 261.21 as proposed.

#### D. Revised Definition of Aqueous and Comments on the Aqueous Alcohol Exclusion

1. *Summary of the public comments.* Public comments on the Agency's proposed revisions to the aqueous alcohol exclusion supported some revisions while opposing others. The majority of commenters agreed with and supported the Agency's proposal to define "aqueous" within 40 CFR 261.21(a)(1) as "at least 50 percent weight by water." No commenters specifically addressed replacing the term alcohol in 40 CFR 261.21(a)(1) with the phrase "any alcohol or combination of alcohols" language; however, many commenters opposed the Agency's proposed revision to insert the statement, "(except if the alcohol has been used for its solvent properties and is one of the alcohols specified in EPA Hazardous Waste No. F003 or F005)." Public commenters expressed concerns that the proposed language created a new exception to the aqueous alcohol exclusion, describing several interpretations of the revised text that differ from the Agency's intended interpretation of the proposed regulatory language.<sup>3</sup> Commenters

<sup>3</sup> See comments from The American Fuel & Petrochemical Manufacturers, The Retail

suggested that one interpretation of the proposed regulation was as a new exception to the exclusion that would bring into regulation F003 spent solvents that are otherwise excluded from the ignitability characteristic as an aqueous alcohol.

Commenters also suggested a second interpretation could be a narrowing of the definition of "alcohol" within the aqueous alcohol exclusion to no longer include alcohols in the F003 and F005 listing descriptions. A related concern was whether an alcohol used for its solvent purposes is the same as a spent solvent and whether existing guidance on the scope of the spent solvent listings applied to both. An additional concern within this second interpretation involved cases where multiple alcohols were contained in the aqueous alcohol exclusion and whether the waste would be excluded if one alcohol met the F003 or F005 listing description while a second did not. Public commenters also stated that the Agency had provided little to no rationale for narrowing the aqueous alcohol exclusion in the proposed rule.

The public also commented on other potential changes to the aqueous alcohol exclusion.<sup>4</sup> One commenter suggested that the Agency should revisit excluded aqueous alcohols that contain a small concentration of ignitable alcohol and a large concentration of an ignitable non-alcohol component. The commenter referred to the original justification for the aqueous alcohol exclusion and suggested adding qualifiers to the regulation consistent with the intended scope of the regulation. It was suggested that the exclusion should not apply if the flash point of less than 60 °C (140 °F) is attributable solely to the non-alcohol component. A commenter also submitted data indicating ethanol and water mixtures will not flash below 4% ethanol. Commenters also suggested that EPA should implement a sustained combustion test to either exclude more waste from regulation or add the test as a condition to meet for exclusion as an aqueous alcohol. Another comment suggested that any liquid could be excluded if the liquid did not sustain combustion and met criteria similar to Department of Transportation (DOT) flammability requirements in 49 CFR 173.120(a)(3). Other commenters suggested EPA should propose more

specific changes and allow for public comment before making any other changes to the aqueous alcohol exclusion other than the replacement of aqueous with "at least 50 percent water by weight."

2. *Provisions in the final rule.* The Agency is finalizing the revision to define aqueous as "at least 50 percent water by weight" but is not finalizing any other changes to the aqueous alcohol exclusion, including the other proposed changes to the exclusion. The regulatory change that is being finalized is specific to the term aqueous within 40 CFR 261.21. Other RCRA regulations that also use the term aqueous are unaffected by this final rule. EPA is not finalizing the proposed changes to the definition of alcohol in the alcohol exclusion because those changes did not provide clarification as EPA intended, as indicated by the comments.

3. *Response to comments that EPA is narrowing the exclusion.* In proposing to amend 40 CFR 261.21(a)(1) to include the language "except if the alcohol has been used for its solvent properties and is one of the alcohols specified in EPA Hazardous Waste No. F003 or F005," the Agency had intended to clarify that generators are still responsible to consider relevant listing descriptions when making a hazardous waste determination on waste managed under the aqueous alcohol exclusion. In particular, the Agency considered it most likely that F003 or F005 wastes would most commonly share a waste code with ignitable aqueous alcohols. It is not EPA's intent to narrow the aqueous alcohol waste exclusion.

Even though EPA is not finalizing the language "except if the alcohol has been used for its solvent properties and is one of the alcohols specified in EPA Hazardous Waste No. F003 or F005," the Agency notes that generators of aqueous alcohol-excluded waste are still responsible for verifying that their waste does not meet a listing description or exhibit other characteristics as part of the regulations for generators of hazardous waste (e.g., requirements under 40 CFR 262.11). Some commenters suggested that the Agency's proposed language conflicted with application of 40 CFR 261.3(g). Specifically, a commenter raised concern that ignitable wastes meeting the F003 listing and meeting the exclusion for aqueous alcohols would have to be managed as F003 despite being a decharacterized waste at the point of generation.<sup>5</sup> The Agency's proposed language was not intended to

revise the regulations in 40 CFR 261.3(g) to limit applicability of F003 or F005 wastes. The Agency clarified in the final rule implementing 40 CFR 261.3(g) that in the case of wastes listed solely for ignitability, corrosivity, and reactivity that do not exhibit a characteristic at the point of generation, these wastes are considered to never have been hazardous and are not subject to 40 CFR part 268. A waste that would otherwise be listed for F003 but is excluded at the point of generation due to being an aqueous alcohol would not be considered ignitable hazardous waste. Wastes that are characteristic at the point of generation and then are subsequently decharacterized are still subject to LDR requirements (66 FR 27266, May 16, 2001).

With this proposed language, EPA had intended to clarify the regulation. The public comments have instead suggested additional interpretations and raised additional questions regarding the definition of alcohol and the application of the mixture and derived from rule to the proposed language. As a result, the Agency is not finalizing this specific part of the proposed language.

4. *Response to comments that other changes may be warranted.* The Agency requested comments on whether additional changes to the aqueous alcohol exclusion may be warranted. One potential change suggested by commenters was for the Agency to consider a lower limit on alcohol concentrations eligible for exclusion. These comments are supported by the rationale and supporting data that aqueous alcohols in a low enough concentration will not flash below 60 °C due to the alcoholic component alone.<sup>6</sup> The Agency agrees with the commenter that at very low concentrations of alcohol, an aqueous alcohol will not flash due to the alcohol alone. Implementing a lower limit to the aqueous alcohol exclusion may work for simple wastes that only have two chemical components but presents a challenge when any number of combinations of alcohols and wastes are considered. Setting a lower limit for each and every alcohol and their combinations would require further study by the Agency.

Commenters also suggested implementation of a sustained combustion test for the aqueous alcohol exclusion. The Agency does not currently require this by regulation. However, the Agency notes that the public is already capable of utilizing

Association, The American Chemistry Council, and Stericycle, Inc. EPA-HQ-OLEM-830-0178, -0175, and -0176.

<sup>4</sup> See comments from the Retail Association, Maryland Department of the Environment, Setricycle, Inc., and The Environmental Technology Council. EPA-HQ-OLEM-2018-0830-0175, -0166, and -0170.

<sup>5</sup> See comments by the American Chemical Council. EPA-HQ-OLEM-0830-0166.

<sup>6</sup> See comments from the Maryland Department of the Environment. EPA-HQ-OLEM-2018-0830-0169.

existing tests for sustained combustion as part of their generator knowledge of the waste. A generator making a waste determination using knowledge should be confident that their determination would agree with testing requirements under 261.21(a) if tested. Generators can also manage their waste in a more stringent manner.

Additionally, commenters suggested that the aqueous alcohol exclusion should be modified to be more consistent with the original intent of the exclusion, which was beverage alcohols and latex paints that do not sustain combustion. The alcohol exclusion in 261.21(a)(1) was originally an incorporation of the aqueous alcohol exclusion already present in DOT regulations. Since 1980, the DOT has updated their regulations while EPA has issued guidance on its own exclusion. The DOT exclusion for aqueous alcohols does not apply if another hazardous material is present.<sup>7</sup> In some cases, the definition of an aqueous alcohol in the DOT regulations may be narrower than the definition of an aqueous alcohol in EPA's regulation that was intended to mirror the DOT definition. A waste managed under the EPA defined aqueous alcohol exclusion may bear other hazardous waste codes that would not be excluded from ignitability and must be appropriately managed when other hazardous materials are present. Alternatively, wastes that meet EPA's definition of an aqueous alcohol under 40 CFR 261.21 but have additional requirements for packaging and handling in order to be made ready for transportation may support more stringent management. The Agency also notes that authorized state programs may be more stringent or broader in scope on these determinations.

Other commenters suggested that if the Agency were to modify the aqueous alcohol exclusion beyond the specific language proposed in this rulemaking, then the Agency should first propose those changes and provide another opportunity for the public to further comment. The suggested changes by the public warrant further consideration due to their scientific and technical merits. The aqueous alcohol exclusion has applicability to a broad category of wastes and changes to the definition of alcohol, the concentration of alcohol, or implementation of testing requirements could result in unintended impacts to the scope of the exclusion.

The Agency needs to further consider the scope and impacts of the potential

changes discussed in this section and is also interested in the experience of authorized state programs that may be implementing the exclusion in a different manner. Therefore, the Agency is not making any changes at this time as a result of these comments. The Agency agrees with the commenters that any other changes beyond EPA's specific proposed language would warrant further discussion and public input, and therefore is not finalizing any other changes based on comments at this time, including replacing "alcohol" with "any alcohol or combination of alcohols" in the regulatory text. Other than finalizing EPA's proposed language of "at least 50 percent water by weight," the Agency intends to seek additional public input before finalizing any other changes to the alcohol exclusions suggested by the public in this rulemaking.

The Agency maintains that it is ultimately the responsibility of the waste generator to make an accurate hazardous waste determination. The flash point test method results of less than 60 °C (140 °F) are definitive results for a waste determination. A generator must determine whether their waste is eligible to be excluded from ignitability as an aqueous alcohol. When making a determination for eligibility as an aqueous alcohol, a generator should consider the regulatory language itself as well as guidance that the agency has provided in the past. The Agency has provided guidance in preamble to allow for a broad range of alcohols to be eligible for exemption as an aqueous alcohol (55 FR 22520, June 1, 1990). The Agency has also stated through guidance that a solution of seventy seven percent water, thirteen percent alcohol, and ten percent non-alcoholic liquid component is eligible for exemption.<sup>8</sup>

A generator must determine whether their waste is an aqueous alcohol for the purpose of the aqueous alcohol exclusion based on testing or knowledge of the waste and its properties (see 40 CFR 262.11). The Agency's existing guidances on waste analysis and sampling may be helpful to generators in their waste determinations.<sup>9</sup> The Agency believes a good indicator for a generator that their waste is eligible for exclusion as an aqueous alcohol is if their waste is similar in nature to a

beverage alcohol or to an aqueous latex paint. The more a generator's waste diverges from being comparable to a beverage alcohol or latex paint, the more carefully a generator should consider whether the waste stream is eligible for exclusion. For example, in cases where the aqueous liquid waste contains almost no alcohol, EPA does not generally consider that waste to be an aqueous alcohol. If a generator is unsure whether their specific waste is eligible for exclusion as an aqueous alcohol, they should consult with their appropriate regulatory agency to discuss the specific nature of their waste. Additionally, state programs authorized to implement RCRA may be broader in scope or more stringent in implementation of ignitable liquids and aqueous alcohol wastes excluded from ignitability.

#### *E. Sampling of Multiple Phase Wastes*

*1. Summary of the public comments.*  
The Agency's proposal to codify existing guidance on sampling multiple phase wastes received mixed comments, with some commenters supporting and others opposing the proposal. One commenter stated support for separating phases before analyzing as laboratories already appear to be following this procedure. Another commenter stated that separating phases is appropriate and that doing otherwise would provide inconsistent results. However, that commenter stated that the Agency needs to provide sufficient guidance on how to determine if a waste contains multiple phases and is therefore subject to analysis of both phases. The commenter stated, "It is not clear how much separation must occur in a waste for it to be considered "multi-phase," and whether the waste must be capable of achieving such separation on its own, without additional processes. Wastes such as stable emulsions, or small amounts of liquids contained within a solid would not likely separate on their own through normal management practices and handling time."<sup>10</sup>

Other commenters opposed the proposal to require sampling of each phase of a multiple phase waste, insisting that EPA's proposed approach is too rigid and current guidance allows for more flexibility in sampling. The comments stated, "For example, the Agency's guidance merely suggests these actions for particular types of mixtures, not all existing and possible mixtures. EPA's proposal presumes that since guidance has suggested both phases be separated and tested

<sup>8</sup> See July 1992 RCRA/Superfund/OUST/EPCRA Monthly Hotline Report. EPA-HQ-OLEM-2018-0830-0037.

<sup>9</sup> Waste Analysis at Facilities that Generate, Treat, Store and Dispose of Hazardous Wastes—Final, EPA 530-R-12-001, April 2015. RCRA Waste Sampling Draft Technical Guidance, EPA 530-D-02-002, August 2002.

<sup>7</sup> See Summary of DOT Exemption of Alcoholic Beverages and Aqueous Solutions of Alcohol. EPA-HQ-OLEM-2018-0830-0163.

<sup>10</sup> See comments from the American Petroleum Institute. EPA-HQ-OLEM-2018-0830-0168.



waste may be generated in stratified layers, and multiple samples may need to be collected using test methods such as COLIWASA.<sup>18</sup>

The second concern from the commenter relates to when a waste must be separated once a generator has made a determination that their waste consists of multiple phases. The Agency notes that in the waste identification process, the generator of a waste can rely on testing or knowledge of a waste and does not have to test or separate their waste if knowledge of the waste results in an accurate waste determination. For example, a generator may determine one phase of a waste is hazardous and manage the entire waste as hazardous without additional testing of a second phase. A generator may also conduct no testing when there is sufficient knowledge of the properties of the waste to make a hazardous waste identification. A generator is not required to separate all wastes as a normal part of waste management. The Agency had intended separating in the proposed regulatory language to mean that the generator would be subsampling a multiple phase waste so that each phase was analyzed separately in a flash point apparatus. The testing of a waste requires a sample representative of the hazards of the waste. A "representative sample" is defined by regulation (40 CFR 260.10) as "a sample of a universe or whole (e.g., waste pile, lagoon, ground water) which can be expected to exhibit the average properties of the universe or whole." For ignitable liquids, the hazard is exhibited by the vapor phase generated from the ignitable liquid. In the context of ignitable liquids, a sample of a waste that generates a vapor phase consistent with the vapor phase generated by the waste on average would be considered representative of the waste as a whole.

In determining when to separate (or subsample) wastes, a generator must consider what sampling strategy will result in a representative sample or will result in knowledge of the potential hazards exhibited by a representative sample. In some cases, the individual liquid phases of a multiple phase waste will be in equilibrium with each other and will resultingly have the same vapor phase. In this case a generator could sample either phase and obtain the same flash point value. This scenario is supported by public comments explaining that sampling and

analysis of the organic phase is often sufficient for identification of a multiple phase waste containing organic and aqueous phases.<sup>19</sup>

In other cases, the multiple phases of a waste will not be at equilibrium during management of the waste. This presents an analytical challenge as multiple phase wastes cannot readily be analyzed in a flash point apparatus without separating the phases and analyzing each phase separately. A generator who has separated each phase for analysis must then determine whether that phase is representative of the waste as a whole. Attempting to average (or predict) the vapor phases generated by multiple phases of a chemically complex waste through analysis of individual phases may present a significant challenge in some instances. In situations where a generator has determined that a single phase of a multiple phase waste is not representative of the waste as a whole, the generator should use the results of testing a single phase as part of the knowledge of the waste even though testing of an individual phase alone is not necessarily conclusive for making their hazardous waste determination.

The Agency also agrees with the commenters that a subset of mixtures should not or do not always require separation for analysis of each phase. One example is mixtures with a low concentration of a highly volatile, ignitable constituent. The process of separating phases using the Paint Filter Liquids Test may allow the volatile constituents to evaporate and alter the flash point test result. The Agency considers wastes that lose a significant portion of volatile constituents during filtration with the Paint Filter Liquids Test to not be separable by this test method.

A commenter suggested that the guidance within Chapter 2 of SW-846 allows for broad discretion in choosing to sample one or multiple phases of a multiple phase sample and asked the Agency to better explain the applicability of this guidance to ignitable liquids.<sup>20</sup> Section 2.3.1.5 Multiphase Samples of Chapter 2 provides three approaches that are applicable to analyzing a sample for the total concentration of a constituent where the waste exists in multiple phases.

The first of three approaches in Section 2.3.1.5 states, "With a sample in

which some of the phases tend to separate rapidly, the percent weight or volume of each phase should be calculated, and each phase should be individually analyzed for the required analytes." The Agency considers that when a generator of a waste has multiple phases that separate rapidly, analysis of each phase may be appropriate (or, alternatively, may not be necessary if generator knowledge is sufficient to characterize the waste). The analysis of each phase provides an accurate analysis of the potential hazards of the vapor phase generated by that liquid phase. However, the guidance to measure the weight or volume of each phase has limited applicability to determining a flash point or identifying an ignitability hazard. A flash point measurement depends upon the concentration of ignitable constituents in the vapor phase above a waste. The concentration of constituents in the vapor phase is not necessarily linear with the concentration of ignitables in the multiple liquid or solid phases. Ultimately, the determination made by the generator must consider whether the sample is representative of a waste and what hazards are exhibited by the waste.

The second of three approaches in Section 2.3.1.5 states, "An alternate approach is to obtain a homogeneous sample and attempt a single analysis on the combination of phases. This approach will give no information on the abundance of the analytes in the individual phases other than what can be implied by solubility." The Agency believes this may have some limited applicability with the use of Pensky-Martens testing of non-filterable suspended solids in liquids. If the waste has a more substantial second phase than nonfilterable solids, the Agency questions how a multiple phase sample can be homogenized and maintained as one phase inside the flash point apparatus unless the long term behavior of the waste were to be a one phase waste. The Agency is concerned this approach would yield highly inconsistent results due to the analytical challenges of measuring the flash point of a sample inside a flash point apparatus that would need to equilibrate multiple liquid or solid phases with the vapor phase at various temperatures. The Agency has also explained in the past that if a waste contains filterable solids, then the solids and liquids must be separated and then analyzed against the respective criteria for ignitable solids and ignitable liquids.<sup>21</sup>

waste from a second non-liquid waste but does not prohibit a generator from doing so if it is possible and appropriate for their waste management.

<sup>18</sup> See SW-846 Chapter 9. EPA-HQ-OLEM-2018-0830-0162.

<sup>19</sup> See comments from the Environmental Technology Council. EPA-HQ-OLEM-2018-0830-170.

<sup>20</sup> See comment from the Coalition for Responsible Waste Incineration. EPA-HQ-OLEM-2018-0830-0172.

<sup>21</sup> See Letter to Mr. Nebrich. EPA-HQ-OLEM-2018-0830-0011.

The third approach in Section 2.3.1.5 states, "A third alternative is to select phases of interest and to analyze only those selected phases. This tactic must be consistent with the sampling/analysis objectives or it will yield insufficient information for the time and resources expended. The phases selected should be compared with Figure 21 and Table 241[in SW-846 Chapter 2] for further guidance." The Agency generally agrees with this approach when combined with generator knowledge of the waste. For example, a generator may make a determination through knowledge that an aqueous phase does not exhibit ignitability but rely on flash point testing to determine whether an organic phase of the same waste exhibits ignitability.

Therefore, EPA believes that the sampling approaches outlined in Section 2.3.1.5, while providing useful guidance in certain circumstances, have limitations, as described. Ultimately, the sampling approach should be designed to obtain a representative sample of a waste or to provide additional knowledge of the waste when an individual sample does not wholly represent the hazards of a waste.

The same commenter also raised concerns over what the Agency considered to be a separated waste and whether a separation must occur by the waste itself or whether a generator must attempt to force separation. This concern included the potential application of the ignitable liquids criteria to manufactured articles containing minute amounts of ignitable liquid. The commenter indicated that the waste would not yield a liquid when tested with the Paint Filter Liquids Test. The Agency does not consider the public comment to be sufficiently detailed to make a broad hazardous waste determination for all manufactured articles containing small amounts of liquid. In this scenario, if a generator has determined that their waste yields no liquid when subject to the Paint Filter Liquids Test, then that waste is likely not subject to the ignitable liquids regulation.

In some limited situations, a waste may present as a liquid in nature but not pass through a paint filter due to viscosity or due to oversized particulates preventing flow through pores. In these situations, the Agency recommends that the generator consider the possibility to decant, pipette, or use other physical means to collect a sample. Additionally, a generator would also be required to consider the identification of ignitable non-liquids under 261.21(a)(2) when materials are

not determined to be a liquid via the Paint Filter Liquids Test. The Agency recommends that the generator also carefully consider the conditions under which their waste is likely to be managed and any other characteristics or listings that may apply.

Taking into account the confusion caused by the Agency's proposal to codify existing guidance for multiple phase mixtures into regulation, the Agency has decided not to finalize the proposed language for 40 CFR 261.21(a)(5) at this time. The discussion in this preamble clarifies the Agency's position regarding testing of multiple phases of a waste. Individual phases of a multiple phase waste that exhibit ignitability and are representative of the multiple phase waste are subject to evaluation under the criteria in 40 CFR 261.21(a)(1) or 40 CFR 261.21(a)(2). Generators of multiple phases wastes where either phase is identified as exhibiting the characteristic of ignitability would be required to manage the entire waste as hazardous waste. A sample from a multiple phase waste that is not representative of the waste as a whole is not always conclusive for a waste identification. The Agency notes that 40 CFR 261.21(a) identifies waste based on the properties of a representative sample and that generators of a waste remain able to complete a waste identification through testing or knowledge. Testing of a waste may or may not require analysis of all phases to complete a hazardous waste determination.

#### *F. Pressure Filtration and Ignitable Liquids*

In the proposed rule, EPA requested comment on whether the Agency should revisit adding language to Chapter 7 of SW-846 as guidance regarding the use of the Pressure Filtration Technique (PFT) specified in Method 1311 for assessing the presence of an ignitable liquid for wastes that do not yield a free liquid phase using Method 9095 (*i.e.*, Paint Filter Liquids Test or PFLT). Currently, generators may rely on the Paint Filter Liquids Test if they are separating a liquid from a solid for subsequent analysis. A generator may also be aware that a waste contains multiple phases through knowledge, testing, or visual observation. In these cases, a generator may sample individual phases without having to apply the Paint Filter Liquids Test. For example, a generator may be able to pipette, decant, pump, or use a COLIWASA apparatus to obtain a representative sample of the phase(s).

Several commenters raised concerns that the application of the Pressure

Filtration Technique would be inconsistent with the Agency's rulemaking in 2013 that promulgated exclusions from solid and hazardous waste for solvent-contaminated wipes (see 78 FR 46448). Commenters also suggested that because the 2013 rulemaking provided guidance to use the Paint Filter Liquids Test for no free liquids, the 2013 rulemaking guidance would take precedence over any new guidance.

The Agency notes that the 2013 final rule for solvent-contaminated wipes provided guidance in preamble that generators should use the Paint Filter Test to determine no free liquids for solvent contaminated wipes under the finalized exclusions. The Agency considered whether a list of solvent extraction technologies might be more appropriate than a test to determine no free liquids and also considered the multiple tests state agencies were already using to verify compliance with the "no free liquids" conditions. The Agency was aware that the majority of the state agencies required the Paint Filter Liquids Tests and clarified that for the 2013 rulemaking, "EPA is using the Paint Filter Liquids Test for determining whether solvent-contaminated wipes contain free liquids." The Agency also noted that authorized state programs are able to define "no free liquids" differently provided they are no less stringent. The Agency provided this guidance via rulemaking within the scope of solvent-contaminated wipes eligible for exclusion under 261.4(a)(26) or 261.4(b)(18).

The universe of ignitable liquids wastes is broader than the universe of solvent-contaminated wipes. The Agency expects some wastes are better represented by the pressure filtration procedure within EPA Method 1311 or by other analysis and requested comment regarding the use of Pressure Filtration Technique and Paint Filter Liquids Test since it was interested in learning from the experiences of the generators and regulators who have been identifying ignitable hazardous waste under the existing program. However, for most wastes that are not readily apparent to be a liquid through observation, the Agency believes the Paint Filter Liquids Test is an appropriate analysis. As noted by other commenters, the Agency clarified in 1995 that the Paint Filter Liquids Test is the minimum testing requirement to determine that a waste has no free liquids.<sup>22</sup> Commenters also noted that

<sup>22</sup> See Letter from David Brussard, EPA-HQ-OLEM-0830-0039.

some wastes may present difficulties in being pressure filtered, such as liquid wastes with fine particles that prevent filtering or other hard to manage wastes.<sup>23</sup> Wastes that readily flow and take the shape of their container may not readily filter but may still be identified as ignitable liquids. The Agency is taking no final action specific to the application of the Pressure Filtration Procedure in this rulemaking.

#### G. Additional Conforming Amendments

The Agency has become aware that several additional conforming amendments to the regulations in Parts 63, 260, and 278 are necessary. Consistent with the other conforming amendments that EPA had proposed and is finalizing today, EPA is also finalizing these additional conforming amendments.

1. *40 CFR 63.* Part 63 incorporates Method 0023A by reference in 40 CFR 63.14 and 40 CFR 63.1208. As the Agency has updated Method 0023A to allow for alternatives to mercury thermometer usage in this rule, failing to update the reference in Part 63 would require the continued use of mercury thermometers when using Method 0023A to meet testing requirements in Part 63.

2. *40 CFR 260.11.* EPA is making non-substantive amendments to the centralized incorporated by reference section in part 260 for conformity with 1 CFR 51. EPA is revising part 260 such that the test methods identified in 40 CFR 260.11 are listed alphabetically and numerically and the language explaining incorporation by reference in 40 CFR 260.11(a) is updated to meet current style and formatting requirements of the **Federal Register**.

3. *40 CFR 278.* Additionally, the incorporation by reference of Method 1312 into the regulations at 40 CFR 278.3(b)(1) should now be located in 40 CFR 260.11 to meet style and formatting requirements of the **Federal Register**.

#### IV. Incorporation by Reference

The Methods Innovation Rule, which was finalized on June 14, 2005, revised 40 CFR 260.11 to remove the incorporation by reference of all SW-846 test methods except those SW-846 test methods that are also regulatory required method-defined parameters under the RCRA regulations and thus, can only be amended through a regulatory effort.<sup>24</sup>

<sup>23</sup> See comments by the Environmental Technology Council. EPA-HQ-OLEM-2018-0830-0170

<sup>24</sup> It is important to note that while a test method listed in § 260.11 is a method-defined parameter, that test method also may be used for non-

The Agency is incorporating by reference SW-846 Method 1010B, SW-846 Method 1020C, ASTM D8174-18, ASTM D8175-18, and ASTM E681-85 into § 261.21 and as applicable into Appendix IX to part 261. SW-846 Method 1010B and SW-846 Method 1020C list the required methods to determine flashpoint for ignitable hazardous waste. SW-846 Method 1010B lists the Pensky-Martens flash point methods, which are ASTM Standards D93-79, D93-80, and D8175-18. SW-846 Method 1020C lists the Setaflash (small-scale) closed cup flash point methods, which are the ASTM Standards D3278-78 and D8174-18. ASTM D8174-18 is a test method to determine the flash point of liquid wastes using a small-scale (Setaflash) apparatus. ASTM D8175-18 is a test method used to determine the flash point of liquid wastes using a Pensky-Martens apparatus. ASTM E681-85 is a test method used to determine the upper and lower concentration limits of flammability for chemicals having sufficient vapor pressure to form flammable mixtures with air.

The Agency is also incorporating by reference SW-846 Test Methods 0010, 0011, 0020, 0023A, and 0051. SW-846 Method 0010 is a sampling method for collection of gaseous and particulate pollutants from an emission source. SW-846 Method 0011 is a method for collection of selected ketones and aldehydes from an emission source. SW-846 Method 0020 is a method to collect gaseous and particulate pollutants from an emission source and into a multicomponent sampling train. SW-846 Method 0023A is a method for collection of polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofuran from an emission source. SW-846 Method 0051 is a method for collection of hydrogen chloride and chlorine in stack gas emission samples from hazardous waste incinerators and combustors. The Agency is incorporating by reference Method 0010 into § 260.11(c)(3)(i), Appendix IX to part 261, and Appendix IX to part 266. The Agency is incorporating by reference Method 0011 into § 260.11(c)(3)(viii), Appendix IX to part 261, and Appendix IX to part 266. The Agency is incorporating by reference Method 0020 into § 260.11(c)(3)(ii) and

mandatory purposes. For example, the Pensky-Martens method described in Method 1010A could also be used as part of quality control to test a product for purity, which is unrelated to § 261.21 and, otherwise, not required under RCRA. In this case, the test method would not be a method-defined parameter. In order to be a method-defined parameter, a test method must be part of a regulatory requirement under RCRA.

Appendix IX to part 261. The Agency is incorporating by reference Method 0023A into § 260.11(c)(3)(ix), Appendix IX to part 261, and Appendix IX to part 266. The Agency is incorporating by reference Method 0051 into § 260.11(c)(3)(xiii), Appendix IX to part 261, § 266.107(f), and Appendix IX to part 266. The finalization of the proposed incorporation by reference of the above test methods is as described in the proposed rule and as discussed in Section III above.

The ASTM standards incorporated by reference are available for purchase from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959, [www.astm.org](http://www.astm.org), call 877-909-2786. The SW-846 Test Methods incorporated by reference are published in the test methods compendium known as "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, Third Edition, which can be found at <https://www.epa.gov/hw-sw846>.

#### V. State Authorization

##### A. Applicability of Final Rule 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 state authorization are found at 40 CFR part 271. Prior to enactment of the Hazardous and Solid Waste Amendments of 1984 (HSWA), a state with final RCRA authorization administered its hazardous waste program entirely in lieu of EPA administering the federal program in that state. The federal requirements no longer applied in the authorized state, and EPA could not issue permits for any facilities in that state, since only the state was authorized to issue RCRA permits. When EPA promulgated new, more stringent federal requirements for these pre-HSWA regulations, the state was obligated to enact equivalent authorities within specified time frames. However, the new federal requirements did not take effect in an authorized state, until the state adopted the federal requirements as state law. In contrast, under RCRA section 3006(g) (42 U.S.C. 6926(g)), which was added by HSWA, new requirements and prohibitions imposed under HSWA authority take effect in authorized states at the same

time that they take effect in unauthorized states. EPA is directed by the statute to implement these requirements and prohibitions in authorized states, including the issuance of permits, until the state is granted authorization to do so. While states must still adopt HSWA related provisions as state law to retain final authorization, EPA implements the HSWA provisions in authorized states until the states do so.

Authorized states are required to modify their programs only when EPA enacts federal requirements that are more stringent or broader in scope than existing federal requirements.<sup>25</sup> RCRA section 3009 allows the states to impose standards more stringent than those in the federal program (see also 40 CFR 271.1). Therefore, authorized states may, but are not required to, adopt federal regulations, both HSWA and non-HSWA, that are considered less stringent than previous federal regulations.

#### B. Effect on State Authorization

Today's notice finalizes regulations that would not be promulgated under the authority of HSWA. Thus, the standards would be applicable on the effective date only in those states that do not have final authorization of their base RCRA programs. Moreover, authorized states are required to modify their programs only 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, 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.

The revisions to these test methods are considered to be neither more nor less stringent than the existing test methods. Thus, authorized states may, but are not required to, adopt these changes.

#### VI. Statutory and Executive Order (E.O.) Reviews

Additional information about these statutes and Executive Orders can be found at <https://www.epa.gov/laws-regulations/laws-and-executive-orders>.

<sup>25</sup> EPA notes that decisions regarding whether a state rule is more stringent or broader in scope than the federal program are made when the Agency authorizes a state program for a particular rule.

#### A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is not a significant regulatory action and was therefore not submitted to the Office of Management and Budget (OMB) for review under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011).

#### B. Executive Order 13771: Reducing Regulations and Controlling Regulatory Costs

This action is a deregulatory action as specified in Executive Order 13771 (82 FR 9339, February 3, 2017). Details on the estimated cost savings of the final rule can be found in EPA's *Regulatory Impact Analysis of the Modernization of Ignitable Liquid Determination Rule*, which is in the docket.

#### C. Paperwork Reduction Act (PRA)

According to PRA, 44 U.S.C. 3501 *et seq.*, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information that requires OMB approval under the PRA, unless it has been approved by OMB and displays a currently valid OMB control number. The OMB control numbers for EPA's regulations in Title 40 of the CFR, after appearing in the **Federal Register**, are listed in 40 CFR part 9, and included on the related collection instrument, or form, as applicable. This action does not impose any burden requiring additional OMB approval because it neither imposes new paperwork requirements nor amends existing paperwork requirements. Burden is defined in 5 CFR 1320.3(b). OMB previously approved the information collection activities contained in the existing regulations and assigned OMB control numbers 2050-0053 and 2050-0073.

#### D. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA, 5 U.S.C. 601 *et seq.* In making this determination, the impact of concern is any significant adverse economic impact on small entities. 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, has no net burden or otherwise has a positive economic effect on the small entities subject to the rule. As documented in the *Regulatory Impact Analysis of the Modernization of Ignitable Liquid Determinations Rule* found in the docket for this final rule,

EPA does not expect the rule to result in an adverse impact to a significant number of small entities. For commercial labs, the analysis presented in Chapter 3 indicates either no change in costs or a cost savings, due to the flexibility afforded by the rule. Therefore, out of the 128 firms defined as small under the Small Business Administration size standards, no firms have costs greater than one percent of annual revenues. EPA has therefore concluded that this action will either relieve regulatory burden or have no net regulatory burden for all directly regulated small entities.

#### E. Unfunded Mandates Reform Act (UMRA)

As documented in the *Regulatory Impact Analysis of the Modernization of Ignitable Liquid Determinations Rule* found in the docket for the final rule, this action does not contain an unfunded mandate of \$100 million or more as described in UMRA, 2 U.S.C. 1531-1538, and does not significantly or uniquely affect small governments.

#### F. Executive Order 13132: Federalism

This action does not have "federalism implications" as that term is defined in Executive Order 13132 (64 FR 43255, August 10, 1999). 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.

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

This action does not have tribal implications as specified in Executive Order 13175. The final rule is not expected to result in any adverse impacts on tribal entities. Thus, Executive Order 13175 does not apply to this rule.

#### H. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that EPA has reason to believe may disproportionately affect children, per the definition of "covered regulatory action" in section 2-202 of the Executive Order. This action is not subject to Executive Order 13045 because it does not concern an environmental health risk or safety risk.

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

This action is not subject to Executive Order 13211, because it is not a significant regulatory action under Executive Order 12866.

*J. National Technology Transfer and Advancement Act (NTTAA)*

This action involves technical standards. EPA is adopting the use of ASTM D8175–18 and ASTM D8174–18. These test methods were adopted by ASTM in March 2018. These standards are available for purchase from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428–2959. EPA worked with ASTM to specifically develop these consensus-based standards to better suit waste testing by modifying existing ASTM standards. EPA worked with a member of the ASTM D02.08 Subcommittee (who also represents Stanhope-Seta) to modify existing ASTM methods D93–16 and D3828–16a, which were developed by the ASTM D02.08 Subcommittee. These new draft test methods were then submitted to ASTM’s review process and were approved by the ASTM D34 Committee to become new ASTM test methods.

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

EPA believes that this action does not have disproportionately high and adverse human health or environmental effects on minority populations, low-income populations and/or indigenous peoples, as specified in Executive Order 12898 (59 FR 7629, February 16, 1994). The final rule modernizes testing and codifies guidance for the characterization of ignitable hazardous waste; it does not affect the disposal of such waste. Therefore, the final rule is not expected to result in any adverse human health or environmental effects on minority populations, low-income populations and/or indigenous peoples.

*L. Congressional Review Act (CRA)*

This action is subject to the CRA, and the EPA will submit a rule report to each House of the Congress and to the Comptroller General of the United States. This action is not a “major rule” as defined by 5 U.S.C. 804(2).

**List of Subjects**

*40 CFR Part 63*

Environmental protection, Incorporation by reference.

*40 CFR Part 260*

Environmental protection, Hazardous waste, Incorporation by reference.

*40 CFR Part 261*

Environmental protection, Hazardous waste, Incorporation by reference, Recycling.

*40 CFR 278*

Environmental protection, Incorporation by reference.

**Andrew Wheeler,**  
*Administrator.*

For the reasons set forth in the preamble, title 40, chapter I, of the Code of Federal Regulations is amended as follows:

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

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

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

■ 2. Amend § 63.14 by revising the paragraph (a) and paragraph (q)(2)(i) to read as follows:

**§ 63.14 Incorporations by reference.**

(a) The materials listed in this section are incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, a document must be published in the **Federal Register** and the material must be available to the public. All approved materials are available for inspection at the Air and Radiation Docket and Information Center (Air Docket) in the EPA Docket Center (EPA/DC) at Rm. 3334, EPA West Bldg., 1301 Constitution Ave. NW, Washington, DC. The EPA/DC Public Reading Room hours of operation are 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number of the EPA/DC Public Reading Room is (202) 566–1744, and the telephone number for the Air Docket is (202) 566–1742. These approved materials are also available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email [fedreg.legal@nara.gov](mailto:fedreg.legal@nara.gov) or go to [www.archives.gov/federal-register/cfr/ibr-locations.html](http://www.archives.gov/federal-register/cfr/ibr-locations.html). In addition, these materials are available from the following sources:

- \* \* \* \* \*
- (q) \* \* \*
- (2) \* \* \*

(i) Method 0023A, “Sampling Method for Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofuran Emissions from Stationary Sources,” Revision 2, dated August 2018, IBR approved for § 63.1208(b).

\* \* \* \* \*

**PART 260—HAZARDOUS WASTE MANAGEMENT SYSTEM: GENERAL**

■ 3. 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.

■ 4. Revise § 260.11 to read as follows:

**§ 260.11 Incorporation by reference.**

When used in parts 260 through 268 of this chapter, the following materials are incorporated by reference with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. All approved materials are available for inspection at the OLEM Docket in the Environmental Protection Agency Docket Center (EPA/DC), West William Jefferson Clinton Bldg., Rm. 3334, 1301 Constitution Ave. NW, Washington, DC. The EPA/DC Public Reading Room hours of operation are 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number of the EPA/DC Public Reading room is (202) 566–1744, and the telephone number for the OLEM Docket is (202) 566–0270. These approved materials are also available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email [fedreg.legal@nara.gov](mailto:fedreg.legal@nara.gov) or go to [www.archives.gov/federal-register/cfr/ibr-locations.html](http://www.archives.gov/federal-register/cfr/ibr-locations.html). In addition, these materials are available from the following sources:

- (a) *American Petroleum Institute (API)*. 1220 L Street Northwest, Washington, DC 20005, (855) 999–9870, [www.api.org](http://www.api.org).
  - (1) API Publication 2517, Third Edition, February 1989, “Evaporative Loss from External Floating-Roof Tanks,” IBR approved for § 265.1084.
  - (2) [Reserved]
  - (b) *ASTM International (ASTM)*. 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428–2959, (877) 909–ASTM, [www.astm.org](http://www.astm.org).
    - (1) ASTM D93–79, “Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester,” IBR approved for § 261.21(a).
    - (2) ASTM D93–80, “Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester,” IBR approved for § 261.21(a).

(3) ASTM D1946–82, “Standard Method for Analysis of Reformed Gas by Gas Chromatography,” IBR approved for §§ 264.1033 and 265.1033.

(4) ASTM D2267–88, “Standard Test Method for Aromatics in Light Naphthas and Aviation Gasolines by Gas Chromatography,” IBR approved for § 264.1063.

(5) ASTM D2382–83, “Standard Test Method for Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method),” IBR approved for §§ 264.1033 and 265.1033.

(6) ASTM D2879–92, “Standard Test Method for Vapor Pressure—Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope,” IBR approved for § 265.1084.

(7) ASTM D3278–78, “Standard Test Methods for Flash Point for Liquids by Setaflash Closed Tester,” IBR approved for § 261.21(a).

(8) ASTM D8174–18 “Standard Test Method for Finite Flash Point Determination of Liquid Wastes by Small Scale Closed Cup Tester.” Approved March 15, 2018, IBR approved for § 261.21(a).

(9) ASTM D8175–18 “Standard Test Method for Finite Flash Point Determination of Liquid Wastes by Pensky-Martens Closed Cup Tester.” Approved March 15, 2018, IBR approved for § 261.21(a).

(10) ASTM E168–88, “Standard Practices for General Techniques of Infrared Quantitative Analysis,” IBR approved for § 264.1063.

(11) ASTM E169–87, “Standard Practices for General Techniques of Ultraviolet-Visible Quantitative Analysis,” IBR approved for § 264.1063.

(12) ASTM E260–85, “Standard Practice for Packed Column Gas Chromatography,” IBR approved for § 264.1063.

(13) ASTM E681–85 “Standard Test Method for Concentration Limits of Flammability of Chemicals (Vapors and gases),” Approved November 14, 1985, IBR approved for § 261.21(a).

(c) *Environmental Protection Agency (EPA)*. Material cited in paragraphs (d)(1) through (3) is available from: National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161; the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, (202) 512–1800; EPA’s National Service Center for Environmental Publications at <https://www.epa.gov/nscgp>. Material cited in paragraph (d)(4) of this section is available at <https://www.epa.gov/hw-sw846>.

(1) “APTI Course 415: Control of Gaseous Emissions,” EPA Publication EPA–450/2–81–005, December 1981, IBR approved for §§ 264.1035 and 265.1035.

(2) Method 1664, n-Hexane Extractable Material (HEM; Oil and Grease) and Silica Gel Treated n-Hexane Extractable Material SGT–HEM; Non-polar Material) by Extraction and Gravimetry:

(i) Revision A, EPA–821–R–98–002, February 1999, IBR approved for appendix IX to part 261.

(ii) Revision B, EPA–821–R–10–001, February 2010, IBR approved for appendix IX to part 261.

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

(4) The following methods as published in the test methods compendium known as “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication SW–846, Third Edition.

(i) Method 0010, Modified Method 5 Sampling Train, Revision 1, dated August 2018, IBR approved for appendix IX to part 261.

(ii) Method 0011, Sampling for Selected Aldehyde and Ketone Emissions from Stationary Sources, Revision 1, dated August 2018, IBR approved for appendix IX to part 261 and appendix IX to part 266

(iii) Method 0020, Source Assessment Sampling System (SASS), Revision 1, dated August 2018, IBR approved for appendix IX to part 261.

(iv) Method 0023A, Sampling Method for Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofuran Emissions from Stationary Sources, Revision 2, dated August 2018, IBR approved for appendix IX to part 261, § 266.104(e), and appendix IX to part 266.

(v) Method 0030, Volatile Organic Sampling Train, dated September 1986 and in the Basic Manual, IBR approved for appendix IX to part 261.

(vi) Method 0031, Sampling Method for Volatile Organic Compounds (SMVOC), dated December 1996 and in Update III, IBR approved for appendix IX to part 261.

(vii) Method 0040, Sampling of Principal Organic Hazardous Constituents from Combustion Sources Using Tedlar® Bags, dated December 1996 and in Update III, IBR approved for appendix IX to part 261.

(viii) Method 0050, Isokinetic HCl/Cl<sub>2</sub> Emission Sampling Train, dated December 1996 and in Update III, IBR

approved for appendix IX to part 261, § 266.107, and appendix IX to part 266.

(ix) Method 0051, Midget Impinger HCl/Cl<sub>2</sub> Emission Sampling Train, Revision 1, dated August 2018, IBR approved for appendix IX to part 261, § 266.107, and appendix IX to part 266.

(x) Method 0060, Determination of Metals in Stack Emissions, dated December 1996 and in Update III, IBR approved for appendix IX to part 261, § 266.106, and appendix IX to part 266.

(xi) Method 0061, Determination of Hexavalent Chromium Emissions from Stationary Sources, dated December 1996 and in Update III, IBR approved for appendix IX to part 261 § 266.106, and appendix IX to part 266.

(xii) Method 1010B, Test Methods for Flash Point by Pensky-Martens Closed-Cup Tester, dated December 2018, IBR approved for § 261.21 and appendix IX to part 261.

(xiii) Method 1020C, Standard Test Methods for Flash Point by Setaflash (Small Scale) Closed-Cup Apparatus, dated December 2018, IBR approved for § 261.21 and appendix IX to part 261.

(xiv) Method 1110A, Corrosivity Toward Steel, dated November 2004 and in Update IIIB, IBR approved for § 261.22 and appendix IX to part 261.

(xv) Method 1310B, Extraction Procedure (EP) Toxicity Test Method and Structural Integrity Test, dated November 2004 and in Update IIIB, IBR approved for appendix IX to part 261.

(xvi) Method 1311, Toxicity Characteristic Leaching Procedure, dated July 1992 and in Update I, IBR approved for appendix IX to part 261, and §§ 261.24, 268.7, 268.40.

(xvii) Method 1312, Synthetic Precipitation Leaching Procedure, dated September 1994 and in Update III, IBR approved for appendix IX to part 261.

(xviii) Method 1320, Multiple Extraction Procedure, dated September 1986 and in the Basic Manual, IBR approved for appendix IX to part 261.

(xix) Method 1330A, Extraction Procedure for Oily Wastes, dated July 1992 and in Update I, IBR approved for appendix IX to part 261.

(xx) Method 9010C, Total and Amenable Cyanide: Distillation, dated November 2004 and in Update IIIB, IBR approved for appendix IX to part 261 and §§ 268.40, 268.44, 268.48.

(xxi) Method 9012B, Total and Amenable Cyanide (Automated Colorimetric, with Off-Line Distillation), dated November 2004 and in Update IIIB, IBR approved for appendix IX to part 261 and §§ 268.40, 268.44, 268.48.

(xxii) Method 9040C, pH Electrometric Measurement, dated November 2004 and in Update IIIB, IBR

approved for appendix IX to part 261 and § 261.22.

(xxiii) Method 9045D, Soil and Waste pH, dated November 2004 and in Update IIIB, IBR approved for appendix IX to part 261.

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

(xxv) Method 9070A, n-Hexane Extractable material (HEM) for Aqueous Samples, dated November 2004 and in Update IIIB, IBR approved for appendix IX to part 261.

(xxvi) Method 9071B, n-Hexane Extractable Material (HEM) for Sludge, Sediment, and Solid Samples, dated April 1998 and in Update IIIA, IBR approved for appendix IX to part 261.

(xxvii) Method 9095B, Paint Filter Liquids Test, dated November 2004 and in Update IIIB, IBR approved, appendix IX to part 261, and §§ 264.190, 264.314, 265.190, 265.314, 265.1081, 267.190(a), 268.32.

(d) National Fire Protection Association (NFPA). 1 Batterymarch Park, P.O. Box 9101, Quincy, MA 02269-9101, (800) 344-3555, www.nfpa.org/.

(1) NFPA 30, "Flammable and Combustible Liquids Code," 1977 Edition, IBR approved for §§ 262.16(b), 264.198(b), 265.198(b), and 267.202(b).

(2) NFPA 30, "Flammable and Combustible Liquids Code," 1981 Edition, IBR approved for §§ 262.16(b), 264.198(b), 265.198(b), and 267.202(b).

(e) Organization for Economic Cooperation and Development (OECD). Economic Cooperation and Development, Environment Directorate, 2 rue André Pascal, F-75775 Paris Cedex 16, France, owww.oecd-ilibrary.org/.

(1) Guidance Manual for the Control of Transboundary Movements of Recoverable Wastes, copyright 2009, Annex B: OECD Consolidated List of Wastes Subject to the Green Control Procedure and Annex C: OECD Consolidated List of Wastes Subject to the Amber Control Procedure, IBR approved for §§ 262.82(a), 262.83(b), (d), and (g), and 262.84(b) and (d).

(2) [Reserved]

**PART 261—IDENTIFICATION AND LISTING OF HAZARDOUS WASTE**

■ 5. 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.

■ 6. Amend § 261.21 by:

■ a. Revising paragraphs (a)(1), (3)(ii), (4) introductory text, and (4)(i)(A), and (D); and

■ b. Removing Notes 1, 2, 3, and 4. The revisions read as follows:

**§ 261.21 Characteristic of ignitability.**

(a) \* \* \*

(1) It is a liquid, other than a solution containing less than 24 percent alcohol by volume and at least 50 percent water by weight, that has a flash point less than 60 °C (140 °F), as determined by using one of the following ASTM standards: ASTM D93-79, D93-80, D3278-78, D8174-18, or D8175-18 as specified in SW-846 Test Methods 1010B or 1020C (all incorporated by reference, see § 260.11 of this subchapter).

\* \* \* \* \*

(3) \* \* \*

(ii) A compressed gas shall be characterized as ignitable if any one of the following occurs:

(A) Either a mixture of 13 percent or less (by volume) with air forms a flammable mixture or the flammable range with air is wider than 12 percent regardless of the lower limit. These limits shall be determined at atmospheric temperature and pressure. The method of sampling and test procedure shall be the ASTM E 681-85 (incorporated by reference, see § 260.11 of this subchapter), or other equivalent methods approved by the Associate Administrator, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation.

(B) It is determined to be flammable or extremely flammable using 49 CFR 173.115(l).

\* \* \* \* \*

(4) It is an oxidizer. An oxidizer for the purpose of this subchapter is a substance such as a chlorate, permanganate, inorganic peroxide, or a nitrate, that yields oxygen readily to stimulate the combustion of organic matter.

(i) \* \* \*

(A) The material meets the definition of a Division 1.1, 1.2, or 1.3 explosive, as defined in § 261.23(a)(8), in which case it must be classed as an explosive,

\* \* \* \* \*

(D) According to data on file with the Pipeline and Hazardous Materials Safety Administration in the U.S. Department of Transportation, it has been determined that the material does not present a hazard in transportation.

\* \* \* \* \*

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

■ 7. Amend Appendix IX to Part 261 by removing the text "1010A" and adding

"1010B" in its place, wherever it appears (56 occurrences); and removing the text "1020B" and adding "1020C" in its place, wherever it appears (56 occurrences).

**PART 278—CRITERIA FOR THE MANAGEMENT OF GRANULAR MINE TAILINGS (CHAT) IN ASPHALT CONCRETE AND PORTLAND CEMENT CONSTRUCTION PROJECTS FUNDED IN WHOLE OR IN PART BY FEDERAL FUNDS**

■ 8. The authority citation for part 278 continues to read as follows:

Authority: 42 U.S.C. 6961 *et seq.*

■ 9. Amend § 278.3 by revising paragraph (b)(1) and adding paragraph (d) to read as follows:

**§ 278.3 Criteria for use of chat in Federally funded transportation projects.**

\* \* \* \* \*

(b) \* \* \*

(1) Synthetic Precipitation Leaching Procedure (SPLP) tests are conducted on the proposed material using EPA SW-846 Method 1312, and the leachate testing results show that concentrations in the leachate do not exceed the National Primary Drinking Water Standards for lead and cadmium and the fresh water chronic National Recommended Water Quality Criterion for zinc of 120 µg/l; or

\* \* \* \* \*

(d) EPA SW-846 Method 1312, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," Third Edition, September 1994, is incorporated by reference into this section with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. It is available at [www.epa.gov/hw-sw846/](http://www.epa.gov/hw-sw846/). All approved material is available for inspection at the OLEM Docket in the Environmental Protection Agency Docket Center (EPA/DC), West William Jefferson Clinton Bldg., Rm. 3334, 1301 Constitution Ave. NW, Washington, DC. The EPA/DC Public Reading Room hours of operation are 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number of the EPA/DC Public Reading room is (202) 566-1744, and the telephone number for the OLEM Docket is (202) 566-0270. It is also available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email [fedreg.legal@nara.gov](mailto:fedreg.legal@nara.gov) or go to [www.archives.gov/federal-register/cfr/ibr-locations.html](http://www.archives.gov/federal-register/cfr/ibr-locations.html). [FR Doc. 2020-12695 Filed 7-6-20; 8:45 am]