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Agency

Drum Reconditioner Damage Case Report

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Acronyms and Initialisms List

CAA Clean Air Act

CERCLA Comprehensive Environmental Response, Compensation, and Liability Act

CFR Code of Federal Regulations

CWA Clean Water Act

DOT Department of Transportation

DPM Diesel Particulate Matter

DSW Definition of Solid Waste

ECHO Enforcement and Compliance History Online

EJ Environmental Justice

EPA Environmental Protection Agency

Hazmat Hazardous Materials

HDPE high-density polyethylene

IBC Intermediate Bulk Containers

NAICS North American Industry Classification System

NATA National-Scale Air Toxics Assessment

NPL National Priorities List

PM Particulate Matter

PHMSA Pipeline and Hazardous Materials Safety Administration

RCRA Resource Conservation and Recovery Act

RIPA Reusable Industrial Packaging Association

RMP Risk Management Plan

UN United Nations

USEPA United States Environmental Protection Agency

USDOT United States Department of Transportation

Volatile Organic Compounds (VOCs)

1 Executive Summary

This report explores the growing number of damage cases at drum reconditioners in the United States (U.S.), where incidents at these facilities are causing significant and lasting damage to human health and the environment. This report also aims to provide an analysis of the regulatory and waste issues surrounding drum reconditioning facilities.

Drum reconditioning facilities clean and recondition metal and plastic drums and intermediate bulk containers (IBCs) for resale, reuse, or disposal. These containers previously held a variety of materials including hazardous chemicals, paints, resins, tars, adhesives, oils, soaps, solvents, or related materials. The two main processes used for reconditioning are burning metal drums in a burn-off oven or furnace and/or washing metal or plastic drums or containers with water and/or a caustic solution to clean out and remove residues.

Based on data from industry and other publicly available online resources, EPA estimates a total drum reconditioning universe of 181 facilities (106 presumed or confirmed to be operating and 75 facilities closed or inactive[1]) nationally, with approximately 40 million total drums being processed each year. The data also indicates that approximately 35% of drums are reconditioned using burn-off ovens and the remaining 65% are reconditioned through washing methods.

The Resource Conservation and Recovery Act (RCRA) empty container provision (40 CFR 261.7) exempts from regulation hazardous waste residues that remain in a drum or other container, as long as certain conditions are met (e.g., all wastes have been removed using commonly employed practices and no more than one inch of non-acute hazardous waste remains in a drum). Although this exemption exists, an industry trade association has publicly confirmed, that it is impossible to ensure that reconditioners never receive non-empty containers. They also note that there is no provision in the regulations that allows drum reconditioners to store rejected non-empty hazardous waste containers. Given the volume of drums being reconditioned, these facilities are likely accepting many drums that are not actually RCRA "empty" (40 CFR 261.7), and they may be managing millions of gallons of hazardous waste residues that remain in these non-RCRA "empty" containers, without being subject to substantive RCRA hazardous waste

[1] The operating status of each known facility can be reviewed in Appendix B – Drum Reconditioner Facility Comprehensive List.

regulations. These issues, sometimes compounded by poor practices and procedures, have resulted in a significant number of damage cases at these drum reconditioning facilities.

For the purposes of this report, a damage case is defined as a documented incident where hazardous constituents have migrated from or contaminated a facility where they have or could have caused damage to human health or the environment; where there is documented evidence of fires, explosions, employee injuries, etc.; and/or where there has been an administrative ruling or court decision with an explicit finding of specific damage to human health or the environment.

Of the total 181 drum reconditioning facilities identified by EPA, 86 have had one or more reported damage cases, representing 47.5% of the industry. Damages include fires; drum explosions; hazardous waste spills; improper storage of drums; regulatory non-compliance violations; employee injuries; air, water, and/or soil contamination; and various combinations of these incidents. Data from EPA's study also indicates that damage cases at these facilities have been persistent, with 26.7% of the known damage cases occurring from 2011 to the present, indicating that damages are not just from historic practices. Furthermore, as this report relied only on publicly available information, it is likely that there are a number of additional damage cases that EPA has not yet identified.

Geographic data indicates that these damage cases are occurring all over the U.S., but at the national level, these damage cases are occurring disproportionately in places that would be considered vulnerable from an environmental justice (EJ) standpoint. In particular, a high-level review of EJ indexes and indicators using EPA's EJSCREEN tool indicated 96.1% of drum reconditioning facilities are located in communities that already bear an environmental burden from other sources of pollution, exhibit characteristics of social vulnerability, or both. Additionally, many of these facilities are located in areas where people of color and low-income populations are specifically impacted.

This analysis of drum reconditioners and associated damage cases helps identify common types of incidents within this industry and their underlying causes, the populations most at risk to damage cases at these facilities, and the current and future risks to human health and the environment. EPA hopes that publishing this report will raise awareness of this critical topic and will help engage stakeholders on ways to address these issues, particularly ways to prevent future damage to human health and the environment from drum reconditioners.

2 Introduction

One of the most common methods of transporting bulk materials is a cylindrical container known as a drum, sometimes referred to as a barrel. Drums are used to transport thousands of different types of materials including industrial chemicals, acids (and other corrosives), oils, solvents, paints, resins, adhesives, soaps, and wastes/residues. Once used, these drums are discarded in a landfill, recycled, or reconditioned/refurbished for reuse. The drum reconditioning industry has been growing significantly in the last 20 years as the opportunity to refurbish and recondition drums has become more economical and available. The most recent Reusable Industrial Packaging Association (RIPA) survey estimating that approximately 37.4 million drums were reconditioned in 2019 (RIPA, 2019b), and the number is likely to continue increasing.

The refurbishing or reconditioning of drums includes the cleaning, restoring, testing, and certifying of industrial containers which may have previously contained hazardous or other materials listed above. The Industrial Container and Drum Cleaning (ICDC) industry includes facilities that clean and recondition metal and plastic drums and IBCs for resale, reuse, or disposal. These facilities, also known as drum reconditioning facilities, utilize these practices to accept used, "empty" drums, clean them of their old hazardous or non-hazardous materials, and produce new refurbished ones for resale. There are several different types of drums and IBCs that can be reconditioned, and each requires a specific cleaning process.

2.1 Steel Drums

The two primary processes for reconditioning steel drums use either heat or solution washes. Determining which process to use depends on both the previous contents of the drum and the drum's lid construction, be it an open-head drum where the lid is readily removable or a closed-head/bung type (also known as "tight-head") drum where the lid is fixed to the sidewall and a small opening, or bung hole, allows material to enter and exit the drum.

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. Exhaust from the burn process is drawn into an afterburner at approximately 1,800°F. (Sun West Container, 2020). Thermal processing can also be used for

closed head or bung-type drums, but the lids must be cut off prior to processing the containers through the furnace.

After furnace processing, the drums are pneumatically straightened, chimed to restore the drums' shape and integrity, blasted with steel shot or chained, where chains or steel shot are used inside the drum to knock out rust or materials to remove the ash and residues from the burn process, and an interior rust inhibitor and exterior paint coatings are then applied to the drums. New or reconditioned lids and rings are added per customer specifications and materials are then leak-tested according to United States Department of Transportation (USDOT) and United Nations (UN) regulations.

The solution washing process can be applied to open top or bung type drums that previously contained water-soluble oils, soaps, solvents, cleaners, and related materials. The drums are washed inside and out using a series of high pressure alkaline-based aqueous solutions and steam. Rust may be removed from the containers using an acid spray. Drums are then rinsed and dried thoroughly, shot blasted with steel shot/chained/dents are removed, and painted according to customer specifications. Lastly, the containers are leak tested per USDOT and UN regulations. All reconditioned steel drums, regardless of lid construction type or contents, are required to meet certain testing and construction standards (49 CFR 173.28).

2.2 Polyethylene Drums

Drums made from high-density polyethylene (HDPE), sometimes called "poly" or "plastic" drums, are typically used to transport acids (and other corrosives), water treatment chemicals, and soaps. These drums are reconditioned by washing the interior and exterior of the drums with alternating submersion and high-pressure alkaline solutions. The drums are then inspected to ensure structural integrity and leak tested per USDOT and UN regulations.

2.3 Fiber Drums

Drums made of multiple layers or plies of strong paperboard, called fiber drums, are used to transport different types of powders, soaps, sweeping compounds, spices, and metal parts. Specially made fiber drums used for transporting liquid products incorporate a heavy mil plastic lining system which is securely bonded to the drum sidewall and bottom as integrated laminate. When reconditioned, fiber drums are inspected for structural damage, de-labeled, and all interior

residuals are removed via forced air, high pressure steam, and/or high-pressure alkaline rinses. The drums receive a visual inspection and are fully re-assembled.

2.4 Intermediate Bulk Containers

IBCs are produced in several different sizes and can be used to store and transport a variety of chemicals, oils, solvents, paints, resins, acids, and soaps. IBCs can be made entirely of steel (or stainless steel) called "investment totes" or "asset totes," or they can be made of a reinforced steel cage containing a HDPE bottle. The HDPE units are called "composite IBCs" and typically come in either 275- or 330-gallon sizes. Regardless of the style, the IBC reconditioning process is largely the same, and involves visually inspecting the cages and other structural components, making necessary repairs, washing with a high-pressure alkaline solution, and steam cleaning. All valves, gaskets, and body closures are cleaned, tested, and repaired or replaced, if necessary. If a HDPE bottle cannot be reconditioned to satisfactory condition, then the old bottle will be cleaned, removed, and prepared for recycling. A new HDPE bottle and valves will be installed into the existing steel cage. This process is known as "rebottling," and the composite IBCs that undergo this process are called "rebottled" IBCs.

3 Regulations

The RCRA "empty" container provision (40 CFR 261.7) exempts hazardous waste remaining in containers from RCRA hazardous waste regulations (in 40 CFR Parts 261 through 268, 270, or 124) and the notification requirement (in RCRA section 3010) under certain conditions. These conditions require that all of the waste that can be removed using practices commonly employed across industry (e.g., pouring, pumping, and aspirating) has been removed ***and*** no more than a marginal amount[2] (e.g., one inch or a small percentage) remains on the bottom of the container. Containers that do not meet both of these criteria would not meet the definition of "empty" under RCRA.

Individual emptied drums with a small amount of hazardous waste residue at the bottom that meet the definition of empty container as described above generally pose little risk during accumulation and transport. Facilitating the collection and transport of emptied drums is beneficial because it helps ensure that the containers are reconditioned or recycled, and not abandoned. However, with drum reconditioners processing an estimated 37.4 million drums each year, not all of which are empty, these practices collectively result in potentially millions of gallons of hazardous waste that are not currently subject to RCRA oversight.

As noted above, of the estimated 37.4 million drums going to reconditioning, about 35% are processed in a drum furnace, where the hazardous residues remaining in the emptied drum are destroyed through incineration (RIPA, 2019b). Combustion units that process empty containers are not required to get hazardous waste incineration permits. These incineration units are not subject to RCRA hazardous waste combustion standards because the residues remaining within the container are exempt when the container is burned (assuming the containers actually meet the RCRA definition of "empty"). Clean Air Act (CAA) section 129 may apply to these combustion units, but there are currently no emission standards that apply to burn-off ovens (See preamble discussion in the Commercial and Industrial Solid Waste Incinerator Final Rule: 76 CFR 15734, 03/21/2011). However, these combustion units may be required to obtain permits under CAA state plan requirements.

[2] For purposes of this provision, no more than one inch of residue may remain in the bottom of containers, or, for containers equal to or less than 119 gallons in size, no more than 3% by weight of the total capacity of the container remains, or, for containers greater than 119 gallons in size (e.g., a tote), no more than 0.3% by weight of the total capacity of the container remains.

The remaining drums not processed through waste combustion units are reconditioned through the solution washing processes, and several other finishing processes or combination of processes chaining, chiming, or shot blasting (RIPA, 2019b), as described in Section 2. The rinsate from the washing and flushing processes are potentially subject to RCRA hazardous waste regulation, with the drum reconditioner considered the generator, if the rinsate exhibits one of the hazardous waste characteristics. Any hazardous waste listing associated with the original contents of the drums would not carry over to the rinsate, as 40 CFR 261.7 exempts the drum contents (assuming they meet the RCRA definition of empty) from certain RCRA hazardous waste regulations, including the "mixture and derived-from" rule that regulates waste mixed with, or derived from, listed hazardous waste. However, if the rinsing agent includes a solvent (or other chemical) that would be a listed hazardous waste when discarded, then the wash rinsate would be considered a listed hazardous waste due to the nature of the rinsing agent, not the original contents.

Importantly, EPA has observed a systematic compliance issue with drum reconditioners managing drums that do not meet the 40 CFR 261.7 definition of "empty." In a 2019 letter from the industry to EPA, industry noted that it was impossible to ensure that drum reconditioners only receive non-empty containers, and that there is also no provision in the regulations that allows drum reconditioners to store rejected non-empty hazardous waste containers (RIPA, 2019a). EPA has also received anecdotal feedback from the industry that customers whose drums are rejected by one drum reconditioner will often switch to a different drum reconditioner that will accept their drums, providing an economic incentive to "race to the bottom" for this industry.

4 Environmental and Public Health Impacts

Concerned about the growing number of incidents at drum reconditioner facilities causing significant and lasting damage to human health and the environment, EPA researched each damage case that could be identified. For the purposes of this report, a damage case is defined as a documented incident where hazardous constituents have migrated from or contaminated a facility where they have or could have caused damage to human health or the environment; where there is documented evidence of fires, explosions, employee injuries, etc; and/or where there has been an administrative ruling or court decision with an explicit finding of specific damage to human health or the environment. In some cases, federal investigations provided details on specific regulations or laws that were violated and the contaminants of the site, resulting in multiple incidents for just one damage case site.

In 2015, as part of a broader recycling damage case study, EPA identified at least 25 damage cases involving drum reconditioners (which have been included in this report) with soil and groundwater contamination from mismanaged container residues, including one case where offsite contamination forced an adjacent elementary school to close (USEPA, 2014). Since then, additional drum reconditioning facilities have become subject to enforcement, typically under CERCLA or the CAA, and damage cases have been identified by EPA from public complaints/concerns, newspaper reports, and other governmental agencies reports, particularly state environmental agencies.

5 Environmental Justice Impacts

For this report, a preliminary environmental justice screening and mapping was conducted using EJSCREEN Version 2.0, which provides EPA with a nationally consistent dataset and approach for combining environmental and demographic indicators and indexes. Version 2.0 of the tool includes 12 environmental indicators, 7 demographic indicators (and one additional index which is based on the average of two demographic indicators; low-income and people of color), and 12 EJ indexes. Some environmental indicators used in EJSCREEN quantify proximity to and the numbers of certain types of potential sources of exposure to environmental pollutants, while others are actual estimates of air toxics-related cancer risk, or a hazard index, which summarizes the ratios of ambient air toxics levels to health-based reference concentrations (USEPA, 2022). Demographic indicators are factors that are very general indicators of a community's potential susceptibility to the types of environmental factors included in the screening tool and EJ indexes are a combination of environmental and demographic information for a given environmental indicator (USEPA, 2022). EJSCREEN index and indicator outputs are presented as percentiles[3] relative to the state, region, or nation; all results presented in this report use percentiles relative to the nation. These indicators and indexes are summarized below.

Environmental Indicators (12)	EJ Indexes (12)	Demographic Indicators (8)
Particulate Matter 2.5 (micrograms per cubic meter (ug/m3))	EJ Index for Particulate Matter 2.5	People of Color
Ozone (parts per billion (ppb))	EJ Index for Ozone	Low Income
2017 Diesel Particulate Matter (ug/m3)	EJ Index for 2017 Diesel Particulate Matter	Unemployment Rate
2017 Air Toxics Cancer Risk (risk per million (MM))	EJ Index for 2017 Air Toxics Cancer Risk	Linguistically Isolated
2017 Air Toxics Respiratory Hazard Index (HI)	EJ Index for 2017 Air Toxics Respiratory HI	Less Than High School Education
Traffic Proximity (daily traffic count/distance to road)	EJ Index for Traffic Proximity	Under age 5
Lead Paint (% pre-1960s housing)	EJ Index for Lead Paint	Over age 64
Superfund Proximity (site count/kilometers (km) distance)	EJ Index for Superfund Proximity	Demographic Index (based on the average of two demographic

[3] Percentiles measure a given factor relative to state, regional, or national levels. A higher percentile indicates the community in question has a greater level of the factor in question relative to other communities; for instance, a community that is in the 85th percentile nationally for exposure to air pollution is exposed to more air pollution than 85% of other communities in the country.

		indicators; Percent Low-Income and Percent Minority)
Risk Management Plan (RMP) Facility Proximity (facility count/km distance)	EJ Index for RMP Facility Proximity	–
Hazardous Waste Proximity (facility count/km distance)	EJ Index for Hazardous Waste Proximity	–
Underground Storage Tanks	EJ Index for Underground Storage Tanks	–
Wastewater Discharge (toxicity-weighted concentration/meters (m) distance)	EJ Index for Wastewater Discharge	–

While EJSCREEN is not intended to provide a comprehensive assessment, as a screening tool, it allows users to look at a census block location and get a sense of areas that may be disproportionately impacted and thus, may warrant further investigation or outreach.

All 181 drum reconditioning facility addresses were analyzed by the screening tool and the findings indicate that environmental justice issues are prevalent in the areas surrounding nearly all of these facilities. The screening showed that 174 of the 181 facilities identified had at least 1 EJ index or indicator over the 80th percentile benchmark and 55.8% of all facilities had 10 or more EJ indexes or indicators over the 80th percentile benchmark. The indicators and indexes evaluated showed several striking trends. For example, 143 of 181 were in the 80th percentile or greater for lifetime cancer risk from inhalation of air toxics,[4] 124 of 181 were in the 80th percentile or greater for toxic air pollution exposure ,[5] and 104 of 181 were in the 80th percentile or greater for being located near one or more facilities prone to chemical accidents.[6] Given the results of the screening, further investigation into particular facilities, especially those with damage cases, may be warranted.

[4] 2017 Air Toxics Cancer Risk environmental indicator.
[5] 2017 Air Toxics Respiratory HI environmental indicator; this indicator is the ratio of exposure concentration of Hazardous Air Pollutants to health-based reference concentrations for these pollutants.
[6] Risk Management Plan (RMP) Facility Proximity environmental indicator; this indicator is the count of RMP (potential chemical accident management plan) facilities within 5 km (or nearest one beyond 5 km), each divided by distance in kilometers.

6 Methodology

6.1 Facility Identification

To identify drum reconditioning facilities in the U.S., (and related potential damage cases at these facilities, as discussed below) a systematic search of available online resources and databases was conducted, including news articles, waste facility websites, and other EPA records and databases (i.e., the Definition of Solid Waste (DSW) Damage Case Report, RCRA Info Web, EPA's 2002 "Preliminary Data Summary for Industrial Container and Drum Cleaning Industry" and 2014 "An Assessment of Environmental Problems Associated with Recycling of Hazardous Secondary Materials: Appendix 1- Damage Cases from Recycling of Hazardous Secondary Materials" reports, and EPA Superfund Site Database). Currently operating reconditioning facilities were verified through a publicly available list published by RIPA, which claims that it represents over 90% of the industrial packaging reconditioning industry in North America. No other specific drum reconditioning trade organizations were identified, and a search of specific North American Industry Classification System (NAICS) codes related to drum reconditioning did not yield any new additions to the list.

In March 2022, EPA met with the Department of Transportation (DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA) who provided EPA with additional data, which included lists of Registration number (R-number) Approvals and Manufacturers number (M-number) Approvals. These Approvals are provided to manufacturers and companies that recondition packagings related to hazardous materials (hazmat), such as drum reconditioners, and are used to mark and identify packagings in lieu of the manufacturer's name and address. PHMSA no longer issues R-numbers and transitioned to issuing M-number approvals to replace R-numbers; however, many R-numbers are still active and in use (USDOT, 2018). EPA reviewed both lists and was able to identify additional previously unknown drum reconditioning facilities and associated damage cases. See Section 6.3 for additional details relating to the limitations of the PHMSA data.

6.2 Damage Cases

From the EPA compiled list of known drum reconditioning facilities, both active and inactive, damage cases related to specific facilities were investigated and researched, finding evidence of fires, explosions, toxic spills, employee injuries, compliance issues, failed inspections, and contamination of air, soil, and/or water sources. While some of these facilities had only one

damage case, certain federal investigations of some facilities gave details on numerous contamination incidents, or regulations or laws that were violated, resulting in multiple cases/incidents at the same facilities.

Breaking the damage cases into categories allowed for a more in-depth and comprehensive analysis of specific root causes and total impact on human health and the environment. Details about individual damage cases are summarized in Appendix A.

6.3 Limitations

All of the information in the report was gathered from publicly available sources and in many cases, the company's website was the only source of information on a specific facility. A number of drum reconditioners don't have webpages at all making it at times difficult to find information on this industry. Therefore, all damage cases might not be known or documented. Additional limitations included exaggeration, bias, or omission of information from news articles and lack of firsthand accounts for damage cases.

It should also be noted that besides RIPA, NAICS codes, and internet database searches, no other comprehensive database for drum reconditioners exists, making it difficult to know if all facilities were captured in this report.

R-number Approval and M-number Approval lists obtained from PHMSA contain information on several types of manufactures and facilities, not just drum reconditioners. EPA analyzed the lists provided to attempt to identify as many drum reconditioners and damage cases as possible. While 46 total reconditioners and 27 damage cases were identified, data for other potential facilities was insufficient to determine the facility type, operating status, and/or if a damage case had in fact occurred.

7 Findings and Results

Overall, EPA identified 181 U.S. drum reconditioning facilities, which includes currently and formerly operating facilities. Of the 181 facilities identified, 86 facilities have associated damage cases, which equates to approximately 47.5% of the industry. Of the 86 facilities with damage cases, 55 are listed in the Superfund database[7] (some active and some archived) and 13 are on or have been listed on the National Priorities List (NPL)[8]. Facilities without damage cases versus facilities with damage cases are shown in Figure 1.

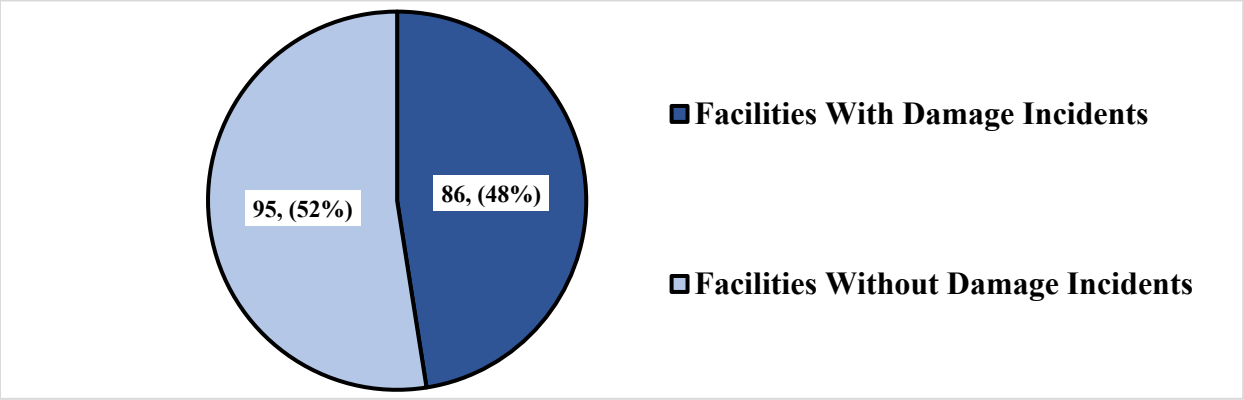

Figure 1: Damage Case Occurrence

7.1 Damage Case Types

As discussed in Section 5, a variety of different types of damages occurred at the 86 facilities with incidents. The number of each type of damage case identified is shown in Figure 2 and the types of damage cases are discussed below.

The 8 types of damage cases identified were:

1) *Air/Water/Soil Contamination:* Damage cases resulting in the contamination of surrounding air, water, and/or soil that could be the result of a number of activities, including, but not limited to, the illegal discharge of wastewater into a nearby water source, uncontrolled or illegal air emissions, or illegal spills or disposal of hazardous chemicals/wastes.

[7] EPA's Superfund program is responsible for responding to environmental emergencies, oil spills and natural disasters and assisting areas effected with cleanup efforts.
[8] The National Priorities List (NPL) is the list of sites of national priority among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States and its territories, and recognizes sites considered to be the most highly contaminated. These sites undergo longer-term remedial investigation and remedial action.

2) *Drum Explosion*: Drums which have exploded due to puncturing, intentionally mixing incompatible chemicals, or by combining and consolidating multiple waste streams of unknown chemicals.
3) *Hazardous Waste Spills*: Damage cases in which a sudden large spill of hazardous waste was released into the facility or surrounding area, either intentionally or unintentionally.
4) *Improper Storage/Deterioration of Drums*: Damage cases where drums containing hazardous or toxic materials were either stored illegally or improperly. Deterioration of the drums containing these materials have led to the release of hazardous wastes over time.
5) *Fires*: Fires resulting from the spontaneous combustion of a drum, an uncontrolled incinerator, or a general fire at the facility.
6) *Regulatory Non-Compliance Violations*: Violations which include a disregard for environmental laws and regulations, including failure to label containers, pH violations related to wastewater discharges, lack of secondary containment, etc.
7) *Employee Injury*: Any injury to an employee while on the job, including but not limited to chemical burns, burns from an incinerator fire, or inhalation of toxic air emissions as a result of not having proper safety procedures or controls in place.
8) *Combination*: Facilities confirmed to have experienced two or more incidents from the above types as part of a singular damage case (e.g., a facility had a fire that also caused

an employee injury or a facility that had a hazardous waste spill which also caused soil or groundwater contamination).

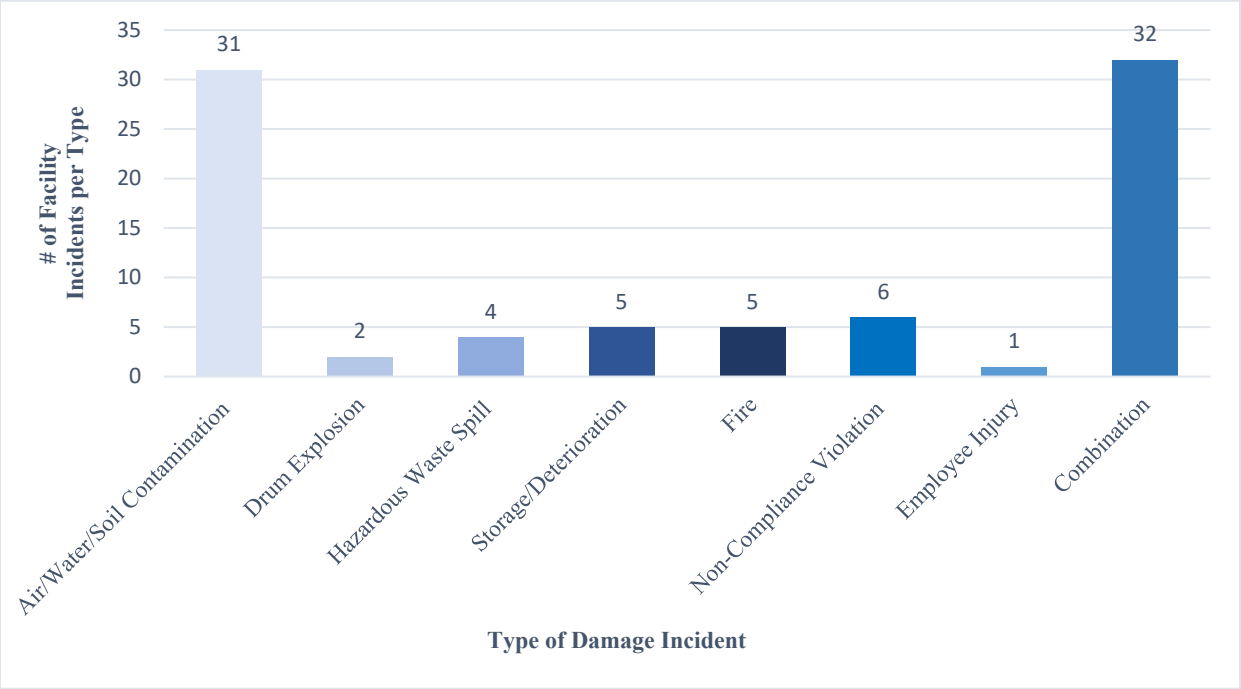

Figure 2: Types of Damage Cases at US Drum Reconditioning Facilities

As shown in Figure 2, the most prevalent damage case types were "air/water/soil, water" contamination (31 facilities) with some facilities experiencing contamination from more than one source, and "combination" (32 facilities) where facilities experienced two or more types of incidents/contamination as part of a singular damage case.

7.2 Causes of Damage Cases

Causes of damage cases were also compiled and include, but are not limited to:

- Catastrophic spills or unpermitted discharges due to lack of proper equipment maintenance or deteriorating containers;
- Fire due to improper storage or mixing of chemicals;
- Drum explosions from chemical mixing or puncturing;
- Worker injury due to lack of proper procedures or controls;
- Known exceedance of wastewater effluent or air emission standards;
- Incidental container or equipment spillage over time that was not cleaned up or remediated;

- Improper long-term storage without a permit; and
- Improper record keeping, labeling, or training.

The data indicates that while some causes are purely accidental in nature, most result from some type of poor management practices or regulatory non-compliance issue.

7.3 Occurrence Year

To compare relevancy to current EPA practices and guidelines, damage cases were further tabulated based on the year of occurrence. Older damage case causes may no longer occur due to updated practices and procedures and environmental regulations. Of the 86 facilities with damage cases, 23 cases (26.7%) occurred from 2011 to the present, indicating that damages are persistent, and not just from historic practices (Figure 3).

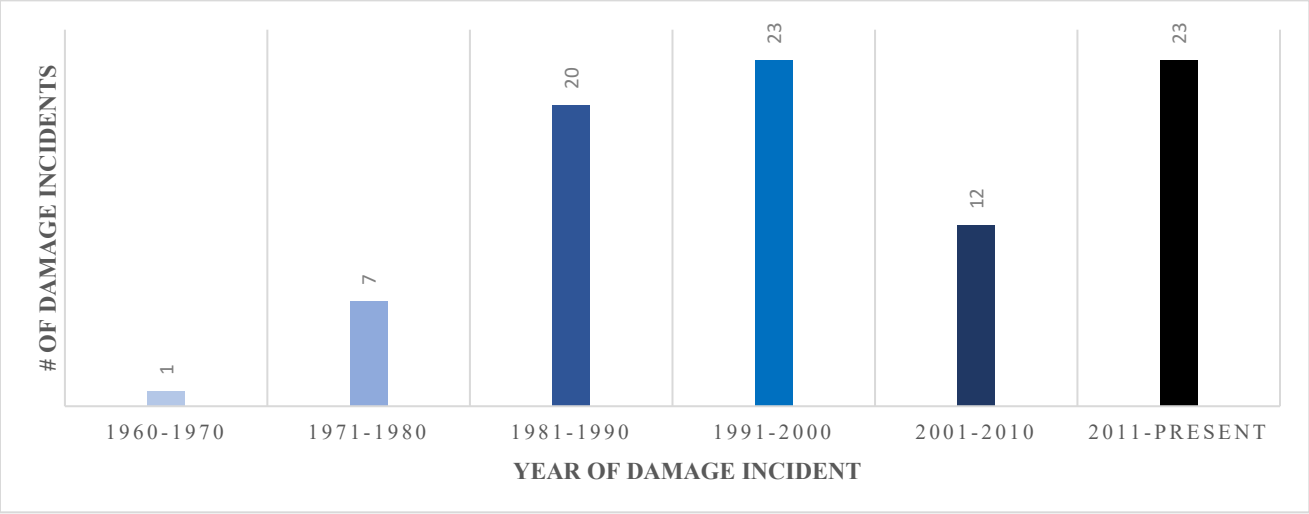

Figure 3: Damage Case Occurrence by Year

It is also possible that newer damage cases are easier to find with the internet and databases being electronically available.

7.4 Geographic Location

Geographic location of damage incidents can help identify vulnerable populations and areas of the country, providing a baseline for future analyses or investigation. Figure 4 depicts the location of the 86 facilities with damage cases, with most of the cases occurring in the Northeast and the Ohio River Valley and close to bodies of water. Green circles indicate a single facility in one area with a damage case and larger blue circles indicate multiple facilities in the same area with damage cases.

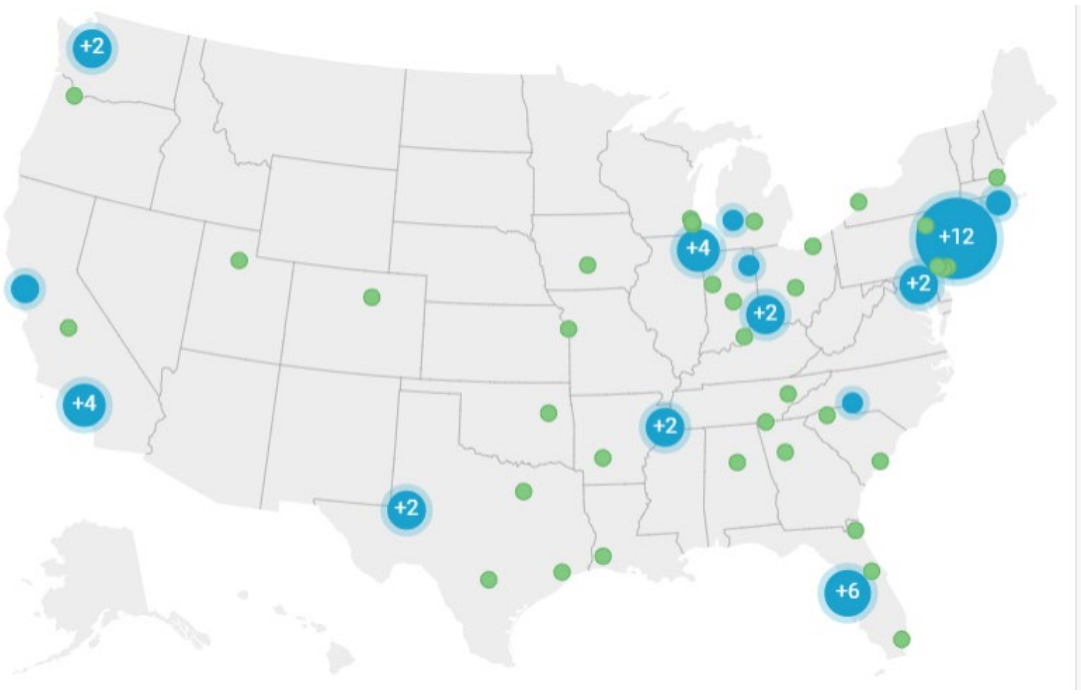

Figure 4: Drum Reconditioning Facilities with Damage Incidents

8 Conclusion

The findings presented in this report represent the known existing or previously existing drum reconditioning facilities with past or present damage cases. Additional facilities with damage cases may exist that were not identified during this study. From the 86 facilities with damage cases, many had at least one damage case resulting from improper reconditioning processes and/or procedures. The data show that the problems at these facilities has been persistent over time, indicating a significant and ongoing problem. Although most cases are the result of non-compliance with environmental regulations, accidents still occur, and better procedures, compliance, laws, and/or regulations would help ensure the prevention of future damage cases.

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(USDOT, 2018) United States Department of Transportation Pipeline and Hazardous Materials Safety Administration. “MR Number Brochure”. July 2018. https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/training/hazmat/58751/mr-number-brochure.pdf

(USEPA, 2002). “Preliminary Data Summary for Industrial Container and Drum Cleaning Industry”. EPA-821-R-02-011. June 2002. https://www.epa.gov/sites/production/files/2015-11/documents/industrial-container-drum-cleaning_preliminary-data-summary_2002.pdf

(USEPA, 2014) “An Assessment of Environmental Problems Associated with Recycling of Hazardous Secondary Materials: Appendix 1- Damage Cases from Recycling of

Hazardous Secondary Materials" December 2014. https://www.regulations.gov/document?D=EPA-HQ-RCRA-2010-0742-0370

(USEPA, 2022) "EJSCREEN: Environmental Justice Screening and Mapping Tool". https://www.epa.gov/ejscreen

(USEPA ECHO) Enforcement and Compliance History Online. https://echo.epa.gov/

(USEPA RCRAInfo) RCRAInfo Web. https://rcrainfo.epa.gov/rcrainfoprod/action/secured/login

(USEPA Superfund) Search for Superfund Sites Where You Live. https://www.epa.gov/superfund/search-superfund-sites-where-you-live

Appendix A: Damage Case Detailed Reports

Site Information:

Site Name:	43rd Street Bay Drum and Steel Company
EPA, State, or RCRA ID:	FLR000033514
RCRA Activity:	Former Small Quantity Generator
Address:	1608 North 43rd Street, Tampa, FL 33605-5938
County:	Hillsborough
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: This drum recycling site operated from mid-1996 to June 1999. The Bay Drum and Steel Company specialized in the washing and reconditioning of drums and containers. Although the company was limited by permit to the types of containers that could be processed at the facility, the company in reality took any kind of container containing various amounts of chemicals without questions. This included drums that contained pesticides and solvents. The company also was only allowed to accept empty drums for washing. They washed used metal and plastic drums that contained a variety of products including pesticides, solvents, acids, and caustics. The reconditioning process included spraying a methylene chloride solution on the labels to aid in their removal, soaking the drums in a caustic solution, pressure washing the drums, drying the drums, and painting them if necessary.

Bay Drum and Steel Company was under investigation for almost eight years for suspected violations of the Clean Water Act (CWA) and RCRA. The owner of the company, Mr. Benkovitz, pleaded guilty to violations of CWA and RCRA in 1997 and 1999. He ordered his employees to illegally discharge wastewater into a storm sewer that empties into Tampa's McKay Bay. Benkovitz also admitted that he directed employees of Bay Drum to dump polluted wastewater on property adjacent to Bay Drum's 43rd Street facility from April until June 1998. During these periods, the company generated thousands of gallons of wastewater each week containing several pollutants, including spent pesticides and methyl chloride, a highly toxic solvent. While awaiting sentencing, he was under a RCRA Order but failed to comply and committed additional violations. He was sentenced and the site became a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Emergency Removal Action (Oct. 1999).

Damage/Contamination Incident: About 20,000 empty drums and 60,000 gallons of liquid hazardous wastes have been removed from the site. The cleanup costs were $3,285,094.17. The site was transferred to the Florida Brownfields Program. The site is contaminated with multiple hazardous substances including lead, chromium, and methylene chloride.

Sources of Information:

USEPA, 2014. "An Assessment of Environmental Problems Associated with Recycling of Hazardous Secondary Materials: Appendix 1- Damage Cases from Recycling of Hazardous Secondary Materials" December 2014. https://www.regulations.gov/document/EPA-HQ-RCRA-2010-0742-0370

US Department of Justice. "Bay Drum and Steel Owner Pleads Guilty to Polluting Florida Bay Company Discharged Toxics Into Tampa's Sewer System for Years." 22 March 1999. 19 January 2006. http://www.usdoj.gov/opa/pr/1999/March/107enr.htm.

Earth Justice. "Profiles of Damage Cases from Hazardous Materials Recycling Operations" https://www.earthjustice.org/sites/default/files/library/references/profiles-of-hazardous-waste-recycling-sites.pdf

Site Information:

Site Name:	Acme Barrel Company
EPA, State, or RCRA ID:	ILD025022997
RCRA Activity:	Former Large Quantity Generator
Address:	2300 West 13th Street, Chicago, IL 60608
County:	Cook
NPL Site:	No
In Superfund Database:	No

Site History and Description of Reconditioning Operation: Acme Barrel Company was a drum reconditioning facility that refurbished steel drums up until 2003 and the reconditioning process included incineration. When Acme Barrel was running, it was thought to be the biggest barrel refurbishing plant in the country and possibly the world, processing more than 10,000 drums a day. It was located on Chicago's southwest side, a neighborhood that was once industrial that changed over time with the influx of medical facilities and a juvenile detention office. The plant was eventually closed by the city of Chicago.

Damage/Contamination Incident: In July of 1990, Robert Mayfield, an employee of Acme Barrel, was injured when a steel drum he was loading into an incinerator exploded. Mayfield filed a lawsuit against Acme Barrel on the theory that in its unauthorized and unlicensed operation of a hazardous waste disposal site, Acme Barrel proximately caused his injuries by intentionally failing to warn him that he would be handling hazardous waste, failing to train him in the procedures for disposing of such materials, accepting barrels for disposal without proper certification, and failing to comply with certain directions on the barrels that were accepted.

In February of 2002, Acme Barrel Co. agreed to pay the city of Chicago $100,000.
The fine was imposed for many violations of an earlier court-approved consent decree with the city that attempted to address repeated pollution and nuisance violations at the plant. But the company was cited and fined repeatedly after the decree was reached in 2000. This includes a $1,200 fine imposed after an incident in which a nearby building was evacuated and the city found noxious odors coming from the company. Since 1997, the city has cited Acme 11 times for municipal code violations and fined the company $1,450.

In November of 2002, EPA requested that the company test its drum furnace operation to see if it was capturing and destroying the required amounts of VOCs. However, EPA later cited Acme

Barrel Company for failing to test their drum furnace operation at the West Side plant. EPA also charged Acme with not keeping proper records of its VOC use and emissions. As a result, EPA Region 5 reached an agreement with Acme Barrel on alleged violations of clean air regulations and assessed a $25,000 penalty.

Attorneys Colin O'Malley and Michael Knobloch spent years on a civil case against Acme Barrel Company representing the residents in the surrounding area. The lawsuit, which was successfully won by the residents, was over health problems linked to the plant. After the plant had closed, paint chip dust had still been found in people's homes and traced back to the plant. When the lawsuit was over, 72 people received a multi-million-dollar settlement.

A few years later, another lawsuit was filed on behalf of residents and people who worked near the plant. They sued the new company that had bought out Acme, but the heart of the case was going after the companies that paid Acme to recondition their barrels. Because individuals had different health issues, it was not filed as a class-action lawsuit. The case was eventually settled prior to trial.

Sources of Information:

Diedrich, John. “Industrial barrel recycling plants in several states rack up environmental and workplace violations”. Milwaukee Journal Sentinel. 29 December 2017. https://www.jsonline.com/story/news/investigations/2017/12/20/industrial-chemical-barrel-recycling-plants-many-environmental-workplace-violations/956868001/

Environmental Resource Center. “EPA Reaches Agreement With Barrel Company”. 15 November 2002. https://www.ercweb.com/tips/show/epa-reaches-agreement-with-barrel-company

GWC Injury Lawyers. “GWC’s Colin J. O’Malley Discusses Troubled Barrel Reconditioning Industry”. 31 January 2018. https://www.gwclaw.com/blog/colin-omalley-barrel-reconditioning/

Madhani, Aamer. “West Side Plant Over A Barrel”. 16 January 2002. https://www.chicagotribune.com/news/ct-xpm-2002-01-16-0201160413-story.html

Newbart, Dave. “Barrel Firm Agrees To Pay $100,000 Pollution Fine”. Regional Associations Information Network. 17 February 2002. https://regionalassociations.org/barrel-firm-agrees-to-pay-100000-pollution-fine/

Robert Mayfield v. Acme Barrel Co. 3 February 1994. https://casetext.com/case/robert-mayfield-v-acme-barrel-co

Giles v. Chicago Drum. April 22, 2009. Memorandum Opinion and Order. https://www.govinfo.gov/content/pkg/USCOURTS-ilnd-1_08-cv-04657/pdf/USCOURTS-ilnd-1_08-cv-04657-0.pdf

Site Information:

Site Name:	Albert Steel Drum Co., Inc.
EPA, State, or RCRA ID:	N/A
RCRA Activity:	N/A
Address:	338 Wilson Avenue, Newark, NJ 01705
County:	Essex
NPL Site:	No
In Superfund Database:	No

Site History and Description of Reconditioning Operation: The 13.7-acre Albert Steel Drum (ASD) Site is located in the "Ironbound" section of Newark on the southeast corner of Wilson Avenue and Avenue L. The site is bordered on the north by Wilson Avenue, to the east by an active railroad owned by Conrail, to the south by the Welch, Holme and Clark Company and to the west by Avenue L. Abutting the property to the southwest is an active chemical manufacturing facility (Troy Chemical Company). Trucking, chemical manufacturing, meat processing, and various other industrial activities surround the site. The nearest residential/commercial area is located approximately one-quarter mile to the west across a major limited access highway.

Currently, the site is vacant. However, the site has been industrialized since the early 1900s. Aerial photography shows that by 1951 the site was occupied by numerous industrial buildings, perhaps associated with an American Cyanamid facility. The Prentiss Drug and Chemical Company (PDC) and Albert Steel Drum (ASD) eventually used these buildings. The PDC operated on the site from 1956 to 1982 and manufactured pesticides. Albert Steel Drum leased their facility in 1974 and operated a drum recycling and reconditioning business until 1977. The site was purchased by the Newark Housing Authority in 1980 with the intention of rehabilitating the property for future industrial activities.

Damage/Contamination Incident: Initial site investigations began in 1980 when the New Jersey Department of Environmental Protection (NJDEP) Division of Water Resources installed 20 soil borings and collected 80 soil samples. From 1987 to 1993, a major Remedial Investigation/Feasibility Study was conducted at the site by TRC Environmental Corporation which included two phases of investigation and a feasibility study that identified clean up options. Investigations included collection of surface soil samples, excavation of test pits,

collection of soil samples from test borings, installation of monitoring wells, groundwater sampling and sediment sampling. Volatile organic compounds (VOCs), PAHs, pesticides, PCBs and metals were found to exist in site soil and to a limited extent in shallow groundwater. PCBs were also found in the sediment in the drainage ditch located in the southwest portion of the site. Based upon the results of the sampling, several subsurface and surface "hot spots" were identified to contain site contaminants above site clean-up levels (1000 ppm VOCs soil & 50 ppm PCBs soil).

Sources of Information:

NJIT/NJTPA Brownfield Redevelopment Study. Summary of Case Study. Site Name: Albert Steel Drum Site. Location: Newark, NJ. https://triadcentral.clu-in.org/user/doc/TPP-AlbertSteel-CaseStudy.pdf

Site Information:

Site Name:	American Drum and Pallet, Inc.
EPA, State, or RCRA ID:	TND007029200
RCRA Activity:	Former Large Quantity Generator
Address:	806 Walnut Street, Memphis, TN 38101
County:	Shelby
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: The American Drum and Pallet site began operations in 1997 but is permanently closed. This site was an operational pallet and drum recycling facility located on a multi-parcel property. According to the owner, the facility received RCRA empty drums for reconditioning.

The facility is in an area of Memphis that is generally considered industrial; however, residential properties and a small church are located adjacent to the site. According to the Shelby County Registrar of Deeds, the site is currently owned by Mr. Johnnie Williams and American Drum and Pallet, Inc., of Memphis, Tennessee.

The site is composed of two parcels totaling 2.78 acres and is improved and currently includes four buildings. One parcel is listed at 1.76 acres and includes buildings 3 and 4; the other is listed as 1.02 acres and includes buildings 1 and 2. The site is bordered on the north by Heiskell Place, on the east by Lucas Alley, to the south by the Illinois Central Railroad, and on the west by Louisa Street and Suzette Street. A large debris pile was discovered immediately south of building 2.

Damage/Contamination Incident: On February 22, 2007, personnel with the Tennessee Department of Environment & Conservation (TDEC) Division of Solid Waste Management (DSWM) in the Memphis Environmental Field Office (MEFO) received a complaint from a building inspector with the Memphis Fire Department regarding the facility. The complaint pertained to the storage of unknown materials and concern about conditions observed at the facility. Specifically, the inspector mentioned observing an estimated fifty 15-gallon plastic containers stored at the site. At least one of these containers was labeled with a DOT "Poison- 6" label for "Methyl Parathion." Additionally, the inspector mentioned an estimated fifty drums with labels describing an herbicide product, "Rice Shot."

DSWM personnel visited the site on March 19, 2007, to conduct a hazardous waste inspection. During the inspection, DSWM staff observed three piles of material (referred to as Debris Piles 1, 2, and 3) placed on the ground outside of the buildings. Materials observed within these piles included plastic 55-gallon and 200-gallon totes, fiberboard drums, metal 55-gallon drums, lids, rags and wooden pallets. Facility personnel indicated that these piles were present at the facility as a result of a facility clean up. In addition to the debris piles, DSWM personnel observed an estimated 118 containers holding material stored at several areas inside of the buildings and within a trailer. At the time of the site visit, facility personnel were not certain of the contents of the containers and material contained in the debris piles.

On June 27, 2007, TDEC contacted EPA regarding conditions at the facility. Citing concerns about a potential release to the environment from the containers and the uncontained waste on-site, TDEC requested EPA conduct a Removal Site Evaluation.

On July 11, 2007, EPA On-Scene Coordinators, Steve Spurlin and Subash Patel, with EPA START contractor TTEMI initiated a Removal Site Evaluation at the facility. During the site walk through, the OSCs observed numerous 55-gallon drums. Many drums were leaking and in poor condition. Stained soils and pooled oily liquids were noted at several areas near the drums. Dead vegetation was noted along the drainage pathway leading off-site from the property. Flammable and corrosive stickers were noted on many drums. Many of the drums were stored outside and exposed to the weather. The facility fencing was significantly damaged allowing easy site access. The drums were within 50 feet of a residential home where young children were observed playing nearby. Air monitoring of the drums indicated high levels of volatile compounds.

Because the site met the criteria for a time critical removal under 40 CFR 300.415, and the owner was unable to undertake the necessary actions, the OSC initiated an emergency response under the OSC's warrant authority.

On July 11, 2007, the EPA OSC hired local environmental contractor, US Environmental Services (USES), to conduct necessary emergency actions to stabilize the site. USES retrieved and staged the drums from various areas of the property. Leaking drums were overpacked and all drum lids and bungs were secured to minimize the chance for additional releases. Approximately 250 drums were collected from areas of the property. START conducted air monitoring,

inventoried the drums, and collected samples from some drums. Field testing verified the presence of flammable and corrosive liquids. EPA and EPA's contractors completed the staging and sampling efforts on July 12, 2007.

Sources of Information:

USEPA, 2008. Region 4. “Pollution Report”. 3 April 2008. https://www.epa.gov/sites/default/files/2014-03/documents/pollution_report_dated_april_3_2008_and_july_13_2008.pdf

Site Information:

Site Name:	Apex Drum Company, Inc.
EPA, State, or RCRA ID:	CAL000428327
RCRA Activity:	Listed as Not a Generator
Address:	6202 Ferguson Drive, Commerce, CA 90022
County:	Los Angeles
NPL Site:	No
In Superfund Database:	No

Site History and Description of Reconditioning Operation: Apex Drum Co. has been in the business of the reconditioning and disposal of industrial containers for over half a century. Started in 1946 by Abe Michlin, the company provides different services regarding drum sales, drum services, and drum reconditioning/disposal. The company handles a wide range of drums including plastic, steel, fiber, and poly drums, and IBCs. Empty closed head steel drums, plastic drums, and IBCs are cleaned with hot water and/or a caustic (sodium hydroxide) solution in a staged, conveyorized wash process, whereas empty open head steel drums are cleaned by incineration.

Damage/Contamination Incident: According to an OSHA investigation, at approximately 3:25 p.m. on September 23, 2013, an employee was walking toward the electrical panel on the wall near the tote flush station. He was planning to power down the small flusher. He walked around the industrial bulk containers, which were called totes, on the way to the panel and near the tote flush pump. He traveled across an area of the flush tank and inadvertently stepped into the unguarded opening (2 ft by 2 ft), which was located beneath the working floor and sustained unspecified injuries. The employee was transported to a medical center, where he was hospitalized and treated for the injuries. The nature of his injuries was that of a chemical burn.

Sources of Information:

U.S. Department of Labor, 2014. OSHA "Inspection: 316349315 - Apex Drum Company Inc Dba Apex Container Service" 19 March 2014 https://www.osha.gov/pls/imis/establishment.inspection_detail?id=316349315

Site Information:

Site Name:	Aqua-Tech Environmental, Incorporated (Groce Laboratories)
EPA, State, or RCRA ID:	SCD058754789
RCRA Activity:	Received Hazardous Waste from Off-site
Address:	340 Robinson Road, Greer, SC 29651
County:	Spartanburg
NPL Site:	Yes
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: In the 1940s, local residents used this site as a general dumping ground. The City of Greer owned 35 acres of the 61.56-acre property and used 20 acres as a municipal landfill from 1963 until 1968. The landfill was subsequently closed and capped with clay in the early 1970s. In December 1974, William Groce purchased the 35 acres from the City of Greer. He began accepting hazardous wastes as Groce Laboratories, Incorporated in 1976. Between 1982 and 1986, he purchased the remainder of the 61.56-acre property. Site operations consisted of state-permitted hazardous waste treatment, recycling, storage, and disposal activities. In April 1987 Aqua-Tech purchased the facility and continued hazardous waste operations at the site under the name of Aqua-Tech/Groce Laboratories. In 1990 Aqua-Tech changed the name of the facility to Aqua-Tech Environmental, Inc. The site also received bio-medical wastes and low-level radioactive wastes without obtaining the necessary permits. Aqua-Tech's clients included manufacturing industries, federal agencies, high schools, universities, and hospitals. Several parcels of the 61.56-acre property have been sold in county tax auctions since December 1996.

From 1981 through 1991, mismanagement, violations, and non-compliance with state and federal regulations occurred. South Carolina Department of Health and Environmental Control (SCDHEC) and EPA frequently cited the facility for improper management of hazardous waste containers, leaking and bulging drums, storage violations, spills, unpermitted detonations, and other management deficiencies. Leaking and open drums, deteriorated compressed-gas cylinders, spills, and discolored soils were observed at the site on several occasions. In an attempt to correct these problems, several administrative consent orders were issued. According to records, a 55-gallon drum fire was reported on March 4, 1990. The drum contained elemental phosphorus. One firefighter was reportedly overcome by the dense smoke and 90 people were evacuated from the area. On April 19, 1990, an on-site explosion occurred when workers attempted to repack two

drums containing ignitable mixtures. On July 10, 1990, a controlled explosion was used to destroy two additional drums containing ignitable mixtures. Aqua-Tech filed for bankruptcy on October 11, 1991.

Damage/Contamination Incident: Primary contaminants include metals (cadmium, chromium, cobalt, lead, mercury, nickel, and zinc), various volatile organic compounds (VOCs), and other contaminants. Soil onsite is contaminated with volatile organic compounds, semi-VOCs (SVOCs), polychlorinated biphenyls (PCBs), pesticides, and metals. Groundwater is contaminated with VOCs, SVOCs, and metals. Surface water was also contaminated. Upon closing there were approximately 7,000 drums and lab packs, 97 above-ground tanks, 1,200 gas cylinders (some containing phosgene and other toxic gases), unexploded ordnance material, and small amounts of low-level radioactive material and biohazard material at the site. Many of the drums, tanks, and cylinders were deteriorated, leaking, and improperly stored. Containers and debris were located throughout the 35-acre facility. Over 41,000,000 pounds of hazardous waste were sent to the Aqua-Tech (Groce Labs) site. Cleanup expenditure at this site as of 2004 was $ 1,927,901.08.

Sources of Information:

USEPA, 2014. "An Assessment of Environmental Problems Associated with Recycling of Hazardous Secondary Materials: Appendix 1- Damage Cases from Recycling of Hazardous Secondary Materials" December 2014. https://www.regulations.gov/document/EPA-HQ-RCRA-2010-0742-0370

Site Information:

Site Name:	Arkla Terra Property
EPA, State, or RCRA ID:	FLSFN0406909
RCRA Activity:	N/A
Address:	11706 U.S. Highway 301, Thonotosassa, FL 33592
County:	Hillsborough
NPL Site:	Yes
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: The Arkla Terra Property site encompasses approximately eight acres and is located at 11706 U.S. Highway 301 in Thonotosassa, Hillsborough County, Florida. From 1976 through 2006, the site was primarily operated as an Underground Storage Tank (UST) refurbishing facility. Solvents, including tetrachloroethene (PCE), were used to clean the tanks prior to their repairs. Several companies operated at the facility, including Southeast Oil and Development Corporation which operated at the site from 1976 through 1988; Four Star Petroleum from 1982 to 1985; PS Equipment, Inc. from 1989 through 1994; Novadyne Corporation from 1986 through 1996; and Arkla Terra Inc. from 1993 through 2006. Solvents were reportedly used to clean tanks prior to repairing or dismantling. Aerial photographs of the site have shown more than 500 storage tanks on the property at one time, along with numerous other types of containers. The site was placed on the National Priority List (NPL) in April 2009.

Damage/Contamination Incident: Contaminants of concern associated with activities at the Arkla Terra property include PCE in soil, ground water monitoring wells, and private drinking water wells. There was a contaminated ground water plume that contained concentrations of PCE above EPA's Safe Drinking Water Act's maximum contaminant level (MCL) and the State of Florida Primary Drinking Water Standard (FPDWS), which migrated more than 7,500 feet into the adjacent residential area. The contamination is in the Floridian aquifer that is the primary source of drinking water for residents in the area.

The Hillsborough County Public Health Unit sampled more than 200 private residential wells and found at least 78 wells contained PCE at levels exceeding the FPDWS standard. Based on the initial residential well sampling, the Florida Department of Environmental Protection installed commercial water treatment systems for affected residents, and it provided

approximately $1 million to Hillsborough County to extend water lines into the affected areas, connecting the residents to the municipal water supply. The state and the county continue to sample private drinking water wells in the area on an annual basis.

The State of Florida referred the site to EPA. The contaminated ground water plume affected as many as 117 nearby private wells and was a threat to other potable ground water supply wells. The responsible parties were not financially viable companies, and the state did not have the resources to clean up the contamination. EPA received a letter of support for placing this site on the NPL from the state.

Early action and removal began in March 2012 and was completed in February 2013. EPA removed 1,491 pounds of PCE from the subsurface using a multi-phase extraction system.

Sources of Information:

USEPA. “National Priorities List”. April 2009. https://semspub.epa.gov/work/04/11111637.pdf

Site Information:

Site Name:	Atlanta Drum Services Inc.
EPA, State, or RCRA ID:	GA0000001312100682
RCRA Activity:	N/A
Address:	1184 Pryor Street, Southwest, Atlanta, GA 30315
County:	Fulton
NPL Site:	No
In Superfund Database:	No

Site History and Description of Reconditioning Operation: Drum reconditioning facility that is permanently closed.

Damage/Contamination Incident: EPA Enforcement and Compliance History Online (ECHO) indicates several Clean Air Act (CAA) violations including minor emissions, PM-2.5 (1997), and 1-Hour Ozone (1979); 8-Hour Ozone (2008), and other potentially uncontrolled emissions with civil penalties.

Sources of Information:

EPA ECHO, 2022. "Detailed Facility Report". https://echo.epa.gov/detailed-facility-report?fid=110001422363

EPA ENVIROFACTS, 2022. "Facility Report". https://enviro.epa.gov/enviro/afs_reports.detail_plt_view?p_state_county_compliance_src=1312100682

Site Information:

Site Name:	Barrel & Drum Service, Inc.
EPA, State, or RCRA ID:	OHD017611187
RCRA Activity:	Former Large Quantity Generator
Address:	1728 Powers Street, Cincinnati, OH 45223
County:	Hamilton
NPL Site:	No
In Superfund Database:	No

Site History and Description of Reconditioning Operation: Drum reconditioning facility that is permanently closed.

Damage/Contamination Incident: Barrel and Drum was a metal and plastic drum cleaning and reconditioning business. In February 2001, Cincinnati Metropolitan Sewer District (MSD) employees detected high pH levels in the sewer system and traced the pollution back to the Barrel and Drum facility. These levels were as high as pH 13 during the hours that Barrel and Drum was in operation. The case was investigated by EPA's Criminal Investigation Division, the Ohio Environmental Protection Agency, the MSD, the Ohio Attorney General's Bureau of Criminal Investigation and Identification, the Cincinnati Fire Department and the Hamilton County Prosecutor's Office. It was prosecuted by the U.S. Attorney's office in Cincinnati. Ronald A. Korman, owner of Barrel and Drum Service Inc., in Cincinnati, Ohio, was sentenced to one day in jail and four months of home confinement on Nov. 21 in U.S. District Court for the Southern District of Ohio in Cincinnati for violating the Clean Water Act.

Sources of Information:

EPA FRS, 2022. “Facility Detail Report”. https://frs-public.epa.gov/ords/frs_public2/fii_query_dtl.disp_program_facility?p_registry_id=110001422363

Waterworld, 2002. “Ohio drum cleaning company owner sentenced for Clean Water Act violation”. https://www.waterworld.com/drinking-water/potable-water-quality/article/16204060/ohio-drum-cleaning-company-owner-sentenced-for-clean-water-act-violation

Site Information:

Site Name:	Barrels, Inc.
EPA, State, or RCRA ID:	MID017188673
RCRA Activity:	Former Large Quantity Generator and Small Quantity Generator
Address:	1332-1404 North Larch Street, Lansing, MI 48905
County:	Ingham
NPL Site:	Yes
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: The Barrels, Inc. Superfund Site (EPA ID MID017188673), a 2.3-acre former drum reclamation facility located at 1404 North Larch Street, is in an industrial area in the northern section of Lansing, Michigan. All adjacent property land uses are industrial or commercial. Barrels Inc. was an industrial drum reclamation facility which operated from 1961 to the early 1980s when Barrels, Inc. ceased operations and abandoned the property. The drum reclamation process consisted of cleaning drums in a caustic solution, followed by rinsing, repairing, and repainting the drums for reuse. Surface soil was contaminated by spills and/or leakage that occurred at the loading dock and drum storage areas and from a storage tank that contained the caustic cleaning solution. EPA added the former drum reclamation facility to the NPL in 1989 and later designated the State of Michigan as the lead for enforcement at the site.

Damage/Contamination Incident: Spills at the site had contaminated surface soil with metals, volatile and semivolatile organic compounds, polychlorinated biphenyls and cyanide. The cleanup involved removing and disposing of approximately 1,000 drums, nine underground storage tanks and more than 13,000 tons of contaminated soil. Barrels, Inc. is currently registered as an Archived superfund site by the EPA and does not require any clean up action or further investigation at this time.

Sources of Information:

EPA SEMS, 2022. “Barrels, Inc” https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.docdata&id=0502424#SC

EPA SEMS, 2020. “Barrels, Inc. Superfund Site, Lansing, Michigan. Record of Decisions”. https://semspub.epa.gov/work/05/962488.pdf

Site Information:

Site Name:	Bay Area Drum Company/Peak Oil
EPA, State, or RCRA ID:	FLD004091807
RCRA Activity:	Listed as Not a Generator
Address:	4414 North Cooper Place, Tampa, FL 33614
County:	Hillsborough
NPL Site:	Yes
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: The Peak Oil Co./Bay Drum Company Superfund site consists of the 4-acre Peak Oil Co. property and the 14.8-acre Bay Drum Company property. The site is located on Reeves Road in Tampa. The Reeves Southeastern Galvanizing Superfund site is located directly north of the site, across the street from the Bay Drum Co. property. A CSX rail line borders the site to the north and industrial land uses border the site to the south, east and west. Land uses in the surrounding area are primarily industrial. The site also includes a wetlands area.

The site includes the area where waste oil refining and drum reconditioning operations took place. From 1954 to 1980, Peak Oil Company operated a waste oil refinery at the site. From 1962 to 1984, Bay Drum Company operated a drum reconditioning and recycling facility at the site. Bay Drum Company operated as Resource Recovery Association, Inc. until 1987. The company's operations included the disposal of roofing shingles on the site property. The refining process generated and stored waste in three on-site pond areas.

Damage/Contamination Incident: From 1962 to 1987, Bay Drum operated a drum reconditioning and recycling facility that discharged wastewater into an unlined percolation pond on site. Site operations resulted in the contamination of soil and wetlands with organic compounds, pesticides and metals; groundwater was contaminated with organic compounds and metals. The U.S. Environmental Protection Agency combined the Peak Oil Co. and Bay Drum Co. sites into one site and placed the site on the Superfund program's National Priorities List (NPL) in 1986.

Sources of Information:

EPA, SEMS, 2020. Five Year Review Report for Peak Oil/Bay Drum Co Superfund Site. September 2020. https://semspub.epa.gov/work/04/11155289.pdf

EPA, SEMS, 2022. “PEAK OIL CO./BAY DRUM CO. TAMPA, FL”. https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.Cleanup&id=0400536#bkground

Site Information:

Site Name:	Bayonne Barrel & Drum Co.
EPA, State, or RCRA ID:	NJR000080317
RCRA Activity:	Listed as Not a Generator
Address:	150-154 Raymond Boulevard, Newark, NJ 07105
County:	Essex
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: From approximately 1931 until approximately September 1983, Bayonne Barrel & Drum Co. and its predecessors owned and operated a drum reconditioning facility. Operations at the site included the cleaning and reconditioning of drums using caustic solutions, steel-shot abrasive, paint, and high-temperature incineration. These operations produced spent caustic solution, incinerator ash, and sludge. The generation of hazardous sludges, solutions, and ashes were an inherent part of the drum reconditioning processes.

As of 1973, the Bayonne Barrel and Drum Site processed approximately one million containers. From approximately 1934 until the 1950s, a 45-acre sanitary landfill, generally known as the 15E Sanitary Landfill, operated on and adjacent to the Bayonne Barrel and Drum Site. In the 1950s, Bayonne Barrel & Drum Co. acquired and developed approximately 8.06 acres of the 15E Sanitary Landfill as part of the Bayonne Barrel and Drum Site. Portions of the Bayonne Barrel and Drum Site were acquired by the New Jersey Turnpike Authority to accommodate expansion of the New Jersey Turnpike.

The Bayonne Barrel and Drum Site lies approximately 2,000 feet from the Passaic River. Harrison Creek, which ran through and adjacent to the site, received direct discharges, overland flow, and sheet storm water runoff from the company. Furthermore, on-site ditches and waste lagoon effluent were discharged to Harrison Creek. From the Bayonne Barrel and Drum Site, Harrison Creek flows eastward and empties into the Passaic River. In approximately 1948, Harrison Creek was rerouted to flow along the eastern boundary of the Bayonne Barrel and Drum Site. Harrison Creek was realigned again in the early 1950s due to construction of the New Jersey Turnpike.

Bayonne Barrel & Drum, Co. filed for bankruptcy in July 1982 and discontinued operations in September 1983. Bayonne Barrel & Drum, Co. is a Superfund site.

Damage/Contamination Incident: From September 5, 1945 and May 7, 1946, the Passaic Valley Sewerage Commission (PVSC) reported that a ditch at the Bayonne Barrel and Drum Site was used to discharge effluent from drum washing operations directly into Harrison Creek, which emptied into the Passaic River. In 1946, a waste lagoon was constructed at the site to contain this discharge. However, PVSC inspectors recorded at least ten incidents between 1946 and 1948, wherein the wastewater lagoon overflowed or otherwise leaked into Harrison Creek. It was not until 1958, that a new tank was constructed to replace the lagoon.

In January of 1982, the PVSC reported that a pump failure and line breakage at the Bayonne Barrel and Drum Site caused approximately 1,000 gallons of caustic waste effluent to discharge into a local storm drain, which discharged into Harrison Creek and thence into the Passaic River. NJDEP inspectors also observed wastewater flowing into an on-site storm sewer, which discharged into Harrison Creek. Analysis of samples taken from the wastewater indicated the presence of elevated concentrations of Hazardous Substances and other compounds including, but not limited to, benzene, toluene, xylene, chlorobenzene, ethylbenzene, methylene chloride, mercury, and 1,1,1-trichloroethane.

In May of 1984, PVSC inspectors observed a red liquid discharging from the site and into Harrison Creek. Then in June of 1988, the EPA conducted a preliminary assessment of the site and noted a "potential for migration of surface run-off from [sic] site into the Passaic River via storm sewers."

Operations at the Bayonne site included the use of high temperature combustion processes to reclaim drums and barrels. As a result of this process, waste sludges and incinerator ash were discarded onto the site without treatment, cover, or establishment of measures to control or contain storm water runoff. In 1988, analysis of the on-site waste ash piles performed by the EPA during its RCRA inspection indicated the presence of elevated concentrations of 2,3,7,8-TCDD and related derivatives. Elevated concentrations of PCB derivatives and mercury were also detected in the waste ash piles or in soils near the waste ash piles at the site. Uncontained waste ash piles were present until at least 1992.

Analysis of soil samples taken from the site indicated the presence of elevated concentrations of Hazardous Substances and other compounds including, but not limited to, 2,3,7,8-TCDD and related derivatives, PCBs and related derivatives, DDT and related derivatives, phenol, bis (2-ethylhexyl) phthalate, xylenes, trichloroethene, toluene, di-n-buryl phthalate, tetrachloroethene, ethylbenzene, benzene, chlorobenzene, antimony, arsenic, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, and zinc. Analysis of soil samples taken from areas adjacent to Harrison Creek along the southeastern edge of the Bayonne Barrel site indicate the presence of elevated concentrations of hazardous substances and other compounds in the soil including, but not limited to, total TCDD equivalents, lead, and PCB derivatives.

Analysis of ground water samples taken from the Bayonne Barrel and Drum Site indicate the presence of elevated concentrations of hazardous substances and other compounds, including, but not limited to, petroleum hydrocarbons, phenol, acenaphthene, PCBs and related derivatives, toluene, dichlorobenzene, ethy1benzene, ch10robenzene, 2,4-dimethy1pheno1, fluorene, naphthalene, and phenanthrene.

Since 1991, EPA has been conducting and coordinating response actions at the Bayonne Barrel and Drum Site. As part of EPA's efforts, approximately 46,000 drums and containers disposed of onto the property when the facility closed in 1983 were removed from the Bayonne Barrel and Drum Site between 1994 and 2001.

In 2005, EPA reached an agreement with 11 private parties, requiring them to immediately pay $800,000 for part of the $3 million in cleanup work conducted by EPA at the site. The parties are also required to pay the $2.2 million balance of EPA's past cleanup expenditures, minus the value of future work that is anticipated to be conducted at the site by private parties. A number of companies were deemed potentially responsible because their drums were sent to the site for reconditioning.

Sources of Information:

Recycling Today, 2005. “EPA Reaches Agreement with 11 Firms Over Superfund Site”. 22 March 2005. https://www.recyclingtoday.com/article/epa-reaches-agreement-with-11-firms-over-superfund-site/

USEPA, 2004. “Eleven Companies Agree to Fund Hazardous Waste Removal at Bayonne Barrel and Drum Site in Newark”. 28 January 2004.

https://archive.epa.gov/epapages/newsroom_archive/newsreleases/3441e4e56d40ef11852
5714700714057.html

USEPA, 2005. “EPA and Private Parties Reach Settlement Over Superfund Site in Essex County (Bayonne Barrel and Drum)”. 21 March 2005.
https://archive.epa.gov/epapages/newsroom_archive/newsreleases/204c69239cfd450f852
570d100632c27.html

Site Information:

Site Name:	Beehive Barrel and Drum/Service First Barrel and Drum Site
EPA, State, or RCRA ID:	UTD067981316/UTR000000042
RCRA Activity:	Large Quantity Generator
Address:	1066 South Redwood Road Salt Lake City, UT 84104
County:	Salt Lake
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: This site involves a former drum cleaning and reconditioning business that operated from the early 1980s through the late 1990s. Originally named Beehive Barrel and Drum Inc, the company was later purchased in 1992 by Stanco Enterprises and renamed Service First.

Damage/Contamination Incident: As a result of the drum reconditioning operations, the soils and surface water at the site were contaminated with lead, chromium, and various organic compounds. On-site removal activities were completed on June 22, 2001. EPA is now seeking to recover past and future response costs incurred in connection with the Service First Barrel and Drum Site and recommends seeking cost recovery from the former owners and operators of the drum cleaning and reconditioning facility.

In addition, in April 1998, a fire ignited in a wood-frame garage, causing between $30,000 and $50,000 of damage. Sparks from a cutting torch ignited paint products in a ventilated paint booth. Some 24 firefighters, four engines and two trucks responded to the two-alarm blaze.

Sources of Information:

U.S. Environmental Protection Agency, Civil Enforcement Case Report, Case Number 08-2001-0039. SERVICE FIRST BARREL AND DRUM SITE https://echo.epa.gov/enforcement-case-report?id=08-2001-0039

“Authorities Mop Up After Fire” Deseret News, April 7, 1998. https://www.deseret.com/1988/4/7/18762739/authorities-mop-up-after-fire

Site Information:

Site Name:	Buckner Barrels and Drums
EPA, State, or RCRA ID:	ALD000615922
RCRA Activity:	Not reported as a generator
Address:	Junction of Ruffner & Georgia Roads, Irondale, AL 35210
County:	St. Clair
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: Buckner Barrels and Drums is a drum reconditioning facility that processes steel and poly drums and IBCs. The company's headquarters are located in Springville, Alabama, but the site itself operates in Irondale, Alabama. Operations at the facility began in 1975 and since then the company has grown to processing about 2,500 drums a day with about 60 employees. Their drum reconditioning process utilizes both incineration and drum washing. The thermal process (mainly used for steel drums) includes incinerators/drum furnaces. After going through the furnace, the drums are blasted with steel shot to remove the ash and residues from the burn process. The aquatic wash process includes high pressure alkaline-based aqueous solutions and steam. The drums are then rinsed and dried thoroughly.

Damage/Contamination Incident: Buckner Barrels and Drums Inc. is a superfund site located at the Junction of Ruffner and Georgia Roads, in Irondale, Alabama. EPA identifies sites such as Buckner Barrels and Drums Inc. because they pose or had once posed a potential risk to human health and/or the environment due to contamination by one or more hazardous wastes. Buckner Barrels and Drums Inc. is currently registered as an Archived Superfund site, which was completed in 1994, by the EPA and does not require any clean up action or further investigation at this time.

Sources of Information:

Homefacts, 1994. "Superfund Site: Buckner Barrels and Drums Inc.". 20 October 1994. https://www.homefacts.com/environmentalhazards/Alabama/Jefferson-County/Irondale/Superfund-Buckner-Barrels-And-Drums-Inc-Ald000615922.html

US EPA, 2022. Superfund. "Superfund Site Information". https://cumulis.epa.gov/supercpad/CurSites/csitinfo.cfm?id=0400019

Site Information:

Site Name:	Buck's Steel Drum/City Cooperage & Steel Drum/Baltimore Steel Drum Corp
EPA, State, or RCRA ID:	MDD000730556
RCRA Activity:	Listed as Not a Generator
Address:	910 South Kresson Street, Baltimore MD 21224
County:	Baltimore City
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: A steel drum reclamation operation was ongoing at 910 South Kresson Street since the late 1930s. The original facility, Buck's Steel Drum, was passed on by the owner to his grandsons, Harry and Herman Buck. By 1980, Buck's Steel Drum was purchased by Jacob Kline Cooperage of Lehigh Valley, Pennsylvania and the name became Baltimore Steel Drum Corporation. The operation was not profitable and drum reclamations ceased that same year. By 1984, the property was purchased by a neighboring establishment, Cambridge Iron and Metal to expand their existing metal recycling facility.

Damage/Contamination Incident: In the summer of 1981, knowing that steel drum reclamation had ceased, Maryland officials conducted a site inspection of the Kresson Street property. Waste and soil samples were taken. One soil sample contained 188 parts per million of toluene. On December 28, 1981, Complaint and Order (#C-O-82-90) was issued by the state to cease and desist discharges from the property, clean-up and remove all waste drums, chemicals and debris, and to submit a report detailing actions and disposal sites. On February 19, 1982, site investigators estimated that the site contained 600 drums with as many as one half of them containing waste. A March 3, 1983 inspection revealed that all drums and saturated material had been removed and that the yard had been filled with crushed stone and graded. The overall appearance of the facility indicated that no further pollution problems existed on site.

Sources of Information:

Maryland Department of the Environment, *Baltimore Steel Drum Corporation*, August 2001. https://mde.maryland.gov/programs/LAND/MarylandBrownfieldVCP/Documents/www.mde.state.md.us/assets/document/brownfields/Baltimore_Steel_Drum.pdf

Site Information:

Site Name:	Callaway & Son Drum Service
EPA, State, or RCRA ID:	FLD094590916
RCRA Activity:	N/A
Address:	890 East Lake Alfred Drive, Lake Alfred, FL 33850
County:	Polk
NPL Site:	Yes
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: Callaway & Son Drum Service (CSDS) was a family business that operated from 1977 until its abandonment in 1991, as a refurbisher and reseller of used 55-gallon oil and citrus drums. Operations ceased in February 1991 when the facility came to the attention of the Florida Department of Environmental Protection (FDEP) after an application was submitted to operate and construct an industrial wastewater treatment and disposal system for discharge of rinse water used in its drum cleaning process. In December 1994, CSDS was auctioned and sold due to back taxes. The site contains an office building, a drum cleaning structure, and a sandblasting/painting structure all in dilapidated condition. There is also a 45,000 sq. ft. percolation pond on site. At its peak, the operation processed 500 open-top citrus drums and 20 spent oil/solvents drums per day. In 1983, owners estimated that there were more than 60,000 drums on site.

Damage/Contamination Incident: Contaminants include 1,2-dichloroethene (1,2-DCE), tetrachloroethene (PCE), trichloroethene (TCE), xylene, and vinyl chloride. All of these can be attributed to the drum-processing activities. The drums were washed, and the contents were dumped into storage ponds. Cleanup activities have been very difficult because of the difficulty in targeting the wide variety of contaminants at the site. EPA removed 2,500 empty/partially empty drums from the site during clean up in 2001. EPA is developing a proposed plan to remediate the site's contaminated areas. The site owner at the time of contamination (Ronald Callaway) is deceased and generator PRPs are currently trying to be identified. The site was sold at a tax sale in 2004 to Don Livingston. A supplemental remedial investigation and feasibility study was conducted, as well as a remedial action because of pesticides being found in the soil.

Sources of Information:

USEPA, 2014. "An Assessment of Environmental Problems Associated with Recycling of Hazardous Secondary Materials: Appendix 1- Damage Cases from Recycling of Hazardous Secondary Materials" December 2014. https://www.regulations.gov/document/EPA-HQ-RCRA-2010-0742-0370

EPA SEMS, 2022. "CALLAWAY & SON DRUM SERVICE LAKE ALFRED, FL". https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.Cleanup&id=0400792#bkground

Site Information:

Site Name:	Celadon Recycling Solutions
EPA, State, or RCRA ID:	NCR000178103
RCRA Activity:	Large Quantity Generator
Address:	288 Whitehouse Drive, Lincolnton, NC 28092
County:	Lincoln
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: Celadon Recycling Solutions operates a container refurbishing facility that primarily cleans and reconditions plastic and stainless-steel IBC totes (between 250-330 gallons each) received from different companies. The facility also destroys and disposes of end-of-life containers that cannot be reconditioned. Celadon operates on a 94.374-acre tract with four buildings located on the property, which is owned by Linco Partnerships. The property is the site of the former White House food facility. The company previously operated an industrial wastewater treatment system that discharged treated wastewater to the City of Lincolnton publicly owned treatment works (POTW). On April 27, 2020, the City of Lincolnton revoked the facility's Industrial User Pretreatment Permit, and the facility does not currently discharge wastewaters to the POTW. Wastewater reportedly continues to be treated onsite, and treated wastewater is discharged to a 2,000,0000-gallon lagoon for evaporation. Additionally, Celadon has constructed, and is operating, a solidification pit to solidify liquid wastes received from off-site customers.

Damage/Contamination Incident: A fire occurred on November 24, 2020, due to the consolidation of waste material removed from end-of-life containers. Facility personnel indicated that two containers containing chemical residue from a single generator were consolidated, as they were believed the residues to be identical materials and reportedly were alike in color and odor. An exothermic reaction occurred, resulting in a fire that was extinguished by facility personnel. Facility personnel were not able to provide any information about the type of chemical residues that were removed from the two containers.

A wastewater collection system is located onsite to collect rinsate from container cleaning operations. Wastewater from container cleaning operations is accumulated in IBC containers; numerous containers of facility-generated wastewater were stored inside the main facility

building at the time of the inspection. Facility personnel indicated that the accumulated site-generated wastewater was being stored until such time as an updated Industrial User Pretreatment Permit is issued by the City of Lincolnton.

IBC containers are stored in several of the facility buildings and in several areas outside of the buildings while they are awaiting cleaning, refurbishing and/ or destruction. IBC containers were stacked in tight rows, two to three containers high. Approximately 1,200 to 1,500 containers appeared to be present at the site at the time of the inspection. Not all of the containers could be evaluated at the time of the inspection due to limited accessibility. During the inspection, investigators observed several non-RCRA empty totes, holding various amounts of suspected hazardous material, that were either awaiting refurbishing or disposal. The containers had US DOT hazardous material Class placards that indicated that the materials could be a hazardous waste when disposed, including placards indicating flammability, corrosivity, oxidizers and toxicity. At least one container was labeled with a hazardous waste label identifying the container as containing hazardous waste generated by an off-site generator. The label indicated that the container held, or previously held, D001 hazardous waste paint-related materials. Approximately twenty-two (22) containers were labeled as Monobutyl Tin Trichloride, and placarding indicated corrosivity and toxicity. While these containers appeared to be empty, facility personnel indicated that the load was rejected and the containers would be returned to the generator, stating that the material was too hazardous to be handled at the facility. There was at least one container of waste material near the facility's boiler chemical stockpile; facility personnel indicated that the container had been present for an extended period of time, and that the contents were unknown. Approximately two (2) 55-gallon containers located in the boiler chemical stockpile were in poor condition, including an extensively corroded steel container labeled "Isopropyl alcohol 99%." Additionally, several containers were visibly leaking materials onto the floor of the facility's building or onto paved exterior areas. The facility has an extensive network of floor drains that reportedly drain to an onsite lagoon; the lagoon was not evaluated during the inspection.

Sources of Information:

Celadon Recycling Solutions website: http://www.celadonrecycling.com/

North Carolina Department of Environmental Quality. “RCRA Inspection Report”. Division of Waste Management. 24 November 2020. file:///C:/Users/student/Downloads/NCS000002699_Celadon_Recycling_Solutions_CEI_20201124_Guglielmi.pdf

Site Information:

Site Name:	Central Florida Drum, Inc.
EPA, State, or RCRA ID:	FLD032630212
RCRA Activity:	Listed as Not a Generator
Address:	Highway 419, Oviedo FL, 32765
County:	Seminole
NPL Site:	No
In Superfund Database:	No

Site History and Description of Reconditioning Operation: Central Florida Drum operated on the property from about 1965 to 1986. The company refurbished and sold drums from the aerospace industry, military installations, boat manufacturers and government agencies.

Damage/Contamination Incident: The site has soil and groundwater contamination across large areas where drums were stacked for processing and where cleaning took place.

Sources of Information:

Sandra Pedicini, 2007. "Firms want sites labeled brownfields," *Orlando Sentinel*, Nov 15, 2007. https://www.orlandosentinel.com/news/os-xpm-2007-11-15-semnews15-story.html

Site Information:

Site Name:	Central Steel Drum Co.
EPA, State, or RCRA ID:	NJD011482577
RCRA Activity:	Small Quantity Generator
Address:	704 Doremus Avenue, Newark, NJ 07015
County:	Essex
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: Central Steel Drum Co. was a drum reconditioner that operated several buildings in Newark, NJ on 8.5 acres of property between 1951 and 1991. The property was later abandoned in 1994; however, at an unknown later date, Central Steel Drum Co began operations again and is an active small quantity generator. The property is located on filled marshland with wetlands located on the south end. The facility was used to recycle drums by cleaning, sandblasting metals, incineration of residual drum contents, and repainting restored drums for reuse. According to New Jersey Department of Environmental Protection (NJDEP) records, high levels of volatile organic compounds, heavy metals, and chlordane were reported at the site during their years of operation until 1985. It is unknown if they halted operation due to the contamination, however in 1991, Central Steel Drum Co. vacated the property and leased it to a container shipping operation. The property was later classified as abandoned in 1994 by NJDEP. Soon after the City of Newark foreclosed on the property in 1996 and one year later, NJDEP referred the site to the EPA.

As of July 8th, 2022, according to the Environmental Compliance and History Online (ECHO) database, Central Steel Drum Co. still retains a Clean Air Act permit (No. NJ0000003401300275) along with a Resource Conservation and Recovery Act (RCRA) permit (No. NJD011482577) for the property. The site was found to have a violation or compliance issue for a case development inspection in March 2020 and assessed a $3,750 penalty one year later. The cause of the violation is unknown.

Damage/Contamination Incident: In March 1997, EPA performed an ecological risk assessment on the property and determined that about 500 drums containing flammable, corrosive, possible water reactive, incinerator ash, and sandblasting materials were abandoned on-site. Approximately 50,000 gallons of hazardous wastes were estimated to be abandoned with

about 35% being solid wastes. The estimated cleanup cost for soil and groundwater was found to be $928,000 in 1997. Later, in 2011, the site was transferred to the New Jersey Brownfields program for the cleanup of volatile and semi-volatile organic compounds, metals, and PCBs. The site is still listed as an active cleanup site by NJDEP.

Sources of Information:

Region II Superfund Technical Assessment and Response Team. Administrative Record 1997. https://semspub.epa.gov/work/02/110245.pdf.

USEPA, 2011. Brownfields 2011 Assessment and Cleanup Grant Fact Sheet Newark, NJ. 2011. https://cfpub.epa.gov/bf_factsheets/gfs/index.cfm?xpg_id=7537&display_type=HTML.

NJDEP, 2022. Known Contaminated Sites in New Jersey Reports. 2022. https://www.state.nj.us/dep/srp/kcsnj/

Site Information:

Site Name:	Charlotte Steel Drum Corp./Industrial Container Services
EPA, State, or RCRA ID:	NCD024468597
RCRA Activity:	Very Small Quantity Generator
Address:	2900 West Trade Street, Charlotte NC, 28201
County:	Mecklenburg
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: Drum reconditioning facility appears to be currently in business (as of 06/10/2022), acquired by Mauser Packaging Solutions.

Damage/Contamination Incident: Site is a Significant Non-Complier (SNC) for RCRA, with citations beginning in April 2020 include managing hazardous waste without a RCRA Permit. Site also appears on the list of North Carolina priority inactive hazardous sites.

Sources of Information:

US EPA, 2022. ECHO, Industrial Container Services -NC https://echo.epa.gov/detailed-facility-report?fid=110001479506

North Carolina Department of Environmental Quality, Inactive Hazardous Sites and Pollutant-Only Sites Inventory by Site Name https://deq.nc.gov/media/18754/download

Mauser Packaging Solutions facility location website: https://mauserpackaging.com/about-us/locations/

Site Information:

Site Name:	Chief Supply/Greenway Environmental
EPA, State, or RCRA ID:	OK0000605385/OKD089761290
RCRA Activity:	Former Large Quantity Generator
Address:	Route 2 Box 71, Haskell, OK 74436
County:	Wagoner
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: The 18-acre site is an inactive RCRA treatment, storage, and recycling facility that operated from 1977 to 2000. The site originally operated under the name of Chief Chemical and Supply Company until 1997 when it closed down following an explosion at the facility caused by mixing incompatible chemicals. The site also declared bankruptcy at that time. The site re-opened under the name of Greenway Environmental in 1998 and continued operations until abandoning the facility sometime in 2000 when it could not obtain RCRA permits. The facility currently has several vacant office trailers, a shop building, a large main processing building, two above ground storage tanks (reactors), two sheet metal buildings, fifteen empty tanks, four 18-Wheeler Trailers, three Roll-Off boxes containing various wastes, and several drums, tanks and other debris in an open field referred to as the "bone yard." Operations at the facility primarily included the treatment, storage, and recycling of hazardous and non-hazardous wastes. Early operations at the site consisted of solvent and oil recycling, hazardous waste storage, paint stripping, and drum cleaning. Hazardous materials processed at the facility include petroleum-based solvents as well as spent halogenated solvents, contaminated soil and debris. Prior to 1998, Chief Supply reported receiving minor amounts of zinc phosphate, phosphoric acid, mercury, selenium, and asbestos. Most of the wastes were stored in containers, roll-off boxes, and tank trucks. When Greenway Environmental took over operations at the site, they took hazardous liquids, including paint wastes and solvents, and blended them into fuel, which was transported out of state for use in cement kilns and other industrial uses.

Damage/Contamination Incident: The 1997 fire/explosion, which killed an employee and heavily damaged the facility, was the result of improper storage and mixture of wastes. Following the fire, environmental samples detected chlorinated solvents, benzene, toluene, ethylbenzene, and xylene contamination. A RCRA Permit was issued in February 1994 after the

first permit, which was issued in October 1984, expired in October 1989. In December 2003, the Oklahoma Department of Environmental Quality reached a settlement with Frontier Insurance Company in Rehabilitation, Greenway's financial assurance provider, for a one-time $175,000 settlement. The money was used for waste removal at the site. After the site was abandoned, there were numerous reports of break-ins at the site and as much as 33,000 gallons of hazardous waste remained onsite with many deteriorating containers holding unknown contents. Some of the waste streams identified on the site in 2004 included organic liquids, chlorinated liquids and sludge, trash, paint solids with mercury, and household and pesticide aerosols.

Sources of Information:

USEPA, 2014. "An Assessment of Environmental Problems Associated with Recycling of Hazardous Secondary Materials: Appendix 1- Damage Cases from Recycling of Hazardous Secondary Materials" December 2014. https://www.regulations.gov/document/EPA-HQ-RCRA-2010-0742-0370

Site Information:

Site Name:	Clovis Drum Company
EPA, State, or RCRA ID:	CAD981458367
RCRA Activity:	Small Quantity Generator
Address:	1063 Brookhaven Drive, Clovis CA 93612
County:	Fresno
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: Clovis Drum on Brookhaven Drive was a 1-acre facility that was utilized for drum reconditioning between 1963 and 1981.

Damage/Contamination Incident: Surface soil at the site was found to be impacted by heavy metals, PCBs and organochlorine pesticides. The site was remediated in 1989. Approximately 540 tons of contaminated soils were removed from the site and disposed of at an approved Class 1 disposal facility.

Sources of Information:

Envirostar, 2022. "CLOVIS DRUM - BROOKHAVEN (10500007)". https://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=10500007

Site Information:

Site Name:	Container Recyclers of South Jersey/AABCO Steel Drum
EPA, State, or RCRA ID:	NJD980764310
RCRA Activity:	Large Quantity Generator
Address:	308 North Front Street, Camden, NJ 08102
County:	Camden
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: From at least 1981 (or potentially as early as 1977), this site was used for drum reconditioning, initially as Pertnoy Drums, Inc. (1981–1983) then as AABCO Steel Drum, Inc. (1983–1987). In 1987, drum reconditioning operations ceased, and the site operated as a drum storage location until its closure. While operating as AABCO, the site received hazardous waste drums by truck and used caustic sodium hydroxide, paint, and solvents to recondition drums. Caustic wastewater was discharged into an oil and water separator and then pH neutralized prior to release to the sanitary sewer under a County-issued industrial wastewater discharge permit. Residual materials in drums arriving at the site were drained into a waste oil drum and later tank. Drums requiring reconditioning using methods other than caustic soda (e.g., thermal treatment or solvent treatment) were set aside and sent to other drum reconditioners.

Damage/Contamination Incident: Caustic soda rinse water was sent through a pretreatment system to neutralize pH before discharge to the sewer system; however, Camden County Municipal Utilities Authority (CCMUA) personnel alleged that the facility repeatedly exceeded its discharge permit, regardless of whatever pretreatment processes were actually being used.

Between 1982 and 1987, environmental regulators investigated and cited the drum reconditioning operation multiple times for violations of hazardous waste and air quality regulations. Nearby residents repeatedly filed complaints of nuisance odors, which led to discovery of at least one spill of methyl methacrylate that required a cleanup. In 1984, a valve malfunction on the reconditioner's underground storage tank caused fuel oil to spill onto the site's soil and led to spilled fluids draining into a nearby storm drain. Regulators also witnessed the firm open burning chemicals in 1986; though the firm claimed to have an air permit for such open burning, they actually only had an air permit for a painting booth and were thus combusting

chemicals without an air permit. Simultaneously with this incident, the firm received a notice of violation for failing to comply with preparedness and prevention, contingency planning, emergency procedures, and personnel training requirements. Additionally, County personnel allege that the facility repeatedly exceeded its wastewater discharge permit with elevated BOD/COD, TPHC contend, and high pH values.

Though an inspection in late 1988 revealed the firm had ceased operations (likely after moving sometime in 1987), a fire started in 1993 that revealed multiple drums on-site containing unknown chemicals, which were subsequently analyzed, removed, and disposed by a third party.

Sources of Information:

Camden Redevelopment Agency, 1996. "Preliminary Site Assessment." 18 December 1996. http://camdenredevelopment.org/plans/environmentalReport/December%201996%20PA%20Report%20Remington%20and%20Vernick.pdf

Site Information:

Site Name:	Container Recycling, Inc.
EPA, State, or RCRA ID:	KSD065764995
RCRA Activity:	Large Quantity Generator
Address:	1161 S 12th Street, Kansas City, KS 66105
County:	Wyandotte
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: This site was reportedly used in the 1950s and '60s to dump auto shredder fluff, before being developed into a drum reconditioning, recycling, and storage facility in 1965. After operating for roughly 20 years as Great Lakes Container, the facility was purchased and its name was changed to Container Recycling, Inc. The facility continued operating as a drum reconditioner until 1996, when it was shut down.

Damage/Contamination Incident: Phase I and II Environmental Site Assessments conducted in 1997 revealed numerous environmental concerns on the site. Elevated levels of silver, arsenic, barium, cadmium, chromium, mercury, and lead were detected in the groundwater; of these, the levels for barium, cadmium, chromium, and lead exceeded federal safe drinking water standards. Soil contamination as also reported in the drum storage and drum processing areas of the site. Compounds likely from petroleum contamination (e.g., benzene, toluene, PAHs, etc.) as well as metal contaminants (particularly lead, but others as well) were discovered in soil samples. Lead contamination was particularly severe and widespread, ranging from 1,500 ppm to 21,000 ppm (far exceeding the risk-based standard) across the site.

The site also contained various remaining sources of contamination that required an EPA cleanup. Contaminated ash, sludge, and shot from the drum reconditioning process remained on site, as did multiple aboveground storage tanks containing acids and caustics. There was also a sludge pit, sludge pond, and sludge trench on site that required cleanup. The OSC requested a removal action to address both the residual waste on site and the soil contamination issues.

Sources of Information:

USEPA, 1997. Region 7. "Phase I Assessment Report". 1 January 1997. https://semspub.epa.gov/work/07/149411.pdf

USEPA, 1997. Region 7. “Phase II Investigation Report”. 6 January 1997. https://semspub.epa.gov/work/07/150757.pdf

USEPA, 1997. Region 7. “Request For Removal Action at Container Recycling Wyandotte County, Kansas City, Kansas.” N.D. https://semspub.epa.gov/work/07/40011964.pdf

Site Information:

Site Name:	Columbus Steel Drum Company/ Industrial Container Services – OH, LLC
EPA, State, or RCRA ID:	OHD004291654
RCRA Activity:	Large Quantity Generator (as ICS)
Address:	1385 Blatt Boulevard, Blacklick, OH 43230
County:	Franklin
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: The Columbus Steel Drum Company, Inc. began operations in 1955 and changed its name to the Franklin Steel Company in 1979. The facility was built in 1970. Evans Industries operated the facility from 1997 through the end of 2002, when Queen City Barrel Company leased the site. The facility is currently operated by Queen City Barrel and is doing business as Columbus Steel Drum. The 18-acre facility reconditions used 55-gallon drums for resale. Closed head drums are placed on a conveyor belt and transported to the process building. In the process building, the drums are cleaned with a hot caustic solution, rinsed, shot blasted to remove the old paint, and then repainted. Open head drums are turned upside down before they enter the oxidizer to drain any liquids. The oxidizer (furnace) burns off any residual material remaining in the drum. The open head drums are then sent into the process building for caustic rinse, shot blasting and repainting. The site does not have a RCRA permit.

Damage/Contamination Incident: The soil, sediment and surface water, and ground water showed elevated levels of many metals as well as semi volatile organic compounds (SVOCs) and volatile organic compounds (VOCs). Franklin Steel processed approximately 4,000 to 6,000 closed head and open head drums per day. Prior to 1986, when the drum inventory was at its peak, approximately 450,000 "RCRA empty" (less than one inch of liquid) drums were being stored at the site. At that time, approximately 38 acres were being used by Franklin Steel for drum storage and processing, consisting of two separate 10-acre drum storage areas and the main 18-acre processing/drum storage area. Since 1988, only the main 18-acre drum processing facility has been used for the drum reconditioning operations. Currently, approximately 50,000 empty drums are being stored on the site.

On February 25, 1980, there was a spill of 15,000 to 20,000 gallons of hazardous waste sludge from Franklin Steel's caustic clarifier, caused by an overflow of the system. The released sludge entered the Blacklick Creek drainage system. Sediment and surface water samples taken in March 1980 revealed cadmium, chromium, lead, zinc, and phenol. Sampling of the storm water holding pond by Ohio EPA on December 5, 1985 indicated elevated levels of various VOCs and SVOCs, and elevated levels of arsenic, cadmium, chromium, cyanide and lead.

Testing completed in October 1998 showed that soil was contaminated with many metals including arsenic, cadmium, chromium, and lead as well as SVOCs and VOCs. Groundwater had elevated levels of numerous metals including aluminum, arsenic, barium, chromium, and lead, SVOCs and VOCs. Surface water and sediment were also contaminated.

More recently, in June 2005, the Ohio EPA proposed a consent order to address environmental violations at Columbus Steel. These violations included creating a public nuisance through odorous air emissions, exceeding emission limits for several pollutants, failing to obtain several air permits and install required air pollution control measures, storing hazardous waste without a permit, failing to identify hazardous waste and shipping hazardous waste to a landfill not permitted to accept it, and polluting waters through storm water runoff from the facility. The proposed consent order, issued June 2, 2005, includes a total civil penalty of $500,000. In 1993, under RCRA, Columbus Steel Drum was forced to pay $28,100.

Sources of Information:

USEPA, 2014. “An Assessment of Environmental Problems Associated with Recycling of Hazardous Secondary Materials: Appendix 1- Damage Cases from Recycling of Hazardous Secondary Materials” December 2014. https://www.regulations.gov/document/EPA-HQ-RCRA-2010-0742-0370

Site Information:

Site Name:	Cooper Drum Co.
EPA, State, or RCRA ID:	CAD055753370
RCRA Activity:	Small Quantity Generator
Address:	9316 Atlantic Avenue, South Gate, CA 90280
County:	Los Angeles
NPL Site:	Yes
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: From 1941 until 1992, drum recycling was conducted at this site by various owners. From 1971 to 1992, the Cooper Drum Co. reconditioned closed-topped, steel drums that previously held a variety of industrial chemicals. In a 1991 interview, Cooper Drum Company representatives stated that approximately 70 percent of the drums accepted for recycling were from oil companies, with the remaining 30 percent including paint, resin, and solvent drums.

The reconditioning operation at this site was set up as an assembly line process along the length of an elevated concrete floor in the southern portion of the property. It essentially consisted of flushing and stripping the drums with sodium hydroxide in preparation for painting and resale. Fluids generated by the reconditioning operation were conveyed to two holding tanks and five clarifiers that bordered the north side of the elevated floor. The settled-out contents were pumped out and transported off site for recycling or disposal. The liquid was circulated back into the reconditioning process. Prior to the late 1980s, the holding tanks and clarifiers consisted of open concrete sumps that were connected to each other, and the reconditioning process tanks (e.g., flushers and strippers) by open concrete trenches. Since then, closed-top steel tanks were installed over the sumps, with the sumps providing secondary containment, and the trenches were replaced with hard piping. Until 1992, the hard wash operation was conducted in the northern portion of the property and consisted of placing chains and sodium hydroxide inside the drums, and then rotating the drums over four concrete sumps that were fitted with grates. The sumps were connected to each other by open concrete trenches. In 1992, the hard wash operation was moved to the east end of the drum reconditioning facility in the southern portion of the property. The sumps in the former hard wash area are no longer in use.

In April 1987, the Los Angeles County Health Department (LACHD) Emergency Response Team responded to an incident at the Tweedy Elementary School property. An unknown quantity of highly caustic liquid waste had migrated via underground seepage from the Cooper Drum Co. property. The waste resulted from the caustic wash water from the drum recycling process line located in the building directly north of the school property. Initially, the waste was thought to be comprised of mainly sodium hydroxide and oil. When contamination migrated onto school property, the top layer of soil was excavated, and the area was paved. Due to public health concerns, Tweedy Elementary School has remained closed. In 1987, the City of South Gate also closed four municipal wells due to volatile organic compound (VOC) contamination. However, evidence suggests that the shallow aquifer and the lower Silverado Aquifer are hydraulically connected, allowing the water to move between them. Municipal wells located within 4 miles of the site supply drinking water to approximately 335,000 people, the nearest of these wells located within 1/2 mile of the site. An estimated 340,000 people live within 4 miles of the site. The Cooper Drum Co. was sold to a new drum company in 1992, which employs 50 on-site workers.

Damage/Contamination Incident: Analytical results from soil and sampling events conducted in 1989, 1990, 1991, 1992, 1994, 1996, and 1998, and a soil gas sampling in 1999, indicate that VOCs are present at elevated concentrations in soils and soil gas beneath the concrete floor of the reconditioning facility, proximal to the holding tanks and clarifiers, in the former hard wash area, and in other areas of the site.

Analytical results from 1996 and 1998 monitoring well ground water sampling events and a 1998 Hydropunch (TM) groundwater sampling event indicate the presence of VOCs at concentrations significantly above background levels in the two uppermost aquifers (Bellflower and Exposition aquifers) beneath and hydraulically downgradient of the former hard wash area. The Bellflower, Exposition, and Gage aquifers are interconnected within 2 miles of the Cooper Drum Company site. Eleven municipal drinking water wells, which draw from the Exposition and Gage aquifers, are located within 4 miles of the site.

Immediate actions at this site consisted of the excavation of contaminated soils at the Tweedy Elementary School in April of 1987 and soil and groundwater analysis. The selected remedy for soil uses dual phase extraction for treatment of VOCs in soil. Other non-VOC soil contaminants,

including SVOCs, PCBs, and lead, were to be excavated for disposal. Institutional controls were to be implemented to prevent exposure to soil contaminants where excavation was not feasible. The total worth cost of this cleanup in 2002 was $2.77 million. The cleanup strategy for groundwater contaminated with VOCs used a combination of methods to achieve remedial goals and to restore the potential beneficial use of the aquifer as a drinking water source. The total worth cost in 2002 for this cleanup was $5.36 million.

Sources of Information:

USEPA, 2014. "An Assessment of Environmental Problems Associated with Recycling of Hazardous Secondary Materials: Appendix 1- Damage Cases from Recycling of Hazardous Secondary Materials" December 2014. https://www.regulations.gov/document/EPA-HQ-RCRA-2010-0742-0370

Site Information:

Site Name:	Cooper Drum Company/ACT Container Co
EPA, State, or RCRA ID:	CAD000072231
RCRA Activity:	Small Quantity Generator
Address:	9630 El Poche Street, South El Monte, CA 91733
County:	Los Angeles
NPL Site:	No
In Superfund Database:	No

Site History and Description of Reconditioning Operation: Cooper Drum Company/ACT Container Co is a drum reconditioner whose information is known from two court cases, in 1982 and 1985. In 1982, ACT Container Co was found to have multiple OSHA violations which include employees not wearing proper personal protective equipment when working with hazardous chemicals, improper training of employees, absence of quick-acting deluge showers and eye washes, and others. The 1985 court case of ACT Container Co v. Aircraft Stamping Company, Inc., stated that ACT reconditioned hundreds of thousands of 55-gallon containers using a drum burnout furnace and caustic wash line. Due to this operation, several toxic substances were burned from the drums including, but not limited, to benzene, toluene, perchloroethylene, toluene di-isocyanate, insecticides, pesticides, organic solvents, and resins. In addition, the court case states that ACT Container Co discharged sodium compounds and hydrochloric acid in aerosolized form, as well as lead-based paints mixed with cadmium, chromium, and other heavy metals in the vicinity.

Damage/Contamination Incident: The exact number of emptied drums and gallons of hazardous waste burned at the site are not listed in the court cases. While the plaintiffs, Aircraft Stamping Company, were seeking $5,000,000 in damages, the final verdict was not included and is unavailable in the public domain.

Sources of Information:

California. Court of Appeal (2nd Appellate District). Records and Briefs: B013554, Other. June 10, 2019. https://books.google.com/books?id=BrBLflqIwJwC&pg=PP5&dq=ACT+Container+9630+El+Poche+Street&source=gbs_selected_pages&cad=2#v=onepage&q=ACT%20Container%209630%20El%20Poche%20Street&f=false

USEPA. ECHO Database. 2022. https://echo.epa.gov/detailed-facility-report?fid=110002626356

Site Information:

Site Name:	County Line Auto Parts (Imthurn Drum Site)
EPA, State, or RCRA ID:	OHR000022327
RCRA Activity:	Former Large Quantity Generator
Address:	585 The Bend Road, Ney, OH 43549
County:	Defiance
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: County Line Auto Parts, also known as Imthurn Drum Site, was a salvage yard recovering drums and was located at an abandoned school. The company also accepted spent solvents which were burned in the school boilers. Imthurn Drum Site, owned by Ellis Imthurn who is now deceased, never had a RCRA permit and never obtained permits of any kind to transport, store or dispose hazardous waste. Beginning in 1977 and continuing until at least 1991, a Campbell Soup Company food production plant sold or provided Imthurn with 55-gallon drums of waste material, some of which Imthurn used as fuel.

Damage/Contamination Incident: Contamination at the site was due to the 1,500 leaking drums of solvents, waste oil & sludges that were stored at the site. On January 23, 1997, Ohio EPA and EPA conducted a preliminary assessment at the Imthurn facility. The agencies discovered approximately 1,500 deteriorating 55-gallon drums of hazardous waste. In 1996 and 1997, Campbell removed the drums and some of the contaminated soil under an enforcement order from EPA. Ohio EPA determined that Campbell failed to: evaluate the waste generated at the Napoleon facility; ensure that hazardous waste generated at the Napoleon facility was delivered to a permitted treatment, storage or disposal facility; notify EPA of hazardous waste fuel activities; and comply with Ohio law. The company also violated Ohio regulations by marketing hazardous waste fuel directly to a burner without obtaining permission.

In 2001, Campbell Soup Company and Campbell Soup Supply Company agreed to pay a civil penalty of $67,000 and reimburse Ohio EPA $37,571.50 for costs the Agency incurred for hazardous waste violations related to the Imthurn drum site. In addition to paying the civil penalty, Campbell was required to secure the site to ensure that no further dumping took place,

evaluate ground water to ensure no contamination occurred, and submit and implement an acceptable hazardous waste closure plan.

In order to return the property to residential use, a portion of the civil penalty payment was used by the Campbell companies to clean up solid waste at the Imthurn facility. Campbell was allowed to apply up to $22,000 of the civil penalty to remove and properly dispose of all solid waste on the site, as a supplemental environmental project. The remaining $45,000 went to Ohio EPA's hazardous waste cleanup fund.

Sources of Information:

USEPA, 2014. “An Assessment of Environmental Problems Associated with Recycling of Hazardous Secondary Materials: Appendix 1- Damage Cases from Recycling of Hazardous Secondary Materials” December 2014. https://www.regulations.gov/document/EPA-HQ-RCRA-2010-0742-0370

Site Information:

Site Name:	Dallas Steel Drums, Inc.
EPA, State, or RCRA ID:	TXD086855624
RCRA Activity:	Very Small Quantity Generator
Address:	2214 Singleton Blvd, Dallas, TX 75212
County:	Dallas
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: Dallas Steel Drums, Inc. (DSD) is listed on Enforcement and Compliance History Online (ECHO) as a very small quantity generator and a transporter of hazardous waste. DSD also has a minor air permit (permit no. TX0000004811300782). DSD has operated since 1963 and primarily operates as a reconditioner of closed-head steel drums, though they also provide other container services such as recycling and disposal of containers or sale of new containers. New containers sold by DSD include steel or poly drums of various sizes as well as 5-gallon plastic pails. According to the company website, reconditioned drums undergo cleaning, reforming, and integrity testing before being refinished. Basic drum cleaning is stated to involve a caustic soda solution cleaning, freshwater rinse, high-pressure steam jet rinse, and then removing residual water by vacuum. DSD continues to operate as an active drum reconditioner.

Damage/Contamination Incident: In 2019, DSD was issued an enforcement order with a civil penalty pertaining to violations of the Hazardous Material Regulation (HMR) which resulted in a civil penalty of $26,680. Violations pertained to drums not meeting minimum thickness requirements, improper/inaccurate marking of reconditioned drums, improper training of employees, and not maintaining required notification records.

Sources of Information:

USEPA, 2022. ECHO – DALLAS STEEL DRUMS INC. 2022. https://echo.epa.gov/detailed-facility-report?fid=110001869425#

USEPA, 2022. Facility Registry Service (FRS) Facility Detail Report – Dallas Steel Drums Inc. 2022. https://frspublic.epa.gov/ords/frs_public2/fii_query_dtl.disp_program_facility?p_registry_id=110001869425

USEPA, 2022. Superfund Enterprise Management System (SEMS) database - DALLAS STEEL & DRUM. 2022. https://enviro.epa.gov/enviro/SEMSquery.get_report?pgm_sys_id=TXD086855624

USDOT – Pipeline and Hazardous Materials Safety Administration, 2019. Dallas Steel Drums, Inc. 2019. https://www7.phmsa.dot.gov/content/dallas-steel-drums-inc

Dallas Steel Drums Inc, 2019. Company Website - About Dallas Steel Drums. 2019. https://www.dallassteeldrums.com/

Site Information:

Site Name:	David John Property
EPA, State, or RCRA ID:	N/A
RCRA Activity:	N/A
Address:	South end Vandalia Street on commercial lot, Otterbein, IN
County:	Benton
NPL Site:	No
In Superfund Database:	No

Site History and Description of Reconditioning Operation: The property owner, Mr. David John, operated a drum recycling operation at the site for approximately 20 years. On December 1, 2000, while conducting a spill incident investigation, Indiana Department of Environmental Management (IDEM) discovered between 30 to 40 empty drums and soils discolored by paint sludge throughout the property. During the incident investigation, Mr. John acknowledged that the residual fluids contained in the drums were dumped onto the ground.

Damage/Contamination Incident: On December 5, 2000, a remedial investigation was conducted and revealed elevated concentrations of volatile organic compounds in both the subsurface soils and groundwater beneath the property.

Sources of Information:

USEPA, 2014. "An Assessment of Environmental Problems Associated with Recycling of Hazardous Secondary Materials: Appendix 1- Damage Cases from Recycling of Hazardous Secondary Materials" December 2014. https://www.regulations.gov/document/EPA-HQ-RCRA-2010-0742-0370

Site Information:

Site Name:	Des Moines Barrel & Drum Co./Caldwells DM Barrel & Drum Co.
EPA, State, or RCRA ID:	IAD005283387
RCRA Activity:	Listed as Not a Generator
Address:	Southeast 19th Street & Scott Street, Des Moines, IA 50317
County:	Polk
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: Des Moines Barrel & Drum Company cleaned out barrels containing wastes including paints and herbicides, using water rinses, chemical treatment, and high intensity flame to burn out any residual organic material. Wastewater from drum rinsing and quenching drained into an on-site sludge pit. Residue that settled out of the wastewater formed a sludge in the bottom of this pit, which was periodically removed and applied to the land on the site. Thousands of drums were stored on site, which the operator claimed to be RCRA empty.

Damage/Contamination Incident: This site has been the location of numerous environmental cleanups and significant violations. In 1980, a removal action was necessary to remove drums of hazardous waste that had accumulated since 1945. Over repeated site inspections in the 1980s, the operator was found to be in noncompliance repeatedly. In 1986, a series of fires caused by storage of ignitable hazardous waste near the incinerator oven caused the firm to go out of business with tens of thousands of barrels still on site. In 1991, EPA ordered a cleanup action to address remaining hazardous wastes abandoned on site.

Many of the violations noted in the mid-‘80s related to the site’s use of a settling pond for wastewater coming off of reconditioning processes. In 1984, an inspection found that liquids accumulating in the settling pond were overflowing and at risk of washing into a nearby stormwater drain. Testing of the liquid and residuals in the sludge pit found the waste to be characteristically hazardous, as it contained elevated levels of numerous metal contaminants and residual pesticides. Inspectors also found numerous damaged drums partially full of hazardous waste that had accumulated on site; the operator insisted the site did not accept non-empty drums of hazardous waste and believed the degraded drums to contain nonhazardous waste, but the contents were tested and determined to be hazardous waste. The operator was cited for

violations of both the Clean Water Act (discharge without a permit) and the Resource Conservation and Recovery Act (mismanagement of hazardous waste).

Also in 1984, the operator experienced two fires caused by drums of ignitable waste being stored too close to the oven used in drum reconditioning. Inspectors visiting the site found other wastes, presumed to also be ignitable, also stored in inappropriate ways, such as close to the oven and stacked up to ten feet high. By 1986, the operator went out of business and closed the site.

In 1991, a Superfund removal was triggered by potential imminent endangerment to public health. EPA testing of the site found elevated soil levels of lead and chromium, both of which are toxic. Testing also revealed that the site's groundwater was contaminated with dangerous levels of multiple Volatile Organic Compounds. The cleanup order mandated that the previous operator of the site:

- Remediate piles of toxic incinerator ash and baghouse dust that had accumulated over the years;
- Properly dispose of the remaining ignitable liquid in the large storage tanks, sumps, and drums on site;
- Clean up contamination caused by the caustic rinse water and sludge;
- Inspect, remove, and properly recycle or dispose of the 20,000–40,000 drums still on site (some of which still contained significant quantities of unidentified chemicals);
- Remove soils contaminated with lead and/or chromium;
- Determine how far the groundwater contamination had spread.

Sources of Information:

USEPA, Region 7. "Report of investigation at Des Moines Barrel and Drum". 26 March 1980. https://semspub.epa.gov/work/07/30323082.pdf

USEPA, Region 7. "Regarding results of samples collected on 4/15/80 with data attached". 15 April 1980. https://semspub.epa.gov/work/07/30323084.pdf

USEPA, Region 7. "Letter re: Hazardous waste material complain investigation - found in violation". 3 March 1984. https://semspub.epa.gov/src/document/07/30323141

USEPA, Region 7. "Report of April 16, 1984, RCRA Compliance Inspection with attachments: Sample Analyses, Facility Diagram, INDR 3/23/84 Inspection Report, NOV and V. Smith Letter 4/13/84". 5 August 1984. https://semspub.epa.gov/work/07/30323089.pdf

USEPA, Region 7. “Unilateral Administrative Order for Removal Response Activities”. 9 October 1991. https://semspub.epa.gov/work/07/30323148.pdf

Site Information:

Site Name:	DeWitt Barrels
EPA, State, or RCRA ID:	MIK171841737
RCRA Activity:	Very Small Quantity Generator
Address:	1125 Comstock, Marne, MI 49435
County:	Ottawa
NPL Site:	No
In Superfund Database:	No

Site History and Description of Reconditioning Operation: Dewitt Barrels is a barrel recycling facility that specializes in washing and reconditioning of used chemical barrels and totes. It is located in a small industrial area surrounded by agricultural and residential areas. The nearest residential structure is located approximately 850 feet ESE of the facility. DeWitt Barrels was founded in 1893; however, operations at the Marne, Michigan plant began in 2002. The plant has the capacity to produce 2,500 steel drums per day in addition to reconditioned plastic drums and IBCs. The company specializes in the sales and reconditioning of steel, plastic, fiber drums of all sizes and totes utilizing a wash line. They also sell new drums and totes. Dewitt Barrel was recently acquired by ICS in 2018, which was then acquired by Mauser Packaging Solutions.

Damage/Contamination Incident: In March of 2017, an employee was working on a drum when it exploded at DeWitt Barrels, resulting in a multi-alarm fire.

Sources of Information:

DeWitt Barrels Website: http://www.dewittbarrels.com/aboutus

Diedrich, John, 2017. “Industrial barrel recycling plants in several states rack up environmental and workplace violations”. Milwaukee Journal Sentinel. 29 December 2017. https://www.jsonline.com/story/news/investigations/2017/12/20/industrial-chemical-barrel-recycling-plants-many-environmental-workplace-violations/956868001/

Department of Environmental Quality, 2018. “Activity Report: Self-Initiated Inspection”. Air Quality Division. 3 December 2018. https://www.deq.state.mi.us/aps/downloads/SRN/N7147/N7147_SAR_20181203.pdf

Site Information:

Site Name:	Dixie Barrel & Drum
EPA, State, or RCRA ID:	TND034692632
RCRA Activity:	Former Large Quantity Generator
Address:	2120 Jones Street, Knoxville, TN 37920
County:	Knox
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: The Dixie Barrel & Drum Site is an abandoned two-story office, warehouse & production facility. The facility formerly operated as a steel & plastic drum reconditioning business from about 1976 until closing mid-year in 2002 under a petition of bankruptcy and after numerous environmental violations went unaddressed by the company's officers. Their process included emptying the drum material into on-site storage tanks and then cleaning and restoring the drum through a series of chemical processes (using acids, caustics, and paints). Numerous violations at the site were found after an inspection on August 23, 2001, including waste running in a six-inch wide stream across the facility floor where employees worked.

Currently, approximately $1.2 million has been spent on clean up at this site.

Damage/Contamination Incident: The area was contaminated with numerous hazardous substances including lead, chromium, ethyl benzene, and trichloroethylene. Drums stored on site were found in poor condition and stored next to other incompatible chemicals thus elevating the risk of fire and explosion.

Sources of Information:

USEPA, 2014. “An Assessment of Environmental Problems Associated with Recycling of Hazardous Secondary Materials: Appendix 1- Damage Cases from Recycling of Hazardous Secondary Materials” December 2014. https://www.regulations.gov/document/EPA-HQ-RCRA-2010-0742-0370

Site Information:

Site Name:	Drumco Drum Dump
EPA, State, or RCRA ID:	MDD985386119
RCRA Activity:	N/A
Address:	1427 Bank Street, Baltimore, MD 21240
County:	Anne Arundel
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: Drumco Baltimore was a drum reconditioner located on 14 acres spanning the border of Baltimore City and Anne Arundel County. The operator accumulated a large number of drums with the intent of recycling them. The site is located within a quarter mile of two waterways and uphill of numerous nearby businesses. Though the site had a fence to limit access, it had degraded and most of the drums on site were stored outside the fenced area. Little information is available on the reconditioning practices or operator's plans for the drums accumulated on site.

Damage/Contamination Incident: Investigation of the site, spawned by community complaints, revealed that the operator had accumulated thousands of drums, many of which were full, degraded, and leaking. Many drums had stained soil surrounding them (indicating historic leakage) and testing of the soil repeatedly yielded high pH levels (indicating severe contamination with caustic material). Investigators also discovered a trailer full of drums leaking caustic waste, and multiple large piles of drums haphazardly stacked atop each other. Eventually, over 20,000 drums were found, distributed both inside the fence-line and randomly outside the fenced area. Further investigation revealed that over 5,000 of these drums were at least partially full. In addition, an employee witness revealed to investigators that the operator had hidden hundreds of drums full of waste underneath empty drums. Testing of the hidden drums' contents revealed that many of them contained hazardous wastes that were ignitable or caustic.

Particularly alarming was the potential for public exposure to the hazardous wastes present on site. Investigators found evidence that the public, including children, had accessed the site repeatedly in the past. Motorcycle paths, a bicycle, and children's toys were all discovered among the accumulated drums.

The site's owner was sentenced to 90 days in jail in 1991. The estimated cost of the removal action was $1.993,489.

Sources of Information:

Baltimore Sun. "Cleaning up EPA testing thousands of drums at Curtis Bay chemical company". 15 August 1991. https://www.baltimoresun.com/news/bs-xpm-1991-08-15-1991227213-story.html

USEPA, Region 3. "Approval of a Removal Action at the Drumco Drum Dump Site, Baltimore City and Anne Arundel County, Maryland". 7 June 1991. https://semspub.epa.gov/work/03/154318.pdf

Site Information:

Site Name:	Drumco of Arkansas
EPA, State, or RCRA ID:	ARR000005959
RCRA Activity:	Large Quantity Generator
Address:	142 Technology Drive, Arkadelphia, AR 71923
County:	Clark
NPL Site:	No
In Superfund Database:	No

Site History and Description of Reconditioning Operation: Drumco of Arkansas is a drum reconditioning facility that handles steel drums. This facility is a subsidiary of DrumCo, which operates under Container Life Cycle Management (CLCM), Greif Inc., and EarthMinded Life Cycle Services as of 2017. Greif established a majority ownership in CLCM, a limited liability company formed through joint ventures with the six facilities. This Arkadelphia site refurbishes 55-gallon steel drums for reuse or recycling, using incineration. The drums are passed through the furnace for about 10 minutes. Once out of the furnace, they are put through a blast process that utilizes an industrial abrasive. Finally, they are tested, reshaped and reformed, and painted. Operations under CLCM began in 2010.

Damage/Contamination Incident: Due to the nature of the reconditioning process using incineration, reports have been made from employees of flames bursting from open burners/incinerators at the facility. Chemicals left in the bottom of the drums have also caused fires that have injured workers.

Douglas Robinson, who worked at the CLCM plant in Arkansas until October 2017, said the company dodged emissions regulations in a number of ways. He recalled accounts of the facility burning materials that put off dark, black clouds before dawn so nobody would see.

Another worker, Billy Joe Patrick, experienced breathing issues after having to repeatedly dump unknown chemicals from the “empty” drums into the burners while on the job.

Arkansas state regulators had been to the facility many years earlier — in 2003 — before CLCM acquired it. They found the plant was not properly recording and reporting emissions. Managers had failed to include accurate information on the paints and other chemicals handled at the plant. The company was fined $3,000.

Sources of Information:

EarthMinded Life Cycle Services website: https://www.earthminded.com/en/index.html

Greif, Inc. website: https://www.greif.com/en-us/

Rutledge, Raquel and Barrett, Rick, 2017. “Burned: Chemicals left in barrels leave workers and neighborhoods at risk”. Milwaukee Journal Sentinel. 15 February 2017. https://projects.jsonline.com/news/2017/2/15/chemicals-left-in-barrels-leave-many-at-risk.html

Rutledge, Raquel and Barrett, Rick, 2017. “Environmental problems plague the barrel reconditioning business”. Milwaukee Journal Sentinel. 15 February 2017. https://projects.jsonline.com/news/2017/2/15/environmental-problems-plague-the-barrel-reconditioning-business.html

YouTube. “Drumco Arkansas”. 11 February 2016. https://www.youtube.com/watch?v=Cp1cqjKyr78

Site Information:

Site Name:	Drumco of Tennessee
EPA, State, or RCRA ID:	TND059840561
RCRA Activity:	Very Small Quantity Generator
Address:	3299 Tulane Road, Memphis, TN 38116-3034
County:	Shelby
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: Drumco of Tennessee is a drum reconditioning facility that handles steel and plastic drums and IBCs. Dating back to 1985, this facility is a subsidiary of DrumCo, which is now under the larger umbrella of Greif Inc., and EarthMinded Life Cycle Services as of 2017. This site has also been called Memphis Drum Service, Inc.

Damage/Contamination Incident: The various penalties assessed at the company's Wisconsin facilities, along with whistleblower allegations and media reports regarding the company's operations raise concerns that similar violations may also be occurring at the company's other barrel refurbishing operations in other states across the country, including the operations at 3299 Tulane Rd in Memphis, TN. This site is currently under investigation by the Department of Transportation.

Back in October 2014, the Memphis facility was in "significant noncompliance" for continuous pH violations related to wastewater discharges as well as "nickel and copper exceedances," according to the Tennessee Department of Environment and Conservation. Workers have also reported suffering from chemical and heat-related burns, injuries from exploding barrels, breathing difficulties and other health problems.

Also, a supervisor at the plant in Memphis — recorded in September of 2016 — said the only time his team rejects a drum is if it's too heavy for anybody to pick up and move.
"We get some that are, you know, more than an inch that we just, you know, pick up together and dump it up in a tote, let it drain ... whatever," the supervisor said.

Sources of Information:

Baldwin, Tammy and Donnelly, Joe, 2017. (United States Senate). Letter Correspondence to Scott Pruitt (EPA) and Loren Sweatt (OSHA). 12 October 2017. https://www.baldwin.senate.gov/imo/media/doc/Baldwin%20Donnelly%20National%20OSHA%20EPA%20letter1.pdf

Diedrich, John, 2017. "Senators call for industrial barrel investigation to expand in a letter to EPA, OSHA". Milwaukee Journal Sentinel. 29 December 2017. https://www.jsonline.com/story/news/investigations/2017/10/13/senators-calls-industrial-barrel-investigation-expand-letter-epa-osha/762900001/

EarthMinded Life Cycle Services website: https://www.earthminded.com/en/index.html

Greif, Inc. website: https://www.greif.com/en-us/

Rutledge, Raquel and Barrett, Rick, 2017. "Burned: Chemicals left in barrels leave workers and neighborhoods at risk". Milwaukee Journal Sentinel. 15 February 2017. https://projects.jsonline.com/news/2017/2/15/chemicals-left-in-barrels-leave-many-at-risk.html

Rutledge, Raquel and Barrett, Rick, 2017. "Environmental Problems Plague the Barrel Reconditioning Business". Milwaukee Journal Sentinel. 15 February 2017. https://projects.jsonline.com/news/2017/2/15/environmental-problems-plague-the-barrel-reconditioning-business.html

Site Information:

Site Name:	Ector Drum, Inc.
EPA, State, or RCRA ID:	TXD064215759
RCRA Activity:	Conditionally Exempt Small Quantity Generator
Address:	2604 N Marco Avenue, Odessa, TX
County:	Ector
NPL Site:	Yes
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: The site is located at 2604 N. Marco Ave. in Odessa, Texas and is operated by Ector Drum. The facility was a drum reconditioning business that is no longer in operation. The tract of land is in an industrial area but has residential areas close to the facility. The current site is comprised of approximately 4.5 acres; however, the facility operated on the west side of North Marco Avenue as well on 2.75 additional acres from at least 1996 until 2011. The company operated from 1988 to 2011 and is currently inactive.

Damage/Contamination Incident: On August 10, 2009, an odor complaint was filed with the TCEQ. The investigation that followed resulted in a Notice of Violation (NOV) for conducting outdoor spray painting without proper authorization. On April 5, 2011, a complaint was filed alleging waste water spillage around the loading dock area, and accumulating waste water in containers in two tractor trailers and assorted drums and totes in the lot behind the office building. On July 25, 2014, environmental investigators with the Texas Commission on Environmental Quality (TCEQ) Region 7 - Midland office, conducted a complaint investigation at Ector Drum, Inc. for the potential discharge of contaminated storm water coming from the site. Upon entering the operating area, it was discovered that there were many 350-gallon tote-containers and 55 gallons drums that were noted to be full of unknown chemicals. Also, the ground surface at various locations showed evidence of chemical contamination most likely from long-term drum storage. Underneath the loading rack nearby the investigators observed a pool of an oily brown liquid. The concrete secondary containment vault was full of a mixture of water and unknown chemical. The investigators continued to walk the entire property and discovered many more 350-gallon tote-containers and 55-gallon drums, as well as contamination on the ground. The investigation determined that the site was in violation of 30 TAC 335.4 and the facility was cited for failure to dispose of the excessive amount of industrial waste that was

collected and stored on-site, which could be discharged into the surrounding areas, cause a nuisance for the surrounding area, and cause the endangerment to the public health and welfare. Subsequent groundwater sampling revealed separate phase liquids and lab analyses detected concentrations of arsenic, chromium, copper, and lead exceeding their respective groundwater MCL values.

Sources of Information:

USEPA, 2015. Preliminary Assessment, Ector Drum, R6.
https://semspub.epa.gov/work/06/500006604.pdf

Site Information:

Site Name:	Efros Barrel Co.
EPA, State, or RCRA ID:	RID980732135
RCRA Activity:	Universal Waste
Address:	RFD #1 Box 1346 Salvas Avenue, Coventry, RI 02825
County:	Kent
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: The 0.42-acre site was an undeveloped property prior to 1969. The property was purchased in 1969 by a private owner. From 1969 to 1990, the property was used to receive, store, and dispatch used 55-gallon drums for recycling.

Damage/Contamination Incident: The Rhode Island Department of Environmental Management (RI DEM) Solid Waste Division inspected the property in 1978 and documented five hundred to six hundred 55-gallon drums on the property; inspectors also observed spilled material on the ground and detected a chemical odor in the ambient air. Analytical results of sampling indicated the presence of volatile organic compounds (VOCs), semi volatile organic compounds (SVOCs), pesticides and polychlorinated biphenyls (PCBs). In spring 1978, RI DEM Division of Air Resources received telephone complaints, regarding Efros Barrel. In 1982, a complaint was filed with RI DEM Division of Air and Hazardous Materials, which alleged that partially filled drums had been disposed of on the property. In 1982, RI DEM issued a Notice of Violation and Order to Efros Barrel. There are no groundwater monitoring wells located on the property. In 1981, groundwater samples were collected by RI DEM from two drinking water wells located in the vicinity of the property. Analytical results indicated the presence of VOCs and groundwater has not been sampled since. Analytical results of soil samples collected from the property in 1994, indicated the presence of pesticides and metals at concentrations greater than concentrations indicated by background samples. Impacts to on-site soil may be partially attributable to historical operations at the property.

Sources of Information:

USEPA, 2014. "An Assessment of Environmental Problems Associated with Recycling of Hazardous Secondary Materials: Appendix 1- Damage Cases from Recycling of

Hazardous Secondary Materials" December 2014.
https://www.regulations.gov/document/EPA-HQ-RCRA-2010-0742-0370

Site Information:

Site Name:	Ellis Property
EPA, State, or RCRA ID:	NJD980529085
RCRA Activity:	Former Large Quantity Generator
Address:	338 Wilson Avenue, Newark, NJ 01705
County:	Burlington
NPL Site:	Yes
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: A drum cleaning and storage facility occupied a four-acre portion of this site during the 1970s. The facility ceased operations in 1978 after a fire damaged several of the buildings. A site inspection by NJDEP in 1980 revealed approximately 75 drums containing chemical wastes were being stored in the main building and storage sheds and additional drums and other containers were scattered throughout the property.

Damage/Contamination Incident: The drums and containers were in various stages of deterioration, and some had leaked onto the ground. NJDEP also found evidence of spillage due to past operations. In 1983, USEPA added the Ellis Property to the National Priorities List of Superfund sites (NPL). NJDEP subsequently implemented an Interim Remedial Measure (IRM) to remove and dispose of grossly contaminated soil and approximately 100 drums of waste.

The main building and sheds were also demolished because they were structurally unsafe. USEPA disposed of the remaining drums during a second removal action in 1990. In all, approximately 300 drums were removed from the site by NJDEP and USEPA. Between 1985 and 1992, NJDEP's Remedial Response Element conducted a Remedial Investigation and Feasibility Study (RI/FS) to delineate the contamination at the site and evaluate cleanup alternatives. The RI/FS revealed the surface soil was contaminated with polychlorinated biphenyls (PCBs), semi-volatile organic compounds and lead, and the ground water was contaminated with volatile organic compounds and metals. In 1992, NJDEP issued a Record of Decision (ROD) with USEPA concurrence that required excavation and off-site disposal of the remaining contaminated soil and installation of a remediation system to extract and treat the contaminated shallow ground water. NJDEP excavated and disposed of 1,400 cubic yards of contaminated soil and backfilled the excavated areas with clean soil in 1998. NJDEP completed

construction of the ground water remediation system in 2000 and is overseeing operation of the system. The system is currently extracting and treating approximately 210,000 gallons of contaminated ground water each month. Operation and maintenance (O&M) activities will continue for up to 30 years, or until the ground water quality criteria levels have been achieved.

Sources of Information:

ELLIS PROPERTY, EVESHAM TOWNSHIP, NJ
https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.Cleanup&id=0200620#bkground

Ellis Property. https://www.nj.gov/dep/srp/community/sites/pi/g000004493.htm

Site Information:

Site Name:	Environmental Waste Resources, Inc.
EPA, State, or RCRA ID:	ILD087157251
RCRA Activity:	Former Large Quantity Generator
Address:	2390 South Broadway Street & Reed Road, Coal City, IL 60416
County:	Grundy
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: Environmental Waste Resources, Inc. (EWR), a Connecticut corporation, operated this treatment, storage, and recycling facility from 1976 to 1997. During its operation, EWR accepted hazardous and non-hazardous waste in bulk and container shipments. On July 8, 1997, EWR filed a voluntary petition under Chapter 11 of the U.S. Bankruptcy Act (Case No. 97-32784). When EWR's bankruptcy proceeding converted to a Chapter 7 proceeding on February 3, 1998, EWR abandoned the site, including hazardous substances, pollutants and contaminants. The waste remained on the site in deteriorating drums, and bulk tanks. The waste contained elevated concentrations of volatile organic compounds (VOCs) as well as lower concentrations of other VOCs and semi volatile organic compounds (SVOCs). In addition, approximately 40 compressed gas cylinders, many containing flammable gases, were left in outdoor areas of the site. Numerous laboratory chemicals including concentrated acids, bases, flammables, oxidizers, poisons, and radioactive material were left in an onsite laboratory building.

Damage/Contamination Incident: Site abandonment as a result of the company's bankruptcy claim led to significant environmental damage. Shortly after EWR filed for bankruptcy, the Illinois Environmental Protection Agency (IEPA) conducted a site investigation and referred the site to EPA for response actions. EPA conducted an emergency site assessment which identified 831 full drums containing both hazardous and non-hazardous waste; several hundred empty and partially full drums stored in three semi-trailers; 23 aboveground tanks in outdoor tank farms, most full to capacity of 10,000 to 50,000 gallons each; 4 aboveground tanks in the process building; 29 compressed gas cylinders; and a variety of laboratory chemicals. The inspections also revealed numerous wastewater violations, including discharges into the municipal sewer system of wastewater containing copper, lead, chromium, cyanide, nickel, oil and grease, tin,

zinc, cadmium and other chemicals in excess of limits established in EWR's Wastewater Discharge Permit.

As of September 2004, cleanup expenditures at this site totaled $260,768.89.

Sources of Information:

USEPA, 2014. “An Assessment of Environmental Problems Associated with Recycling of Hazardous Secondary Materials: Appendix 1- Damage Cases from Recycling of Hazardous Secondary Materials” December 2014. https://www.regulations.gov/document/EPA-HQ-RCRA-2010-0742-0370

Site Information:

Site Name:	Feldman Barrel & Drum
EPA, State, or RCRA ID:	NYD013721907
RCRA Activity:	Very Small Quantity Generator
Address:	35 Newell Street, Buffalo, NY 14206
County:	Erie
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: The Feldman Barrel & Drum Site is an inactive drum reconditioning facility located at 35 Newell Street in Buffalo, Erie County, New York. The facility is located in a predominately industrial and commercial section of Buffalo, however, there are some residential homes bordering the site to the East. According to the owner/operator, the site has been inactive since May 2001. Information supplied by the owner stated that Feldman Barrel & Drum ceased operating when some of their major accounts were terminated.

A private citizen called the New York State Department of Environmental Conservation (NYSDEC) when children found numerous drums and detected an unidentifiable odor inside an abandoned building on the site. The NYSDEC subsequently performed an inspection on June 27, 2002 and found several hundred drums in various stages of deterioration. Drums were found with corrosive and flammable labels. The NYSDEC requested response and removal assistance from the EPA. According to a January 30, 2003 On-Scene Coordinator (OSC) Pollution Report (4), the total project cleanup is budgeted to cost $780,000.

Damage/Contamination Incident: On July 1, 2002, EPA and the Removal Support Team (RST) contractor conducted a preliminary assessment and collected drum, tank, and floor drain samples from within this abandoned drum reconditioning facility. A total of 439 drums, in severe stages of deterioration, were identified within the building, of which an estimated 400-420 contained waste materials. A 3,500-gallon caustic bath tank and a 500-gallon caustic pre-flush tank were identified and found to contain a caustic liquid and sludge like material. On site results detected primarily caustic liquids and sludges (pH 12-14) and flammable liquids in a majority of the samples collected.

Sources of Information:

USEPA, 2014. "An Assessment of Environmental Problems Associated with Recycling of Hazardous Secondary Materials: Appendix 1- Damage Cases from Recycling of Hazardous Secondary Materials" December 2014. https://www.regulations.gov/document/EPA-HQ-RCRA-2010-0742-0370

Site Information:

Site Name:	Goodman Bros. Steel Drum Co. Inc./Goodman Brothers CO Steel Drum Div.
EPA, State, or RCRA ID:	NYD047683776
RCRA Activity:	Former Large Quantity Generator
Address:	18 Division Place, Brooklyn, NY 11222
County:	Kings
NPL Site:	No
In Superfund Database:	No

Site History and Description of Reconditioning Operation: Goodman Bros. Steel Drum was a steel drum reconditioner facility that began operations in 1909 and closed in 2002, though they were known as B&F Goodman Associates, Inc. after 1967. The site was classified as an RCRA large quantity generator (LQG) from 1980 to 2002. Goodman Bros. Steel Drum expanded operations by acquiring adjacent lots on Richardson Street in 1972 possibly along with another facility located at 35 Beadel Street, Brooklyn, NY 11222.

The New York State Department of Environmental Conservation (NYSDEC) conducted an RCRA inspection in September 1982 because the company, an LQG, was located above a sole-source aquifer. They were found storing hazardous wastes on-site without a permit; however, there is no detail on which hazardous wastes were stored. In 1982 and 1987 some violations were classified as "general generators violations," and the site was later found to comply with these issues. No date for when the site was found to be in compliance was given. A violation of New York regulation SR-372 was found in 1999. The site later rectified this issue. No date was given for when this issue was resolved. In 2002, several violations were found regarding the management of hazardous waste, specifically related to the storage and disposal of this waste. No information is given regarding if these violations had any correlation to any spills or contamination incidents. The last RCRA compliance monitoring activity for the site was conducted on January 3, 2002, and no violations were identified. Since 2004 it has been occupied by M&A Projects, Inc.

Damage/Contamination Incident: This site has had two documented spills. One occurred in 1991 when 100 gallons of an unknown material was spilled. The other occurred in 2001 when 2 to 3 gallons of motor oil and a quart of wastewater spilled during a routine maintenance activity. It is unclear if any penalties were assessed for these spills.

Goodman Brothers entered into a consent order with the EPA in 1983. This was likely a result of either the violation for storing hazardous wastes on-site without a permit or the "general generators violation" in 1982. They entered into two consent orders with the NYSDEC in 1987 and 2003. The 1987 consent order was likely a result of the "general generators violation". The order in 2003 was likely a result of violations of hazardous waste management. These consent orders resulted in the facility agreeing to pay a total of $28,000 for numerous violations.

In 2016, EnviroTrac installed 12 soil vapor points near this facility. The surrounding soil was inspected for contamination visually, and a photo-ionization detector was used to screen for VOCs. These tests detected several VOCs, including 1,1,2-trichlorotriflouroethene at a concentration of 62,000 micrograms per cubic meter. It is possible that the contamination is related the previous large spills. The NYSDEC classified this site as a significant environmental threat because of its ongoing releases of tetrachloroethene (and its breakdown products), benzene, toluene, ethylbenzene, and xylene (BTEX) compounds, and PCBs from source areas into the soil, groundwater, and soil vapor. As a result of this study, in 2022, the NYSDEC issued an order on consent and administrative settlement to the Former Goodman Brothers Steel Drum Co. ordering payment of $750,000 for the environmental easement.

A Clean Air Act civil enforcement case in 2003 resulted in a state/local penalty of $7,500.

Sources of Information:

USEPA, 2022. ECHO – Goodman Bros Steel Drum CO—18 Division Pl. 2022. https://echo.epa.gov/detailed-facility-report?fid=110000892017

USEPA, 2015. Facility Registry Service (FRS) Facility Detail Report – Goodman Bros Steel Drum CO—18 Division Pl. 2015.https://frs-public.epa.gov/ords/frs_public2/fii_query_dtl.disp_program_facility?p_registry_id=110000892017

USEPA, 2022. TRI Facility Report: GOODMAN BROTHERS CO STEEL DRUM DIV. 2022. https://enviro.epa.gov/facts/tri/ef-facilities/#/Facility/11222RVNGGPRESI

USEPA, 2022. ECHO – Goodman Bros Steel Drum. 2022. https://echo.epa.gov/detailed-facility-report?fid=110000807681#

USEPA, 2015. Facility Registry Service (FRS) Facility Detail Report – Goodman Bros Steel Drum. 2015; Available from: https://frs-public.epa.gov/ords/frs_public2/fii_query_dtl.disp_program_facility?p_registry_id=110000807681

Newton Creek RI/FS, 2012. Goodman Brothers Steel Drum Draft Upland Site Summary. 2012. http://newtowncreek.info/docs2/2%20Remedial%20Investigation/Remedial%20investigation%20Support%20Documents/Data%20Applicability%20Report/Appendix%20B/GoodmanBrosSteelDrum%2005-2012.pdf

Envirotrac, 2016. Former Goodman Brothers Steel Drum Company Investigation. 2016. https://www.bklynlibrary.org/sites/default/files/documents/greenpoint/greenpoint%20remediation%20papers/report_224211_2016-12-09_Goodman_Brothers_Steel_Drum_webversion.pdf

NYSDEC, 2014. Site Record – Former Goodman Brothers Steel Drum Co. 2014. https://www.dec.ny.gov/cfmx/extapps/derexternal/haz/details.cfm

Enviro.BLR.com, 2020. Hazardous Waste Management Regulations. 2020. https://enviro.blr.com/environmental-activity/final-regulations/hazardous-waste-management/Hazardous-Waste-Management-Regulations-186937

NYSDEC State Superfund Program, 2022. ORDER ON CONSENT AND ADMINISTRATIVE SETTLEMENT Index No. R2-20150812-461. 2022. https://www.dec.ny.gov/data/DecDocs/224211/Consent%20Order.HW.224211.2022-01-25.Executed%20Consent%20Order%20.pdf

Site Information:

Site Name:	Gray Container LLC
EPA, State, or RCRA ID:	OHD980903827
RCRA Activity:	Former Large and Very Small Quantity Generator
Address:	2800 East 90th Street, Cleveland, OH 44104
County:	Cuyahoga
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: Gray Container has had many names as the facility has had multiple owners/operators. This company is also referred to as L. Gray Barrel & Drum Co., Lomack Drum Co., and Lomack Drum & Container Co. Inc.; however, all have operated as a drum reconditioning facility. The five-acre facility is bounded by industrial properties to the north, west and south, and a vacant lot to the east. Residential properties are located northeast of the facility on East 90th Street, as well as to the north of the facility. Approximately 13,068 people reside within one mile of the facility. Reconditioning activities included burning, shot blasting, washing, repairing and painting the metal drums. The facility consists of three buildings totaling approximately 34,000 square feet and an office trailer. Operations at the site began in 1981 but were shut down by the state of Ohio in 2016.

Damage/Contamination Incident: Since 2007, Ohio EPA's Hazardous Waste Program has conducted multiple inspections at the Facility. These inspections revealed numerous violations of Ohio hazardous waste laws including, but not limited to, unlawful hazardous waste treatment, storage and disposal activities; failure to prepare a closure plan and conduct closure activities; failure to evaluate waste; and failure to manage hazardous waste containers. Ohio EPA has issued multiple Notice of Violation letters to Gray Container concerning these violations.

In September and December 2009, the Ohio Attorney General's Office, on behalf of Ohio EPA, obtained Preliminary Injunction Orders through the Cuyahoga County Court of Common Pleas. The Preliminary Injunction Orders required Gray Container to comply with several hazardous waste and air pollution control laws. In particular, the Preliminary Injunction Orders required Gary Container to evaluate and dispose of all hazardous waste, as well as prepare a closure plan and conduct closure activities for all areas where hazardous waste was unlawfully treated, stored and/or disposed.

In April 2013, the Ohio Attorney General's Office, on behalf of Ohio EPA, obtained a Judgment through the Cuyahoga County Court of Common Pleas. The Judgment required the evaluation and removal of all hazardous wastes; cessation of the receipt of hazardous waste; submission of an approvable hazardous waste closure plan for areas where hazardous waste was unlawfully treated, stored and/or disposed; establishment of liability insurance; compliance with the closure cost estimate and financial assurance requirements; compliance with the hazardous waste management requirements; cessation of open burning; compliance with all applicable hazardous waste and air pollution control laws and rules; and payment of a $1.05 million penalty.

Gray Container has failed to comply with all aspects of the September and December 2009 Preliminary Injunction Orders and the April 2013 Judgment. In April 2014, Ohio EPA's Judgment was consolidated with other judgments obtained by the Ohio Bureau of Workers' Compensation and the Ohio Department of Jobs and Family Services. Due to Gray Container's failure to comply with the consolidated judgments, the Ohio Attorney General's Office filed a motion to show cause and written charges in contempt in June 2016. On September 8, 2016, the Cuyahoga County Court of Common Pleas rendered a preliminary decision in the matter and ordered that all operations at the Facility cease and the Defendants commence with the cleanup of the Facility. Gray Container was also ordered to return to court on October 20, 2016 to report their progress on cleanup activities.

Ohio EPA's analytical results in 2016 demonstrated the presence of corrosive (D002) hazardous waste as described in OAC rule 3745-51-22, as well as characteristic hazardous waste due to chloroform (D022) and trichloroethylene (D040) as described in OAC rule 3745-51-24. In addition, previous sampling of similar wastes at the facility indicated flashpoints at <140 degrees Fahrenheit (which would classify the waste as an ignitable hazardous waste (D001)), as well as wastes exceeding the toxicity characteristic hazardous waste regulatory levels for arsenic (D004), chromium (D007), lead (D008), benzene (D018), methyl ethyl ketone (D035), tetrachloroethylene (D039) and trichloroethylene (D040). Also, these wastes may contain listed hazardous waste solvents (i.e., F001/F003/F005).

Additionally, in 2019, Anthony Gray, co-owner of Gray Container LLC, was indicted on one count of conspiracy to defraud the United States. Gray failed to operate the incinerator at the required temperature, resulting in incomplete combustion and the release of dioxins and furans.

Gray also operated the incinerator at night numerous times in 2013 and 2014. This included placing drums containing paints and solvents onto the conveyor belt going through the incinerator. This resulted in the burning of several hundred drums every night, causing flaming drums that were visible from several hundred feet away and at times emitting an offensive odor. These actions violated the company's permit, and Gray ultimately lied to authorities about the company's operations.

Sources of Information:

Ewinger, James, 2019. "Cleveland company fined $1 million for hazardous materials". Metro. 12 January 2019. https://www.cleveland.com/metro/2013/05/oil_drums.html

Ohio Environmental Protection Agency, 2016. "Time Critical Removal Request". 12 October 2016. https://semspub.epa.gov/work/05/933906.pdf

U.S. Department of Justice, 2019. "Shaker Heights man indicted violations related to improperly operating an incinerator". U.S Attorney's Office. Northern District of Ohio. 18 September 2019. https://www.justice.gov/usao-ndoh/pr/shaker-heights-man-indicted-violations-related-improperly-operating-incinerator

Site Information:

Site Name:	Hassan Barrel Company Inc
EPA, State, or RCRA ID:	IND078902202
RCRA Activity:	Former Small Quantity Generator and Large Quantity Generator
Address:	1605 Summer Street, Fort Wayne, IN, 46857
County:	Allen
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: From 1954 to 2003, the Hassan Barrel Company in Fort Wayne, Indiana, operated as a barrel recycling facility that cleaned and repainted used industrial barrels. During its years of operation, the seven-acre facility received barrels, many containing hazardous wastes, from at least 400 companies. The facility closed in 2003 and the facility owner abandoned thousands of barrels and other hazardous waste on the site.

Management of waste at the site included disposal in open pits and manmade lagoons, both in drums and discharges of liquids. The company did not have a RCRA Treatment, Storage and Disposal permit, and the State of Indiana had cited the company for a number of state violations between 1982 and 2003. Citations had been issued by the state for improper records, lack of emergency planning, and improper container marking or labeling, among other issues.

Damage/Contamination Incident: The facility was located in a residential area, surrounded primarily by private homes and two schools only a few blocks away. EPA's site investigation found hazardous wastes at locations around the site, including wastes in leaking barrels, dumpsters, and open pits. EPA testing of soil and water in an onsite ditch that flowed to a nearby stream found contamination with a number of hazardous materials including barium, cadmium, chromium, lead, and traces of PCBs. EPA also determined from seized records that testing on the site while still in operation had found dichloroethene, tetrachloroethane and trichloroethene in soil. EPA commenced emergency cleanup of the facility under CERCLA authority, spending $1.7 million between 2004 and 2008, and removing 10,000 barrels, about half of which contained hazardous waste. As of 2008, EPA expected to spend at least another $1.3 million to remove up to 10,000 cubic yards of contaminated soil and other waste.

In 2008 Alan Hersh, the president of Hassan Barrel Company, pleaded guilty to one felony RCRA violation for the illegal storage and management of hazardous wastes on the site. This sentence included 15 months in prison and a $1.7 million dollar fine for cleanup costs. In addition, EPA sought additional funding for cleanup costs from about 400 companies that sent materials to the facility.

Sources of Information:

USEPA, 2014. "An Assessment of Environmental Problems Associated with Recycling of Hazardous Secondary Materials: Appendix 1- Damage Cases from Recycling of Hazardous Secondary Materials" December 2014. https://www.regulations.gov/document/EPA-HQ-RCRA-2010-0742-0370

Site Information:

Site Name:	Helms Drum Service
EPA, State, or RCRA ID:	N/A
RCRA Activity:	N/A
Address:	1764 State Road 655, Auburndale, FL 33823
County:	Polk
NPL Site:	No
In Superfund Database:	No

Site History and Description of Reconditioning Operation: The Helms Drum Service is approximately 4.5 acres containing five buildings and an access road. Structures on-site are the Helms residence, a greenhouse and three buildings associated with the drum cleaning operation. The facility, owned by Mr. Leroy Helms, began operations in the mid-1970s and continued until July 1984. General operations consisted of purchasing and reconditioning spent oil drums and open-top drums from the citrus industry. On a typical day, an estimated 40 drums and up to 300 gallons of spent oil were treated. Drum reconditioning consisted of a seven-step process utilizing kerosene to remove oil residues and a caustic soda (sodium hydroxide) rinse. Spent caustic soda was neutralized with acid (HCl or H2SO4) and the process wastewater was discharged to a percolation pond. The percolation pond was a naturally occurring surface depression enlarged to accommodate the volume of wastewater it received.

In early 1982, the Florida Department of Environmental Regulation (FDER) discovered that the Helms facility was discharging to groundwater without a permit. In April 1982, FDER sampled effluent from the drum washing operation. The analysis revealed elevated levels of lead, chromium and zinc. Consequently, Helms applied to FDER in August 1982 for a discharge permit. FDER did not issue the permit. In February 1984, following sampling by both FDER and a consultant representing Helms Drum Service, the enforcement section of FDER issued an order to cease all operations and remediate the soil adjacent to the drum reclamation area, the percolation pond and associated groundwater. Helms agreed to comply with the order.

Damage/Contamination Incident: By July 1985, all drum reconditioning equipment was removed from the site and the percolation pond bottom was excavated under the direction of Helms' consultant. Twenty cubic yards of contaminated sediment was also removed. Sample

results indicated that natural attenuation was an appropriate remediation strategy for groundwater, following the cleanup of contaminated soils.

The primary concern at the facility was off-site groundwater migration of contamination toward the adjacent wetland and potentially Lake Juliana. Groundwater analyses detected lead, chromium, mercury and sodium concentrations above primary drinking water standards, and zinc levels were above secondary drinking water standards. Additionally, several organic compounds and cyanide were detected.

The FDEP Hazardous Waste Cleanup Section spent a total of approximately $145,000 for site investigation activities. There are no records of the costs incurred by the property owner for excavation/disposal costs. FDEP delisted the site from the State Action List in January 1995.

Sources of Information:

USEPA, 2014. "An Assessment of Environmental Problems Associated with Recycling of Hazardous Secondary Materials: Appendix 1- Damage Cases from Recycling of Hazardous Secondary Materials" December 2014. https://www.regulations.gov/document/EPA-HQ-RCRA-2010-0742-0370

Site Information:

Site Name:	Indianapolis Drum Service
EPA, State, or RCRA ID:	IND016397069
RCRA Activity:	Former Small and Very Small Quantity Generator
Address:	3619 East Terrace Avenue, Indianapolis, Indiana, 46203
County:	Marion
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: Indianapolis Drum Service was part of a network of six drum refurbishing plants called Container Life Cycle Management, in four states including three plants in St. Francis, Oak Creek and Milwaukee, WI, which operate as Mid-America Steel Drum. The joint venture, known as CLCM, is majority owned by Ohio-based Greif, Inc., an industrial packaging company. The plants refurbish 55-gallon steel drums and large plastic containers, called totes, cleaning them for reuse or recycling. In 2017, the Indianapolis plant was shut down by its owner after the site was unable to recover from the loss of a major customer and has not been able to provide sustainable returns for quite some time. The plant employed fewer than 40 people.

Damage/Contamination Incident: Employees at the plant in Indianapolis told an OSHA inspector in 2010 that they mixed together "every type of chemical known to man" and had seen all kinds of reactions, such as smoke, crackling, spattering and bubbling of liquids. The operations caused at least one big fire in 2014, heavily damaging the Indianapolis facility while endangering nearby residents and firefighters, as the site operated across the street from residential neighborhoods. Specifically, the fire was caused by spontaneous combustion of chemicals that had been mixed with sawdust used to clean drums.

Workers also reported suffering from chemical and heat-related burns, injuries from exploding barrels, breathing difficulties and other health problems.

With the shutdown of the plant, it is unclear if the work from this site will be shifted to one of the other facilities under Greif, Inc.

Sources of Information:

EarthMinded Life Cycle Services website: https://www.earthminded.com/en/index.html

Greif, Inc. website: https://www.greif.com/en-us/

Rutledge, Raquel and Barrett, Rick, 2017. “Burned: Chemicals left in barrels leave workers and neighborhoods at risk”. Milwaukee Journal Sentinel. 15 February 2017. https://projects.jsonline.com/news/2017/2/15/chemicals-left-in-barrels-leave-many-at-risk.html

Rutledge, Raquel and Barrett, Rick, 2017. “Burned: IndyDrum refurbishing plant, where worker safety problems were cited, closes suddenly”. Milwaukee Journal Sentinel. 20 December 2017. https://www.jsonline.com/story/news/2017/12/20/indydrum-refurbishing-plant-where-worker-safety-problems-were-cited-closes-suddenly/967330001/

Site Information:

Site Name:	Industrial Container Services CO LLC/Environmental Recyclers, Inc.
EPA, State, or RCRA ID:	COD983789066
RCRA Activity:	Very Small Quantity Generator – as Industrial Container Services
Address:	P.O. Box 116, 570 and 590 Baseline Road, Brighton, CO 80601
County:	Adams
NPL Site:	No
In Superfun Database:	No

Site History and Description of Reconditioning Operation: This facility was acquired by Industrial Container Services (ICS), now a subdivision of Mauser Packaging Solutions. ICS was founded in 2004 and has grown through acquisitions to become an industry leader in reconditioned drums. In 2018, BWAY, Mauser Group, National Container Group, and ICS combined to form Mauser Packaging Solutions. The facility NAICS codes indicate that the facility is involved in industrial supplies, merchant wholesalers, commercial and industrial machinery, and equipment (except automotive and electronic), and repair and maintenance.

Damage/Contamination Incident: On October 22, 2020, the Colorado Department of Public Health & Environment identified a Clean Air Act (CAA) violation at the facility, and on May 20, 2021, the facility was fined an amount of $8,750. The facility failed to maintain many monthly and weekly records and operation and maintenance procedures required by the Air Pollution Control Division of the Colorado Department of Public Health & Environment. Every week, this included maintaining and recording the pH range of various scrubber liquor found in rinses, the flow and/or pressure to spray nozzles of acid/caustic rinse systems, and the pressure drop across scrubbers for the acid/caustic rinse systems. Every month, they failed to keep records of reconditioned waste container production rates, wheelabrator shot blaster operation hours, hydrochloric acid, sodium hydroxide, paints material, and solvents material usage, particulate matter, PM10, VOC, single HAP, and total HAPs emissions calculation. The facility produced corrosive waste, and the waste contained lead, methyl ethyl ketone, and many halogenated solvents used for degreasing or other purposes.

Sources of Information:

USEPA, 2022. ECHO – ICS – CO LLC. 2022. https://echo.epa.gov/detailed-facility-report?fid=110007351542

USEPA, 2022. ECHO – Civil Enforcement Case Report. 2022. https://echo.epa.gov/enforcement-case-report?id=CO000A0000080010078500013

USEPA, 2017. Envirofacts – Plant Information: Industrial Container Services CO LLC. 2017. https://enviro.epa.gov/enviro/rcrainfoquery_3.facility_information?pgm_sys_id=COD983789066

USEPA, 1994. National Oversight RCRA Handlers. 1994. http://bcn.boulder.co.us/environment/Local/HazMatColo.txt

Mauser Packaging Solutions, 2018. History and Timeline. 2018. https://mauserpackaging.com/about-us/history-timeline/

McMillan, S. (2021, May 20). Re: Proposed Early Settlement Agreement in the Matter of ICS-CO, LLC, AIRS No.: 001-0785, Case No.: 2021-003. https://cdphe.colorado.gov/settlements-and-orders

USEPA, 2022. Facility Register Service (FRS) Facility Detail Report – ICS – CO LLC. https://frs-public.epa.gov/ords/frs_public2/fii_query_dtl.disp_program_facility?p_registry_id=110007351542

Site Information:

Site Name:	Industrial Container Services- Cargo Clean IN, LLC
EPA, State, or RCRA ID:	N/A
RCRA Activity:	N/A
Address:	6213 Gheens Mill Road, Jeffersonville, IN 47130
County:	Clark
NPL Site:	No
In Superfund Database:	No

Site History and Description of Reconditioning Operation: Industrial Container Services (ICS) is the largest provider of reusable container solutions in North America. ICS is an industry leader offering new and reconditioned steel, plastic and fiber drums, and IBC leasing and full-service from retrieval to disposal with locations across North America. This facility in Jeffersonville, IN began operations in 2002 and reconditions steel, plastic, and fiber drums, as well as IBCs, with the use of a drum washing line.

Damage/Contamination Incident: From June 12, 2012 through September 5, 2012, the Indiana Department of Labor conducted an inspection at the 6213 Gheens Mill Road, Jeffersonville, IN 47130 facility. On November 2, 2012, a Safety Order and Notification of Penalty were issued, alleging that the facility had violated the Indiana Occupational Safety and Health Act.

It was discovered that drums brought into the facility were classified as RCRA empty but contained varying quantities of product residue including hydrofluosilicic acid, hydrochloric acid, sulfuric acid sodium hydroxide, aqua ammonia, sodium thiosulfate pentahydrate, sodium bisulfate, sodium hypochlorite, hydrogen peroxide, acetic anhydride, hydroxyethyl acrylate, and Blend Mixture B-IPA. Employees sorted the drums by type (not by contents) at the unloading dock and ran them through the wash process for up to 8 hours per day without regard to the residue types contained in the drums, which allowed incompatible chemicals including strong acids, strong bases, peroxides, flammable compounds, strong oxidizers, strong reducers, and other toxic chemicals to mix in the rinse water troughs, drains, and tanks. This may have led to uncontrolled exothermic chemical reactions.

Also, the serrated steel grating work platform, where a wet process that involved 3 separate stations was utilized to clean 30- and 55-gallon drums of corrosive residue including

hydrofluosilic acid, hydrochloric acid, and sulfuric acid, was not posted with or evaluated for load limits.

As a result, the employer did not establish and maintain conditions of work, which were reasonably safe and healthy for employees, and free from recognized hazards that could cause or were likely to cause death or serious physical harm to employees due to the exposure to potentially dangerous and/or toxic decomposition products produced from inadvertent mixing of incompatible chemicals.

The company was fined $13,375 for these health and safety violations.

Sources of Information:

Indiana Department of Labor, Indiana Occupational Safety and Health Administration, 2012. "Safety Order and Notification of Penalty to Industrial Container Services-Cargo Clean, LLC". Exhibit A. 02 November 2012. https://www.in.gov/dol/files/Industrial_Container.pdf

Mauser Packaging Solutions website: http://www.apexdrum.com/services_drums.php

Site Information:

Site Name:	Industrial Container Services – MI, LLC
EPA, State, or RCRA ID:	N/A
RCRA Activity:	N/A
Address:	4336 Hansen Street Southwest, Grand Rapids, MI 49548
County:	Kent
NPL Site:	No
In Superfund Database:	No

Site History and Description of Reconditioning Operation: Industrial Container Services (ICS) is the largest provider of reusable container solutions in North America. ICS is an industry leader offering new and reconditioned steel, plastic and fiber drums, and IBC leasing and full-service from retrieval to disposal with locations across North America. This facility in Grand Rapids, Michigan is one of those locations.

In 2004, Calvin Lee and Jerry Butler bought IFCO's reconditioning business and created ICS. Over the next decade and a half, ICS grew the company through strategic acquisitions. In 2007, ICS acquired Container Recyclers, Inc., with plants in Louisville, KY, Cincinnati and Columbus, OH, and Jeffersonville, IN. In 2012, ICS acquired Mauser Group's reconditioned steel drum business and America Container Net, with plants in Pittsburg, PA, Houston, TX, Providence, RI, and Richmond, VA. In 2015, ICS acquired the Abbey Drum Company, Cropland/Stainlez, Twin City Container, and the Bodtker Group. In 2016, Meyer Steel Drum in Chicago was acquired, thus adding more steel drum manufacturing and reconditioning capabilities. In 2018, ICS acquired Plastic Revolutions, establishing itself further as a company involved in the plastic recycling industry.

Industrial Container Services – MI, LLC is just one of many facilities under Mauser Packaging Solutions that focuses on the reconditioning of various types of drums. The facility utilizes two different drum washing techniques, along with furnaces and thermal oxidizers for steel drums.

Damage/Contamination Incident: On December 14, 2016, the Michigan Department of Environmental Quality (DEQ), Air Quality Division (AQD), conducted an inspection of Industrial Container Services, LLC (ICS) located at 4336 Hansen SW, Grand Rapids, Michigan. The purpose of this inspection was to determine ICS's compliance with the requirements of the federal CAA; Part 55, Air Pollution Control, of the Natural Resources and Environmental

Protection Act, 1994 PA 451, as amended (Act 451); the Air Pollution Control Rules; and the conditions of Permit to Install (PTI) numbers 874-91B and 430-83A. During the inspection, it was found that ICS did not properly maintain acceptable records of Hazardous Air Pollutant (HAP) emissions. Specifically, a significant portion of reported emissions were for a HAP that has been delisted since 2004. In addition, several other coating lines have HAP contents missing or incorrect quantities. Examples include triethylamine, phenol and formaldehyde. Actual HAP emissions are unknown at this time.

Sources of Information:

Lazzaro, April. Email to Dan Belfer (Air Quality Division). 24 January 2017. Violation Notice: http://www.deq.state.mi.us/aps/downloads/srn/B1715/B1715_VN_20170124.pdf

Mauser Packaging Solutions website: http://www.apexdrum.com/services_drums.php

Site Information:

Site Name:	Industrial Container Services – SCII, LLC/Moore Drums
EPA, State, or RCRA ID:	SCD003339702
RCRA Activity:	Former Large Quantity Generator
Address:	2819 Industrial Avenue, Charleston, SC 29405
County:	Charleston
NPL Site:	No
In Superfund Database:	Yes (under Moore Drums, Inc.)

Site History and Description of Reconditioning Operation: Industrial Container Services (ICS) is the largest provider of reusable container solutions in North America. ICS is an industry leader offering new and reconditioned steel, plastic and fiber drums, and IBC leasing and full-service from retrieval to disposal with locations across North America. This facility in Charleston, SC focuses on the reconditioning of various types of drums. The facility utilizes two different drum washing techniques, along with furnaces and thermal oxidizers for steel drums.

Damage/Contamination Incident: On August 1, 2007, South Carolina Department of Health and Environmental Control (SCDHEC) representatives conducted a RCRA compliance evaluation inspection of the 2819 Industrial Avenue, Charleston, South Carolina facility. On August 16, 2007, SCDHEC drafted an inspection report which cited several deficiencies of South Carolina Hazardous Waste Management Regulations (SCHWMR) R.61-79.262.11 [40 CFR 262.11], including failure to make hazardous waste determinations on solid wastes. Based on the August 16, 2007, inspection report and ICS's response to that inspection report, EPA alleged that ICS failed to make ten (10) hazardous waste determinations on ten (10) different drums of solid wastes and thereby violated SCHWMR R.61-79.262.11 [40 CFR 262.11].

ICS paid a penalty of $13,335 on December 1, 2008.

Sources of Information:

Mauser Packaging Solutions website: http://www.apexdrum.com/services_drums.php

USEPA, 2014. "An Assessment of Environmental Problems Associated with Recycling of Hazardous Secondary Materials: Appendix 1- Damage Cases from Recycling of Hazardous Secondary Materials" December 2014. https://www.regulations.gov/document/EPA-HQ-RCRA-2010-0742-0370

Site Information:

Site Name:	Industrial Container Services – WA, LLC/Industrial Packaging
EPA, State, or RCRA ID:	WAD000066084
RCRA Activity:	Small Quantity Generator
Address:	7152 First Avenue South, Seattle, WA 98108
County:	King
NPL Site:	No
In Superfund Database:	No

Site History and Description of Reconditioning Operation: Industrial Container Services (ICS) is the largest provider of reusable container solutions in North America. ICS is an industry leader offering new and reconditioned steel, plastic and fiber drums, and IBC leasing and full-service from retrieval to disposal with locations across North America. This facility in Seattle, WA began operations in 2002 and is located within the Trotsky Inlet (river mile 2.1-2.2) source control area on the west side of the river and only about half a mile from residential homes.

Drum reconditioning and manufacturing operations on the property date back to as early as the 1930s. In the early 1940s, Mitzel & Co. reportedly refurbished 1,500 drums per month for the U.S. government during World War II. The Trotsky family purchased the property in 1953 and operated the site as Northwest Cooperage. The property was paved in 1973 and a wastewater pretreatment system was installed. The pretreatment system included a "closed" drainage system that channels all drainage, including stormwater, spills, and process water into a wastewater pretreatment system to the sanitary sewer.

The site continues to operate as a drum reconditioning facility under the name Industrial Packaging. Operations at the site include storage, cleaning, and repainting of used drums, some of which may have contained food products, petroleum products, solvents, resins, paints, adhesives and hazardous wastes.

Damage/Contamination Incident: This site is part of Ecology's Lower Duwamish Waterway source control efforts, because it may be contributing pollution to the Lower Duwamish Waterway (LDW) Superfund Site. The 5-mile stretch of the Duwamish River that flows north into Elliot Bay was added to the Superfund National Priorities List by the U.S. Environmental Protection Agency (EPA) in 2001.

Contamination at this site is a result of drum reconditioning operations. Soil, groundwater and sediment contaminants include metals such as arsenic and copper, polychlorinated biphenyls (PCBs), pesticides, petroleum hydrocarbons, and polynuclear aromatic hydrocarbons (PAHs).

This Industrial Container Site is one of several sites that will be cleaned up as part of Ecology's Source Control Strategy – controlling sources of pollution to the river. Contaminants in the soil and groundwater around the river pose a risk to human health and the environment and can also find their way into the river through storm runoff and other pathways.

Sources of Information:

Department of Ecology, 2020. State of Washington. "Industrial Container Services WA." March 2020. https://apps.ecology.wa.gov/gsp/Sitepage.aspx?csid=62

Mauser Packaging Solutions website: https://mauserpackaging.com/about-us/locations/

Site Information:

Site Name:	J.C. Pennco Waste Oil Service
EPA, State, or RCRA ID:	TXD982164162
RCRA Activity:	N/A
Address:	4927 Higdon Road, San Antonio, TX
County:	Bexar
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: The site was operated from May 1984 until April 1992. During its eight years of operation, the site received an unknown quantity of used barrels and various chemicals, including used oil, antifreeze, and solvents. Most of the oil and other chemicals were sold to recyclers, and the drums were sold for use as animal feeders, trash barrels, and barbeque pits. Pollution at the site resulted from spills and discharges from the oil storage tanks and from the barrel-cleaning activities. The site did not have a permit at any time

Damage/Contamination Incident: In 1991, Texas Natural Resource Conservation Commission (TNRCC) investigators discovered that the same types of solvents spilled on the ground at the J.C. Pennco site were present in one of the nearby residential water wells. In May 1992, the owner filed bankruptcy, and the site was abandoned. Contaminates included chlorinated and non-chlorinated solvents, metals, polyaromatic hydrocarbons (PAHs), total petroleum hydrocarbons (TPH), benzene, ethyl benzene, toluene, xylene, and tetrachloride. From 1995 to 1996, in cooperation with the TNRCC and the San Antonio Water System, EPA extended city water lines into the area. Additionally, EPA removed approximately 4,000 drums, 120 cubic yards of soil and debris, 31,500 gallons of liquid wastes, and 23 tanks from the site to eliminate potential sources of surface and groundwater contamination. In November 1996, the EPA referred the J.C. Pennco site back to the state for further remedial action. While material was sold to recyclers, poor housekeeping practices led to contamination.

On February 24, 2005, a legal notice of citation by publication was published in the Eagle Pass News Guide identifying 21 of 52 parties responsible for waste at the J.C. Pennco Waste Oil Service Superfund site.

On August 28, 2004, an administrative order listed the site on the state Superfund registry and selected the remedial action of natural attenuation with post-closure monitoring for the groundwater. In September 2013, the Texas Commission on Environmental Quality deleted the site from the Superfund registry.

Sources of Information:

USEPA, 2014. "An Assessment of Environmental Problems Associated with Recycling of Hazardous Secondary Materials: Appendix 1- Damage Cases from Recycling of Hazardous Secondary Materials" December 2014. https://www.regulations.gov/document/EPA-HQ-RCRA-2010-0742-0370

Texas Commission on Environmental Quality. *J.C. Pennco Waste Oil Service* https://www.tceq.texas.gov/remediation/superfund/state/jcpennco.html

Site Information:

Site Name:	Lightman Drum Company
EPA, State, or RCRA ID:	NJD014743678
RCRA Activity:	Former Conditionally-Exempt Small Quantity Generator
Address:	Route 73, Winslow Township, NJ 08009
County:	Camden
NPL Site:	Yes
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: Lightman Drum Company acquired the site in 1974 and recycled both full and empty drums until operations ceased in 1988. The facility sometimes received full drums which required emptying before they could be cleaned and recycled; an on-site pit was used to dispose of the contents. After a complaint and legal action, the company agreed to upgrade its disposal technique and a 1977 inspection revealed the presence of two 5000-gallon underground storage tanks on the property. The facility accepted chemical powders, pesticides, waste oils, emulsions, oil sludges, paint, pigment, ink residues, ketones, alcohols, mixed solvents, acids and alkalis.

Recycling operations ceased at the site, following a 1988 Administrative Order which found significant contamination of hazardous substances as a result of the company's operations. Though these recycling operations no longer occur, United Cooperage is currently buying and selling used drums at the location.

In March 2000, EPA sent out 32 letters to potentially responsible parties (PRP) who may have contributed to the contamination at the Site and may be liable for costs of the response actions. In November 2000 sixteen PRPs signed an Administrative Order on Consent to perform the remedial investigation and feasibility study at the site. EPA expects that the ongoing remedial investigation and feasibility study will be completed in late 2006.

EPA issued a Record of Decision (ROD) in 2011 to address soil contamination. Under EPA's oversight, the PRP group removed contaminated soil using a soil vapor extraction system. With EPA oversight, the PRP group sampled the soil in June 2021 to determine the progress of the system. EPA is evaluating the results from the soil sampling.

Damage/Contamination Incident: Between 1987 and 1988, both NJDEP and Lightman Drum Company conducted sampling that revealed the soil at the site was contaminated with various volatile and semi-volatile organic compounds, metals, and pesticides. Lightman Drum Company subsequently conducted a Remedial Investigation that revealed the ground water at the site was also contaminated.

Sources of Information:

USEPA, 2014. "An Assessment of Environmental Problems Associated with Recycling of Hazardous Secondary Materials: Appendix 1- Damage Cases from Recycling of Hazardous Secondary Materials" December 2014. https://www.regulations.gov/document/EPA-HQ-RCRA-2010-0742-0370

USEPA, 2022. Lightman Drum Company Cleanup Activities, https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.Cleanup&id=0200280

Site Information:

Site Name:	Lorentz Barrel & Drum Co.
EPA, State, or RCRA ID:	CAD029295706
RCRA Activity:	Listed as Not a Generator
Address:	1515 South 10th Street, San Jose, CA 95112
County:	Santa Clara
NPL Site:	Yes
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: Lorentz Barrel & Drum Co. recycled drums at a plant in San Jose. It began receiving barrels in 1947. Many of the drums contained residual aqueous wastes, organic solvents, acids, oxidizers, caustic residues, and oils. Between 1950 and 1978, a drainage ditch carried process wastes to a large sump in the northern corner of property, and other ponded areas existed on site. Wastes from the sump were discharged to a storm drain system. Sometime between 1968 and 1971, the discharge was diverted to a sanitary sewer; investigations indicate that this discharge occurred until 1983 or 1984. After this time, liquid wastes were reportedly evaporated, drummed, and disposed of as hazardous waste along with incinerator ash, residual liquids, and sludge. Surface runoff was collected and recycled in a drum wash.

The plant received Interim Status under Subtitle C of RCRA concurrently with the company's filing of Part A of the permit application. This site was removed as a treatment, storage, or disposal facility because it was deemed not to engage in hazardous waste activities. The facility never properly managed the residuals from its drum-refitting operation. Ultimately, it stored residuals in drums that it was unable to refit; before that, it had been known to store residuals in pits and merely drain them down the gutter. Thus, over the course of its life, there were many potential paths along which the Lorentz contamination could be pinned. The facility was shut down in Feb 1986 and in July 1987 the owner was sentenced to 2 years in jail and fined $2.04 million.

Damage/Contamination Incident: Monitored wells are contaminated with trichloroethane, trichloroethylene, 1-1 dichloroethylene, and tetrachloroethylene (PCE) due to the overflowing of sumps and spills. The California Department of Health Services (CDHS) discovered more than 300 drums contaminated by phenols, methylene chloride, and PCBs stored on the property.

In 1988, CDHS and the EPA capped the site and removed 26,000 drums and 3,000 cubic yards of contaminated soil. Also, the site was fenced, and most of the site area was paved. In 1994, EPA removed 1033 tons of industrial wastes, 15 tons of HW liquids, and 1200 containers including 150 drums of solvents, 23 drums of ash, and over a ton of asbestos.

Groundwater cleanup remedies were selected in 1988 that included building an on-site groundwater extraction and a treatment system which uses an ozone/ultraviolet process for organic removal with discharge of treated water to a local creek. In early 1991, a group of potentially responsible parties completed optimization studies. In late 1992, construction of the system was completed, and full-scale operation and maintenance project began. Groundwater treatment was expected to continue for 30 years.

In 1993, the EPA completed an investigation to determine the extent and type of contamination at the site. Based on the results from this investigation, the EPA selected a remedy that includes a soil vapor extraction system to clean contaminated soil and an asphalt concrete cap to contain soil contaminated with heavy metals. The estimated cost of this cleanup was $1,970,000. In 1996, the remaining underground conduits and contaminated sumps were removed and the contaminated soil and building debris was disposed of off -site. By 1998, all remedial action construction for the site was complete.

Sources of Information:

USEPA, 2014. “An Assessment of Environmental Problems Associated with Recycling of Hazardous Secondary Materials: Appendix 1- Damage Cases from Recycling of Hazardous Secondary Materials” December 2014. https://www.regulations.gov/document/EPA-HQ-RCRA-2010-0742-0370

Site Information:

Site Name:	Martin Aaron, Inc.
EPA, State, or RCRA ID:	NJD014623854
RCRA Activity:	Conditionally-Exempt Small Quantity Generator
Address:	1542 South Broadway, Camden, NJ 08104
County:	Camden
NPL Site:	Yes
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: The Martin Aaron, Inc. site has been used by a variety of companies for more than 100 years. Kifferty Morocco Manufacturing Co. operated a tannery at the site from 1887 until 1908. The site was bought by Castle Kid Co. and manufactured glazed leathers until it was seized for tax delinquency in 1940. The site was then bought by Benjamin Schmerling and leased to H. Preston Lowden Co. for wool and hair blending and to American Chain and Cable Co. for manufacturing. Martin Aaron purchased the property in 1968 and operated a drum reconditioning facility onsite until 1987. Martin Aaron purchased solvent-contaminated drums, reconditioned the drums, and then resold the clean drums. Rhodes Drum and Westfall Ace (WADCO) bought the business in 1985, while Martin Aaron maintained ownership of the property, and ran similar drum reconditioning businesses that operated separately onsite. WADCO ran its drum reconditioning operation from 1985 through 1994 when it was liquidated in bankruptcy proceeding; Rhodes Drum ran its operation from 1985 through 1998. All three companies were RCRA-permitted facilities.

During these various reconditioning operations “empty” drums were turned upside down and allowed to drain into tanks, after which the drums were pressure washed, steam-rinsed and dried, sand-blasted, inspected for integrity, and repainted. The residues from drum contents, rinsate, and steam blow-down were drained from tanks and floor drains into skimming basins. Sludge was skimmed from the basins for off-site disposal, and the acidic water was neutralized and reused in the plant. The process also generated baghouse dust (from sand-blasting) and spray paint wastes.

EPA announced on October 24, 2005 that it planned to clean up contamination in the soil and ground water at this site. Under the plan, EPA would excavate contaminated soil, treat it if necessary, and dispose of the excavated soil off of the site. Some of the site would be covered

with a cap, and future uses of the site would be restricted to ensure that the capped area was not disturbed. Ground water would be pumped to the surface, cleaned up and then discharged into the sewer system.

In July 2005, EPA developed a proposed plan for the Martin Aaron Site. They developed several remedial alternatives for soil and groundwater at the site. In September 2005, EPA selected the remedy for the site in the Record of Decision. The remedy included excavating contaminated soils and sending soils to an approved off-site disposal facility. Residual soil contamination was capped and future use of the site is restricted. The Responsible Party began the cleanup in 2016 and completed the excavation and disposal of contaminated soils in November 2018. Capping of the site was completed in December 2019.

Damage/Contamination Incident: From 1981 through 1995, NJDEP and EPA cited operators for numerous violations, including unpermitted discharges, non-notification of spills and releases, and improper handling, storage, and disposal of drums. Site operators used the outdoor paved and unpaved areas of the property for drum storage. Holes were dug throughout the property for the disposal of wastes. Between 200 and 1,000 containers of waste were buried onsite. According to NJDEP, chemical wastes were illegally disposed of as late as March 1999.

In 1997, NJDEP initiated a remedial investigation (RI), using state funds, for both soil and groundwater to determine the nature and extent of contamination at the site. The NJDEP RI soil results showed that both surface and subsurface soil contamination including chlorinated and aromatic volatile organic compounds (VOCs), semi-VOCs consisting mainly of poly-aromatic hydrocarbons, metals, pesticides and polychlorinated biphenyls (PCBs) were widespread throughout the Martin Aaron property. The RI found groundwater contamination in both shallow and some of the deeper monitoring wells installed on the property. In 1999, NJDEP requested that EPA take the lead in completing studies of the contamination on the site. EPA's findings revealed that soil contaminated with VOCs and arsenic was contaminating ground water. The onsite and offsite damage was extensive, resulting from improper handling of solvent contaminated drums, improperly designed drum drainage systems, leaking and dumping of solvents into soil, groundwater, and wastewater streams, and illegal burial of contaminated drums onsite.

Sources of Information:

USEPA, 2014. "An Assessment of Environmental Problems Associated with Recycling of Hazardous Secondary Materials: Appendix 1- Damage Cases from Recycling of Hazardous Secondary Materials" December 2014. https://www.regulations.gov/document/EPA-HQ-RCRA-2010-0742-0370

USEPA, 2022. Martin Aaron, Inc. Camden, NJ Cleanup Activities https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.cleanup&id=0200278

Site Information:

Site Name:	Metro Container Corporation
EPA, State, or RCRA ID:	PAD044545895
RCRA Activity:	Former Large Quantity Generator
Address:	2nd and Price Street, Trainer, PA, 19061
County:	Delaware
NPL Site:	Yes
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: The Metro Container Corporation (Metro Container) site is a 10.4-acre property located approximately 20 miles south of Philadelphia, Pennsylvania in a mixed industrial/commercial/residential area along the Delaware River.

The site has a long industrial history. At the close of the 19th century, the site was occupied by the Delaware Oil Works. From 1920 until 1959, the Stauffer Chemical Company, Inc. (Stauffer) operated a chemical manufacturing plant on the property. Historical site maps and aerial photographs indicate that Stauffer constructed a waste disposal lagoon in the 1950s in the southwest corner of the site, adjacent to Stoney Creek. In April 1963, the property was purchased by the Joseph A. Reis Company and converted into a steel drum reconditioning facility. The Joseph A. Reis Company filed for bankruptcy sometime prior to January 1969, when the Universal Container Corporation (Universal Container) took ownership of the property from a bankruptcy trustee. After several changes in ownership, in 1983, the property was sold to the Metro Container Corporation. This company was the last in the series of owners who conducted drum reconditioning operations at the site. Drum reconditioning ended in December 1987 when Metro Container filed for bankruptcy. The site is currently owned by Trainer Industries, an industrial painting company. The site is used mainly for storage as most of the painting takes place offsite. No industrial activities are currently conducted at the site.

At the height of its industrial operations, Metro Container received approximately 450,000 to 500,000 drums per year, many filled with hazardous materials, paints, solvents, petroleum products, and other substances. The drums would arrive at the facility and be stored in stacked rows on the western end of the facility just north of the converted drum reclaiming building. The drums would be moved into the building via a conveyor where they were emptied into two

different types of product tanks/vessels and pre-flushed prior to caustic being applied to the exterior to strip off the paint. The outside of the drums were then rinsed before interior cleaning using caustic. Following the caustic cleaning, interior metal stripping was performed using hydrochloric acid followed by cold rinsing. After phosphatizing, siphoning, drying, de-denting, short blasting, and leak testing were performed, the drums were dried, repainted, baked, and moved to the warehouse before shipment to customers. Storage tanks were distributed throughout the property to support treatment of the generated rinsate water and the recovering of product and sludges from the drums themselves, including storage of acid, alum, caustic, toluene, No. 5 fuel oil, waste oil, spent caustic, dissolved air floatation sludge, wastewater, chemicals, and paints.

The contents of the drums and the fluids generated in the drum cleaning process were reportedly treated to remove oil and grease, and then underwent pH adjustment and flocculation through the addition of aluminum sulfate and a polymer. The treated wastewater was decanted and reused as rinse water in the drum cleaning operations. During each day of operation, about 10% of the reused rinse water was removed and replaced by fresh water to control the build-up of chlorides. This removed wastewater was reportedly discharged to the Delaware County Regional Water Quality Control Authority (DELCORA) sewer system after additional treatment and pH adjustment. Sludge from the wastewater operation was thickened with lime and transported offsite to the Sumptor Landfill in Sumptor, Michigan, although site investigations have shown that sludge was also buried on site.

The site is composed of two sources and releases of hazardous substances to surface water. The sources include the former waste disposal lagoon (Source 1), and contaminated soil (Source 2) in the facility area. These sources contain hazardous substances, including polyaromatic hydrocarbons (PAHs), cadmium, mercury, and polychlorinated biphenyls (PCBs). Contamination, as a result of releases of hazardous substances via overland flow migration and direct deposition, has been documented in sediment within Stoney Creek and the Delaware River. This contamination threatens the Delaware River human food chain fishery and sensitive environments.

In July 1991, the owner/operators of Metro Container plead guilty in Federal court to charges of violating Federal environmental statutes and with conspiracy to violate the statues during Metro

Container's ownership of the facility. Violations included dumping of hazardous waste and discharge of contaminated water into Stoney Creek, storing hazardous waste illegally, disposing of hazardous waste on the property illegally, particularly burying the waste outside, dumping it inside the former drum reconditioning building and covering it with concrete to conceal the waste; and walling-up a room where hundreds of drums containing hazardous chemicals were stored. In addition to discharging polluted water into Stoney Creek, violations included discharging wastewater into the sewers of DELCORA that exceeded pollution effluent limits specified in the facility permit, and for sabotaging DELCORA's effluent monitoring devices so that Metro Container could pump untreated wastewater into the DELCORA system without detection. After DELCORA shut off the facility's access to the sewer system (which occurred in December 1987), Metro Container operators dumped waste directly into Stoney Creek.

Damage/Contamination Incident: The main source of contamination remaining on the property is a backfilled industrial waste lagoon which is about 0.5 acres in size. This lagoon was used for disposal of drum contents and wastewater until a wastewater treatment system was constructed on site. The unlined lagoon was eventually filled in with soil and artificial fill materials and is no longer accessible. Additionally, site soils are contaminated. This contamination has been traced to the tidal flats adjacent to the Delaware River. Although PCBs are the main contaminants of concern, the site is also contaminated with volatile organic compounds (VOCs), PAHs, and inorganics.

The tidal flats along the Delaware River are contaminated, and fishing occurs in this area. There is a fishing advisory along the Delaware from Trenton, New Jersey to the C&D Canal in Delaware for the consumption of finfish due to PCBs, dioxin, mercury, and chlorinated pesticides associated with releases at the site.

In December 1987, a site inspection and sampling were performed by EPA Emergency Response and Technical Assistance Team personnel to determine if an immediate threat existed at the site. The following observations were made during the inspection: (1) approximately 60,000 preconditioned drums were on site; (2) shutdown of the facility's wastewater treatment system resulted in the build-up of untreated sludge, which was stored in the concrete holding tank and thousands of unsecured drums throughout the facility; and (3) the property was unfenced and drums containing sludge were in extremely poor condition, many of which were leaking. Results

from sampling showed a variety of contaminants in the sludge, including benzene, toluene, several chlorinated hydrocarbons, phenols, and lead; however, none of the characteristics exhibited an immediate threat to public health and so U.S. EPA determined that a Removal Action was not warranted at that time.

In February 1988, the U.S. Coast Guard, due to material migration from the Metro Container facility into the Delaware River, requested U.S. EPA Emergency Response to assess the potential threat of this migration. U.S. EPA initiated a Removal Action in September 1988 to secure and stabilize the site. Removal Action activities included installing a fence around the perimeter of the property to limit public contact with on-site materials. Also, a 300-foot-long plywood retaining wall was constructed along Stoney Creek to serve as a barrier to material migration into Stoney Creek in the event of a catastrophic release of wastewater, oil, and sludge from the concrete holding tank or its secondary containment, both of which had overflowed and impacted Stoney Creek on previous occasions. In addition, 136,700 gallons of oil-contaminated rain water from the concrete holding tank and its secondary containment was removed for off-site disposal.

Between June 1989 and January 1990, under an U.S. EPA consent letter, a contractor (MK Environmental) disposed of approximately 6,000 tons of waste, including sludge, tanks, drums, and contaminated soil. The concrete holding tank was decommissioned and closed, which included removal of the liquids and sludge from the holding tank and secondary containment. The walls of the holding tank were power washed, the upper one foot of soil within the secondary containment area was removed, and the area was backfilled. Visually impacted soils in the areas west and northwest of the drum reconditioning building were scrapped down to an approximate depth of 1 to 1.5 feet, resulting in approximately 6,500 cubic yards of soil being excavated. Additionally, the response action included the removal of approximately 58,000 drums, removal of all accumulated sludge and decommissioning of the lagoon.

Sources of Information:

USEPA, 2014. “An Assessment of Environmental Problems Associated with Recycling of Hazardous Secondary Materials: Appendix 1- Damage Cases from Recycling of Hazardous Secondary Materials” December 2014. https://www.regulations.gov/document/EPA-HQ-RCRA-2010-0742-0370

Site Information:

Site Name:	Meyer Steel Drum, Inc.
EPA, State, or RCRA ID:	ILD081037772
RCRA Activity:	Large Quantity Generator
Address:	3201 South Millard Avenue, Chicago, IL 60623-5028
County:	Cook
NPL Site:	No
In Superfund Database:	No

Site History and Description of Reconditioning Operation: Meyer Steel Drum, Inc. was incorporated on 9/22/1976 and they produce and distribute various containers as well as provide steel drum reconditioning services. They were eventually acquired by Industrial Container Services (ICS) and Mauser Packaging Solutions. ICS was founded in 2004 and has grown through acquisitions to become an industry leader in reconditioned drums. In 2018, BWAY, Mauser Group, National Container Group, and ICS combined to form Mauser Packaging Solutions.

Damage/Contamination Incident: According to an article in the Chicago Reader, Meyer Steel Drum, Inc. had a major fire in 1988.

In 1987, releases of 102,108 pounds of xylene and toluene into the air were documented, and releases of 71,870 pounds of certain glycol ethers and xylene into the air were documented in 1988 according to their Toxics Release Inventory Facility Report.

According to EPA's ECHO database, in 1991, an EPA-led formal administrative case concluded that Meyer Steel Drum failed to certify that its paper coating lines complied with the Clean Air Act's (CAA) federal implementation plan. The EPA issued a federal penalty of $30,471 that Meyer paid in 1993. A 2013 letter from Chicago Legal Clinic, Inc. to the US EPA administrator describes recent actions that the US and Illinois EPA have made against the Meyer facility. This letter refers to a petition from the surrounding community's Environmental Justice group. According to this letter, the facility received a violation notice from EPA in 2011 for nine counts of CAA violations since 2007. Based on a Civil Enforcement Case found in the ECHO database and an article from the Milwaukee Journal Sentinel, formal administrative enforcement action was taken against the facility for these violations in 2012 by the EPA. According to the Civil Enforcement Case, the facility failed to comply with construction permit requirements from the

Illinois EPA related to its regenerative thermal oxidizer and failed to provide proper documentation after an EPA information request. This resulted in an assessed federal penalty of $50,000 with a compliance action cost of $10,000. According to the Milwaukee Journal Sentinel, Meyer Steel admitted that they had not been recording their pollution emission readings for the last five years and did not know if their furnaces that burned chemicals out of drums were working properly. They paid their penalty and agreed to report their test results to the state.

Two CAA notices of violations (NOVs) were given in 2014 by the state and in 2019 by the EPA. The state's notification was because the plant's emissions were polluting the neighborhood, which the facility disagreed with. The two sides settled, with an agreement for testing results to be filed with the state. The NOV from the EPA was a result of an announced inspection in March 2019 to witness CAA volatile organic compounds stack testing at washing operations. According to their process system, the facility receives empty drums from various industries around Chicago and empties, washes, cleans, repairs, paints, and resells them. They observed a strong odor in the plant and a high concentration on their volatile organic compound analyzers. They also observed poor capture of vapors from the first solvent washing line.

Sources of Information:

USEPA, 2022. ECHO – MEYER STEEL DRUM INC. 2022. https://echo.epa.gov/detailed-facility-report?fid=110001289720#/

USEPA, 2015. Facility Registry Service (FRS) Facility Detail Report – MOORE DRUMS INCORPORATED. 2015. https://frs-public.epa.gov/ords/frs_public2/fii_query_dtl.disp_program_facility?p_registry_id=110001289720

Bloomberg, 2022. Meyer Steel Drum Inc. 2022. https://www.bloomberg.com/profile/company/9667059Z:US

USEPA, 2022. Toxics Release Inventory Facility Report: MEYER STEEL DRUM INC. 2022. https://enviro.epa.gov/facts/tri/ef-facilities/#/Facility/60623MYRST3201S/MEYER%20STEEL%20DRUM%20INC

USEPA, 2019. CLEAN AIR ACT INSPECTION REPORT – Meyer Steel Drum, Inc., Chicago, Illinois. 2019. https://caedtor.epa.gov/ords/caedtor/tocar/resp/attach/5532

Industrial Container Services, 2022. IL – CHICAGO MEYER STEEL DRUM RECONDITIONING PLANT. 2022. https://www.iconserv.com/location/il-chicago-meyer-steel-drum-reconditioning-plant/

Mauser Packaging Solutions, 2018. History and Timeline. 2018. https://mauserpackaging.com/about-us/history-timeline/

USEPA, 2013. Chicago Legal Clinic, Inc. 2013. https://www.epa.gov/sites/default/files/2016-03/documents/meyer_steel_drum_petition_11-18-13.pdf

Milwaukee Journal Sentinel, 2017. Industrial barrel recycling plants in several states rack up environmental and workplace violations. 20 December 2017. https://www.jsonline.com/story/news/investigations/2017/12/20/industrial-chemical-barrel-recycling-plants-many-environmental-workplace-violations/956868001/

Chicago Reader, 1993. Toxic city: site fright holds up a new school for Little Village. 23 December 1993. https://chicagoreader.com/news-politics/toxic-city-site-fright-holds-up-a-new-school-for-little-village/

USEPA, 2022. ECHO – Civil Enforcement Case. 2022. https://echo.epa.gov/enforcement-case-report?id=05-2012-5049

USEPA, 2022. ECHO – Civil Enforcement Case. 2022. https://echo.epa.gov/enforcement-case-report?id=05-1991-0238

Site Information:

Site Name:	Miami Drum Service
EPA, State, or RCRA ID:	FLD076027820
RCRA Activity:	N/A
Address:	7049 Northwest 70Th Street/6601 Northwest 72nd Avenue, Miami, FL 33166
County:	Miami-Dade
NPL Site:	Yes
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: The 1.2-acre Miami Drum Services Superfund Site (the Site) is located at 6601 NW 72nd Avenue in northwest Miami-Dade County, about two miles north of Miami International Airport. The Site covers 1.2 acres and is now wholly contained within an 82-acre parcel owned by the Miami-Dade County Transit Authority. The Site is located in a commercial and industrial area outside of Hialeah. Several other communities surround the Site, including Miami Springs, Doral, Medley, and Hialeah. Between 1966 and 1981, Miami Drum Services cleaned and recycled drums at the Site. The drums were washed with a caustic cleaning solution which then flowed onto the ground of the one-acre site. While the company was in operation, as many as 5,000 drums were observed at the facility. Since 1982, the Miami-Dade Transit Authority has continuously used the Site as a train maintenance yard. Currently, the Site is partially asphalt-paved and partially covered with gravel roads. The Site also includes partially uncovered land bisected by train tracks. EPA placed the Site on the Superfund's National Priorities List (NPL) in 1983 because of contaminated soil and groundwater resulting from facility operations.

Damage/Contamination Incident: The soil and groundwater below the Site became heavily contaminated. In 1981, the county forced the facility to shut down when volatile organic chemicals (VOCs), phenols, metals and pesticides were all found in on-site soils and groundwater. In 1981, Miami-Dade County forced Miami Drum Services to cease operations. Following the shutdown, EPA and DERM took action at the Site and removed 9,000 cubic yards of contaminated soil. An additional 600,000 gallons of contaminated groundwater, used to clean drums of chemical wastes, was pumped from beneath the Site. The water was treated to remove contamination and returned to the Biscayne Aquifer. Further, groundwater contamination into

the aquifer from the Site and other Superfund sites in the area necessitated more remedial actions. Since 1982, the Miami-Dade Transit Authority has continuously used the Site as a train maintenance yard. Currently, the Site is partially asphalt-paved and partially covered with gravel roads. The Site also includes partially uncovered land bisected by train tracks.

Sources of Information:

Community Involvement Plan, 2021. "MIAMI DRUM SERVICES SUPERFUND SITE MIAMI, FLORIDA". November 2021. https://semspub.epa.gov/work/04/11167777.pdf

Site Information:

Site Name:	Mid-America Steel Drum Co, Inc.
EPA, State, or RCRA ID:	WlR000162438
RCRA Activity:	N/A
Address:	2300 West Cornell Street Milwaukee, WI
County:	Milwaukee
NPL Site:	No
In Superfund Database:	No

Site History and Description of Reconditioning Operation: Mid-America Steel Drum Company was established in 1975. Mid-America Steel Drum has three locations in Milwaukee County (3950 S. Pennsylvania Avenue, St. Francis, 8570 S. Chicago Road, Oak Creek, and 2300 W. Cornell St., Milwaukee, Wisconsin). The three facilities are owned and operated by Container Life Cycle Management LLC, but also operate with the name Mid-America Steel Drum Co., (MASD). Greif established a majority ownership in CLCM, a limited liability company formed through joint ventures with the six facilities. The Cornell Street facility receives 275-gallon plastic and metal totes. The totes are typically stored prior to processing. Tote processing includes the removal of any liquid contents with a shop vacuum apparatus. The removed liquids are accumulated in 275-gallon totes and sent off-site to Badger Disposal. The next step includes an internal cleaning with soapy water and caustic. The used cleaning solution is pumped over a paper filter which removes debris. The exterior of the totes are then power washed. Based on customer specifications, either a reused plastic tote or a new plastic tote is placed in the metal tote cage and then sold to the customer. This site's building occupies 30,000 square feet, and 2.66 acres.

Damage/Contamination Incident: On May 4, 2017, the EPA conducted an unannounced Sampling Event at the 2300 West Cornell Street, in Milwaukee, Wisconsin facility.

On November 27, 2017, EPA issued Notices of Violation to three facilities owned and operated by Container Life Cycle Management, LLC, also known as Mid-America Steel Drum Co., alleging violations of the Resource Conservation and Recovery Act and the CAA. EPA alleges that at facilities in Milwaukee, St. Francis, and Oak Creek, Greif and CLCM violated RCRA regulations regarding the storage and transportation of hazardous waste, as well as recordkeeping and reporting requirements. According to the Journal-Sentinel's investigation, chemicals left in

the drums that arrived at the Cornell Street facility were regularly mixed into a "toxic soup." At times chemicals were washed down floor drains and, on at least one occasion, workers evacuated the factory for about a half hour after "a horrible smelling orange cloud" filled the plant, the result of chemicals being mixed. Plants have been cited repeatedly by regulators for dumping too much mercury in the wastewater and toxic emissions into neighborhood air. At the Milwaukee plant, the safety manager and workers said chemical residue was washed down a floor drain. This facility is adjacent to residential neighborhoods on the north and south side of the facility and also near Lake Michigan.

Sources of Information:

EarthMinded Life Cycle Services website: https://www.earthminded.com/en/index.html

Greif, Inc. website: https://www.greif.com/en-us/

Rutledge, Raquel and Barrett, Rick, 2017. "Burned: Chemicals left in barrels leave workers and neighborhoods at risk". Milwaukee Journal Sentinel. 15 February 2017. https://projects.jsonline.com/news/2017/2/15/chemicals-left-in-barrels-leave-many-at-risk.html

USEPA, 2017. Region 5. "RCRA Sampling Report". 4 May 2017. https://www.epa.gov/sites/default/files/2017-11/documents/may_2017_rcra_inspection_reports.pdf

USEPA, 2017. "EPA Investigating Milwaukee Company for Potential Environmental Violations". 27 November 2017. https://www.epa.gov/wi/epa-investigating-milwaukee-company-potential-environmental-violations

Site Information:

Site Name:	Mid-America Steel Drum Co, Inc.
EPA, State, or RCRA ID:	WID023402639
RCRA Activity:	Former Large Quantity Generator, Small Quantity Generator, and Very Small Quantity Generator
Address:	3950 S Pennsylvania Ave, St Francis, WI 53235
County:	Milwaukee
NPL Site:	No
In Superfund Database:	No

Site History and Description of Reconditioning Operation: Mid-America Steel Drum Company was established in 1975. Mid-America Steel Drum has three locations in Milwaukee County (3950 S. Pennsylvania Avenue, St. Francis, 8570 S. Chicago Road, Oak Creek, and 2300 W. Cornell St., Milwaukee, Wisconsin). The three facilities are owned and operated by Container Life Cycle Management LLC, but also operate with the name Mid-America Steel Drum Co., (MASD). The St. Francis facility processes steel and plastic drums, using both incineration and drum washing as a means of reconditioning. Along the north side of the facility, the company blasts cleaned drums with steel shot as part of the reconditioning process. Shot blast dust from a dust collector is accumulated in 55-gallon drums and shipped off-site as a non-hazardous waste.

Damage/Contamination Incident: An unannounced sampling event at Mid-America Steel Drum, Inc. (MASD), located at 3950 South Pennsylvania Avenue in St. Francis, Wisconsin, took place May 4, 2017. The sampling event was conducted by U.S. Environmental Protection Agency personnel as part of an investigation of the facility's compliance with the regulations of the Resource Conservation and Recovery Act (RCRA), as codified in the Wisconsin Administrative Code and the Code of Federal Regulations. The EPA inspectors noted a “strong chemical odor on the public roads surrounding the facility upon arrival. Upon entrance, the chemical odor noted outside the facility intensified”. They observed a standing fog or haze inside the facility, though it was unclear from where the fog was originating.

Since early 2017, EPA has conducted multiple site visits of the MASD facilities in Wisconsin. These site visits were conducted to evaluate the container reconditioning processes, evaluate compliance with applicable environmental regulations, and to collect different types of samples inside and outside the facilities for analysis. In July 2017, for example, EPA collected soil

samples in the area surrounding the MASD facility in St. Francis. EPA took soil samples to determine if metals had contaminated the ground around the facility. Analysis of the soil samples indicates that metals were detected at concentrations that are typical for the Milwaukee region and do not present an immediate concern.

In addition, EPA collected soil samples on May 1, 2018 at the tractor trailer storage yard at the St. Francis facility and received the results of that sampling event on July 18, 2018. Based on its initial review of the sampling results, EPA does not believe there is any immediate threat to human health or the environment requiring a federal cleanup response. EPA is working with the Agency for Toxic Substances and Disease Registry and the Wisconsin Department of Natural Resources to further assess the data.

EPA also collected air sampling in the area surrounding the St. Francis facility in May, July, and August 2017, as well as in January 2018. The air samples were collected in response to resident complaints of visible and smelly emissions from the facility. Analysis of these air samples does show the presence volatile organic compounds associated with industrial activity. EPA is working with the federal Agency for Toxic Substances and Disease Registry to analyze the air samples and determine if the emissions pose a risk to human health. ATSDR is a federal public health agency.

On July 5, 2017, EPA requested that the Agency for Toxic Substances and Disease Registry (ASTDR) review air and soil samples collected around MASD facility in St. Francis to draw conclusions about potential health impacts. On May 23, 2019, ATSDR completed its review and provided a letter summarizing its conclusions:

1. Residential exposures to contaminants in surface soil are not expected to harm people's health.
2. Worker exposures to surface soil contaminants at MASD are not expected to harm their health.
3. Air monitoring data were not adequate to assess health risks associated with breathing contaminants released from MASD. The primary limitation of the air data set is its inability to capture the day-to-day variability in air emissions from MASD, given that the facility handles drums contaminated with a wide range of chemicals. ATSDR and

Wisconsin Department of Health Services (WDHS) conducted a screening analysis to determine whether acute or chronic health comparison levels were exceeded on the days that EPA performed air sampling. MASD has since installed a pollution control device that is expected to significantly reduce air emissions.

4. Nuisance odors have been a persistent issue for residents near MASD, as documented by St. Francis Health Department, WDHS, and regulatory agencies. EPA's air modeling indicates the likelihood that maximum contaminant levels near MASD were above odor thresholds. Air modeling was based on a single emissions testing event and does not necessarily reflect the highest long-term exposures near MASD and associated odors and potential health impacts.

Sources of Information:

EarthMinded Life Cycle Services website: https://www.earthminded.com/en/index.html

Greif, Inc. website: https://www.greif.com/en-us/

Rutledge, Raquel and Barrett, Rick, 2017. "Burned: Chemicals left in barrels leave workers and neighborhoods at risk". Milwaukee Journal Sentinel. 15 February 2017. https://projects.jsonline.com/news/2017/2/15/chemicals-left-in-barrels-leave-many-at-risk.html

USEPA, 2017. Region 5. "RCRA Sampling Report". 4 May 2017. https://www.epa.gov/sites/default/files/2017-11/documents/may_2017_rcra_inspection_reports.pdf

USEPA, 2017. "EPA Investigating Milwaukee Company for Potential Environmental Violations". 27 November 2017. https://www.epa.gov/wi/epa-investigating-milwaukee-company-potential-environmental-violations

Site Information:

Site Name:	Mid-America Steel Drum Co, Inc.
EPA, State, or RCRA ID:	WID045953189
RCRA Activity:	Small Quantity Generator
Address:	8570 South Chicago Road, Oak Creek, WI 53154
County:	Milwaukee
NPL Site:	No
In Superfund Database:	No

Site History and Description of Reconditioning Operation: Mid-America Steel Drum Company was established in 1975. Mid-America Steel Drum has three locations in Milwaukee County (3950 S. Pennsylvania Avenue, St. Francis, 8570 S. Chicago Road, Oak Creek, and 2300 W. Cornell St., Milwaukee, Wisconsin). The three facilities are owned and operated by Container Life Cycle Management LLC (CLCM), but also operate with the name Mid-America Steel Drum Co., (MASD). Greif established a majority ownership in CLCM, a limited liability company formed through joint ventures with the six facilities. The Oak Creek facility utilizes incineration for the drum reconditioning process.

Damage/Contamination Incident: Back in 1984, a drum exploded in the face of a worker at the Oak Creek plant. The worker, Charles Duggan, was capping a drum full of unknown chemicals when he was killed almost instantly at the age of 23. Investigators later determined the reaction in the drum was caused by the mixture of two common industrial chemicals, hydrochloric acid and sodium hypochlorite, undiluted industrial bleach. In September 2011, the Oak Creek facility agreed to pay $81,000 in fines for violating state air pollution regulations, according to the Wisconsin Department of Justice. The company violated state air pollution laws and operated without an air emissions permit in 2008. The company exceeded its permitted limits of volatile organic compounds by more than 500 pounds over several months. In 2014, OSHA inspectors cited the Oak Creek plant with a "serious" violation for not having proper protections in place for "release of hazardous energy," known in industrial terms as "lockout/tagout." It includes such practices as ensuring equipment is disabled during maintenance. As a result, the agency fined CLCM, $7,000. The company negotiated it down to $4,900. Then in 2016, EPA alleges that CLCM and Greif failed to comply with requirements associated with the combustion of hazardous waste, including demonstrating compliance with emission limits, performance testing, monitoring, notifications, recordkeeping and reporting. EPA also alleges the companies

unlawfully treated hazardous waste in an incinerator at the Oak Creek facility when burning material that exited from drums.

Following these events, an unannounced Sampling Event at Mid-America Steel Drum ("MASD-OC") located at 8570 Chicago Road, in Oak Creek, Wisconsin, took place on May 4, 2017. MASD-OC has notified as a small quantity generator (SQG) of hazardous waste. The sampling event was conducted simultaneously at three MASD facilities as the next logical step in an on-going effort to respond to inquiries made by State representatives as well as by citizens in the areas surrounding the facility pursuant to an article published in the Milwaukee Journal Sentinel on February 15, 2017. The article, discussing potential environmental and human health hazards presented by the operations at the MASD facilities, prompted an inter-agency response. An initial inspection was conducted at this facility on March 2, 2017 in coordination with PHMSA (DOT) and WDNR. Based on observations made during that inspection, EPA procured a federal warrant in order to conduct this sampling event.

Upon arrival, EPA investigators noticed a distinct chemical odor in the air and observed visible gray emissions from the stack associated with the furnace. They took samples from several parts of the facility and from various drums.

Sources of Information:

EarthMinded Life Cycle Services website: https://www.earthminded.com/en/index.html

Greif, Inc. website: https://www.greif.com/en-us/

Rutledge, Raquel and Barrett, Rick, 2017. “Burned: Chemicals left in barrels leave workers and neighborhoods at risk”. Milwaukee Journal Sentinel. 15 February 2017. https://projects.jsonline.com/news/2017/2/15/chemicals-left-in-barrels-leave-many-at-risk.html

Rutledge, Raquel and Barrett, Rick, 2017. “Environmental problems plague the barrel reconditioning business”. Milwaukee Journal Sentinel. 15 February 2017. https://projects.jsonline.com/news/2017/2/15/environmental-problems-plague-the-barrel-reconditioning-business.html

USEPA, 2017. Region 5. “RCRA Sampling Report”. 4 May 2017. https://www.epa.gov/sites/default/files/2017-11/documents/may_2017_rcra_inspection_reports.pdf

USEPA, 2017. “EPA Investigating Milwaukee Company for Potential Environmental Violations”. 27 November 2017. https://www.epa.gov/wi/epa-investigating-milwaukee-company-potential-environmental-violations

Site Information:

Site Name:	Myers Container CMS (Container Management Services, LLC)
EPA, State, or RCRA ID:	ORD009031675
RCRA Activity:	Large Quantity Generator Universal Waste
Address:	3000 NW St. Helens Rd. Portland 97210/8435 Northeast Killingworth Avenue, Portland, OR 97220
County:	Multnomah
NPL Site:	No
In Superfund Database:	No

Site History and Description of Reconditioning Operation: Container Management Services, LLC (CMS, LLC) operates a container reconditioning facility in Portland, Oregon. Additional operations at the site include drum recycling and drum storage. The site covers an area of approximately 2.2 acres and is situated approximately three-quarter of a mile southeast of the Willamette River. The site is owned by IMACC Corporation and is located in an area zoned for light industrial and commercial activities. The buildings and drum furnace yard are fenced and access to the site is limited.

The site was owned and operated as a drum reconditioning plant by Reimann and McKenney from 1939 to 1986. A detailed description of complete Site operations during this time period is currently unknown. The 1970 Site plan prepared for Reimann and McKenney indicates that the facility was connected to the City of Portland POTW in 1971, with wastewater first being treated at the site before discharging to the sanitary sewer.

IMACC (doing business as Myers Container) began operations at the site in 1986 and continued to operate until February 1996 when CMS was formed as a joint venture between IMACC Corporation and the individual owners of Western Drum. IMACC retained ownership of the real property, while CMS became the operator of the drum recycling facility in 1996. In October 2007, the CMS joint venture was dissolved, and new Container Management Services LLC (CMS, LLC) was formed.

Damage/Contamination Incident: In 2007, city of Portland sampling of inline stormwater sediments, both above and below Container Management Services (CMS') stormwater connection, suggested that the site may be discharging contaminants to the Willamette River.

Sources of Information:

Baldwin, Tammy and Donnelly, Joe, 2017. (United States Senate). Letter Correspondence to Scott Pruitt (EPA) and Loren Sweatt (OSHA). 12 October 2017. https://www.baldwin.senate.gov/imo/media/doc/Baldwin%20Donnelly%20National%20OSHA%20EPA%20letter1.pdf

Department of Environmental Quality, 2021. "Environmental Cleanup Site Information (ECSI) Database Site Summary Full Report - Details for Site ID 4784, Container Management Services". 22 July 2021. https://www.deq.state.or.us/lq/ECSI/ecsidetailfull.asp?seqnbr=4784#actions

Container Management Services website: https://containermanagementservices.com/

Site Information:

Site Name:	Myers Drum
EPA, State, or RCRA ID:	CAD009123217
RCRA Activity:	Small Quantity Generator
Address:	6549 San Pablo Avenue, Oakland, CA 94608
County:	Alameda
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: This facility operated as a drum recycling facility from 1939 through 1991. As late as 1989, twenty thousand drums were stored in the yard awaiting reconditioning, ninety-five percent on their sides. Ninety-nine percent of all drums accepted at the facility for reconditioning previously held hazardous materials. The facility exhibited evidence of very poor housekeeping including spillage, sump overflow, and structural failure of underground sumps and pipelines resulting in massive releases of mobile hazardous compounds under the facility. Potential/confirmed hazardous waste include adhesives, alkaline and aqueous solutions with metals, arsenic, baghouse waste, contaminated soil, halogenated organic compounds, hydrocarbon and oxygenated solvents, lead, metal dust & machining waste, metal sludge, off specification, aged, or surplus inorganics and inorganics, organic liquids with metals, organic solids with halogens, pesticide containers, solids or sludges w/ halogenated organic compounds, unspecified alkaline solutions, unspecified organic liquid mixtures, other sludge waste, waste oil & mixed oil.

Damage/Contamination Incident: This site is contaminated with volatile organic compounds (VOCs) in soil and groundwater and heavy metals in soil. In 1989, a completed preliminary assessment indicated that soils at the site were contaminated with metals (lead, zinc, and arsenic), volatile organic compounds (toluene, xylene, and propanol), semi-volatile organic compounds (naphthalene and phenol), and total petroleum hydrocarbons. Two localized groundwater plumes were identified. Clay soil was added in 1999 to minimize vapor releases, and residential development was proposed in 2003. In 2017, DTSC approved discontinuation of groundwater monitoring and terminated operations and maintenance requirements. Documentation is provided to DTSC on an annual basis which ensures that groundwater is not being used at the site in accordance with the Land Use Covenant.

Sources of Information:

USEPA, 2014. "An Assessment of Environmental Problems Associated with Recycling of Hazardous Secondary Materials: Appendix 1- Damage Cases from Recycling of Hazardous Secondary Materials" December 2014. https://www.regulations.gov/document/EPA-HQ-RCRA-2010-0742-0370

California Department of Toxic Substances Control Envirostor Entry, Myers Drum – Oakland (01340111) https://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=01340111

Site Information:

Site Name:	Myers Drum (#2)
EPA, State, or RCRA ID:	CAT000624957
RCRA Activity:	Small Quantity Generator
Address:	4500 Shellmound Street, Emeryville, CA 94608
County:	Alameda
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: Myers Container Corporation, a division of IMACC Corporation, obtained the site in 1950. The site was operated as a drum cleaning facility from 1942 to 1991. Myers Container was formerly called Myers Drum and was a subsidiary of Kaiser Steel until 1984.

Damage/Contamination Incident: California Department of Toxics Substances Control (DTSC) provided regulatory oversight for preparation of a Remedial Action Plan to address elevated levels of hydrocarbons, volatile organic compounds and metals in soils and groundwater. The cleanup was implemented in 1998 and involved excavation of 5,500 cubic yards of contaminated soils and construction of a ground surface cap with clean fill. A Land Use Covenant was placed on the property to restrict future sensitive usages. Ongoing operations and maintenance involves groundwater monitoring and maintenance of the ground surface cap.

Sources of Information:

California Department of Toxic Substances Control Envirostor Entry, MYERS DRUM - EMERYVILLE (01340110). https://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=01340110

Site Information:

Site Name:	New England Container Co./ Industrial Container Services – RI, LLC
EPA, State, or RCRA ID:	RID048976732
RCRA Activity:	Former Large Quantity Generator
Address:	455 George Washington Highway, Smithfield, RI 02917
County:	Providence
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: This property was owned by Air Park Industrial Development Corporation until 1968 and Goodyear Realty until 1970. The New England Container Co. has occupied the property since 1970. Since 1971, the New England Container Co. has engaged in the reconditioning and recycling of used 55-gallon metal drums. There are two large buildings on site: the open head drum plant and the closed head drum plant. Most areas of the property were paved between 1975 and 1981. Wastes generated at the property between 1987 and 1991 were composed of paint sludge, solvents, flammable liquids, and sandblasting grit mixed with paint sludge. Waste was disposed of on the ground surface and to catch basins on the property. The New England Container Co. has been cited by Rhode Island Department of Environmental Management for hazardous waste violations including lack of secondary containment, failure to label containers, and failure to maintain documentation of employee training.

Damage/Contamination Incident: Contaminants of concern detected in groundwater beneath the property include lead, chlorinated volatile organic compounds (VOCs), and non-chlorinated VOCs. Soils beneath the asphalt on the property are suspected to be a source of VOCs, including tetrachloroethene (PCE) and 1,1,1-trichloroethane. Chlorinated VOCs have been detected in private drinking water wells located 0.25 miles north and east of the property. Contaminants detected in the private drinking water wells include tetrachloroethene, trichloroethane, 1,2-dichloroethane, 1,1-dichloroethane, dichloromethane, and chloroform at concentrations as high as 17 parts per billion (ppb). Impacts to nearby groundwater drinking water supply sources have been documented.

To address immediate risks, EPA did several early cleanups from 1999 to 2002, such as: fencing the site, capping contaminated soil, reconstructing the Allendale Dam, and restoring Allendale

Pond. Additional caps were also installed in 2005 and 2009. The site is being addressed through federal and potentially responsible party (PRP) actions. EPA selected the site's long-term cleanup plan in September 2012

Sources of Information:

USEPA, 2014. "An Assessment of Environmental Problems Associated with Recycling of Hazardous Secondary Materials: Appendix 1- Damage Cases from Recycling of Hazardous Secondary Materials" December 2014. https://www.regulations.gov/document/EPA-HQ-RCRA-2010-0742-0370

USEPA Centredale Manor Restoration Project North Providence, RI Cleanup Activities, https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.Cleanup&id=0101388#bkground

Site Information:

Site Name:	Northwestern Barrel Co.
EPA, State, or RCRA ID:	WIR000028258
RCRA Activity:	Former Large Quantity Generator
Address:	5th Avenue and Marina Cliff Drive, South Milwaukee, WI 53172
County:	Milwaukee
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: The Northwestern Barrel Company operated a barrel reconditioning facility from approximately 1941 until 1964. Northwestern Barrel Company reconditioned both steel and wood barrels. Used barrels were received from a wide variety of companies for cleaning and reconditioning. The operations included on-site handling, washing, and refurbishing of drums and barrels. The residuals from these operations were disposed of at the facility. Northwestern Barrel Company then sold the reconditioned drums. The entire Northwestern Barrel/Marina Cliffs Facility is defined as an 18-acre parcel of land bounded by the lakefront to the east, 5th Avenue to the west, Marina Road to the south and the South Milwaukee Wastewater Treatment Plant to the north. The facility is bordered to the south and the west by residential areas consisting of mostly apartment and condominium buildings. Residences in the vicinity of the facility are serviced with a municipal water supply that utilizes Lake Michigan as a source of drinking water. This site is a Superfund site.

Damage/Contamination Incident: When the company shut down, it left behind three pits full of toxic waste from barrel-cleaning activities. The pits were found to contain heavy metals, polychlorinated biphenyls (PCBs) and other hazardous chemicals. The pits were excavated in January of 1997. Work crews employed by Fond du Lac-based Superior Special Services Inc. treated the excavated waste before shipping it to a landfill for disposal.

Since 1995, the EPA has worked with the Wisconsin Department of Natural Resources to oversee a series of cleanups of the property. Towne Realty, who owns the property, began cleanup work on its portion of the land as early as 1990 and most of that work was completed early in 2006, according to EPA reports. Contamination was first detected at the site in 1985.

Under the final cleanup plan, deep soil -- about 4 to 10 feet below street level -- in two portions of the residential area were treated. Venting systems were also installed to prevent vapors from entering basements in the residential complex.

Sources of Information:

Bill, Bri, 2007. “EPA sets cleanup plan for Superfund site”. Milwaukee Business Journal. 30 January 2007. https://www.bizjournals.com/milwaukee/stories/2007/01/29/daily11.html

Gallun, Alby, 1997. “Cleanup crews hit South Milwaukee barrel site”. Milwaukee Business Journal. 8 June 1997. https://www.bizjournals.com/milwaukee/stories/1997/06/09/story8.html

USEPA, 2007. Region 5. “Enforcement Action Memorandum”. 4 January 2007. https://semspub.epa.gov/work/05/249502.pdf

Site Information:

Site Name:	Odessa Drum Co.
EPA, State, or RCRA ID:	TXD008012254
RCRA Activity:	Former Large Quantity Generator
Address:	2214 Alice Street, Odessa, TX 79439
County:	Ector
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: The site, which is an inactive drum recycling operation, is abandoned and was discovered by EPA to contain approximately 4,600 drums, 6 tanks, and other storage containers containing liquid, solid, and sludge waste materials, all of which contained hazardous substances.

Damage/Contamination Incident: EPA conducted a site assessment at the site on April 24-27, 1990. Because of the continued release or threatened release of hazardous substances into the environment, on August 2, 1990, EPA declared the conditions at the site constituted an imminent and substantial endangerment to the public health and/or welfare of the environment. EPA subsequently conducted two removal actions. As of November 4, 1998, total expenditures for the response action at the site were estimated at $7,063,989.

Sources of Information:

U.S. Environmental Protection Agency, Civil Enforcement Case Report, Case Number 06-1999-0498 https://echo.epa.gov/enforcement-case-report?id=06-1999-0498

U.S. Environmental Protection Agency, Civil Enforcement Case Report, Case Number 06-1995-0198 https://echo.epa.gov/enforcement-case-report?id=06-1995-0198

Site Information:

Site Name:	Patrick J. Kelly Drums, Inc.
EPA, State, or RCRA ID:	NJD986626216
RCRA Activity:	Large Quantity Generator
Address:	1810 River Avenue, Camden, NJ 08105
County:	Camden
NPL Site:	No
In Superfund Database:	No

Site History and Description of Reconditioning Operation: Patrick J. Kelly Drums is a family owned and operated business and has been for over 35 years. The company offers various services such as drum/tote destruction, distribution services, and drum/tote reconditioning. The company has two drum reconditioning facilities, one on Howell Street and one on River Avenue. The facility on Howell Street reconditions steel drums and closed-top High-density polyethylene (HDPE)drums and the facility on River Avenue is used to recondition open-topped HDPE drums, fiber drums and IBCs.

Damage/Contamination Incident: In 2002, the New Jersey Department of Environmental Protection cited this company for a non-compliance issue. This facility had been discharging stormwater containing pollutants to the waters of the State without a valid NJPDES permit.

Sources of Information:

CHWMEG. "Facility Detail: Patrick J. Kelly Drums, Camden, NJ, USA". 18 June 2020. https://chwmeg.org/detail.asp?ID=6334

Patrick J. Kelly Drums website: https://www.kellydrums.com/

New Jersey Department of Environmental Protection. "Violations Found During The 2002 Camden City Initiative". 9 October 2002. https://www.nj.gov/dep/enforcement/camdenviol.pdf

Site Information:

Site Name:	Providence Barrel & Steel Drum Co.
EPA, State, or RCRA ID:	RID075699546
RCRA Activity:	N/A
Address:	10 Oak Street, Esmond, RI 02917
County:	Providence
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: The Providence Barrel facility historically operated as a barrel reclamation facility from 1972 to at least 1980, and possibly until 1984. The chemical composition and volume of material spilled or dumped on the property was unknown.

Damage/Contamination Incident: Prior to and during the first removal action, EPA and Rhode Island Department of Environmental Management (RIDEM) investigated whether the contaminated soil and potentially contaminated groundwater from the site were causing significant vapor intrusion into the indoor air of abutting residential properties. Excavation of contaminated soil from the site took place in May-June 2008. From July-October 2008, excavation took place on other adjacent private properties that were also contaminated with lead in surface soils. A total of 17 properties were involved. A second removal action was requested by RIDEM in 2020. This request was in response to the detection of elevated concentrations of chlorinated volatile organic compounds (CVOCs) at a nearby commercial/industrial property during a pre-sale Environmental Site Assessment. At the site, two release points on the property were identified: 1) Under the slab of the former building; and 2) the disposal pit. The contaminants from both release points migrated into the soil, soil gas, and ground water. While the extent of contamination in the soil has been defined, the extent of contamination in the soil gas and groundwater have not been defined. The total EPA costs for the second removal action were estimated to be $2,569.450.

Sources of Information:

Superfund site information: administrative record for the Providence Barrel Company https://cumulis.epa.gov/supercpad/CurSites/cadminrecord.cfm?id=0101259

Site profile for Providence Barrel: https://response.epa.gov/site/site_profile.aspx?site_id=3765

Site Information:

Site Name:	Queen City Barrel Co.
EPA, State, or RCRA ID:	OHD004477634
RCRA Activity:	Former Large Quantity Generator
Address:	1937 South Street, Cincinnati, OH 45204
County:	Hamilton
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: The Queen City Barrel Emergency Response site consists of a 400,000-square-foot warehouse commonly referred to as the "Lawson Building." E. Paul Corporation owns the Lawson Building. Queen City Barrel Company (QCB) owned a container reconditioning facility that adjoined the Lawson Building to the north and west. Since at least 1998, QCB leased the Lawson Building and used it for drum and container storage, fiber drum reconditioning, and equipment and maintenance storage. Since at least 1998, a portion of the Lawson Building had also been leased to a wooden pallet reconditioner, C&H Pallet Company. In March 1984, the site was issued a RCRA permit.

Damage/Contamination Incident: On August 19, 2004, at approximately 6:30 p.m., a fire ignited in the Lawson Building. At the time of the fire, the warehouse contained thousands of fiber, plastic, and metal drums and other containers. The following chemicals were detected in the Whateley Street smoke plume: acetone, 2-butanone (methyl ethyl ketone), tetrahydrofuran, heptane, benzene, toluene, ethylbenzene, styrene, and xylene. Drums were noted to be burned, partially burned, and in varying stages of deterioration due to the fire, which was still smoldering. Drums were observed within the fire area, as well as in other parts of the building that were immediately adjacent to the fire areas. Drums were stacked three high in several areas of the building's upper level. As of March 25, 2005, approximately 28,436 empty drums had been removed from the drum storage building. A total of 12,971 drums containing liquid and solid wastes were staged, sampled, and hazard categorized for off-site disposal.

In addition, in February 2004, Ohio EPA reached a settlement with Queen City Barrel Co. for violating air pollution control regulations at its drum reconditioning facility. The company agreed to pay a $26,625 civil penalty and shut down a coating line that resulted in the reduction of 1.6 tons per year of volatile organic compounds to the air. Between October 30, 2000, and

August 13, 2002, HCDES inspectors documented that Queen City Barrel failed to conduct air emissions tests on time or file adequate paperwork to document the effectiveness of the company's pollution control devices. On October 25, 2002, the company submitted paperwork documenting times that complete air pollution control equipment records were not kept. On October 22, 2003, HCDES investigated an odor complaint in the Lower Price Hill area. The inspection determined that Queen City Barrel was operating an unpermitted steel drum coating line. In addition to paying the fine, Queen City Barrel agreed to stop operating the exterior drum coating line that was the source of the October 2003 odor complaint and conducted tests of the emissions control devices in the presence of HCDES staff. The company has since tested its air emissions and is in compliance with all applicable air laws and regulations.

Sources of Information:

USEPA, 2014. "An Assessment of Environmental Problems Associated with Recycling of Hazardous Secondary Materials: Appendix 1- Damage Cases from Recycling of Hazardous Secondary Materials" December 2014. https://www.regulations.gov/document/EPA-HQ-RCRA-2010-0742-0370

Site Information:

Site Name:	Remadoser Drum Services
EPA, State, or RCRA ID:	LAD980878730
RCRA Activity:	Large Quantity Generator
Address:	6350 Highway 90E. Lake Charles, LA 70601 (indicated as 6313 HWY 90 E, Lake Charles, LA 70601
County:	Calcasieu
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: Remadoser Drum Services (RDS) is an inactive drum cleaning and reconditioning facility that operated from 1984 to 1987. The company bought empty drums which once carried a product, typically oil, and would rinse and rework the drum so that it could be sold. The cleaning processing included a primary wash with a caustic solution, followed by a secondary stream rinse and finally a detergent and water wash. Residues were sold to LA Oil & Refining Company of Baton Rouge Louisiana, and drums that were not serviceable would be cleaned and sold to a metal reclaimer in Beaumont Texas. After RDS closed in 1987, the site continued as a janitorial service under the same owners but was listed as inactive.

Damage/Contamination Incident: The owner of the property sold it in 1997, and an EPA preliminary assessment was conducted in 1999 and 2000. In 2000, the inspectors found several stained and corroded 55-gallon abandoned drums. Approximately 100 drums were observed in a wooded area north of the warehouse, around 50 more drums were noted along the northern property boundary, and additional drums were scattered throughout the woods. According to the report, it was evident that the contents of the drums were spilled or leaked, however, no sampling had been conducted to verify the presence of hazardous substances, and the site received a No Further Response Action Planned (NFRAP). The current owner uses the warehouse for storage and between 2004 and 2016 cleared the property of the abandoned drums. In 2019, the Louisiana Department of Environmental Quality visited the site along with Leaaf Environmental, LLC, and both recommended installation of five soil borings to investigate soil and groundwater conditions.

Sources of Information:

USEPA, 2022. Envirofacts. 2022. https://enviro.epa.gov/enviro/rcrainfoquery_3.facility_information?pgm_sys_id=LAD980878730

USEPA, 2022. ECHO Database. 2022. https://echo.epa.gov/detailed-facility-report?fid=110009336708.

Louisiana Department of Environmental Quality, 2019. Work Order 7.0 Site Visit Summary letter. 2019. https://edms.deq.louisiana.gov/app/doc/view?doc=11941363.

Quality, L.D.o.E. Preliminary Assessment, 2000. https://edms.deq.louisiana.gov/app/doc/view?doc=4252456.

Quality, L.D.o.E. PEA Phase 1 Package, 2017. https://edms.deq.louisiana.gov/app/doc/view?doc=10893070.

USEPA, 2022. Superfund Information. 2022. https://cumulis.epa.gov/supercpad/CurSites/csitinfo.cfm?id=0605299

Site Information:

Site Name:	Roche Bros. Barrel & Drum Co.
EPA, State, or RCRA ID:	MAD001035971
RCRA Activity:	Large Quantity Generator
Address:	161 Phoenix Avenue, Lowell, MA 01852
County:	Middlesex
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: Roche Bros. Barrel & Drum Co. is a drum reconditioning facility that refurbishes steel and plastic drums and IBCs.

Damage/Contamination Incident: In 1978, large amounts of several types of wastes were found at this site by the Massachusetts Department of Environmental Quality Engineering Division of Hazardous Waste (the Department). Problems at this site included disposal of industrial sludges on the ground, disposal of dregs (burnt out drum contents) at the site, leakage of oil liquid industrial waste from faulty containers, and illegal storage of drums containing chemical wastes. As a result, the Department and EPA jointly investigated this site in 1980. The site owner was requested to submit an inventory of waste materials contained on site and develop clean-up plans.

Sources of Information:

The Commonwealth of Massachusetts, 1980. Executive Office of Environmental Affairs. "Management for Site Investigations: The Preliminary Site Assessment". Department of Environmental Quality Engineering: Division of Hazardous Waste. November 1980. https://www.mass.gov/doc/1980-confirmed-hazardous-waste-sites-and-sites-requiring-further-investigation/download

Roche Bros Barrel & Drum website: http://www.rochedrum.com/

Site Information:

Site Name:	Rouse Steel Drum Co.
EPA, State, or RCRA ID:	FLD032391542
RCRA Activity:	Listed as Not a Generator
Address:	612 12th Street East, Jacksonville, FL 32206
County:	Duval
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: This facility was an "empty" /abandoned drum reconditioning facility located in a mixed residential and industrial area with residences adjacent to the east of the property. It generated wastewater on-site from the reconditioning processes. On January 20-22, 1993, the Florida Department of Environmental Protection collected waste, soil and groundwater samples located at the now closed Rouse Steel Drum Company. The analysis indicates hazardous waste in the waste samples and hazardous constituents in the soil and groundwater samples, some of which exceed drinking water standards. The site had contained 60 abandoned drums in poor condition containing corrosive hazardous waste, 5 above ground storage tanks, one 20,000 gallon frac tank, and at least 2 underground storage tank. Site remediation and clean up was performed by EPA and enforcement actions were taken against the former owner.

Damage/Contamination Incident: Abandoned and leaking hazardous waste drums and tanks were left at the site. pH from onsite drums indicated D002 wastes, other drums and waste drums contaminated with VOCs (ethylbenzene, 1,2-DCB, 1,1-DCE, methylene chloride, TCE, 1, 1,1-TCA, xylenes, toluene, and chloroform). Other drums have high concentrations of lead (D008), some chromium, cadmium, and barium. Groundwater samples collected had above guidance concentrations of Benzene, TCE, Tetrachloroethene, thallium, lead, Vinyl Chloride, naphthalene, 2,4-Dimethylphenol, phenol, 1,3-DCB, 1,2-DCP, toluene and Cis-1,2-DCE.

Sources of Information:

USEPA, 2014. "An Assessment of Environmental Problems Associated with Recycling of Hazardous Secondary Materials: Appendix 1- Damage Cases from Recycling of Hazardous Secondary Materials" December 2014. https://www.regulations.gov/document/EPA-HQ-RCRA-2010-0742-0370

Site Information:

Site Name:	Sadler Drum Inc.
EPA, State, or RCRA ID:	FLD984227116
RCRA Activity:	Listed as Not a Generator
Address:	5015 US Highway 60 West, Mulberry, FL 33860
County:	Polk
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: Sadler Drum Inc. (SDI) was a former drum reconditioner that operated in Mulberry, FL until the late 1990's. Specific operations during the period when the site was active are unknown. A compliance evaluation inspection of SDI in October 1991 resulted in a subsequent warning letter and notice of violation.

Damage/Contamination Incident: Groundwater and soil sampling in 1996 confirmed groundwater contamination at the site. The nature and extent of the contamination are not known based on public records reviewed. Mr. Sadler, the owner of the business, claimed inability to pay in 1998. A follow-up inspection in February 2000 of Danielle Fencing Inc., who was leasing the site at the time, resulted in the discovery of several hundred abandoned drums, with unknown materials, stored and abandoned on the property by SDI. The drummed waste was removed from the site by mid-2000. Monitored natural attenuation reports are recorded in the state database following cleanup, with the final report in 2009 and a well abandonment report published in 2010. Records after the year 2010 are not available on the Florida State Information System. SDI is listed in the Environmental Compliance and History Online (ECHO) database as an inactive site. The identity of the contaminants or material in the abandoned drums is unknown.

Sources of Information:

USEPA, 2022. ECHO- Sadler Drum Site 1. 2022. https://echo.epa.gov/detailed-facility-report?fid=110006155016.

USEPA, 2022. ECHO- Sadler Drum Site 2. 2022. https://echo.epa.gov/detailed-facility-report?fid=110071099960.

USEPA, 2005. Federal Register Vol 70 No. 241. 2005. https://www.govinfo.gov/content/pkg/FR-2005-12-16/pdf/E5-7452.pdf.

Danielle Fence. 2022. https://www.daniellefence.com/.

Florida DEP, 2022. Compliance/Enforcement Summary. 2022. https://prodenv.dep.state.fl.us/DepMes/complianceSummary?managedEntityId=45396&envInterestTypeId=HWR&environmentalInterestName=Hazardous%20Waste%20Regulation%20Program.

USEPA, 2022. Superfund Site Information. 2022. https://cumulis.epa.gov/supercpad/CurSites/csitinfo.cfm?id=0407107

Site Information:

Site Name:	San Francisco Drum Co./Bay Area Drum Co.
EPA, State, or RCRA ID:	CAT080010242
RCRA Activity:	Small Quantity Generator
Address:	1212 Thomas Avenue, San Francisco CA 94124
County:	San Francisco
NPL Site:	No
In Superfund Database:	No

Site History and Description of Reconditioning Operation: From the mid-1940s until 1987, the site was used by a number of different companies, (Bay Area Drum Company was the last company to operate at the site), as a reconditioning facility for drums used to store a variety of chemicals, including oils, solvents, paints and asphalt products. Drums at the facility were cleaned, reconditioned, repainted, and then sold to other companies.

Damage/Contamination Incident: In 1986, the California Department of Toxic Substances Control (DTSC) found elevated levels of metals, polychlorinated biphenyls (PCBs), and solvents in soil and liquid samples taken at the Bay Area Drum Company facility. DTSC conducted further investigations and found elevated levels of lead, copper, cadmium, PCBs and volatile organic compounds (VOCs) in soil and groundwater at the facility. In addition, contamination was found in the backyard soils of eight homes adjacent to the facility, as well as in the soil and groundwater of the adjacent vacant lot.

In 2001, approximately 6,000 cubic yards of contaminated soil were excavated from the site and disposed at an approved off-site facility. All excavated areas were then backfilled with clean soil. According to DTSC, "residential cleanup" standards were achieved for the site after completion of these activities in 2001. As of 2004, groundwater at the site was still not suitable for drinking due to the low pumping rate and the potential for high salinity.

Sources of Information:

Greenaction for Health & Environmental Justice, Pollution, Health, Environmental Racism and Injustice: A Toxic Inventory of Bayview Hunters Point, San Francisco. September 2004. TheStateoftheEnvironment--090204Formatted.PDF (greenaction.org)

California Department of Toxic Substances Control Envirostor Entry, Bay Area Drum Company (38280112) https://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=38280112

Site Information:

Site Name:	Schuetz Container Systems
EPA, State, or RCRA ID:	TXR000069377
RCRA Activity:	Very Small Quantity Generator
Address:	5000 Underwood Road, Pasadena, TX 77507
County:	Harris
NPL Site:	No
In Superfund Database:	No

Site History and Description of Reconditioning Operation: Schuetz Container Systems is a global company that is comprised of four divisions: packaging systems, industrial services, composites, and energy systems. The company was founded in 1958 and offers a wide range of services including the reconditioning of drums. At their plant in Pasadena Texas, steel and poly drums and IBCs are reconditioned through a cleaning conveyor system, as well as a cut-and-scrape area. At the return processing area, the facility classifies return containers by chemical type and groups certain containers together to prevent the possibility of a chemical reaction. The return containers are placed on the assembly line, the inner plastic tank is removed and drained of any residue. The plastic is destroyed, and the steel cage is washed and used for future containers.

Damage/Contamination Incident: On October 7, 2015, Schuetz employees reported that an unknown chemical reaction had started in the return processing area. The reaction was described as a smoke emitting foaming liquid. Employees attempted to stop the reaction with a fire extinguisher but were unable to do so. Employees evacuated the area when flames appeared. The fire quickly engulfed the return process area. The fire was eventually extinguished with the help of the local fire department, but two firefighters and an employee were hospitalized and later released. The facility also suffered property damage as a result of the fire, including damage to inventory as well as the conveyor system and cut-and-scrape area. Schuetz Container Systems was apparently not in compliance with Emergency Planning and Community Right-to-Know Act (EPCRA) requirements at the time of the accident; as a result, no information was available regarding the chemicals to which first responders and workers were exposed. The company failed to maintain a safe facility to prevent releases by failing to accurately classify and separate chemicals to prevent accidental chemical reactions, therefore the company's failure constitutes a violation of the general duty clause. The EPA and Schuetz agreed on a penalty of $37,500.00.

Schuetz Container Systems was also reported to the EPA on September 29, 2015, regarding allegations that some of its containers were leaking and releasing unidentified chemicals into water in the area of its Pasadena plant. The Occupational Safety and Health Administration (OSHA) has cited Schuetz on two occasions for failure to provide proper safety training and equipment and for failure to prepare machinery in the approved manner before performing maintenance. These violations are currently under investigation by the Texas Commission on Environmental Quality.

Sources of Information:

Burwell Nebout, Trial Lawyers. "Accident at Schutz Container Systems Highlights Corporate Negligence in the Chemical Industry". https://www.burwellnebout.com/accident-at-schutz-container-systems-highlights-corporate-negligence-in-the-chemical-industry/

Schuetz Container Systems website: https://www.schuetz.net/en/

USEPA, 2016. Region 6. "Consent Agreement and Final Order". 19 July 2016. https://yosemite.epa.gov/oa/rhc/epaadmin.nsf/Filings/3C02CEB10236C00785257FF9001BD44F/$File/schuetz3379.pdf

Site Information:

Site Name:	Scranton Cooperage/American Container Processors/Kearny Steel Container
EPA, State, or RCRA ID:	PA0000044982
RCRA Activity:	Very Small Quantity Generator
Address:	1264 Mid Valley Drive, Jessup, PA 18434
County:	Lackawanna
NPL Site:	No
In Superfund Database:	No

Site History and Description of Reconditioning Operation: Scranton Cooperage was a drum reconditioning facility in Jessup, PA. Operations began in 1986 and the facility reconditioned steel and plastic drums and IBCs. The business is now known as American Container Processors Inc. and is a subsidiary of Kearny Steel Container of Newark, New Jersey.

Damage/Contamination Incident: On June 27, 2014, sodium chlorite ignited after an employee punctured a steel drum with a forklift. The fire summoned 200 emergency workers from 38 different emergency companies to contain the fire. As a result, black smoke was released into the air, water runoff was stained a vibrant purple, and a nearby housing development was evacuated. It took responders roughly eight hours to stabilize the scene.

In April of 2017, the former owner and president of Scranton Cooperage, Eric Spatt, was charged with failing to properly manage hazardous waste at his business. The defendant pled guilty to risking a catastrophe, hazardous waste violations and illegal disposal in December 2018. An investigation revealed Spatt did not have the necessary permits from DEP to store or dispose of hazardous waste.

In 2019, he was sentenced to 11 ½ to 23 months in prison for illegally storing and disposing of hazardous waste. He was also ordered to pay environmental fines of $8,000 and $20,000 in restitution to the local Jessup fire departments.

Sources of Information:

Diedrich, John, 2017. “Industrial barrel recycling plants in several states rack up environmental and workplace violations”. Milwaukee Journal Sentinel. 29 December 2017. https://www.jsonline.com/story/news/investigations/2017/12/20/industrial-chemical-barrel-recycling-plants-many-environmental-workplace-violations/956868001/

Office of Attorney General Josh Shapiro, 2019. “Case Update: Former Owner of Lackawanna County Business Sentenced to 11 ½ to 23 Months in Prison on Environmental Crime Charges”. 26 March 2019. https://www.attorneygeneral.gov/taking-action/updates/case-update-former-owner-of-lackawanna-county-business-sentenced-to-11-%C2%BD-to-23-months-in-prison-on-environmental-crimes-charges/

Rosler, Daniel, 2019. “Former Business Owner To Serve Jail Time For 2014 Chemical Fire”. AP News. 26 March 2019. https://apnews.com/article/f31906b04cef487e821af0d158dc4027

Site Information:

Site Name:	Seattle Barrel Company
EPA, State, or RCRA ID:	WAD027470111
RCRA Activity:	Large Quantity Generator
Address:	4716 Airport Way South, Seattle, WA 98108
County:	King
NPL Site:	No
In Superfund Database:	No

Site History and Description of Reconditioning Operation: Seattle Barrel Company has been supplying steel and plastic drums, pails, totes and environmental supplies since 1916. They sell new and reconditioned items and collect used drums, pails and totes for refurbishing. The facility cleans the drums for reuse in a large 300-gallon wash tank using a highly corrosive chemical solution. The caustic solution has a very high pH level.

Damage/Contamination Incident: Seattle Barrel and Cooperage Company, and its owner, Louie Sanft, 55, were convicted on December 22, 2021, of conspiracy, making false statements, and 33 Clean Water Act violations following a three-week jury trial. Investigators with the EPA documented a conspiracy to illegally dump caustic waste into the King County sewer system, which ultimately empties into Puget Sound. The company used a hidden drain, and over ten years, lied to regulators to carry out their illegal dumping. Sentencing for Sanft and the company was scheduled on March 25, 2022. No sentencing information was found. Since at least 2009, Seattle Barrel operated under a discharge permit that prohibits it from dumping effluent with a pH exceeding 12 to the sewer system. Effluent above pH 12 will corrode the sewer system and treatment plant, and potentially cause pass-through pollution to the Duwamish Waterway and Puget Sound.

In 2013, King County conducted covert monitoring of Seattle Barrel, and discovered the company was illegally dumping effluent with a pH above 12 in violation of its permit. King County fined the company $55,250, but later agreed to reduce the fine when Seattle Barrel installed a pretreatment system for its wastewater. Beginning in 2016, Louie Sanft represented to King County in written monthly certifications that the company had become a “zero discharge” facility and was not discharging any industrial wastewater to the sewer.

In 2018 and 2019, additional covert monitoring by EPA revealed that the company was routinely dumping wastewater with a pH above 12 into the sewer system. EPA agents obtained a warrant to search Seattle Barrel. Agents then installed real-time monitoring equipment that allowed them to determine when the dumping was taking place. Early on the morning of March 8, 2019, the covert monitors indicated Seattle Barrel was dumping high-pH material into the sewer. Agents then executed the warrant and entered the building. Inside, they discovered a portable pump on the floor near the tank of caustic solution. They then discovered that the pump was being used to pump solution to a nearby hidden drain that had never been disclosed to King County and the drain led directly to the sewer system.

Sources of Information:

Bush, Evan, 2019. "Seattle barrel company used 'hidden drain' to dump caustic material into sewer, federal prosecutors say". The Seattle Times. 23 December 2019. https://www.seattletimes.com/seattle-news/seattle-barrel-company-used-hidden-drain-to-dump-caustic-material-into-sewer-federal-prosecutors-say/

Department of Justice, U.S. Attorney's Office, 2019. "Seattle Barrel and Cooperage Company and owner indicted for ten-year water pollution scheme". Western District of Washington. 18 December 2019. https://www.justice.gov/usao-wdwa/pr/seattle-barrel-and-cooperage-company-and-owner-indicted-ten-year-water-pollution-scheme

Johnson, Gene, 2019 . "Feds: Seattle barrel company used hidden drain to pollute". Komo News. 18 December 2019. https://komonews.com/news/local/feds-seattle-barrel-company-used-hidden-drain-to-pollute

Seattle Barrel Company website: https://www.seattlebarrel.com/about-us

U.S. District Court For The Western District of Washington at Seattle, 2019. "Indictment". 17 December 2019. https://www.justice.gov/usao-wdwa/press-release/file/1227396/download

Site Information:

Site Name:	Superior Barrel and Drum Co.
EPA, State, or RCRA ID:	NJD986630705
RCRA Activity:	Large Quantity Generator
Address:	798 Jacob Harris Lane, Elk Township, NJ 08028
County:	Gloucester
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: The Superior Barrel and Drum site is a 5.5-acre property located in Elk Township, Gloucester County, New Jersey, which was listed as a drum reconditioning business. The property includes a main processing building, a storage area, and numerous trailers. The site is partially located in a federally protected wetland and is surrounded by densely forested or marshy areas.

The owner of the company, Thomas Toy, cleaned and reconditioned plastic and metal containers for resale. Operations began sometime in the 1980's until 2012 when Toy abandoned the property. The site is now a Superfund site.

Damage/Contamination Incident: EPA was asked by the New Jersey Department of Environmental Protection (NJDEP) to evaluate the facility in August 2013. EPA discovered more than two thousand chemical waste containers, mostly 275-gallon totes and 55-gallon drums, stored illegally on the site. Containers throughout the site were full, though most were unlabeled. Containers were found to be leaking, exposed to weather elements, rusted, damaged due to gunshots, stored improperly, and laying on their sides.

EPA coordinated with the Gloucester County Fire Marshal's Office, Gloucester County HazMat Team, NJDEP, Elk Township Mayor's Office, and local police and fire departments to thoroughly investigate the site and remove hazardous materials. Results of EPA's initial testing showed that hazardous substances, such as volatile organic compounds, heavy metals, and other contaminants, were present in numerous containers. EPA's testing results also found many of the contents to be flammable, corrosive, or containing other hazardous characteristics. Air monitoring stations were established throughout the site, and preliminary soil and surface water samples were also collected. EPA installed protective barriers around containers and placed

fencing along the site to prevent the community from coming into contact with hazardous materials while cleanup activities were underway.

In July 2014, the last remaining waste was removed from the Superior Barrel and Drum site. Nearly 2,200 containers were removed, many holding hazardous substances. EPA removed over 215,000 gallons of hazardous chemical waste for treatment and disposal.

Sources of Information:

Huffman, Charlotte, 2014. "I-Team Investigation: Toxic Failure". CBS Philly. 4 February 2014. https://philadelphia.cbslocal.com/2014/02/04/i-team-investigation-toxic-failure/

Smith, Sandy, 2013. "EPA Obtains Warrant to Address Over 1,000 Drums and Containers at New Jersey Facility". EHS Today. 17 October 2013. https://www.ehstoday.com/environment/article/21915952/epa-obtains-warrant-to-address-over-1000-drums-and-containers-at-new-jersey-facility

USEPA, 2018. "Superior Barrel & Drum, Elk Township, New Jersey". 27 March 2018. https://archive.epa.gov/epa/nj/superior-barrel-drum-elk-township-new-jersey.html

Site Information:

Site Name:	Sussex Barrel & Drum Company
EPA, State, or RCRA ID:	NJD096869771
RCRA Activity:	Former Large Quantity Generator
Address:	86 Lavergne Street, Belleville NJ, 07109
County:	Essex
NPL Site:	No
In Superfund Database:	No

Site History and Description of Reconditioning Operation: Sussex Barrel & Drum of Belleville, N.J., was reported in a 1989 news story as a company that reconditions 55- gallon steel and plastic drums. The site appears to be currently inactive.

Damage/Contamination Incident: In 1986, the U.S. Environmental Protection Agency ruled that Sussex had illegally released compounds from a paint spray booth into the air and had illegally released pollutants from a scrubber into the air.

Data in the New Jersey Department of Environmental Protection site remediation indicates groundwater contamination at the site. The case is marks as no further action as of December 29, 1992.

Sources of Information:

Donald Blount, 1989. The Morning Call. Drum Plant Hearing Is Continued Sussex Barrel Officials Testify For Hours Before Zoning Board, June 08, 1989. https://www.mcall.com/news/mc-xpm-1989-06-08-2686631-story.html

New Jersey Department of Environmental Protection, Site Remediation Program, List of Known Contaminated Sites, Closed Sites, Site ID number: 76447 PI Number: G000004040 https://www.state.nj.us/dep/srp/kcsnj/

DEP Data Miner. “SRP CASE OVERSIGHT REPORTbSUSSEX BARREL & DRUMb86 LAVERGNE ST”. https://njems.nj.gov/DataMiner/Report/ReportRenderer?apiKey=DEP123&showheader=y&isExternal=y&boreportname=Case+Oversight+Info&Enter%20PI%20Number:=G000004040&Enter%20Activity%20Number:=BFO000001

Site Information:

Site Name:	Ted Levine Drum Company
EPA, State, or RCRA ID:	CAR000294710
RCRA Activity:	Small Quantity Generator
Address:	1817 Chico Avenue, South El Monte, CA 91733
County:	Los Angeles
NPL Site:	No
In Superfund Database:	No

Site History and Description of Reconditioning Operation: Ted Levine Drum Company was founded in 1962 and today, the company is a drum reconditioner on the West Coast under the leadership of Ozzie Levine. The plant operation in South El Monte, California has three separate production lines (steel drums, plastic drums, and intermediate bulk containers-IBC).

Damage/Contamination Incident: In 1990, federal officials sued 15 industrial companies for allegedly polluting Southern California's coastal waters with cancer-causing toxins that threatened marine life. Those accused of polluting the ocean with PCBs included Benjamin Moore; Simpson Paper Co., Apex Drum Co. Inc., Ted Levine Drum Co., Myers Drum Co., Potlach Corp., and Trans Harbor Services. National Oceanic and Atmospheric Administration (NOAA) officials said its assessment of damage to aquatic life and coastal waters would also involve the Interior Department and various California agencies. Birds, marine mammals and fish were to be studied as well.

Sources of Information:

Freed, David, 1990. "U.S. to Sue 15 Firms Over Pollution: Environment: Officials describe their new "offensive" as the largest effort of its kind. They say the case signals renewed support for ecological concerns by the Bush Administration". Los Angeles Times. 18 January 1990. https://www.latimes.com/archives/la-xpm-1990-01-18-me-428-story.html

Ted Levine Drum Company website: http://www.tldrumco.com/about.htm

Site Information:

Site Name:	Tote Detailing Specialists Inc./ICS
EPA, State, or RCRA ID:	ILR000120758
RCRA Activity:	Former Very Small Quantity Generator and Small Quantity Generator
Address:	500 D Oak Leaf Court, Joliet, IL 60436
County:	Will
NPL Site:	No
In Superfund Database:	No

Site History and Description of Reconditioning Operation: Tote Detailing Specialists Inc. (TDSI) is a drum reconditioning facility that is now known as Industrial Container Services, LLC (ICS). The acquisition included all of the machinery, equipment and inventory utilized at TDSI's Joliet, IL and San Antonio, TX facilities. The two plants became operating entities of Industrial Container Services, LLC.

Operations at the facility began in 1998 and the plant began processing totes with lubricants used by the fracking industry, which extracts natural gas by drilling into the earth and directing a high-pressure water mixture at rock. The plant is located in an industrial park, about 1,000 feet from a neighborhood of homes. The plant's nearby neighbors also included at one time a youth baseball training facility.

Damage/Contamination Incident: In May 2011, firefighters were summoned for black smoke coming from the building. They discovered a semi-truck on fire inside. Six months later, firefighters were called again, this time for an odor complaint from the Troy Titans baseball facility. The firefighters quickly detected the odor, too and observed a green liquid coming from the exterior dumpster. Green liquid also was coming from some of the plastic containers and going into the drain. Two weeks later, there was a second odor complaint. This time, children at the baseball facility reported feeling ill and having headaches from the smell.

In 2014, the local fire department responded to another call at the plant. An unknown chemical mixture had exploded, releasing smoke and unknown liquids. The incident resulted from the arrival of several totes to the plant in which the facility couldn't identify what chemicals were inside.

After the fires, the Joliet Fire Chief called for inspections by state and federal regulators. OSHA inspected the plant and found eight violations, ranging from how the plant handled hazardous materials to poor record keeping. The fine was $10,400 but negotiated down to $5,640.

OSHA was back last year and found two of the same violations related to failing to train workers on potential risks. The penalty was $2,000.

Sources of Information:

Diedrich, John, 2017. “Industrial barrel recycling plants in several states rack up environmental and workplace violations”. Milwaukee Journal Sentinel. 29 December 2017. https://www.jsonline.com/story/news/investigations/2017/12/20/industrial-chemical-barrel-recycling-plants-many-environmental-workplace-violations/956868001/

Industrial Container Services. “Industrial Container Services, LLC, Acquires Tote Detailing Specialists, Inc.” https://www.iconserv.com/industrial-container-services-llc-acquires-tote-detailing-specialists-inc/

Site Information:

Site Name:	Trenton Fibre Drum Company, Inc.
EPA, State, or RCRA ID:	NJD002387488
RCRA Activity:	Former Large Quantity Generator
Address:	1545 New York Avenue, Trenton NJ 08638
County:	Mercer
NPL Site:	No
In Superfund Database:	No

Site History and Description of Reconditioning Operation: Trenton Fibre Drum Co. cleaned out used metal drums. An acidic wash was used to remove the chemicals stored inside the drums, so they could be repainted and reused.

Damage/Contamination Incident: The company went out of business after it was destroyed by fire in 1984. The DEP subsequently discovered hazardous materials on the site. Contamination occurred when the rinse solution was dumped on the ground. Environmental investigations revealed that soil and groundwater at the site are contaminated with volatile organic compounds, semi-volatile organic compounds, pesticides, PCBs and metals.

Sources of Information:

Lea Kahn, 2017. Central Jersey. Cleanup slated to begin at long-contaminated site. November 15, 2017. https://archive.centraljersey.com/2007/11/15/cleanup-slated-to-begin-at-long-contaminated-site/

Site Information:

Site Name:	Tri-State Steel Drum, Inc.
EPA, State, or RCRA ID:	GAD033842543
RCRA Activity:	Former Large Quantity Generator
Address:	400 Julian Road, Ringgold, GA 30736
County:	Catoosa
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: Tri-State Steel Drum, Inc. (TSSD) purchased used 55-gallon steel drums and refurbished them for resale as part of its operations. TSSD was initially issued a hazardous waste permit (permit no. HW-011(S)) in September 1984 for the storage of 24,750 gallons of hazardous waste in containers. The permit was amended to add a fuel blending tank farm, and the subsequent renewal of the permit in February 2000 allowed storage and treatment of hazardous waste onsite in containers, tanks, and other units. TSSD clean closed its regulated units in 2001, and an investigation of releases of hazardous constituents was initiated under a permit modification in 2002. Ms. Ferguson of the Georgia Environmental Protection Division (EPD) confirmed that TSSD operated as a drum reconditioner during its years of active operation, and operations included a blast furnace onsite. According to Enforcement and Compliance History Online (ECHO), the state has conducted corrective action compliance evaluation inspections at the site most recently in 2017 and 2020, with no further violations or compliance issues found.

Damage/Contamination Incident: Several notices of violation (NOVs) and consent orders were issued while TSSD operated including during the years 1993, 1996, and 1997. The 2002 permit modification for the site required an investigation of releases of hazardous constituents that had occurred from previous operations at TSSD and the potential for Corrective Action. Becky Ferguson of Georgia EPD noted during follow-up phone contact that contaminants of concern at the site included dioxins and metals in soil along with one groundwater monitoring well showing an exceedance of screening levels for benzene. Ms. Ferguson noted that no contaminants of concern were identified in surface water or sediment, and the Corrective Action Plan for the site is anticipated to be submitted in late August 2022. Ms. Ferguson also stated that there is also a plan to place an environmental covenant on the property, with the land designated for industrial use only.

Sources of Information:

Georgia Environmental Protection Division, 2019. PUBLIC NOTICE - NOTICE OF INTENT TO
ISSUE PERMIT: Hazardous Waste Facility Permit No. HW-011(CA-2). 2019. https://epd.georgia.gov/document/document/public-notice-intent-renew-permit-tri-state-steel-drum-inc/download

USEPA, 2022. ECHO – TRI-STATE STEEL DRUM CO INC. 2022. https://echo.epa.gov/detailed-facility-report?fid=110000788684

USEPA, 2022. Envirofacts – Plant Information: Tri-State Steel Drum. 2022. https://enviro.epa.gov/enviro/afs_reports.detail_plt_view?p_state_county_compliance_src=1304700003

USEPA, 2022. Cleanups In My Community (CIMC) – Tri-State Steel Drum, Inc. 2022. https://ordspub.epa.gov/ords/cimc/f?p=CIMC:RCRA:::::P14_RCRA_HANDLER_ID:GAD033842543

USEPA, 2022. Superfund Site Information. 2022. https://cumulis.epa.gov/supercpad/CurSites/csitinfo.cfm?id=0401417

USEPA, 2022. Facility Registry Service (FRS) Facility Detail Report – Tri-State Steel Drum Co Inc. 2022. https://frs-public.epa.gov/ords/frs_public2/fii_query_dtl.disp_program_facility?p_registry_id=110000788684

ITT Terryphone Corp. v. Tri-State Steel Drum, Inc., 178 Ga. App. 694, (Ga. Ct. App. 1986); https://casetext.com/case/itt-terryphone-corp-v-tri-state-c

Site Information:

Site Name:	Tunnel Barrel & Drum Co.
EPA, State, or RCRA ID:	NJD001601152
RCRA Activity:	Small Quantity Generator
Address:	85 Triangle Boulevard, Carlstadt, NJ 07072
County:	Bergen
NPL Site:	No
In Superfund Database:	No

Site History and Description of Reconditioning Operation: Tunnel Barrel & Drum is a supplier of steel, plastic, and fiber drums but specializes in the cleaning, reconditioning, recycling, and removal of drums. The company was founded in 1904, but the Carlstadt plant and headquarters were opened in 1966.

Damage/Contamination Incident: In 2015, EPA announced 12 private entities agreed to settle on actions that would lead to increased environmental protection at the Metro Container Superfund Site in Trainer, Delaware County. The Metro Container Group is an unincorporated association that includes Tunnel Barrel & Drum as a potentially responsible party in this settlement. EPA investigations documented numerous hazardous contaminants of concern at the site – including polychlorinated biphenyls (PCBs), pesticides and numerous volatile organic compounds - in the soil and groundwater plumes migrating from the site and into Stoney Creek and the Delaware River. The 12 settling parties (Tunnel Barrel & Drum Co being one of them) will pay an estimated $2.5 million for the investigation and an estimated $1 million to remove contaminated soil. They will also reimburse EPA for its oversight costs.

Sources of Information:

Hess, David. E. “EPA, 12 Entities Agree To Remove Contamination From Delaware County Site”. PA Environment Digest. 26 October 2015. http://www.paenvironmentdigest.com/newsletter/default.asp?NewsletterArticleID=33748&SubjectID=2

“Metro Container Grp. v. AC&T Co.”. 7 December 2021. https://casetext.com/case/metro-container-grp-v-act-co-3

Tunnel Barrel & Drum Co. website: https://www.tunnelbarrel.com/

Site Information:

Site Name:	Zollo Drum Company
EPA, State, or RCRA ID:	CTD075394254
RCRA Activity:	Listed as Not a Generator
Address:	100 Railroad Avenue, Beacon Falls, CT 06403
County:	New Haven
NPL Site:	No
In Superfund Database:	Yes

Site History and Description of Reconditioning Operation: Zollo Drum Company is a 0.75-acre site that consists of a drum storage area and a gravel parking area. Ownership and operational activities at this site prior to 1964 are unknown. From 1964 to 1990, a small drum reclamation facility operated on the property under various owners and operators. Operations on the property have included the storage of solvents and waste oils in two 20,000-gallon Underground Storage Tanks (USTs) located on the adjacent southern property, and the transportation and storage of waste oils and chemical wastes, including industrial sludges and wastewater. Hazardous wastes that have been disposed of, used, or stored on the property include metal sludges, oily wastes, halogenated and nonhalogenated solvents, lacquer thinner, acids, paints, pigments, dyes, inks, rubber solvents, fly ash, pickling liquors, and laboratory and pharmaceutical wastes. In 1977, a fire occurred in an on-site warehouse; it is unknown whether drum contents were released during the fire. In 1984, the transportation of hazardous waste for disposal ceased, and site activities until 1990 consisted of the collection of empty drums for reclamation. This site has been deferred to the Connecticut Department of Environmental Protection (DEP). It is difficult to determine the exact time of site contamination. It is unclear if the site was abandoned.

Zollo Drum Company did not have a RCRA permit.

Damage/Contamination Incident: Analytical results of soil samples collected from the property and the adjacent southern property in 1989 indicated the presence of volatile organic compounds (VOCs), including tetrachloroethylene and trichloroethane; inorganic elements, including lead, arsenic, chromium, and zinc; semi volatile organic compounds (SVOCs); and polychlorinated biphenyls (PCBs).

Sources of Information:

USEPA, 2014. "An Assessment of Environmental Problems Associated with Recycling of Hazardous Secondary Materials: Appendix 1- Damage Cases from Recycling of Hazardous Secondary Materials" December 2014. https://www.regulations.gov/document/EPA-HQ-RCRA-2010-0742-0370

Appendix B
Drum Reconditioner Facility Comprehensive List

EPA/RCRA/STATE ID	COMPANY	STREET ADDRESS	CITY	STATE	ZIP CODE	Closed or Open?	Damage Case?	Damage Case Date Range	In Superfund (CERCLIS) Database?	NPL Site Status	Type of Damage Case
FLR000033514	43rd St. Bay Drum and Steel Company	1608 North 43rd Street	Tampa	FL	33605	C	Y	1991-2000	Yes	No	Water Contamination
ILD025022997	Acme Barrel Company	2300 West 13th Street	Chicago	IL	60608	C	Y	2001-2010	No	No	Non-Compliance Violations
N/A	Advance Drum Service, Inc.	1835 Dickerson Drive	Mableton	GA	30126	O	N	None	No	No	None
NA	Albert Steel Drum Co., Inc.	338 Wilson Avenue	Newark	NJ	07105	C	Y	1971-1980	No	No	Soil and Water Contamination
TND007029200	American Drum and Pallet, Inc.	806 Walnut Street	Memphis	TN	38101	C	Y	2001-2010	Yes	No	Improper Storage/Deterioration of Drums
N/A	Amity Drum Service, Inc.	101 East Amity Road	Cincinnati	OH	45237	C	N	None	No	No	None
CAL000428327	Apex Drum Company	6202 Ferguson Drive	Commerce	CA	90022	O	Y	2011-present	No	No	Employee Injury
SCD058754789	Aqua-Tech Environmental, Incorporated (Groce Laboratories)	340 Robinson Road	Greer	SC	29651	C	Y	1981-1990	Yes	Yes	Drum Explosion
FLSFN0406909	Arkla Terra Property	11706 U.S. Highway 301	Thonotosassa	FL	33592	C	Y	2001-2010	Yes	Yes	Soil and Water Contamination
GA0000001312100682	Atlanta Drum Services Inc.	1184 Pryor Street S.W.	Atlanta	GA	30274	O	Y	1991-2000	No	No	Air Contamination
CAL000122716	B. Stephen Cooperage	10746 Vernon Avenue	Ontario	CA	91762	O	N	None	No	No	None
OHD017611187	Barrel & Drum Service, Inc.	1728 Powers Street	Cincinnatti	OH	45223	C	Y	2001-2010	No	No	Combination
MID017188673	Barrels, Inc	1332-1404 North Larch Street	Lansing	MI	48905	C	Y	1981-1990	Yes	Yes	Soil and Water Contamination
FLD004091807	Bay Area Drum Company/Peak Oil	4414 North Cooper Place	Tampa	FL	33614	C	Y	1981-1990	Yes	Yes	Combination
NJR000080317	Bayonne Barrel & Drum Company	150-154 Raymond Boulevard	Newark	NJ	07105	C	Y	1991-2000	Yes	No	Combination
UTD067981316 / UTR000000042	Beehive Barrel And Drum/Service First	401 Paxton Avenue	Salt Lake City	UT	84101	C	Y	1991-2000	Yes	No	Soil and Water Contamination

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Drum Reconditioner Facility Comprehensive List

EPA/RCRA/STATE ID	COMPANY	STREET ADDRESS	CITY	STATE	ZIP CODE	Closed or Open?	Damage Case?	Damage Case Date Range	In Superfund (CERCLIS) Database?	NPL Site Status	Type of Damage Case
N/A	Blackshear Drum Cleaning Service	1035B Bankhead Avenue, N.W.	Atlanta	GA	30318	O	N	None	No	No	None
VAD023831316	Bock Drum Company, Inc.	2610 Florida Avenue	Norfolk	VA	23513	O	N	None	No	No	None
ALD000615922	Buckner Barrels	240 Ruffner Road	Irondale	AL	35210	O	Y	1981-1990	Yes	No	Combination
MDD000730556	Buck's Steel Drum/City Cooperage & Steel Drum/Baltimore Steel Drum Corp	910 S. Kresson Street	Baltimore	MD	21224	C	Y	1981-1990	Yes	No	Combination
N/A	C.A.B. Drum Reconditioner	P.O. Box 1126	Moultrie	GA	31768	C	N	None	No	No	None
FLD094590916	Callaway & Son Drum Service	890 East Lake Alfred Drive	Lake Alfred	FL	33850	C	Y	1991-2000	Yes	Yes	Water Contamination
NCR000178103	Celadon Recycling Solutions	288 Whitehouse Drive	Lincolnton	NC	28092	C	Y	2011-present	Yes	No	Combination
FLD032630212	Central Florida Drum, Inc.	2950 Railroad Avenue	Oviedo	FL	32765	C	Y	1971-1980	No	No	Soil and Water Contamination
NJD011482577	Central Steel Drum Co.	704 Doremus Avenue	Newark	NJ	07015	C	Y	1991-2000	Yes	No	Combination
GAD981238215	Chambers Drum Company	71 Roberts Street	Fairburn	GA	30213	O	N	None	No	No	None
NCD024468597	Charlotte Steel Drum Corp./Industrial Container Services	2900 W. Trade Street	Charlotte	NC	28201	O	Y	2011-present	Yes	No	Combination
OK0000605385 / OKD089761290	Chief Supply/Greenway Environmental	Rt. 2 Box 71	Haskell	OK	74436	C	Y	1991-2000	Yes	No	Fire
CAD981458367	Clovis Drum Company	1063 Brookhaven Drive	Clovis	CA	93612	C	Y	1981-1990	Yes	No	Soil and Water Contamination
MND000808923	Consolidated Container Company, LLC	109 27th Avenue NE	Minneapolis	MN	55418	O	N	None	No	No	None
OHD060431947	Container Compliance Corporation	5151 Denison Avenue	Cleveland	OH	44102	O	N	None	No	No	None
N/A	Container Life Cycle	1 Louise Court	Ludlow	KY	41016	C	N	None	No	No	None

Appendix B
Drum Reconditioner Facility Comprehensive List

EPA/RCRA/STATE ID	COMPANY	STREET ADDRESS	CITY	STATE	ZIP CODE	Closed or Open?	Damage Case?	Damage Case Date Range	In Superfund (CERCLIS) Database?	NPL Site Status	Type of Damage Case
N/A	Container Reconditioners, LLC	4411 US Highway 92 East	Lakeland	FL	33801	O	N	None	No	No	None
NJD980764310	Container Recyclers of South Jersey/AABCO STEEL DRUM, INC	308-322 Front Street	Camden	NJ	08102	C	Y	1991-2000	Yes	No	Soil Contamination
KSD065764995	Container Recycling, Inc.	1161 S 12TH Street	Kansas City	KS	66105	C	Y	1991-2000	Yes	No	Combination
ALR000033662	Container Recycling, Inc.	230 Cockrell Avenue	Decatur	AL	35601	O	N	None	No	No	None
N/A	Container Technology Inc.	363 West Tullock Street	Rialto	CA	92376	O	N	None	No	No	None
CAL000418817	Containers Unlimited	2255 Via Cerro	Riverside	CA	92509	O	N	None	No	No	None
CAD055753370	Cooper Drum Co.	9316 Atlantic Avenue	South Gate	CA	90280	C	Y	1981-1990	Yes	Yes	Soil and Water Contamination
CAD000072231	Cooper Drum Company/ACT Container Co	9630 El Poche Street	South El Monte	CA	91733	C	Y	1981-1990	No	No	Combination
CAD000044222	Cooper Drum Company/Container Management Services	2200 Central Avenue	Richmond	CA	94801	C	N	None	No	No	None
N/A	Corpus Christi Container Co.	5265 Sun Belt Drive	Corpus Christi	TX	78408	O	N	None	No	No	None
OHR000022327	County Line Auto Parts (Imthurn Drum Site)	585 The Bend Road	Ney	OH	43549	C	Y	1991-2000	Yes	No	Improper Storage/Deterioration of Drums
NCD003230836	Custom Drum Services, Inc.	2020 Jarrell Street	High Point	NC	27260	O	N	None	No	No	None
TXD086855624	Dallas Steel Drums, Inc.	2214 Singleton Boulevard	Dallas	TX	75212	O	Y	2011-present	Yes	No	Non-Compliance Violations
N/A	David John Property	South end Vandalia Street on commercial lot	Otterbein	IN	47970	C	Y	1991-2000	No	No	Soil and Water Contamination
OHD057540114	Dayton Industrial Drum, Inc.	1880 Radio Road	Dayton	OH	45431	C	N	None	No	No	None
IAD005283387	Des Moines Barrel & Drum Co.	S.E. 19Th & Scott/1824 Scott Street	Des Moines	IA	50316	C	Y	1981-1990	Yes	No	Combination

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MIK171841737	DeWitt Barrels (later acquired by Industrial Container Services, LLC)	1125 Comstock	Marne	MI	49435	C	Y	2011-present	No	No	Drum Explosion
CAD028126977; Also listed Inactive Other (CAC003093581), Active Other (CAL000082285) as Ditty Container	Ditty Container/Pacific Coast Drum Co.	2200 N. Rosemead Boulevard	South El Monte	CA	91733	O	N	None	No	No	None
CAD076045392	Ditty Drum Co.	410 W. Walnut	Orange	CA	92867	O	N	None	No	No	None
TND034692632	Dixie Barrel & Drum	2120 Jones Street	Knoxville	TN	37920	C	Y	2001-2010	Yes	No	Hazardous Waste Spill
N/A	Drum Service of Richmond, Inc.	252 Kelly Boulevard	Staten Island	NY	10314	O	N	None	No	No	None
TND981031057	Drum Service, Inc/AAA Barrel Service	1501 East 37th Street	Chattanooga	TN	37407	O	N	None	No	No	None
IAT200010718	Drumco Inc	116th & 29th Avenue	Council Bluffs	IA	51501	C	N	None	No	No	None
MDD985386119	Drumco Inc.	1427 Bank Street	Baltimore	MD	21240	C	Y	1991-2000	Yes	No	Combination
ARR000005959	Drumco of Arkansas EarthMinded	142 Technology Drive	Arkadelphia	AR	71923	O	Y	2011-present	No	No	Combination
TND059840561	Drumco of Tennessee EarthMinded/Drumco/Drumco of Memphis	3299 Tulane Road	Memphis	TN	38116	O	Y	2011-present	Yes	No	Combination
MOD085902021	Drumtech, Inc./Industrial Container Services MO LLC	5066R Manchester Avenue	St. Louis	MO	63110	O	N	None	No	No	None
N/A	EarthMinded	425 Winter Road	Delaware	OH	43015	O	N	None	No	No	None
TXD064215759	Ector Drum Inc. d/b/a Lone Star Drum Co	2604 N Marco Avenue	Odessa	TX	79760	C	Y	2011-present	Yes	Yes	Combination
RID980732135	Efros Barrel Co.	1346 Salvas Avenue	Coventry	RI	02825	C	Y	1971-1980	Yes	No	Combination
NJD980529085	Ellis Property	150 Sharp Road	Evesham Township	NJ	08053	C	Y	1991-2000	Yes	Yes	Combination
N/A	Encore Container	7021 Augusta Road	Greenville	SC	29605	O	N	None	No	No	None

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N/A	Enterprize Container Corporation	671 Garrett Parkway	Lewisburg	TN	37091	O	N	None	No	No	None
ILD087157251	Environmental Waste Resources, Inc.	2390 South Broadway Street	Coal City	IL	60416	C	Y	1991-2000	Yes	No	Combination
NYD013721907	Feldman Barrel & Drum	35 Newell Street	Buffalo	NY	14206	C	Y	2001-2010	Yes	No	Improper Storage/Deterioration of Drums
N/A	Fibre Drum Sales Inc.	2414 West 139th Place	Blue Island	IL	60406	O	N	None	No	No	None
MID017073222	George Belfer Drum & Barrel Co.	4336 Hansen Avenue SW	Grand Rapids	MI	49508	O	N	None	No	No	None
NYD047683776	Goodman Bros. Steel Drum Co. Inc./Goodman Brothers CO Steel Drum Div.	18 Division Place	Brooklyn	NY	11222	C	Y	1991-2000	No	No	Combination
OHD980903827	Gray Container LLC (L. Gray Barrel & Drum)/Lomack Drum Co., Inc.	2800 E 90th Street	Cleveland	OH	44104	C	Y	2011-present	Yes	No	Combination
N/A	Harbison Brothers, Inc.	32 Appenheimer Avenue	Buffalo	NY	14214	O	N	None	No	No	None
IND078902202	Hassan Barrel Company Inc	1605 Summer Street	Fort Wayne	IN	46857	C	Y	2001-2010	Yes	No	Combination
N/A	Helms Drum Service	1764 State Road 655	Auburndale	FL	33823	C	Y	1981-1990	No	No	Soil and Water Contamination
GAR000014878	IMACC Corp.	2303 Dalton Industrial Court	Dalton	GA	30721	O	N	None	No	No	None
IND016397069	Indianapolis Drum Service EarthMinded	3619 E Terrace Avenue	Indiana	IN	46203	C	Y	2001-2010	Yes	No	Fire
NA	Industrial Container Recyclers	360 Osee Street	Blacksburg	SC	29702	C	N	None	No	No	None
ALD031503139	Industrial Container Services - AL, LLC	3799 US Highway 11 South	Springville	AL	35146	O	N	None	No	No	None
CAL000396359	Industrial Container Services – CA North, LLC	749 Galleria Boulevard	Roseville	CA	95678	O	N	None	No	No	None
CAD042242081	Industrial Container Services – CA, LLC	1540 S. Greenwood	Montebello	CA	90640	O	N	None	No	No	None

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CAL000396666	Industrial Container Services – Cargo Clean CA, LLC	1990 Riverview Drive	San Bernadino	CA	92408	O	N	None	No	No	None
OHD987000197	Industrial Container Services – Cargo Clean, LLC	7324 Paddock Road	Cincinnati	OH	45216	O	N	None	No	No	None
N/A	Industrial Container Services – Charlotte, LLC	3212 Campus Ridge Road	Matthews	NC	28106	O	N	None	No	No	None
COD983789066	Industrial Container Services – CO, LLC/Environmental Recyclers, Inc	570 Baseline Road	Brighton	CO	80601	O	Y	2011-present	No	No	Air Contamination
FLD049985302	Industrial Container Services – FL, LLC	6191 Jones Avenue	Zellwood	FL	32798	O	N	None	No	No	None
IAR000516609	Industrial Container Services – GP, LLC	2001 Marvel Street	Webster City	IA	50595	O	N	None	No	No	None
N/A	Industrial Container Services – KY, LLC	405 Industry Road	Louisville	KY	40208	O	N	None	No	No	None
FLD982141046	Industrial Container Services – Lakeland, LLC	2006 Thornhill Road	Auburndale	FL	33823	O	N	None	No	No	None
MDR000019331	INDUSTRIAL CONTAINER SERVICES - MARYLAND, LLC/Abbey Drum Co	1440 Chesapeake Avenue	Baltimore	MD	21226	O	N	None	No	No	None
N/A	Industrial Container Services – MI, LLC	4336 Hansen Street SW	Grand Rapids	MI	49548	O	Y	2011-present	No	No	Air Contamination
OHD004291654	Columbus Steel Drum Company (Franklin Steel Company)/Industrial Container Services – OH, LLC	1385 Blatt Boulevard	Gahanna	OH	43230	O	Y	1971-1980	Yes	No	Hazardous Waste Spill
RIR000504936 / RID048976732	Industrial Container Services – RI, LLC/New England Container Co.	455 George Washington Highway	Smithfield	RI	02917	O	Y	1991-2000	Yes	No	Non-Compliance Violations
SCD987566767	Industrial Container Services – SC, LLC	200 B. Warehouse Court	Taylors	SC	29687	O	N	None	No	No	None
SCD003339702	Industrial Container Services – SCII, LLC/Moore Drum	2819 Industrial Avenue	Charleston	SC	29405	O	Y	2001-2010	Yes	No	Non-Compliance Violations
MOD085902021	Industrial Container Services – STL/MO, LLC	5066-Rear Manchester Avenue	St. Louis	MO	63110	O	N	None	No	No	None
MNR000052050	Industrial Container Services – TCC, LCC	990 Spiral Boulevard	Hastings	MN	55033	O	N	None	No	No	None

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N/A	Industrial Container Services – TX, LLC/Drumex Inc.	1402 Clinton Drive	Galena Park	TX	77547	O	N	None	No	No	None
N/A	Industrial Container Services – VA, LLC	1705 East Commerce Road	Richmond	VA	23224	O	N	None	No	No	None
WAD000066084	Industrial Container Services – WA, LLC	7152 First Avenue South	Seattle	WA	98108	O	Y	2001-2010	No	No	Soil and Water Contamination
N/A	Industrial Container Services- Cargo Clean IN, LLC	6213 Gheens Mill Road	Jefffersonville	IN	47130	O	Y	2011-present	No	No	Non-Compliance Violations
N/A	Industrial Container Services, LLC	2400 Maitland Center Parkway	Maitland	FL	32751	O	N	None	No	No	None
TXD982164162	J.C. Pennco Waste Oil Service	4927 Higdon Road	San Antonio	TX	78223	C	Y	1991-2000	Yes	No	Hazardous Waste Spill
ILD000810473 ILD005220918	Jakacki Bag & Barrel, Inc.	4607 W. Lexington	Chicago	IL	60644	O	N	None	No	No	None
NJD063175111	Jersey Cooperage Co.	20 River Road	Sayreville	NJ	08872	O	N	None	No	No	None
NE0000658500	Jones Barrel Company	2424 North 11th Street	Omaha	NE	68110	O	N	None	No	No	None
NJD981142797	Kearny Steel Container	401 South Street	Newark	NJ	07105	O	N	None	No	No	None
N/A	Kentuckiana Drum & Container Inc.	912 E. Breckinridge Street	Louisville	KY	40204	C	N	None	No	No	None
NJD011505468	Kingsland Drum & Barrel Co., Inc.	308 Miller Street	Newark	NJ	07114	C	N	None	No	No	None
FLD982141046	Lakeland Drum Service/ICS Lakeland	2006 Thornhill Road	Auburndale	FL	33823	O	N	None	No	No	None
NJD014743678	Lightman Drum Company	139 N Rt 73	Cedar Brook	NJ	08018	C	Y	1971-1980	Yes	Yes	Soil and Water Contamination
CAD029295706	Lorentz Barrel & Drum Co.	1515 S 10th Street	San Jose	CA	95112	C	Y	1960-1970	Yes	Yes	Combination
NJD014623854	Martin Aaron, Inc. /Drum Service of Camden	1542 South Broadway	Camden	NJ	08104	C	Y	1981-1990	Yes	Yes	Combination

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N/A	MBC, Inc.	5260 W Old Bingham Highway	West Jordan	UT	84081	O	N	None	No	No	None
GAD033689282	McConnell Drum Service, Inc.	1675 Lakes Parkway	Lawrenceville	GA	30043	O	N	None	No	No	None
PAD044545895	Metro Container Corporation	2nd & Price Street	Trainer	PA	19061	C	Y	1981-1990	Yes	Yes	Combination
ILD081037772	Meyer Steel Drum, Inc.	3201 South Millard Avenue	Chicago	IL	60623	O	Y	2011-present	No	No	Air Contamination
FLD076027820	Miami Drum Service	7049 N.W. 70Th Street	Miami	FL	33166	C	Y	1981-1990	Yes	Yes	Soil and Water Contamination
WID023402639	Mid-America Steel Drum Co, Inc. EarthMinded	3950 S Pennsylvania Avenue	St Francis	WI	53235	O	Y	2011-present	No	No	Air and Soil Contamination
WID045953189	Mid-America Steel Drum Co, Inc. EarthMinded	8570 S Chicago Road	Oak Creek	WI	53154	O	Y	2011-present	No	No	Combination
WIR000162438	Mid-America Steel Drum Co, Inc. EarthMinded/Mid America IBC	2300 W. Cornell Street	Milwaukee	WI	53209	O	Y	2011-present	No	No	Combination
CTD082673211	Milford Barrel Co Inc	100 Warwick Street	New Haven	CT	06513	O	N	None	No	No	None
ALD078974243	Mitchell Container Services, Inc.	226 Saraland Boulevard South	Saraland	AL	36571	O	N	None	No	No	None
CAT000624957	Myer(s) Drum Co./Myers Drum	4500 Shellmound	Emeryville	CA	94608	C	Y	1991-2000	Yes	No	Soil and Water Contamination
CAR000031526	Myers Container CMS (Container Management Services, LLC- Bay Area)	21301 Cloud Way	Hayward	CA	94545	O	N	None	No	No	None
ORD009031675	Myers Container CMS (Container Management Services, LLC)	8435 NE Killingworth Avenue	Portland	OR	97220	O	Y	2011-present	No	No	Water Contamination
CAD009123217	Myers Drum	6549 San Pablo Avenue	Oakland	CA	94608	C	Y	1981-1990	Yes	No	Hazardous Waste Spill
CAR000108522	National Container Group – Adelanto	16655 Koala Road	Adelanto	CA	92301	O	N	None	No	No	None
N/A	National Container Group – Alabama/Mauser	17270 Resnik Drive	Robertsdale	AL	36567	O	N	None	No	No	None

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OHD004196036	National Container Group – Cleveland/Cleveland Container Recycling	9612 Meech Avenue	Cleveland	OH	44105	O	N	None	No	No	None
N/A	National Container Group – East	1400 Welsh Road	North Wales	PA	19454	O	N	None	No	No	None
TXR000043471	National Container Group – Houston	13131 Almeda Road	Houston	TX	77045	C	N	None	No	No	None
N/A	National Container Group – Kentucky/Clean Tide Containers	100 Reed Court	Stanton	KY	40380	O	N	None	No	No	None
N/A	National Container Group – Michigan	4703 White Lake Road	Clarkston	MI	48346	O	N	None	No	No	None
MOR000508549	National Container Group – Missouri	591 E. Business Highway 36	Chillicothe	MO	64601	C	N	None	No	No	None
N/A	National Container Group – Tri-Iowa	1110 Commercial Street	Iowa Falls	IA	50126	C	N	None	No	No	None
WAH000043046	National Container Group – Vancouver/Mauser	503 SE Maritime Avenue	Vancouver	WA	99661	O	N	None	No	No	None
N/A	National Container Group LLC-Headquarters	3620 W 38th Street	Chicago	IL	60632	O	N	None	No	No	None
NCR000137422	National Container Services – Charlotte	701A Lawton Road	Charlotte	NC	28216	O	N	None	No	No	None
COR000210237	Natural Bridge Station, Inc. (does business as Containerbuyers)	1111 W. 47th Avenue	Denver	CO	80211	O	N	None	No	No	None
N/A	Natural Bridge Station, Inc. (does business as Containerbuyers)	4420 N 42nd Avenue	Phoenix	AZ	85019	O	N	None	No	No	None
N/A	North East Container Services Corp.	20 Industrial Drive	Keyport	NJ	07735	O	N	None	No	No	None
WIR000028258	Northwestern Barrel Co.	Marina Cliff Drive	South Milwaukee	WI	53172	C	Y	1991-2000	Yes	No	Soil and Water Contamination
IND040421323	O'Bryan Barrel Company, Inc.	5501 Old Boonville Highway	Evansville	IN	47715	O	N	None	No	No	None
TXD008012254	Odessa Drum Co.	2214 Alice Street	Odessa	TX	79439	C	Y	1991-2000	Yes	No	Combination

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FLD067859199	Orlando Drum & Container Corporation	4880 Hoffner Avenue	Orlando	FL	32812	O	N	None	No	No	None
N/A	Pacific Container Recyclers, Inc./National Drum	6493 Stanford Avenue	Los Angeles	CA	90001	C	N	None	No	No	None
NJD986626216	Patrick J. Kelly Drums, Inc. - (Site 2)	1810 River Avenue	Camden	NJ	08105	O	Y	2001-2010	No	No	Non-Compliance Violations
NJD986610863	Patrick J. Kelly Drums, Inc. (Site 1)	2109 Howell Street	Camden	NJ	08105	O	N	None	No	No	None
N/A	Penn Barrel, Inc.	308 Columbia Road	New Kensington	PA	15068	O	N	None	No	No	None
RID075699546	Providence Barrel & Steel Drum Co.	10 Oak Street	Esmond	RI	02917	C	Y	1971-1980	Yes	No	Soil Contamination
FLD980840870	Quala Services, LLC	500 N. Westshore Boulevard	Tampa	FL	33609	O	N	None	No	No	None
MIK614946861	Quanta Containers, LLC	18501 Huron Street	Taylor	MI	48180	O	N	None	No	No	None
OHD004477634	Queen City Barrel Co.	1937 South Street	Cincinnati	OH	45204	C	Y	2001-2010	Yes	No	Fire
N/A	Rahway Steel Drum Co., Inc.	26 Brick Yard Road	Cranbury	NJ	08512	O	N	None	No	No	None
LAD980878730	Remadoser Drum Services	6350 Highway 90E	Lake Charles	LA	70601	C	Y	1981-1990	Yes	No	Improper Storage/Deterioration of Drums
MO0000992578	Responsible Container, LLC	5300 Hall Street	St. Louis	MO	63147	O	N	None	No	No	None
N/A	Richmond Machine LLC	298 Keystone Drive	Bethlehem	PA	18020	O	N	None	No	No	None
MAD001035971	Roche Bros. Barrel & Drum Co.	161 Phoenix Avenue	Lowell	MA	01852	O	Y	1971-1980	Yes	No	Combination
FLD032391542	Rouse Steel Drum Co.	612 12th Street East	Jacksonville	FL	32206	C	Y	1991-2000	Yes	No	Soil Contamination
FLD984227116	Sadler Drum Inc.	5015 US Highway 60 West	Mulberry	FL	33860	C	Y	1991-200	Yes	No	Combination

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CAT080010242	San Francisco Drum Co.	1212 Thomas Avenue	San Francisco	CA	94124	C	Y	1981-1990	No	No	Soil and Water Contamination
TXR000069377	Schuetz Container Systems	5000 Underwood Road	Pasadena	TX	77507	O	Y	2011-present	No	No	Combination
PA0000044982	Scranton Cooperage (later acquired by Kearny Steel)	1264 Mid Valley Drive	Jessup	PA	18434	O	Y	2011-present	No	No	Fire
WAD027470111	Seattle Barrel Company	4716 Airport Way South	Seattle	WA	98108	O	Y	2011-present	No	No	Water Contamination
NJD986630705	Superior Barrel and Drum Co.	798 Jacob Harris Lane	Elk Township	NJ	08028	C	Y	2011-present	Yes	No	Improper Storage/Deterioration of Drums
NJD096869771	Sussex Barrel & Drum Company	86 Lavergne Street	Belleville	NJ	07109	C	Y	1981-1990	No	No	Air Contamination
AZD072433816	Ted Levine Drum Company	303 South Sirrine Avenue	Mesa	AZ	85202	C	N	None	No	No	None
CAR000294710	Ted Levine Drum Company	1817 Chico Avenue	South El Monte	CA	91733	O	Y	1981-1990	No	No	Water Contamination
NA	Texas Drum & Container	602 N Fairway	Fairfield	TX	75840	O	N	None	No	No	None
ILR000128819	The Cary Company	1195 West Fullerton Avenue	Addison	IL	60101	O	N	None	No	No	None
TXR000080288	Tote Detailing Specialists Inc. (later acquired by Industrial Container Services, LLC)	2250 Chipley Circle	San Antonio	TX	78217	C	N	None	No	No	None
ILR000120758	Tote Detailing Specialists Inc. (later acquired by Industrial Container Services, LLC)	500 D Oak Leaf Court	Joliet	IL	60436	O	Y	2011-present	No	No	Combination
FLR000034041	T-R Drum and Freight Company	910 US Highway 92 E	Plant City	FL	33566	O	N	None	No	No	None
NJD002387488	Trenton Fibre Drum Company, Inc.	1545 New York Avenue	Trenton	NJ	08638	C	Y	1981-1990	No	No	Combination
GAD033842543	Tri-State Steel Drum, Inc.	400 Julian Road	Ringgold	GA	30736	C	Y	1991-2000	Yes	No	Soil and Water Contamination
NJD001601152	Tunnel Barrel & Drum Co.	85 Triangle Boulevard	Carlstadt	NJ	07072	O	Y	2011-present	No	No	Soil and Water Contamination

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NCD991278300	United Drum Inc.	214 Berkley Street	High Point	NC	27260	C	N	None	No	No	None
TX0000095232	West Texas Drum LTD	11107 W County Road 127	Odessa	TX	79765	O	N	None	No	No	None
TXR000047837	West Texas Drum LTD	8950 FM 1405 Road	Baytown	TX	77520	O	N	None	No	No	None
NJD046565479	William J. Jones & Sons	238 Liberty Street	Camden	NJ	08104	O	N	None	No	No	None
CTD075394254	Zollo Drum Company	100 Railroad Avenue	Beacon Falls	CT	06403	C	Y	1981-1990	Yes	No	Fire