List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides.

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

Jeaneanne Gettle,

Acting Regional Administrator, Region 4.

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 260, 261, 262, 263, 264, 265, 266, 267, 268 and 270

[EPA–HQ–OLEM–2023–0320; FRL: 10001–01–OLEM]

RIN: 2050–AH29

Used Drum Management and Reconditioning Advance Notice of Proposed Rulemaking

AGENCY: Environmental Protection Agency.

ACTION: Advance notice of proposed rulemaking.

SUMMARY: The U.S. Environmental Protection Agency (the EPA) is soliciting information and requesting comments to assist in the potential development of non-regulatory and regulatory options that would ensure the proper management of used industrial containers that held hazardous chemicals or hazardous waste, up to and including the drum reconditioning process. Options could include revising the Resource Conservation and Recovery Act (RCRA) regulations or other, non-regulatory options. This Advance Notice of Proposed Rulemaking (ANPRM) does not propose any regulatory requirements or change any existing regulatory requirements.

DATES: Comments must be received on or before September 25, 2023.

ADDRESSES: *Comments.* You may send comments, identified by Docket ID No. EPA–HQ–OLEM–2023–0320, by any of the following methods:

- *Federal eRulemaking Portal: https://www.regulations.gov/* (our preferred method). Follow the online instructions for submitting comments.
- *Mail:* U.S. Environmental Protection Agency, EPA Docket Center, Office of Resource Conservation and Recovery Docket, Mail Code 28221T, 1200 Pennsylvania Avenue NW, Washington, DC 20460.
- *Hand Delivery or Courier:* EPA Docket Center, WJC West Building, Room 3334, 1301 Constitution Avenue NW, Washington, DC 20004. The Docket Center's hours of operations are 8:30 a.m.–4:30 p.m., Monday—Friday (except Federal Holidays).

Instructions: All submissions received must include the Docket ID No. for this rulemaking. Comments received may be posted without change to *https://www.regulations.gov,* including any personal information provided. For detailed instructions on sending comments see the ''instructions'' heading of the **SUPPLEMENTARY INFORMATION** section of this document.

FOR FURTHER INFORMATION CONTACT: For questions about this action, contact Kaitlin Franssen, Materials Recovery and Waste Management Division, Office of Resource Conservation and Recovery (MC 5303P), Environmental Protection Agency, 1200 Pennsylvania Avenue NW, Washington, DC 20460; telephone number: (202) 566–0487; email address: *Franssen.Kaitlin@epa.gov.*

SUPPLEMENTARY INFORMATION:

Instructions: Submit your comments, identified by Docket ID No. EPA–HQ–OLEM–2023–0320, at *https://www.regulations.gov* (our preferred method), or the other methods identified in the **ADDRESSES** section. Once submitted, comments cannot be edited or removed from the docket. The EPA may publish any comment received to its public docket. Do not submit to EPA's docket at *https://www.regulations.gov* any information you consider to be Confidential Business Information (CBI), Proprietary Business Information (PBI), or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.,* on the web, cloud, or other file sharing system). Please visit *https://www.epa.gov/dockets/commenting-epa-dockets* for additional submission methods; the full EPA public comment policy; information about CBI, PBI, or multimedia submissions; and general guidance on making effective comments.

Preamble acronyms and abbreviations. The EPA uses multiple acronyms and terms in this preamble. While this list may not be exhaustive, to ease the reading of this preamble and for reference purposes, the EPA defines the following terms and acronyms here:

ANPRM Advance Notice of Proposed Rulemaking
CAA Clean Air Act
CFR Code of Federal Regulation
CWA Clean Water Act
CBI Confidential Business Information
CFR Code of Federal Regulations
DOT Department of Transportation
EPA U.S. Environmental Protection Agency
FR Federal Register
°F degrees Fahrenheit
HMR Hazardous Material Regulations
IBC Intermediate Bulk Container
LQG Large Quantity Generator
NPDES National Pollutant Discharge Elimination System
OMB Office of Management and Budget
PBI Proprietary Business Information
POTWs Publicly-Owned Treatment Works
PPE Personal Protective Equipment
RCRA Resource Conservation and Recovery Act
SOPs Standard Operating Procedures
SPCC Spill Prevention, Control, and Countermeasures
TSDF Treatment, Storage, and Disposal Facility

Organization of this Document: The following outline is provided to aid in locating information in this preamble.

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I. General Information

A. What is the purpose of this ANPRM?

An advance notice of proposed rulemaking (ANPRM) is a notice intended to solicit information from the public as the EPA considers proposing a future rule or action. The EPA plans to use this ANPRM as a preliminary way to explore the regulatory and/or non-regulatory options for dealing with the

issues surrounding the management of used containers, such as metal or plastic drums, across their lifecycle, to ensure protection of human health and the environment. Management issues across the lifecycle of used containers can occur at industrial facilities, with hazardous waste generators, and with generators of used containers, as well as with transporters and receiving facilities (*i.e.,* drum reconditioners). This ANPRM will refer to any facilities sending used drums/containers to drum reconditioners as ''used drum generators.'' As a first step for this ANPRM, the EPA published a report studying the drum reconditioning industry and documented certain damages such as environmental releases, fires, explosions, and employee injuries that occurred at these facilities. This report [1] is available in the docket to this ANPRM.

The name of this ANPRM is Used Drum Management and Reconditioning Advance Notice of Proposed Rulemaking. This document is the same ANPRM as the ANPRM entitled the Drum Reconditioner Advance Notice of Proposed Rulemaking that had been published in the Fall 2022 and Spring 2023 Regulatory Agenda (RIN 2050–AH29). The EPA has decided to change the name of this ANPRM to be more descriptive than the original title and to reflect the breadth of all the topics covered by this ANPRM.

B. Does this action apply to me?

Entities that may be interested in this ANPRM or potentially may be affected by the EPA's evaluation of the information and comments received include, especially, owners and operators of drum reconditioning facilities, communities where these facilities or operations exist, container transporters, used drum generators, chemicals manufacturers, waste or hazardous waste generators, industrial facilities, and environmental action organizations.

II. Background

Drum reconditioning facilities recondition metal and plastic drums and intermediate bulk containers (IBCs) for resale and reuse by cleaning, restoring, testing, and certifying these industrial containers. These containers previously held a variety of materials including hazardous waste, chemicals, paints, resins, tars, adhesives, foods, oils, soaps, solvents, or related materials. The two main processes used for reconditioning are burning off residue from metal drums in a drum furnace and washing metal or plastic drums or containers with water and/or a caustic solution to clean out residues.

On September 8, 2022, the EPA published a Drum Reconditioner Damage Case Report that described the EPA's understanding of how the drum reconditioning industry operates and documents damage case incidents at facilities that have caused significant harm to human health and the environment. The report also serves to inform domestic policymakers, enforcement officials, and the public about the regulatory and waste issues surrounding drum reconditioning facilities and serves as the EPA's first step to gather information and engage stakeholders on approaches to address and mitigate these issues.

The report examined the existing RCRA regulations, particularly the empty container provision (Title 40 of the Code of Federal Regulation (CFR) in § 261.7), which exempts from regulation hazardous waste residues that remain in a drum or other container as long as (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, AND (2) no more than 2.5 centimeters (one inch) of residue remains or no more than 3% by weight remains if the container is less than or equal to 119 gallons or no more than 0.3% by weight remains if the container is more than 119 gallons. This exemption also states that a container or an inner liner removed from a container that has held an acute hazardous waste listed in §§ 261.31 or 261.33(e) is empty if: (i) The container or inner liner has been triple rinsed using a solvent capable of removing the commercial chemical product or manufacturing chemical intermediate; (ii) the container or inner liner has been cleaned by another method that has been shown in the scientific literature, or by tests conducted by the generator, to achieve equivalent removal; or (iii) in the case of a container, the inner liner that prevented contact of the commercial chemical product or manufacturing chemical intermediate with the container, has been removed. In this ANPRM, we use the term ''RCRA empty'' to mean that a container has been emptied to meet these definitions in the empty container provision. The report found that despite this provision, and the fact that drums sent to a non-permitted facility should be RCRA empty, non-permitted drum reconditioners are still inadvertently receiving containers of hazardous waste that are not RCRA empty. Due to the large number of containers that reconditioners process, some of these facilities are likely receiving and managing significant quantities of hazardous waste residues. This volume of residue creates a potentially significant risk to the workers and the environment. Additionally, even if receiving only RCRA empty containers, because of the large volume of residues, drum reconditioners are still potentially receiving and managing significant quantities of hazardous waste residues without being subject to RCRA hazardous waste regulations.

In addition to RCRA, drum reconditioners may be subject to certain regulations under the Clean Air Act (CAA) and Clean Water Act (CWA). Section 129 of the CAA regulations may apply to drum furnaces that process RCRA empty containers. These furnaces may be required to obtain permits under CAA state plan requirements. Under CWA Section 301, it is unlawful for any person to discharge any pollutant into waters of the United States without authorization under specific provisions of the CWA, including Section 402 (which establishes the National Pollutant Discharge Elimination System (NPDES)). CWA Section 307 requires new and existing industrial users to pre-treat wastewater discharged to Publicly-Owned Treatment Works (POTWs) to prevent pollutants in excess of certain limits from passing through POTWs. Either of these CWA regulations may apply to drum reconditioners who use washing methods to clean out their containers. Detailed background information about how RCRA, CAA, and CWA regulations apply to this industry can be found in the introduction to the EPA's Drum Reconditioner Damage Case Report.

The report's findings indicate an estimated national drum reconditioning universe of 181 facilities with approximately 40 million total metal and plastic containers being processed each year. The data also indicates that approximately 35% of drums are reconditioned using drum furnaces, and the remaining 65% of containers are reconditioned through washing methods. Of the total 181 drum reconditioning facilities identified by the EPA, 86 had one or more reported damage cases, representing 47.5% of the total industry. The EPA's data also indicates that 25% of drum reconditioners that are currently operating have had damage cases, 23 facilities experienced damage cases between 2011 and the present, and 58 of the 86 facilities that experienced

[1] EPA 2022 *Drum Reconditioner Damage Case Report,* September 2022, EPA–530–R–22–003. *https://www.epa.gov/hw/drum-reconditioner-damage-case-report.*

damage cases had at least one incident occur after the empty container provision, found in 40 CFR 261.7, was promulgated in 1980. Damages include fires; drum explosions; hazardous waste spills; leaking caused by improper storage of drums/containers; employee injuries; air, water, or soil contamination; and various combinations of these incidents.

The EPA is evaluating the generation, transportation, and management of used containers, some of which are non-RCRA empty, to assess the extent to which regulatory or non-regulatory actions could reduce the risk of damages. Essentially, all aspects of the used container lifecycle (*i.e.,* generation, transport, and reconditioning) can ultimately contribute to environmental contamination. The reconditioning of used containers is a vital part of the waste management industry and reduces waste overall, but not without unintended, serious consequences. The EPA seeks input through this ANPRM on what further Agency action, regulatory or otherwise, is needed to prevent future damage to human health and the environment from all entities involved in the used container lifecycle.

III. Overview of the ANPRM and Request for Comments

A. ANPRM Overview

The EPA is publishing this ANPRM to facilitate public involvement on this critical issue of used container management and to provide a mechanism for engaging with industry, as well as with affected communities, and to offer a structured opportunity for public comment on how the public believes the EPA should address the issues outlined in the 2022 EPA Drum Reconditioner Damage Case Report, as well as those summarized in Section II of this ANRPM. The EPA plans to use this ANPRM as a preliminary way to explore the potential regulatory and/or non-regulatory options for dealing with the issues at used drum generators, transporters, and reconditioners. This ANPRM is not a proposal and no changes to the regulations will be promulgated or implemented without the proper notice-and-comment rulemaking process and required analyses.

This ANPRM is organized in order of the potentially affected parties: used drum generators, transporters, and reconditioners, and then by potential issues involving these parties. The EPA is seeking comment on how to address all information and issues discussed in this ANPRM.

B. Non-Regulatory Options

The EPA is looking at potential options to address information and issues documented in its Drum Reconditioner Damage Case Report and outlined in this ANPRM. In addition to potential regulatory changes, the EPA is interested in whether increasing compliance assistance and enforcement of the empty container regulations at used drum generators could help reduce the number of non-RCRA empty containers that are shipped to drum reconditioners and other waste management facilities. Regarding the CAA and CWA statutes, the EPA may also consider non-regulatory approaches at drum reconditioners to address drum furnace emissions and wastewater discharge/handling issues, such as increased inspections, compliance assistance, or voluntary standards and best practices. The development of Standard Operating Procedures (SOPs) (Section V.B and VI.A) at used drum generators, transporters, and drum reconditioners could also be a non-regulatory option for achieving better compliance with existing regulations and requirements. The Agency is aware of similar SOPs, guidelines, and certifications produced and distributed by the Reusable Industrial Packaging Association (RIPA) which aims to ''create uniform operating principles for the reusable industrial packaging community.'' [2] The EPA requests comment on other existing industry standards or SOPs that may be available for the drum reconditioning industry.

The EPA also seeks information on any state compliance assistance programs that have focused on these areas, as well as any industry initiatives or actions, such as incentive programs, that have been successful in decreasing the number of non-RCRA empty containers and/or the amounts of hazardous residues that are shipped from used drum generators. In addition, the EPA is also interested in learning about whether there have been advancements in drum handling or cleaning technologies that industry may have developed, or is pursuing, that would help make the reconditioning process cleaner or more efficient and would be more protective of human health and the environment.

C. Regulatory Summary Table

In addition to non-regulatory actions, this ANPRM provides detail on the potential regulatory options the Agency could consider taking in a future rulemaking. The following table outlines and summarizes the issues that the Agency considers the most pressing and is currently exploring and considering. These options are discussed in more detail in the Section indicated in the table.

TABLE 1—POTENTIAL FUTURE REGULATORY OPTIONS

Potentially affected parties	Issue that would be addressed	Potential future regulatory action	See section
Used Drum Generators and Transporters.	Risks posed by contamination from residues remaining in non-RCRA empty containers.	Reduce the ''one-inch'' regulatory limit for defining RCRA empty containers.	V.A.
		Require rinsing for all containers before they would be considered RCRA empty.	V.A.
		Require empty drums to meet structural integrity requirements prior to shipment.	V.A.
	Non-RCRA empty drums being sent to drum reconditioners.	Add/strengthen regulatory requirements for used drum generators to ensure all waste has been removed from containers using commonly employed practices prior to being sent to reconditioners, such as: • SOPs for drum emptying. • Certification of empty drums. • Employee training.	V.B.

[2] Responsible Packaging Management, Reusable Industrial Packaging Association (RIPA), 2010: *https://www.reusablepackaging.org/wp-content/uploads/Responsible-Packaging-Management-2010.pdf.*

TABLE 1—POTENTIAL FUTURE REGULATORY OPTIONS—Continued

Potentially affected parties	Issue that would be addressed	Potential future regulatory action	See section
		Add regulatory language further clarifying "commonly employed practices" and distinguishing between pourable and non-pourable wastes.	V.B.
		Require used drum generators to track and/or keep records of shipments of empty drums.	V.B.
	Risk of fires/explosions from incompatible, reactive, or ignitable residues.	Require drum labeling or other documentation conveying the hazard posed by the drum residues.	V.C.
Drum Reconditioners	Non-RCRA empty drums being sent to drum reconditioners.	Add specific regulatory requirements or conditions for a permit exemption for all drum reconditioners such as: • SOPs for screening drums prior to acceptance. • Designated non-RCRA empty container storage areas. • Rejected shipment procedures. • Discrepancy reports. • Container management plans.	VI.A. VI.A
	Risks posed by contamination from residues remaining in non-RCRA empty containers and in RCRA empty containers.		
		Require waste analysis plans for characterizing rinsate from RCRA empty containers.	VI.A.
	Stockpiling and eventual abandonment of drums.	Require all conditioners to conduct regular inspections and maintain inventory of drums (RCRA empty and non-RCRA empty).	VI.A.
		Require reconditioners to obtain financial assurance	VI.A.
	Emissions from drum furnaces	Add regulatory requirements for drum furnaces, such as: • Controls or emission factor limits for drum furnaces. • Limiting the use of drum furnaces to containers that hold non-hazardous residues. • Requiring pre-treatment (for example, triple rinsing) of containers prior to burning. • Require a RCRA permit for drum furnaces that burn containers with residues that would be considered hazardous waste under 40 CFR part 261 by revising or removing the empty container provision in 40 CFR 261.7.	VI.B.
	Environmental releases to soil, groundwater and surface water from contaminants in mismanaged wastewaters.	Require wastewaters from rinsing containers to be managed in tanks and containers, rather than in land-based units, and to be discharged only in accordance with sections 301 and 402, or section 307 of the Clean Water Act (CWA).	VI.C.
		Limit discharges to surface impoundments to rinsate from drums that only held non-hazardous materials.	VI.C.
		Prohibit sewer disposal of rinsate from drums that previously contained hazardous materials.	VI.C.
	Risk of fires/explosions from incompatible, reactive, or ignitable residues.	Require contingency planning and employee training in responding to emergencies.	VI.D & VI. E.
	Lack of regulatory oversight and public participation.	Require a RCRA Subtitle C Permit or a variance	VI.F.
Drum End-of-Life Management Facilities (*e.g.,* scrap yards and landfills).	Risk from contaminated scrap metal and plastic when recycled or land disposed.	Limit 40 CFR 261.7 empty container provision to containers sent to drum reconditioners (possibly coupled with new regulatory requirements for reconditioning).	VII.
		Require containers to be truly empty (not just "RCRA empty") before going to scrap recycling or disposal.	VII.
		Require containers with any amount of hazardous residues (including crushed or shredded containers) to meet the hazardous debris alternative treatment standards in 40 CFR 268.45 prior to being land disposed.	VII.

In addition to asking for comment on the substance of possible future regulatory requirements to address the issues described above, the EPA is also requesting comment on the approach for these requirements. One possible approach would be to simply remove the empty container provision, which would impose full RCRA Subtitle C requirements on residues in drums from the point they are generated to the point that the drums no longer contain any residue.[3] Among other outcomes, such a comprehensive change would require drum reconditioners that only process RCRA empty containers, as we currently define empty, to obtain a RCRA permit

[3] Absent the empty container provision in 40 CFR 261.7, a drum that had held listed hazardous waste, or that had held a material exhibiting one or more characteristics that would be considered hazardous waste when disposed of, would need to either meet the hazardous debris alternative treatment standards in 40 CFR 268.45 or receive a determination per 40 CFR 261.3(f)(2) from the Regional Administrator that the drum is no longer contaminated with hazardous waste.

and would require companies that attempt to empty drums to count any remaining residue towards their monthly hazardous waste generator status and to use a hazardous waste manifest and transporter for shipments of, in most cases, nearly empty drums. However, the risk posed by drums containing residue during storage and transport may not require such extensive regulation to ensure protection of human health and the environment. Additionally, requiring a RCRA permit for drum reconditioners that only process RCRA empty containers could undermine the entire system of reconditioning drums for re-use, potentially resulting in an unintended increase in mismanagement and abandonment of drums containing residue.

Some of the potential regulatory changes discussed in the table above could be added as conditions to the generator regulations in 40 CFR part 262, to the exemptions from RCRA permitting in 40 CFR 264.1(g) and 40 CFR 265.1(c), and/or to the empty container provision 40 CFR 261.7 itself. The advantage of adding conditions to the existing regulations is that they can be tailored to address the specific risks posed by drums containing hazardous waste residue, and the consequence of not meeting these conditions would be full hazardous waste regulation. The EPA could also create specific management standards for [emptied] containers in 40 CFR part 266, as has been done in the past for other specific hazardous wastes and specific types of hazardous waste management facilities. Implementing the potential regulatory changes by adding a new subpart to 40 CFR part 266 would have the advantage of maintaining all the requirements for containers with residue in one place in the regulations.

Finally, the EPA could use the variance procedures in 40 CFR part 260 to develop a variance from permitting requirements for drum reconditioners, provided certain criteria are met. The advantage of using such an approach is that it would increase regulatory oversight of drum reconditioners (because the EPA or the authorized state would need to review and approve the variance petitions) and would also allow for public notice and comment.

While each of the approaches for adding possible regulatory requirements to [emptied] drums containing residue has both advantages and disadvantages from a practical standpoint, they all would have the same goal: to ensure protection of human health and the environment from the management of hazardous residues in [emptied] containers.

IV. Environmental Justice

The EPA understands that drum reconditioning facilities may raise significant environmental justice concerns for communities that experience disproportionate and adverse human health and environmental burdens, and the Agency intends to ensure any decisions made reflect the importance of protecting the health and well-being of communities who have suffered environmental injustices. Conducted as part of the Drum Reconditioner Damage Case Report, a preliminary analysis using EPA's EJSCREEN tool indicated 94.2% of drum reconditioning facilities with damage cases are located in communities that already bear an environmental burden from other sources of pollution, exhibit characteristics of social vulnerability, or both, with many facilities located in areas where people of color and low-income populations are specifically impacted.[4] Emissions from drum furnaces and drum cleaning operations, and wastewater discharges from washing operations can threaten the facility's surrounding communities and environment, and the high level of damage incidents also puts communities with environmental justice concerns directly in harm's way, considering the frequency with which emergencies (such as fires and explosions) and abandonment of hazardous materials occur at drum reconditioning facilities.

It is clear from the damage case report that these hazards directly affect the well-being of the communities nearest drum reconditioners. For instance, in one case, investigators found a drum reconditioning facility had thousands of abandoned drums on site, many of which were full and leaking. Investigators even found a bicycle and children's toys strewn amongst the abandoned drums, demonstrating that vulnerable community members such as children were directly exposed to the unknown chemicals spilling from the abandoned drums because the facility had accepted non-RCRA empty drums and failed to control access to the property.[5] In another case, a drum reconditioner in a low-income, primarily minority community, dumped the contents of drums—which should have been empty—onto the soil and dug holes on their site to bury hazardous chemicals, leading to widespread soil and water contamination and extensive onsite and offsite damage.[6]

Many of the possible solutions the EPA is seeking comment on in this ANPRM could help address these environmental justice concerns when enacted. Any changes that lead to better compliance, fewer releases, and/or stricter controls would most directly benefit the communities nearest these facilities. For instance, stricter enforcement of existing air or water permits, and expansion of RCRA permit requirements to reconditioners that process RCRA empty containers that still contain residue, could help address some of the environmental justice concerns detailed earlier in this section. Localized air emissions and water discharge issues could be mitigated through stricter controls on those reconditioners that are already required to obtain air and/or water permits. Likewise, requiring drum reconditioners that process empty containers to obtain a RCRA Treatment, Storage, and Disposal Facility (TSDF) permit, or requiring such facilities to obtain a variance, would provide a mechanism for community engagement, as the RCRA permitting process and the variance process requires notice and comment to facilitate public participation before a permit or variance is issued. Implementing these, or any of the other potential changes discussed in this ANPRM, would likely result in environmental justice benefits by reducing the negative effects caused by facilities located in overburdened communities.

Finally, it should be noted that the EPA has limited ability to influence the siting of these facilities because those decisions fall primarily to state and local authorities (*e.g.,* land use decisions like zoning are controlled mostly at the local level). However, the EPA is interested in establishing policies within its authority that would address the environmental justice concerns associated with this industry; in particular, the EPA is requesting public comment on additional ways the Agency could promote environmental justice under our existing authorities. The EPA also encourages commenters providing input on separate issues and solutions discussed in the rest of the ANPRM to incorporate environmental justice considerations into their feedback.

[4] EPA 2022 *Drum Reconditioner Damage Case Report,* September 2022, EPA–530–R–22–003. *https://www.epa.gov/hw/drum-reconditioner-damage-case-report.*

[5] EPA, *Damage Case Report,* Drumco Drum Dump, [page 87].

[6] EPA, *Damage Case Report,* Martin Aaron, Inc., [page 130].

V. Used Drum Generator and Transporter Issues

A. Emptying Containers

Used drum generators are responsible for the hazardous waste they generate, including ensuring its proper disposal. This responsibility extends to hazardous waste that is sent to a drum reconditioner in a non-RCRA empty container. As discussed in Section II, the RCRA regulatory definition of ''empty'' for regular hazardous waste containers (40 CFR 261.7) has two parts: (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, *AND* (2) no more than 2.5 centimeters (one inch) of residue remains or no more than 3% by weight remains if the container is less than or equal to 119 gallons or no more than 0.3% by weight remains if the container is more than 119 gallons. This section also states that a container or an inner liner removed from a container that has held an acute hazardous waste listed in Sections 261.31 or 261.33(e) is empty if: (i) the container or inner liner has been triple rinsed using a solvent capable of removing the commercial chemical product or manufacturing chemical intermediate; (ii) the container or inner liner has been cleaned by another method that has been shown in the scientific literature, or by tests conducted by the generator, to achieve equivalent removal; or (iii) in the case of a container, the inner liner that prevented contact of the commercial chemical product or manufacturing chemical intermediate with the container, has been removed.

As part of increasing awareness around this issue, the EPA could emphasize the first part of that definition to ensure that used drum generators, transporters, and state regulators are all aware that to be RCRA empty, a container must meet all parts of the definition. The Agency could add regulatory language or guidance explaining the type of practices commonly used to remove residues from containers for both solid and liquid materials. Another option is to take a similar approach as California and add language explaining what it means to empty drums that held pourable versus non-pourable hazardous residues to meet the RCRA empty definition.[7]

A regulatory revision to address this issue might amend the second part of the empty container definition (*i.e.,* change the amount that can remain to less than 2.5 centimeters (1 inch)) by changing the residue level that would still be considered RCRA empty before it leaves the used drum generator site. Alternatively, the regulations could be modified to require some rinsing of a drum that held non-acute hazardous waste, similar to the requirement to triple rinse containers that held P-listed (acutely toxic) hazardous waste.

The EPA is taking comment on all options discussed in this section. In particular, the EPA is interested in any comments on what would be an adequate amount of rinsing and any data that drum reconditioners, chemical manufacturers, or others may have on the degree of rinsing that is necessary to remove common types of hazardous waste, such as spent solvents, U-listed and P-listed commercial chemical products, etc. In addition, the EPA seeks public comment on whether the empty container regulations should be modified to account for different characteristics that may make some materials harder to remove than others, such as viscosity.

B. Shipping of Non-RCRA Empty Containers

The EPA is considering requiring used drum generators to have SOPs that they would use before shipping containers off site for reconditioning. Following the SOPs would ensure that drums are RCRA empty as currently defined in 40 CFR 261.7 and that the used drum generators don't intentionally or inadvertently ship drums that are not RCRA empty. The SOPs could also include procedures for non-RCRA empty containers, including the requirement to manifest ones with regulated hazardous residues to an appropriate RCRA-permitted TSDF if the used drum generator cannot empty the container enough to meet the empty container definition. The TSDF could then accept the non-RCRA empty containers and finish the process of emptying them before sending them on to a drum reconditioner. If the TSDF can ensure the drums are RCRA empty, then they would not need to be manifested from the TSDF to the drum reconditioner. The EPA and state implementing agencies could emphasize having and using the SOP when they do inspections of used drum generators.

The EPA is also interested in whether requiring labeling (similar to 40 CFR 262.17(a)(5)(i)) of empty drums would help ensure proper management not only by the used drum generator, but also by the transporter and drum reconditioner, particularly regarding the management of incompatible or potentially ignitable residues. In addition, if a non-RCRA empty container comes into a facility, then the information on the label would likely be very helpful in making an accurate hazardous waste determination for the facility to send that non-RCRA empty container on to a TSDF. Another possibility would be to allow the use of a nationally recognized electronic system, such as a bar-coding system or QR coding system that is part of a company's waste profiling system, to include the information that would be needed to ensure proper management of the containers. The Agency is interested in real-world examples of how such electronic systems could be used to provide the same information as a label.

A real-life example of where the lack of information of what was left in a container had tragic consequences was when an employee was killed in an explosion at a drum reconditioner when incompatible wastes were mixed (potentially due to their lack of labeling). The explosion also severely damaged the facility and caused the company to declare bankruptcy.[8] Lack of information about a container's origins (*i.e.,* who sent it, and from where, contents, etc.) can also create issues such as difficulty for employees at reconditioning facilities to determine proper handling procedures and proper personal protective equipment (PPE), challenges with spill response and clean up during transportation or upon arrival at the drum reconditioner as the nature of the chemicals remaining in the drum are unknown, and the inability of reconditioners to inform their local first responders of the likely hazardous materials present on site. In the preceding example and in other cases, drum reconditioners have ceased operations and left unlabeled drums of unknown material in place when they closed.[9]

The EPA is aware that the Department of Transportation (DOT) labeling requirements may continue to apply to packagings of hazardous materials even after they have been emptied, but the EPA is interested in whether additional labeling should be required for used containers beyond the DOT requirements. The EPA could consider addressing labeling issues by establishing more stringent labeling criteria, such as making the empty

[7] See Title 22, California Code of Regulations, section 66261.7: Contaminated Containers for specific language.

[8] EPA, *Damage Case Report,* Chief Supply/Greenway Environmental. [page 63]

[9] EPA, *Damage Case Report,* Superior Barrel and Drum Co. [page 177]

container provision contingent upon certain labeling standards, which would encourage generators sending containers for reconditioning to also send accompanying information like waste identification, warning placards, or resources for more information about the container's previous contents and the non-regulated residues still in the container.

The EPA could also (or alternatively) require that information such as the identity of the material and its origins follows the container until it is reconditioned. This approach could be performance-based in order to allow existing documents, such as hazardous waste manifests or bills of lading, to be used as identifying paperwork, so long as they provide the required information about the nature of the material, its origin, and any other information deemed critical. Information presented in a standardized format like this could provide a quick reference in the event of a release or emergency, as a specific party would be responsible for taking ownership of the leaking/damaged drum. For example, a used drum generator would produce a bill of lading that details the containers they are sending, the containers' previous contents, any relevant warnings, and information about the used drum generator, then hand off that document to the driver or other transporter, who would then provide it to the reconditioner when the containers are delivered. The Agency is interested in receiving comments on the extent that existing paperwork could be used for this purpose and whether there needs to be additional tracking information that directly links each container to its previous contents, perhaps through a bar-coding or QR-coding system.

The EPA has been told by one stakeholder group that this lack of labeling information is a major issue for drum reconditioners. Therefore, the Agency is requesting further comment on the extent and severity of this issue, as well as the anticipated effects of employing the strategies outlined in this section and other potential solutions to this problem.

Other potential solutions to used drum generators and TSDFs shipping non-RCRA empty containers could be requiring generators and TSDFs to certify that the containers sent to drum reconditioners are empty per the regulatory definition in 40 CFR 261.7. This certification could be included in the shipping papers or in a log maintained at the generator or the TSDF. Another option would be to include the generator/TSDF's certification that the container is RCRA empty on any required labeling. The Agency is interested in whether requiring the certification on each individual container's labeling would assist inspectors and state implementing agencies.

As part of requiring an SOP or perhaps as a separate requirement, the EPA is interested in whether additional employee training on the empty container requirements is needed at used drum generators, including hazardous waste generators. If an SOP is required of used drum generators, then ensuring employees are properly trained on how to empty containers and make sure the containers sent off-site are RCRA empty would be a required component of the SOP. Other good management practices could be included in the training such as making sure the containers that are sent for reconditioning are in good condition and not leaking, are properly labeled, etc.

The EPA is also interested in whether used drum generators should be required to track their shipments of empty containers sent off site or keep records of these shipments in order to help verify which generators have been properly emptying their drums. The EPA could consider imposing these requirements in instances where drum reconditioners have repeatedly received non-RCRA empty containers from used drum generators.

The EPA is interested in public comment on the need for used drum generators to keep records or track their shipments of containers to drum reconditioners and when it would be appropriate to impose these tracking requirements discussed in this section. For example, if the Agency determined it was not necessary as long as used drum generators were only sending empty containers, then the EPA could propose only to impose the tracking or recordkeeping if there is a history of shipping non-RCRA empty containers off site. The EPA expects that bills of lading would be sufficient and electronic records would be acceptable for this tracking. In addition, the Agency requests comment on how to obtain information on facilities that indicate a history of shipping non-RCRA empty containers, and how the Agency should establish and implement a notification system.

C. Container Packaging (Integrity)

The physical state of container packaging (*i.e.,* the container itself and any accompanying equipment necessary to prevent leakage, spills, etc.) also arose as a major issue causing damage cases in the drum reconditioning process. This issue occurs when generators of used drums or other containers fail to ensure the container itself is in good physical shape, such that no leaks or spills are liable to occur. Corroded drums and damaged containers are some examples of what the EPA would consider to be in improperly or poorly packaged. Failure to properly close containers (*e.g.,* securing lids or bungs appropriately) may also contribute to this problem.

In addition, transporters of these improperly packaged containers may fail to inspect the packagings offered for transport to ensure they meet certain standards. In particular, the DOT's Hazardous Material Regulations (HMR) outline specific requirements for containers that contain, or once contained, hazardous materials (including hazardous waste). Both generators (referred to by DOT as ''offerors'' for transportation) and transporters have a responsibility to comply with the HMR and its packaging requirements.

Damaged or otherwise compromised containers are more likely to leak or spill hazardous materials than structurally sound containers. Even though drums and other industrial containers should be RCRA empty before being sent to the drum reconditioner, the residue in a RCRA empty container may present an environmental hazard that could be released through leaks or other failure points. Even though RCRA empty containers are not currently subject to hazardous waste regulation, the cumulative residues from many RCRA empty containers may still present an environmental hazard, especially when millions of containers are being managed. Additionally, in noncompliant scenarios, non-RCRA empty containers may be offered for transportation, creating a risk of a larger spill if the container or packaging is degraded.

Potential solutions to the packaging integrity issue include more stringent packaging regulations and better inspection practices. In the former case, regulatory revisions to the empty container provision could introduce special requirements regarding packaging integrity that must be met in order for a used drum generator/hazardous waste generator to avail themselves of that provision. This regulatory change could outline specific requirements for used drum generators in preparing their empty containers for shipment and provide an enforcement mechanism in cases in which structurally compromised containers are improperly prepared for transport. More

thorough inspections could also help generators offering containers for transport and transporters providing the service to identify improper container packaging that presents an elevated risk because of its degradation or improper closure. Additional actions to address these problems could include providing best management practices or other resources to consult when packaging a drum or IBC to be transported and/or issuing mandatory requirements to ensure that all responsible parties verify the integrity of the packaging before it is sent to a reconditioner.

The EPA is requesting comment on the frequency of such voluntary practices, the anticipated effect of such regulatory changes, and any other information that commenters believe the Agency would need to properly inform future action related to container packaging.

VI. Drum Reconditioner Issues

A. Acceptance, Storage, Handling, and Management of Non-RCRA Empty Containers

As mentioned in Section V.A of this preamble, and as concluded in the EPA's Drum Reconditioner Damage Case Report, drum reconditioners often unintentionally receive containers that previously held a variety of materials, including hazardous chemicals, and are managing drums with hazardous residues that do not meet the 40 CFR 261.7 definition of ''empty'' without the required RCRA permit to do so. In such situations, the EPA has determined that, though the generator bears responsibility for ensuring that a container is, in fact, RCRA empty when sent offsite (Section V.A), the receiving entity/drum reconditioner also shares responsibility for properly identifying and managing containers that do not meet the RCRA empty definition in accordance with 40 CFR 261.7 and are responsible for managing the container under all pertinent RCRA regulations once it comes under their control.

The residues remaining in these non-RCRA empty containers pose numerous risks, as described in previous sections, and as a result of issues outlined in the EPA's Drum Reconditioner Damage Case Report and listed throughout this ANPRM, the Agency has identified the need to explore possible approaches to update, support, and/or complement the empty container provision at 40 CFR 261.7. These approaches, discussed hereafter, may be used to identify when a non-RCRA empty container is sent to a drum reconditioner; to provide a mechanism for drum reconditioners to properly and safely store, and then reject, non-RCRA empty containers; and/or to update and enforce procedures and practices to better manage containers within the scope of the existing regulations.

The EPA's Drum Reconditioner Damage Case Report featured several examples of damage cases that were caused by abandoned or stockpiled non-RCRA empty containers on drum reconditioner properties. After acceptance, these containers were left in various states, but many were damaged, unattended, uninspected, and lacked proper container management, storage, or secondary containment. One site had 500 drums known to be abandoned and approximately 50,000 gallons of abandoned hazardous residues, with the estimated cleanup cost for soil and groundwater contamination found to be $928,000.[10] Another site that had a drum cleaning operation, along with other operations, with several drums, tanks, and other debris abandoned in an open field referred to as the ''bone yard,'' had a fire/explosion, which killed an employee. Approximately 33,000 gallons of hazardous waste remained onsite with many deteriorating containers holding unknown contents after the site was abandoned in 2000.[11]

Potential approaches to address the issues of improper storage and abandoned drums could include the EPA requiring drum reconditioners to create SOPs to identify, properly store, and reject drums or containers that do not meet the RCRA definition of empty per 40 CFR 261.7. These SOPs could be specific, and include procedures such as steps to evaluate trailers and/or containers integrity/condition and contents that arrive on the reconditioner's properties; the inspection of shipping documents or labels to confirm that the customer signed a certification attesting that the containers are RCRA empty (new requirement); verification that the trailer and/or container's contents match the bill of lading; confirmation that the containers and/or trailers are not leaking; and the use of an arrival log with the date of receipt of the containers and/or trailer, the customer's name and location where the containers came from, and the container quantity.

The EPA could also require drum reconditioners to place suspected and known non-RCRA empty containers (even those whose contents are not yet characterized as hazardous waste) in a designated ''Non-Empty Container Storage Area'' immediately after identifying the containers as suspected or actual non-RCRA empty containers. The designated drum storage area would have to meet management and design specifications, such as identification with a marked boundary, either locked and/or secured fencing, and signage to clearly delineate the area's purpose. The design specifications could include a minimum volume requirement for secondary containment, an impervious base surface to prevent or capture runoff, minimum aisle space, and/or a canopy, lid, or other cover to prevent precipitation from entering the area. The EPA could also require inspections of the ''Non-Empty Container Storage Area'' that would happen at regular time intervals and could require that a drum inventory for RCRA empty and non-RCRA empty containers be maintained.

The EPA has also identified improper management practices and handling procedures of non-RCRA empty and RCRA empty containers at drum reconditioners that have led to various damage cases including, but not limited to, spills and leaks from puncturing or dropping containers, and explosions, fires, fumes, and burns from the mixing of incompatible wastes. Several higher profile damage cases include a fire that occurred when sodium chlorite ignited after an employee punctured a steel drum with a forklift, which required 200 emergency workers from 38 different emergency companies to contain the fire [12] and an on-site explosion occurring at another facility when workers attempted to repack two drums containing ignitable mixtures.[13]

To mitigate poor management and handling at drum reconditioners, the EPA could require drum reconditioners to create and follow new industry-wide SOPs for the receipt and evaluation of all containers to ensure they are properly sealed and not leaking, or do not have the potential to leak, during storage or prior to the reconditioning process. The EPA could also require reconditioners to handle and store all containers in a manner that prevents rupture or leaking, which could include container integrity inspections and secondary containment requirements, prohibition of the consolidation or mixing of materials, chemicals, or wastes in all containers, in addition to a requirement for mandatory materials handling training for all employees on

[10] EPA, *Damage Case Report,* Central Steel Drum Co., [p. 60].

[11] EPA, *Damage Case Report,* Chief Supply/Greenway Environmental, [p. 63].

[12] EPA, *Damage Case Report,* Scranton Cooperage/American Container Processors/Kearny Steel Container, [p. 173].

[13] EPA, *Damage Case Report,* Aqua-Tech Environmental, Incorporated (Groce Laboratories), [p. 37].

a recurring basis. These requirements could be coupled with used drum generator labeling requirements (such as those at 40 CFR 262.17(a)(5)(i)), as discussed in Section V.C, so handlers and reconditioners would know the contents or previous contents of non-RCRA empty containers. The Agency could also include a regulatory mechanism to provide requirements for drum reconditioners to reject non-RCRA empty containers from the transporters.

The EPA could also require the preparation of a waste analysis plan, similar to what is required for RCRA permitted facilities and generators who perform treatment (per 40 CFR 264.13, 265.13, and 268.7); require non-RCRA empty containers containing hazardous waste to be sent to permitted TSDFs within a certain timeframe; require the creation and maintenance of discrepancy reports where drum reconditioners send the report to the used drum generator who sent non-RCRA empty containers and to the implementing agency such as the EPA or state; require the creation of container management plans, which could have specific requirements such as weekly inspections, record keeping, etc.; and/or require drum reconditioners to have financial assurance to demonstrate that they will have the financial resources to respond to contamination, clean up releases, address environmental and human health risks, or properly close the facility or unit when its operational life is over; or provide the appropriate emergency response in the case of an accidental release.

In addition, any of the options listed in this section could be combined with developing new or more tailored requirements focusing specifically on certain aspects of the RCRA regulations applicable to this specific industry (*e.g.,* revising allowable limits in the empty container regulations at 40 CFR 261.7, mentioned in Section V.B).

The EPA could also explore allowing drum reconditioners the option of applying for a variance from RCRA hazardous waste permitting if they meet certain conditions, such as the creation and use of SOPs in drum management areas, more appropriate labeling and handling procedures, and other potential requirements discussed in this section and throughout the ANPRM. Requiring that drum reconditioners apply for a variance, rather than setting up self-implementing procedures, would allow more oversight by the regulatory authority and provide a mechanism for public notice and comment under the existing variance procedures in 40 CFR 260.33.

The EPA requests comment on the issue of the acceptance, management, storage, handling, and improper and potentially unsafe practices and procedures at drum reconditioners for containers that do not meet the definition of RCRA empty in 40 CFR 261.7. The EPA is soliciting information on the prevalence of these problems, existing practices and procedures implemented at facilities, and any practical difficulties or unintended consequences that may arise from the possible regulatory solutions to this problem.

B. Emissions From Drum Furnaces

Of the estimated 17 million steel drums that went to reconditioning in 2021, about 35% were processed in a drum furnace, where the residues remaining in the drums are destroyed through incineration.[14] The thermal process applies heat to open head drums that previously contained viscous and/or organic materials such as paints, resins, tars, and adhesives. These drums are processed through a furnace at approximately 1,200 degrees Fahrenheit (°F) to incinerate residues of the former contents of the drums. It has been reported that exhaust from the combustion process is typically drawn into an afterburner at approximately 1,800 °F.[15]

Combustion units that process RCRA empty containers are not required to get hazardous waste incineration permits because the residues remaining within the container are exempt when the container is burned (assuming the containers actually meet the RCRA definition of ''empty'').[16] Clean Air Act (CAA) section 129 may apply to these combustion units, but currently there may not be specific regulatory requirements for drum furnaces that process RCRA empty drums. However, these combustion units may be required to obtain permits under CAA requirements and may also be subject to 40 CFR part 63 subpart EEE (or 264 subpart O) if burning hazardous waste from non-RCRA empty containers.

In the EPA's Drum Reconditioner Damage Case Report, several facilities with drum furnaces were noted as creating a public nuisance through odorous emissions including emissions from drum washing operations, failing to keep proper records of Hazardous Air Pollutant emissions, and exceeding emission limits for several pollutants, which in several instances resulted in penalties resulting from enforcement cases under the CAA. In one case, a former employee recounted how the facility chose to burn materials before dawn so that nobody would observe the dark, black cloud of emissions that resulted.[17]

Possible solutions that the EPA may pursue in a future regulatory action to address emissions at drum reconditioners could include requiring specific emissions controls or emission factor limits for drum furnaces under RCRA section 3004(n) authority to control emissions from the management of hazardous waste, limiting the use of drum furnaces to containers that held non-hazardous materials, requiring a RCRA incineration permit for furnaces that burn containers with residues that would be considered hazardous waste under 40 CFR part 261 (absent the 40 CFR 261.7 empty container provision), and/or requiring pre-treatment (for example, triple rinsing) of containers prior to burning.

The EPA requests comment on the issue of emissions from drum furnaces, including any information on the prevalence of this problem; methods that have been successfully used to address emissions from these types of furnaces, including any state air requirements or programs that addressed these furnaces; and any practical difficulties or unintended consequences that may arise from the possible regulatory solutions to this problem.

C. Management and Mismanagement of Wastewaters and Other Wastes Generated From Drum Reconditioning

One major underlying cause of contamination of soil, groundwater, and surface waters at drum reconditioners is the mismanagement of wastewaters. The greatest source of wastewater from this industry is rinse water from drum cleaning operations. Other sources include interior pre-flushes and washes; spent cleaning solutions; exterior wash water; leak testing wastewater; compressor condensate; boiler blowdown; acid washing emissions

[14] Reusable Industrial Packaging Association. ''U.S. Packaging Reconditioning Industry 2021 Survey and Statistics''. December 2022. *https://www.reusablepackaging.org/wp-content/uploads/2022/12/Survey-Report-2021.pdf.*

[15] Sun West Container, A Basco Company. ''Reconditioned Drums 101''. *https://sunwestcontainer.com/blog/reconditioned-drums-101.*

[16] EPA 1986. ''Burning Of Residues Remaining in Empty Containers,'' memo from Alan S. Corson, Branch Chief, Studies and Methods Branch, U.S. Environmental Protection Agency, to Dale D. Parker, Executive Secretary Utah Solid and Hazardous Wastes Committee, January 7, 1986, RO 12535.

[17] EPA, *Damage Case Report,* Columbus Steel Drum Company [p. 70], Drumco of Arkansas [p. 89], Industrial Container Services—MI, LLC [p.119], Meyer Steel Drum, Inc. [p. 137], Mid-America Steel Drum Co, Inc.—Saint Francis [p. 144], Mid-America Steel Drum Co, Inc.—Oak Creek [p. 147].

scrubber water; and label removal. The wastewaters can contain a wide variety of pollutants, including volatile organic compounds, semi-volatile organic compounds, metals, and dioxins and furans.[18]

Rinse waters from RCRA empty containers are only regulated as hazardous waste if they exhibit a hazardous waste characteristic, or if the rinsing agent is a listed hazardous waste when used (such as certain spent solvents).[19] Rinse waters can cause environmental problems when mismanaged, as evidenced in the large number of drum reconditioning damage cases resulting from the mismanagement of wastewaters. In some of the damage cases, rinse water was simply dumped on the ground, and in others it was discharged to an unlined surface impoundment (*i.e.,* pond, lagoon, pit, catchment basin, etc.).[20] These practices can result in the contamination of soil, groundwater, and adjacent wetlands with various hazardous constituents, including organic compounds, polychlorinated biphenyls, pesticides, and heavy metals. In one damage case, wastewater was managed in open concrete sumps that were connected by open concrete trenches. Caustic wash water from this drum reconditioning process migrated via underground seepage to a nearby elementary school property, resulting in the school being closed.[21]

In other cases, wastewater was discharged to the sewer or to surface waters without a permit or in exceedance of permit limits.[22] In one example, workers evacuated the facility for about a half hour after ''a horrible smelling orange cloud'' filled the plant after residues were washed down the drain, presumably from incompatible chemicals being mixed.[23] In one extreme case, the EPA documented illegal dumping of caustic waste into the King County sewer system, which ultimately empties into the Puget Sound. The company used a hidden drain, and over ten years, lied to regulators to carry out their illegal dumping.[24]

One process that contributes to the contamination resulting from wastewater mismanagement is the discharge of contaminated rinse water from cleaning non-RCRA empty containers. Thus, some of the approaches discussed in Sections V.A and VII.A to reduce the number of non-RCRA empty drums sent to reconditioners and to provide a practical system for reconditioners to reject non-RCRA empty drums would also help address potential problems presented by wastewater mismanagement.

However, even without the contribution of residues from non-RCRA empty drums, drum reconditioning rinse water could contain significant levels of contaminants. If all 12.1 million hazardous material-containing drums (plastic and steel estimated from RIPA's 2021 Industry Survey and Statistics Report) reconditioned each year have up to one-inch of chemicals remaining after emptying, that would mean residues from these drums could amount up to 20.9 million gallons of hazardous materials per year.[25] In addition, the rinsing agent itself may present other hazards.

Accordingly, other possible regulatory solutions the EPA may consider include requiring hazardous wastewaters from RCRA empty drums to be managed in tanks and containers rather than in land-based units, and to be discharged only in accordance with sections 301 and 402,[26] or section 307,[27] of the Clean Water Act. The EPA may also consider limiting discharges to surface impoundments to rinsate from drums that only held non-hazardous substances, and/or prohibiting sewer disposal of rinsate from drums that previously contained hazardous materials. The EPA may also consider requiring reconditioners to develop and follow waste analysis plans so that the drum reconditioner makes an informed decision in determining the compliant management method for the wastewater, prior to discharge.

The EPA also requests comment on the issue of mismanagement of contaminated wastewaters from empty drums, including any information on the prevalence of this problem, the extent current operations rely on surface impoundments for wastewater management, and any practical difficulties or unintended consequences that may arise from the possible regulatory solutions to this problem.

In addition, the EPA notes that there may be other waste streams generated as a result of drum reconditioning, including ash from drum furnaces and steel shot from drum cleaning operations, which are subject to the hazardous waste determination requirements of 40 CFR 262.11 and, if hazardous, must be managed according to applicable hazardous waste requirements. EPA requests comment on the waste characteristics of non-wastewaters generated from reconditioning processes and any environmental or public health issues identified from their management.

D. Emergency Response

Another issue the EPA would like to hear from the public about is whether there is a need for more information to be made available to the public or to emergency responders related to the activities and chemicals that may be on site at a drum reconditioner. As evidenced by the EPA's Drum Reconditioner Damage Case Report, there have been a number of fires and other incidents that require emergency response at these industrial facilities. At one facility, a drum exploded in March 2017, resulting in a multi-alarm fire.[28] Other drum reconditioners have had fires, including one facility that had at least one large fire in 2014, heavily damaging the facility and endangering workers, firefighters, and nearby residents.[29] Another facility had a fire that occurred after an employee

[18] EPA 2006. *Memorandum to Public Record for the 2006 Effluent Guidelines Program Plan: Industrial Container and Drum Cleaning Industry, loadings estimates and pass through analysis* [DCN 03415], September 11, 2006 (updated). *https://www.regulations.gov/document?D=EPA-HQ-OW-2004-0032-2392.*

[19] EPA 2004. *Policy On the Management of Rinsate from Empty Containers.* Letter from Robert Springer, Director Office of Solid Waste, to Casey Coles, Hogan and Hartson, L.L.P, April 12, 2004 (RO #14708) *https://rcrapublic.epa.gov/rcraonline/details.xhtml?rcra=14708; See also* 70 FR 57779, October 4, 2005.

[20] EPA, *Damage Case Report, Bay Area Drum Co., [p. 45], Bayonne Barrel & Drum Co., [p. 47], Callaway & Son Drum Service, [p. 54], David John Property, [p. 81]; Des Moines Barrel & Drum Co., [p. 81]; Hassan Barrel Company Inc., [p. 109]; Helms Drum Service, [p. 111]; Metro Container Corporation, [p. 133]; Miami Drum Service, [p. 140]; New England Container Co., [p. 155], and, Northwestern Barrel Co., [p. 157].*

[21] EPA, *Damage Case Report,* Cooper Drum Co., [p. 172].

[22] EPA, *Damage Case Report,* Barrel & Drum Service, Inc., [p. 42], Container Recyclers of South Jersey, [p. 66], Environmental Waste Resources, Inc., [p. 99], and Patrick J. Kelly Drums, Inc., [p. 160].

[23] EPA, *Damage Case Report,* Mid-America Steel Drum Co, Inc., [p. 142].

[24] EPA, *Damage Case Report,* Seattle Barrel Company, [p. 175].

[25] Based on data from U.S. Packaging Reconditioning Industry 2021 Survey and Statistics, Reusable Industrial Packaging Association, December 20, 2022. Estimate includes 17 million steel drums, 61% used for hazmat, and 2.6 million plastic drums, 68% used for hazmat. Assumes 1.7 gallons per drum, based on 11.25-inch radius for a conventional drum, $V = \pi r^2 h$.

[26] Under CWAsec. 301, it is unlawful for any person to discharge any pollutant into waters of the United States without authorization under specific provisions of the CWA, including sec. 402 (NPDES).

[27] Section 307 Requires new and existing industrial users to pre-treat wastewater discharged to Publicly-Owned Treatment Works (POTWs) to prevent pollutants in excess of certain limits from passing through POTWs.

[28] EPA, *Damage Case Report,* Dewitt Barrels, [p. 85].

[29] EPA, *Damage Case Report,* Indianapolis Drum Services, [p.113].

punctured a steel drum with a forklift. It required 200 emergency workers from 38 different emergency companies to contain the fire. As a result of the fire, black smoke was released into the air, water runoff was stained a vibrant purple, and a nearby housing development was evacuated.[30] The EPA is interested in hearing from the emergency response community and other interested parties on whether a lack of information hampered any of these or any other emergency responses, and if so, any specifics on what information would be especially critical to have (*e.g.,* information on the hazards and/or chemical composition of the residues).

If there is a need for more information, then the EPA could require drum reconditioners to have a contingency plan, similar to the requirement for hazardous waste large quantity generators (LQGs). The purpose of the plan would be to have all the information in one place for the facility and emergency responders to appropriately respond to a fire, explosion, or other type of release of materials containing hazardous constituents. If the drum reconditioner already has some type of emergency plan, such as a Spill Prevention, Control, and Countermeasures (SPCC) plan or the ''One Plan,'' [31] then those plans could be deemed sufficient to fulfill the new requirement. The EPA is interested in whether drum reconditioners already have emergency plans and whether they sufficiently include the hazardous nature of residues from RCRA empty or non-RCRA empty containers.

Other LQG and or permitting preparedness, prevention, and emergency procedures may also be appropriate for drum reconditioners. These include proper maintenance and operation of the facility; emergency communication equipment; adequate fire suppression systems and water; spill control and decontamination equipment; employee access to emergency communication devices; adequate aisle space for emergency responders; and/or proper arrangements with local emergency responders. More details on the LQG and or permitting requirements that could be applied to drum reconditioners can be found in 40 CFR part 262, subpart M and 40 CFR part 264. The EPA is interested in whether some or all of these emergency preparedness procedures are appropriate for drum reconditioning facilities.

E. Training

An issue related to emergency response is whether employees at drum reconditioners are properly trained. The EPA is interested in whether emergency responders have found lack of employee training to be part of the cause of any of the documented damage cases. The EPA is also interested in what training drum reconditioners currently provide to their employees with respect to hazards that employees may encounter as part of their daily operations and in responding to emergencies that may occur.

Similar to the options for used drum generators, the EPA could require employee training at drum reconditioners as a stand-alone requirement or as a component of a required SOP (as described in Section V.C). The EPA is interested in what the components of training at drum reconditioners should include, the frequency that employees should be trained, and any other relevant considerations that would go into a well-designed training program.

F. Permitting

Many of the drum reconditioning issues discussed in the previous sections could be linked to incomplete regulatory oversight of these facilities. Because residues remaining in containers that meet the empty container provision in 40 CFR 261.7 are not subject to hazardous waste regulations, drum reconditioners who receive containers that meet this provision are not subject to RCRA permitting (40 CFR part 270), which requires the EPA or authorized state review and approval of their operations. Lack of a permit requirement for these facilities also means that reconditioners processing RCRA empty drums are not required to submit a notification under RCRA, which makes it harder to identify these facilities, and poses an additional barrier to regulatory oversight. To address these concerns, the EPA could require all drum reconditioners to obtain a full RCRA Subtitle C TSDF permit and an EPA Identification Number or complete a variance process. The EPA is interested in receiving further input on the potential mechanisms, anticipated success, and associated burdens of such a requirement.

Requiring all drum reconditioners to obtain a RCRA permit would enable the EPA and its implementation partners to ensure facilities have proper controls in place to reduce the likelihood of releases, explosions, and other such emergencies. Requiring a RCRA TSDF permit would also ensure financial assurance is established, which would help provide funding for site remediation if a facility contaminates its site, thus reducing the likelihood that already disadvantaged communities are further burdened with contaminated properties (*e.g.,* brownfields). The RCRA permitting process also provides a mechanism for public participation, with notice and comment required before a permit is issued.

The EPA could also consider allowing drum reconditioning facilities to apply for a variance from a RCRA hazardous waste permit if certain conditions outlined in a variance are met. The RCRA variance procedures also provide a mechanism for public notice and comment. The EPA is interested in hearing from the public on the potential implementation of both a permitting requirement/process and variance procedures. The EPA recognizes that these actions could create a significant burden on drum reconditioners and could result in unintended consequences of discouraging reconditioning and increasing the potential for mismanagement and abandonment of emptied drums. The EPA is interested in exploring all options to help better protect human health and the environment, while maintaining the environmental advantages of reconditioning and recycling.

VII. End-of-Life-Management

Eventually, used drums can no longer function as packaging and must be either recycled as scrap or disposed of. At the end of life, the used metal drums typically would go to scrapyard that does metal recycling or a landfill for disposal. Reconditioning extends the life of a drum resulting in both economic and environmental benefits. One lifecycle analysis comparing the carbon footprint of a reconditioned open head steel drum to a new open head drum shows that the greenhouse gas emissions of the lifecycle of a reconditioned drum are less than half the greenhouse gas emissions of a newly manufactured drum. For tight head steel drums, the greenhouse gas emissions of the reconditioned drum are about 65% of those of a newly manufactured drum. The advantage of reconditioning a tight head drum is smaller than reconditioning an open head drum due to the higher energy use of reconditioning a tight head drum, but it still represents a significantly lower

[30] EPA, *Damage Case Report,* Scranton Cooperage (now known as American Container Processors, Inc.), [p. 173].

[31] The National Response Team's Integrated Contingency Plan Guidance, 61 FR 28642, June 5, 1996, *https://www.govinfo.gov/content/pkg/FR-1996-06-05/pdf/96-13712.pdf.*

carbon footprint when compared to a newly manufactured drum.[32]

However, if the EPA in the future revises the regulations affecting drum reconditioners, then one possible unintended consequence could be to steer used drums away from reconditioners and instead divert them straight to scrap recycling or disposal. The RIPA has raised concerns about direct-to-scrap management of used industrial containers, including the potential for contamination of the scrap metal and plastics from the container residues, and the lost environmental benefits from container reconditioning.[33]

Possible solutions to this potential unintended consequence could be to limit the empty container provision found at 40 CFR 261.7 to containers sent to reconditioners, and/or require containers to be clean of all hazardous residues (and not just be ''RCRA empty'') prior to going to scrap recycling or to disposal. In addition, the EPA could consider requiring containers with any amount of hazardous residues (including crushed or shredded containers) to meet the hazardous debris alternative treatment standard in 40 CFR 268.45 prior to being land disposed.

The EPA requests comment on end-of-life management of containers with hazardous residues remaining in the containers, including information on the extent that residues in scrapped containers pose an issue for scrap recycling or disposal, existing industry standards that may help prevent contamination from end-of-life containers from posing an environmental or public health risk, how end-of-life issues differ for different types of containers, and any practical difficulties or unintended consequences that may arise from the possible regulatory solutions to the problem of contaminated scrapped containers.

VIII. Transportation Equipment Cleaning Facilities

As with drum reconditioners, transportation equipment (*e.g.,* tanker car/rail car) cleaning facilities, which clean out equipment that once held RCRA hazardous waste and other hazardous materials, can also be the source of contamination and releases. Similar to drum reconditioners, these facilities can also potentially manage large amounts of hazardous waste residues that remain in the transportation equipment each year. Lack of oversight of these facilities, coupled with systematic non-compliance stemming from gaps in the regulations, may have resulted in environmental and public health impacts to communities where these facilities are located. While each individual transportation equipment tanker or rail car may pose little risk, the EPA estimates that approximately 500 clean out facilities exist, each processing thousands of pieces of transportation equipment per year, resulting in potentially millions of gallons of unmanaged hazardous waste.

While not specifically included in the scope of this ANPRM, the EPA recognizes these facilities have similar issues to drum reconditioners, and potential actions stemming from this ANPRM could be applied to these transportation equipment cleaning facilities. To further investigate, the EPA has started assessing publicly available information on these facilities and the Agency aims to gain an understanding of the total universe, general practices and procedures, waste and tank car operations and management, and potential damage cases.

The Agency is interested in public comment on similar environmental problems with transportation equipment clean out facilities and whether some of the approaches discussed in this ANPRM for drum reconditioners could also be used to address environmental issues at the transportation equipment cleaning facilities.

IX. Statutory and Executive Order Reviews

This action is not a significant regulatory action as defined in Executive Order 12866, as amended by Executive Order 14094, and was therefore not subject to a requirement for Executive Order 12866 review. Because this action does not propose or impose any requirements, other statutory and executive order reviews that apply to rulemaking do not apply. Should the EPA subsequently determine the Agency will pursue a rulemaking, the EPA will address all the statutes and executive orders as applicable to that rulemaking.

Nevertheless, the Agency welcomes comments and/or information that would help the Agency to assess particularly the following: the potential impact of a rule on small entities pursuant to the Regulatory Flexibility Act (RFA) (5 U.S.C. 601 *et seq.*) and human health or environmental effects on minority or low-income populations pursuant to Executive Order 12898, entitled *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (59 FR 7629, February 16, 1994). The Agency will consider such comments during the development of any subsequent rulemaking.

Additional information about statutes and executive orders can be found at *https://www.epa.gov/laws-regulations/laws-and-executive-orders.*

Michael S. Regan,

Administrator.

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BILLING CODE 6560–50–P

[32] *Life Cycle Assessment of Newly Manufactured and Reconditioned Industrial Packaging,* Ernst & Young, EY, January 2014. *http://resch-packaging.com/files/Life-Cycle-Analysis-Report-2014.pdf.*

[33] ''No More Direct To Scrap''; Reusable Industrial Packaging Association *https://www.reusablepackaging.org/direct-to-scrap/;* retrieved December 21, 2022.

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R2–ES–2022–0115; FF09E22000 FXES1113090FEDR 234]

RIN 1018–BG94

Endangered and Threatened Wildlife and Plants; Removing the Apache Trout From the List of Endangered and Threatened Wildlife

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service or USFWS), propose to remove the Apache trout (*Oncorhynchus apache*), a fish native to Arizona, from the Federal List of Endangered and Threatened Wildlife due to recovery. Our review of the best available scientific and commercial data indicates that the threats to the species have been eliminated or reduced to the point that the species no longer meets the definition of a threatened species or an endangered species under the Endangered Species Act of 1973, as amended (Act). If we finalize this rule as proposed, the prohibitions and conservation measures provided by the Act, particularly through section 7 and our regulations would no longer apply to the Apache trout. We request information and comments from the public regarding this proposed rule for the Apache trout.

DATES: We will accept comments received or postmarked on or before October 10, 2023. Comments submitted electronically using the Federal eRulemaking Portal (see **ADDRESSES**, below), must be received by 11:59 p.m. eastern time on the closing date. We