

TABLE OF CONTENTS

Introduction		W-ii
Resources		W-iv
1.0 WASTE MANAGEMENT		W-1
1.1 Hazardous Waste Generation, Storage and Transport		W-1
1.2 Used Oil		W-7
1.3 Used Solvents		W-10
1.4 Used Battery Storage and Disposal		W-11
1.5 Rags/Shop Towels		W-13
1.6 Fueling		W-14
1.7 Absorbents		W-16
1.8 Recordkeeping		W-17
2.0 MECHANICAL OPERATIONS		W-18
2.1 Brake Repair		W-18
2.2 Equipment Cleaning		W-18
2.3 Hydraulic Oils		W-21
2.4 Locomotive Coolant Disposal		W-22
3.0 ENGINEERING OPERATIONS		W-24
3.1 Track Ballast Disposal		W-24
3.2 Asbestos (Building Renovation/Demolition)		W-24
3.3 Construction Activities		W-25
3.4 Crosstie Replacement and Disposal		W-27
3.5 Pesticide Use		W-28
3.6 Onsite Waste Disposal		W-29
3.7 Trackside Lubricating		W-29
3.8 Storage Tanks		W-30
3.9 Wastewater Management		W-35
3.10 Yard Dust Control		W-38
4.0 TRANSPORTATION OPERATIONS		W-39
4.1 Hazardous Material Transport		W-39
4.2 Locomotive Emissions		W-39
4.3 Leaks and Spills		W-40
5.0 OTHER OPERATIONS		W-41
5.1 Metal Machining		W-41
5.2 Depainting/Painting		W-41
5.3 PCB-Containing Equipment		W-45
5.4 Air Conditioning Repair		W-47

APPENDIX A Pollution Prevention And Other Websites

INTRODUCTION

The United States Environmental Protection Agency (EPA) is providing the *Environmental Screening Checklist and Workbook for Short Line Railroads* as a public service to the short line railroad industry. The Office of Compliance, through various meetings with industry representatives, facility owners, and technicians, determined there is a lack of information available to facilities which are not in compliance with applicable environmental regulations.

The checklist and workbook highlight important or key environmental program requirements as they apply to the various federal environmental programs. Please remember that these materials are a beginning, not the final word, on environmental compliance. State and local laws, requirements, and rules, may apply in lieu of, or in addition to, the federal rules. By understanding the basics of each environmental program, the user can then seek appropriate assistance from various federal, state, and local agencies.

To request more information on environmental issues in the transportation sector or get answers to your transportation-related environmental questions, you can contact the Transportation Environmental Resource Center (TERC) (formerly the Transportation Compliance Assistance Center) by phone or on the world wide web:

TERC Toll-Free Info-Line: 1-888-459-0656

TERC Internet Address: <http://www.epa.gov/oeca/tcac/tcac.html>

PURPOSE

The purpose of this checklist and workbook is to allow you to evaluate your facility's compliance with federal environmental regulations applicable to short line railroads. You can use these tools to identify areas of compliance, as well as areas where you may need to obtain additional information on environmental requirements. The checklist and workbook are intended for use with the *Environmental Compliance Handbook for Short Line Railroads (Handbook)*. The Handbook provides more in-depth information on environmental requirements for short line railroad operations and contact numbers for obtaining additional information.

CHECKLIST AND WORKBOOK ORGANIZATION

The 6-page checklist is accompanied by a workbook. Once you have become familiar with the workbook questions, you can use the checklist by itself to conduct a compliance evaluation of your facility. In general, the checklist and workbook are tailored after the *Handbook*, and are divided into the following sections:

- Section 1.0 Waste Management
- Section 2.0 Mechanical Operations
- Section 3.0 Engineering Operations
- Section 4.0 Transportation Operations
- Section 5.0 Other Operations
- Appendix A Pollution Prevention and Other Websites.

Each checklist question will lead you through the major areas of environmental regulatory compliance that are applicable to short line railroads. Use of this workbook will help ensure consistent and accurate responses regardless of who without an operation is using it.

After reading each question, pick the most appropriate response for your facility. The responses are explained to help you fully understand the intent of the questions and responses. A “✓” next to a response in the guide indicates that is the preferred response in terms of environmental compliance.

The checklist and workbook include a secondary section, Section 5.0, that addresses operations, such as metal machining and painting, that are not as common for short line railroads. However, these operations may be of interest to some facilities and are therefore included in the checklist and workbook. Appendix A provides additional information for pollution prevention and compliance activities.

Disclaimer

The environmental screening checklist and workbook are tools to be used to help you evaluate compliance at your facility. It does not contain an exhaustive listing and description of all federal environmental regulations that may apply to your facility. In addition, your facility is responsible for knowing and complying with all applicable state and local requirements.

Resources

Publications:

Sector Notebooks. The following sector notebooks can be downloaded electronically at EPA's website <http://es.epa.gov/oeca/sector/index.html#trans>.

- *Profile of the Ground Transportation Industry - Railroad, Trucking, and Pipeline*, EPA/310-R-97-002 (134 pages)
- *Profile of the Transportation Equipment Cleaning Industry*, EPA/310-R-95-018 (81 pages)

Transportation Equipment Cleaning Industry Effluent Guidelines and Standards - Proposed Rule. EPA is proposing a regulation that will establish technology-based effluent limitations guidelines for the discharge of pollutants into waters of the U.S. and into publicly owned treatment works by existing and new facilities that perform transportation equipment cleaning operations. For more information, call (202) 260-4992.

Hotlines and Information Lines:

- *Transportation Environmental Resource Center Information Line*
Telephone: 1-888-459-0656
- *Air Risk Information Support Center Hotline*
Telephone: (919) 541-0888
Fax: (919) 541-0245
Hours: 8:00 a.m. - 5:00 p.m. EST Monday - Friday

This hotline provides technical assistance and information in areas of health, risk, and exposure assessment for toxic and air pollutants.

- *Automotive Imports Automated Faxback System*
Telephone: (202) 233-9660
Hours: 7 days a week, 24 hours/day

This faxback system disseminates information in document form concerning the federal emission requirements for importing automobiles, trucks, engines, and non-road equipment into the U.S. It assists importers of automobiles, trucks, and motorcycles as well as non-road engines, vehicles, and equipment in complying with EPA requirements.

- *Emergency and Remedial Response Fax-On Demand Service*
Telephone: (202) 651-2062

Offers one-way fax documents about Emergency and Remedial Response programs.

- *Emergency and Remedial Response Information*
Telephone: (703) 603-8960 or (800) 424-9346 (RCRA/UST, Superfund, and EPCRA Hotline below)

- *Hazardous Waste Generator and Recycling*

Telephone: (703) 308-8850

Regulations and guidance concerning hazardous waste generators, including RCRA manifest and the definitions.

- *Hazardous Waste - International Coordination/Special Projects*

Telephone: (703) 308-8870

Coordination and national representation support; hazardous waste imports/exports; hazardous waste characteristics.

- *Hazardous Waste - Permits and State Programs*

Telephone: (703) 308-8404

Outreach and coordination of RCRA hazardous waste programs implementation, including permitting, clean up and technical approach.

- *Hazardous Waste - Risk Assessment and Economic Analysis*

Telephone: (703) 308-8855

Toxicology and exposure data; health and ecological risk assessment; sampling, statistical, and analytical methods.

- *Hazardous Waste Information*

Telephone: (703) 308-8482

RCRA GPRA coordination program information collection outreach and guidance.

- *Hazardous Waste Permits*

Telephone: (703) 308-8196

Regulations and guidance for RCRA hazardous waste permitting program for waste treatment, storage, and disposal.

- *Herbicides - Fungicides - Rodenticides Information*

Telephone: (703) 305-6121

- *National Response Center Hotline/Oil and Hazardous Material Spills*

Telephone: (800) 424-8802 or (202) 267-2675

Fax: (202) 267-2165

Hours: 7 days a week, 24 hours/day

Callers use this hotline to report oil and hazardous material spills. This hotline also provides information and answers to questions regarding Facility Response Plan rulemaking, SPCC plans, Oil Pollution Act of 1990, NCP Product Schedule, emergency response notification system (ERNS), and additional questions related to EPA's oil spill program

- *Pollution Prevention Clearinghouse (PPIC)*

Telephone: (202) 260-1023
Fax: (202) 260-4659
Hours: 8:30 am - 4:00 pm, EST; 24-hour answering machine

PPIC is a free, non-regulatory service of EPA that provides answers and referrals in response to questions from the public concerning pollution prevention. PPIC can be accessed via the Internet at <http://www.epa.gov/opptintr/library/libppic.htm/>.

- *Resource Conservation and Recovery Act (RCRA) Information*
Telephone: (415) 744-2074
Hours: 1:00 p.m. - 4:00 p.m. PT Monday - Friday

This hotline responds to requests for information on hazardous waste identification; generators; transporters; treatment, storage, and disposal facilities; recycling sites; and export and import.

- *RCRA/Underground Storage Tanks (RCRA/UST), Superfund and Emergency Planning and Community Right-to-Know (EPCRA) Hotline*
Telephone: (800) 424-9346 or (703) 412-9810
Hours: 9:00 a.m. - 6:00 p.m. EST Monday - Friday

This hotline provides information about the RCRA/UST, Superfund, and EPCRA programs. Specifically, the Hotline responds to inquiries about waste minimization programs required under RCRA, source reduction and hazardous waste combustion, and other components of the waste management regulatory programs.

- *Safe Drinking Water Hotline*
Telephone: (800) 426-4971 or (703) 285-1093
Fax: (703) 285-1101
Hours: 9:00 a.m. - 5:30 p.m. EST Monday - Friday

This hotline provides information about EPA's drinking water regulations and other related drinking water and groundwater topics. Technicians are available to get details on legislation and regulations or provide important contacts to water resources and information on drinking and groundwater.

- *Small Business Ombudsman Clearinghouse/Hotline*
Telephone: (800) 368-5888 or (703) 305-5938
Fax: (703) 305-6462
Hours: 8:00 a.m. - 4:30 p.m. EST Monday - Friday

This hotline provides regulatory and other environmental information concerning small business assistance to enhance voluntary regulatory compliance and pollution abatement and control. It also addresses questions covering all media programs within EPA.

- *Stratospheric Ozone Information Hotline*
Telephone: (800) 296-1996 or (301) 614-3376
Fax: (301) 614-3395
Hours: 10:00 a.m. - 4:00 p.m. EST Monday-Friday

This information hotline provides in-depth information on ozone protection regulations and requirements under Title VI of the Clean Air Act Amendments of 1990. In addition, the Hotline serves as a distribution center and point of referral for an array of information pertaining to other general aspects of stratospheric ozone protection and depletion.

- *Storm Water Hotline*
Telephone: (800) 245-6510
Hours: 9:00 a.m. - 5:00 p.m. EST Monday - Friday

This hotline offers information and assistance to the regulated community and the public. It includes information about EPA's drinking water regulations, the wellhead protection program, and source water protection and related guidance and public education materials.

- *Toxic Substances Control Act (TSCA) Assistance Information Service*
Telephone: (202) 554-1404
Fax: (202) 554-5603
Hours: 8:30 a.m. - 5:00 p.m. EST Monday - Friday

The information service provides technical assistance and general information about programs implemented under TSCA.

- *Used Filter Hotline*
Telephone: (800) 99-FILTER (993-4583)
Hours: 9:00 a.m. - 6:00 p.m. EST

This hotline, sponsored by the Filter Manufacturers Council, provides commercial generators of used oil filters with a summary of the state's filter management regulations, referrals to companies that provide filter management services, referrals to state agencies, and a brochure entitled "How to Choose a Filter Management Service."

- *Underground Storage Tanks*
Telephone: (703) 603-9900
Internet address: <http://www.epa.gov/oust/>.

- *Wetlands Information Hotline*
Telephone: (800) 832-7828 or (703) 748-1304
Hours: 9:00 a.m.- 5:30 p.m. EST Monday - Friday

This hotline answers questions concerning the value and function of wetlands and options for their protection, and accepts requests for certain wetlands publications.

SECTION 1.0 WASTE MANAGEMENT

1.1 Hazardous Waste Generation, Storage, and Transport

(SEE HANDBOOK - PAGES 73-85)

As a short line railroad, you produce wastes that could be hazardous. Therefore, it is important that you identify and manage them properly to protect yourself, coworkers, and others in your community, as well as the environment. As the waste generator, you are responsible for all steps in hazardous waste management, from generation to final disposal. **You can be held liable for any mismanagement of your wastes, even after they leave your facility. So it is important for you to know the facts.**

Defining Hazardous Waste

What is a hazardous waste? The definition of hazardous waste is fundamental because it determines how wastes must be managed. It is important to recognize that the definition of hazardous waste is not straightforward.

Hazardous waste identification begins with an obvious point: in order for any material to be a hazardous waste, it must first be a waste. RCRA uses the term “solid waste” in place of the common term “waste.” Under RCRA, a “solid waste” is defined as any solid, liquid, or contained gaseous material that is discarded by being disposed of, burned or incinerated, or recycled (and not excluded under the regulations). It can be a by-product of a manufacturing process or simply a commercial product that you use in your business, such as a cleaning fluid or battery acid, that is being disposed of. Even materials that are recyclable or can be reused in some way (such as burning used oil for fuel) may be considered waste. The regulatory definitions of solid and hazardous waste are found in 40 CFR 261.

If a waste meets the definition of solid waste, it may then be considered a **hazardous** waste if is one of two types:

- **Listed waste.** Your waste is considered hazardous if it appears on one of four lists of hazardous wastes published in 40 CFR Part 261 Subpart D. Currently, more than 400 wastes are listed. Wastes are listed as hazardous because they are known to be harmful to human health and the environment when not properly managed. Even when properly managed, some listed wastes are so dangerous that they are called “acutely hazardous wastes.” Examples of acutely hazardous wastes include wastes generated from some pesticides that can be fatal to humans even in low doses.
- **Characteristic wastes.** If your waste does not appear on one of the hazardous waste lists, it still might be considered hazardous if it demonstrates one or more of the following characteristics:
 - **Ignitable:** It catches fire under certain conditions. This is known as an **ignitable** waste (40 CFR 261.21). Examples are paints, certain degreasers, or solvents.

- **Corrosive:** It corrodes metals or has a very high or low pH. This is known as a **corrosive** waste (40 CFR 261.22). Examples are rust removers, acid or alkaline cleaning fluids, and battery acid.
- **Reactive:** It is unstable and explodes or produces toxic fumes, gases, and vapors when mixed with water or under other conditions such as heat or pressure. This is known as a **reactive** waste (40 CFR 261.23). Examples are certain cyanides or sulfide-bearing wastes.
- **Toxic:** It is harmful or fatal when ingested or absorbed, or it leaches toxic chemicals into the soil or groundwater when disposed of on land. This is known as a **toxic** waste (40 CFR 261.24). Examples are wastes that contain high concentrations of heavy metals, such as cadmium, lead, or mercury.

You can determine if your waste is toxic by having it tested using the Toxicity Characteristic Leaching Procedure (TCLP), or by simply knowing that your waste is hazardous or that your processes generate hazardous waste.

The Toxicity Characteristic Leaching Procedure (TCLP) replicates the leaching process and other effects that occur when wastes are buried in a typical municipal landfill.

1.1a Has the facility determined if it generates hazardous wastes?

- Yes** Facility has gone through the waste determination process or used process knowledge and identified whether it generates hazardous wastes. ✓
- No** Facility has not gone through this process. **Note: Facility must immediately conduct this process to determine if it is generating hazardous wastes.**

1.1b Has the facility identified which wastes are hazardous wastes?

- Yes** Facility does generate hazardous wastes and has identified what those hazardous wastes are. For example, your facility can say "Used oil is not hazardous waste because we recycle all of it and don't mix any hazardous chemicals with it." See Table 1 for common hazardous wastes generated by short line railroads.
- No** Facility does not generate hazardous waste. **Move to Section 1.2.**

Table 1. Typical Wastes Generated at Railroad Shops and Typical Category by Disposal Method¹

Waste Stream	Typical Category If Not Mixed With Other Hazardous Waste	Typical Category If Disposed in Landfill and Not Mixed With a Hazardous Waste^{2, 3}	Typical Category If Recycled
Used Oil	Used Oil	Hazardous Waste	Used Oil
Used Oil Filters	Nonhazardous Solid Waste If No Free Flowing Used Oil	Nonhazardous Solid Waste If No Free Flowing Used Oil	Used Oil- If Not Drained
Used Transmission Fluid	Used Oil	Hazardous Waste	Used Oil
Used Brake Fluid	Used Oil	Hazardous Waste	Used Oil
Used Locomotive Coolant	Nonhazardous Waste	Nonhazardous Waste	Nonhazardous Waste
Used Solvents	Hazardous Waste	Hazardous Waste	Hazardous Waste
Used Citric Solvents	Nonhazardous Waste	Nonhazardous Waste	Nonhazardous Waste
Shop Rags Used for Oil	Used Oil	Hazardous Waste	Used Oil
Shop Rags Used for Solvent/Gasoline Spills	Hazardous Waste	Hazardous Waste	Hazardous Waste
Oil Spill Absorbent Material	Used Oil	Depends on Used Oil Characterization	Used Oil
Spill Material for Solvent and Gasoline	Hazardous Waste	Hazardous Waste	Hazardous Waste
Spilled or Unused Fuels	Hazardous Waste	Hazardous Waste	Hazardous Waste
Spilled or Unusable Paints and Thinners	Hazardous Waste	Hazardous Waste	Hazardous Waste
Abrasive grit blast media	Depends on the material or paint being blasted (e.g. , latex vs. lead paint)	Depends on the material or paint being blasted	Recycle grit after removing debris which could be hazardous
Batteries (1) Lead acid, Ni/Cd, Ni/Fe (2) Alkaline	(1) If hazardous, universal Waste (2) Typically a Nonhazardous Waste	(1) If hazardous, universal Waste (2) Typically a Nonhazardous Waste	(1) If hazardous, universal Waste (2) Nonhazardous Waste
Track ballast with hazardous waste	Hazardous Waste	Hazardous Waste	Nonhazardous Waste

- 1 Disclaimer: This list is not an actual regulatory determination. It is a list that identifies specific materials in railroad operations and how they could be classified. These classifications may change based on your generator status (i.e., conditionally exempt small quantity generator versus small quantity generator or large quantity generator).
- 2 Municipal landfills are not permitted to accept hazardous waste from small quantity or large quantity generators.
- 3 If any solid waste is mixed with a hazardous waste, then the mixture becomes a hazardous waste.

1.1c If yes, how much hazardous waste does the facility generate a month?

Generation occurs when a substance becomes a waste. When determining the volumes of waste generated, only waste that is in a container waiting to be disposed would be considered “generated.” Thus, solvent stored in a drum waiting for disposal or recycling is considered “generated,” while solvent in a parts cleaner is not yet a waste and has not yet been generated.

- 1)** No more than 220 pounds of hazardous waste per month. Facility generates ½ of a 55-gallon drum or less of hazardous waste in any month. In this case, the facility is considered a **conditionally exempt small quantity generator (CESQG)** and an EPA identification (ID) number is not required.
- 2)** Between 220 pounds and 2,200 pounds of hazardous waste per month. Facility generates more than ½ of a 55 gallon drum (30 gallons) of hazardous waste, but less than five 55-gallon drums (300 gallons) of hazardous waste in any month. In this case, the facility is considered a **small quantity generator (SQG)** and must have an EPA ID number.
- 3)** More than 2,200 pounds of hazardous waste per month. Facility generates approximately five 55-gallon drums (300 gallons) or more of hazardous waste in any month. In this case, the facility is considered a **large quantity generator (LQG)** and must have an EPA ID number.

Note: A 55-gallon drum of waste with a density similar to water weighs approximately 440 lbs. Thus, ½ of a drum (30 gallons) would weigh 220 lbs.

The total weight on hazardous waste generated includes only waste (1) defined as hazardous by EPA regulations, (2) determined to be hazardous by the facility, and (3) not otherwise exempt from counting. For example, used oil that has not been mixed with anything and is destined for recycling does not have to be counted.

Note: If you are an CESQG and you generate no more than 2.2 lbs (1 kg) of **acutely hazardous waste** or 220 lbs of acutely hazardous waste spill residues in a calendar month, and never store more than that amount for any period of time, you may manage acutely hazardous waste according to the CESQG requirements. If you generate more than 2.2 lbs (1 kg) of acutely hazardous waste, you must manage it according to the LQG requirements.

1.1d Does the facility have an EPA hazardous waste generator ID number?

If you are an SQG or LQG, you are required to have an EPA hazardous waste generator identification number. CESQGs are not required to have an identification number under federal law. Contact your state or EPA regulatory agency to obtain a copy of EPA form 8700-12 “Notification of Hazardous Waste Activity.” For additional help, call the RCRA Hotline at 1-800-424-9346.

- Yes** Facility has obtained an 8-digit identification number from EPA or the state regulatory agency that has been granted authority by EPA to regulate. This number must be entered on all hazardous waste shipping forms. It is usually placed near the top of the form under the heading, "Facility ID #." If the number is issued by the state, the number will start with the state abbreviation followed by the number (e.g., NY-12345678). ✓
- No** Facility has not obtained an EPA identification number.
- NA** Facility has not obtained an EPA identification number because it is a conditionally exempt small quantity generator.

1.1e Does the facility store hazardous waste in approved storage containers?

Containers must meet the following requirements:

- Clearly marked with the words "Hazardous Waste" and the date when waste accumulation began.
- Kept in good condition and stored in a manner that minimizes risks of ruptures, leaks or corrosion.
- Kept closed except when being filled or emptied.
- Inspected at least once per week for leaks or corrosion.
- Stored in a manner that minimizes the potential for accidental mixing of incompatible materials.

- Yes** Facility stores waste in EPA-approved containers that meet the above requirements. ✓
- No** Facility does not store waste in EPA-approved containers, or containers do not meet the above requirements.

1.1f Does the facility meet all hazardous waste storage (quantity and time) requirements?

Generated hazardous waste must be stored for the specified period of time:

- Less than 180 days (or less than 270 days if the treatment/disposal facility is 200 miles or more away) for small quantity generators.
- Less than or equal to 90 days for large quantity generators.
- No time limit for conditionally exempt small quantity generators.

Small quantity generators can accumulate no more than 6,000 kg of hazardous waste in storage; whereas large quantity generators can accumulate any amount of hazardous waste. Conditionally exempt small quantity generators have no specific time period for storage, but cannot accumulate more than 2,200 lbs (1,000 kg) of hazardous wastes or 2.2 lbs (1 kg) of acutely hazardous waste.

- Yes** Facility complies with all hazardous waste storage quantity and time requirements. ✓
- No** Facility does not comply with all hazardous waste storage quantity and time requirements.

Note: Generators who periodically exceed or fall below their normal generation limits in any given calendar month are called **episodic generators**. If the amount of waste generated in a given calendar month places the generator in a different category, the generator is responsible for complying with all applicable requirements of that category for all waste generated during that calendar month. For example, if a generator produces 300 kg of hazardous waste in March, that waste is subject to the small quantity generator regulations; if the same generator produces 1,500 kg of hazardous waste in April, that waste is subject to the large quantity generator regulations.

1.1g Does the facility ship hazardous waste offsite for disposal?

- Yes** Facility ships hazardous waste offsite to a RCRA-permitted treatment, storage, and disposal facility (TSDF) for disposal. ✓
- No** Facility does not ship hazardous waste offsite for disposal.

1.1h Does the facility have hazardous waste manifests or shipping papers on file?

A Uniform Hazardous Waste Manifest or DOT shipping papers which document the shipment type, quantity, origin, and destination, must accompany each hazardous waste shipment. A hazardous waste transporter should be able to assist in completing the manifest.

- Yes** Facility has the manifests/shipping papers on file for hazardous wastes transported. These records must be kept for three years from the due date of the report. ✓
- No** Facility does not have the manifests/shipping papers for hazardous wastes shipments.

1.1i Does the facility meet all personnel training and emergency procedure requirements?

For SQGs and LQGs, personnel are required to be familiar with emergency procedures to be followed in the event of spills, fires, or other releases of hazardous wastes.

- Yes** Facility meets personnel training and emergency procedure requirements. ✓

- No** Facility does not meet personnel training and emergency procedure requirements.

1.2 Used Oil

(SEE HANDBOOK - PAGES 18-20, 33-34, 75-76)

Facilities should consider several environmental issues when performing any oil handling activities such as oil changes or oil/fuel filter replacement to locomotives, motor vehicles, maintenance equipment, and other motors. Used oils are typically not classified as hazardous wastes at the federal level, however, some states may have strict disposal requirements. Facilities should maintain all records on their used oil storage and recycling activities.

1.2a Are used oil containers and associated piping:

(1) *leak free?*

(2) *segregated?*

(3) *labeled?*

Used oil must be segregated from other wastes in its own leak free container, and be labeled with the words "used oil."

Leak Free No leaks are observed.

Segregated Wastes are not mixed in the same containers (e.g., used oil is in a separate container from antifreeze; solvent is in its own container; oil spill absorbent is separated from regular trash).

Labeled Tanks, drums, or buckets storing used oil for disposal are labeled with the words "Used Oil." The **exact words** "used oil" are necessary. No special labels are necessary, provided the words "used oil" are visible. Spray painting, crayon, or hand written labels are okay.

Some facilities have *pipes* that connect the used oil storage tank. Piping runs outside the building to a disposal point inside the building. This way, technicians can pour their oil in a funnel or small bucket which is attached to the piping, and the oil goes directly to the tank. If this is the case, the funnel/bucket or piping should also be labeled with the words "used oil."

Yes **No** Leak free. Used oil is in leak free container(s).

Yes **No** Segregated. Used oil is segregated from other wastes.

Yes **No** Labeled. Used oil is labeled with the words "used oil."

1.2b Does the facility prevent the mixing of used oil with hazardous waste fluids?

- Yes** Hazardous waste fluids are not mixed with used oil. Used motor oil may be mixed with other used oils (e.g., transmission fluid or brake fluid) and stored in the same container/tank. ✓
- No** Hazardous waste fluids, such as used solvent, gasoline, or other hazardous substances, are mixed with used oil. This practice makes the entire volume classified as hazardous waste.

**1.2c Is used oil:
(1) collected and sent offsite for recycling?
(2) burned in an onsite space heater?**

Recycle Facility has a regular hauler who takes the oil to a recycling facility.

Burned onsite Facility burns its used oil in an onsite heater used to heat the facility or heat hot water.

- Yes** **No** Facility recycles used oil. ✓
- Yes** **No** Facility burns used oil in an onsite space heater. ✓

1.2d If transporting its own used oil, does the facility transport less than 55 gallons at one time?

- Yes** Facility transports up to 55 gallons of used oil to an approved used oil collection center (40 CFR 279.24(a)). ✓
- No** Facility transports more than 55 gallons offsite. Transporting more than 55 gallons of used oil requires the facility to have an EPA ID number and to be licensed as a used oil transporter.

Used Oil Filters

Used filters should be changed and stored in a manner that allows for optimum collection of material from the filters. Filters can be disposed of as solid waste (in some states) provided that the filter has been drained using *one* of the hot-draining methods approved by EPA:

- Puncturing the filter anti-drain back valve or filter dome end and hot-draining for at least 12 hours
- Hot-draining and crushing

- Dismantling and hot-draining
- Any other equivalent hot-draining method which will remove all of the used oil from the filter.

Storage containers designated for used filters should be protected from storm water with a cover. Since disposal requirements of used filters may vary by state, the state environmental agency should be consulted to assure proper disposal.

Used oil filters are exempt from federal hazardous waste requirements *if they are properly drained*. **Used fuel filters** should be properly drained and then tested to determine if they are hazardous or not. Used fuel filters should be stored in a separate, marked, fireproof container. They should not be placed in the dumpster unless you are a conditionally exempt small quantity generator with local landfill approval, or a regulated generator that can verify the filters are not hazardous. Metal filters may be managed as scrap metal if properly drained.

1.2e Does the facility completely drain used oil filters and fuel filters before disposal?

- Yes** Facility completely drains filters prior to disposal. ✓
- No** Facility does not completely drain filters prior to disposal.

1.2f How are used oil filters managed?

- Recycle** Filters are recycled for scrap metal. ✓
- Service** Facility contracts with a service which takes filters as is. ✓
- Trash** Filters are disposed in the dumpster (e.g., not segregated from other waste such as paper, plastics, food, etc.).
- Other** Method of disposal is not listed.

1.2g How are used fuel filters disposed?

- Recycle** Filters are recycled for scrap metal. ✓
- Service** Facility contracts with a service which takes filters as is. ✓
- Trash** Filters are disposed in the dumpster (e.g., not segregated from other waste such as paper, plastics, food, etc.).
- Other** Method of disposal is not listed.

1.2h Has the facility determined if its used fuel filters are hazardous?

- Yes** Facility has determined through testing if its used fuel filters are hazardous. ✓
- No** Facility has not determined if its used fuel filters are hazardous.

Tip: Under 40 CFR 279.10(d), it is okay to mix used oil and fuel products. These mixtures are regulated as used oil. Therefore, used oil and fuel drained from filters into the same container may be managed as used oil.

1.2i Does the facility inspect used oil filter storage areas for oil spills and leaks?

Engine oil can enter the environment when oil filters are changed and stored and when engines drip crankcase and lube oils. Measures should be initiated to minimize oil dripping by regular maintenance of locomotives. When detectable leakage occurs, absorbents should be used to protect track areas from contamination.

- Yes** Facility inspects these areas for oil spills. ✓
- No** Facility does not inspect these areas for oil spills.

1.2j Does the facility inspect locomotive track areas for oil spills and leaks? (SEE HANDBOOK - PAGES 33-34)

Regular cleanup of track areas should be conducted whenever visible contamination is detected. Even if no oil contamination is visible, regular inspections should be conducted for locomotive leaking. Whenever leaks are detected, immediate action should be taken to minimize drippings. Actions should include engine maintenance, the use of absorbents, and regular emptying of the locomotive's "ecology tank."

- Yes** Facility inspects these areas for oil spills. ✓
- No** Facility does not inspect these areas for oil spills.

1.3 Used Solvents

(SEE HANDBOOK - PAGES 11-13, 22)

1.3a Are used solvents stored in proper containers and properly labeled?

This section refers only to used solvents, or those that have been "generated" as waste. For hazardous used solvents, the container must be labeled "Hazardous Waste" and with the chemical name of the solvent.

Proper containers Containers are compatible with the substance they are storing, and have no signs of leaks or significant damage due to major dents or rust. Containers are also closed (e.g., lids are on, caps are screwed on tight) except when actually adding or removing liquid.

Proper Labeling The container holding the hazardous used solvents that will be transported for disposal must be labeled. Note: Solvents that are being used in a parts washer are not required to be labeled.

- Yes** Used solvents are properly contained *and* containers are labeled as described above. ✓
- No** Used solvents are not properly contained, or containers are not properly labeled.

1.3b How are used solvents disposed?

- Service** Facility contracts with a recycling service to take used solvents on a scheduled basis as identified in a contract. ✓
- Mixed** Used solvents are mixed with another liquid such as used oil, or wash water, ultimately being disposed in the same manner that the liquid with which they are being mixed is disposed. Note: Mixing hazardous used solvent with other liquids makes the entire volume of waste a hazardous waste.
- Other** Method of disposal is not listed here.

Tip: Solvent providers now provide units equipped with ultrafiltration which optimize solvent use and minimize the quantity of waste generated.

1.4 Used Battery Storage and Disposal (SEE HANDBOOK - PAGES 26 - 30)

There are many types of used batteries with different disposal requirements. Some of these may be classified as hazardous waste if they are not properly handled and disposed of. Under the Universal Waste Rule (40 CFR 273), some lead acid and nickel-cadmium batteries are classified as universal wastes, and are therefore subject to less stringent requirements than other hazardous wastes. Most alkaline batteries are not considered hazardous waste under RCRA and can be disposed of as general trash. Check with your local waste authority to see if they have a battery collection program in place.

Used Battery Disposal Requirements

Battery Type	Common Usage	Disposal Requirements
Lead Acid	Locomotives, end of train	Some are classified as a universal waste if hazardous, and are not subject to full regulation. Exempt from full regulation if recycled.
Nickel-cadmium, nickel-iron, carbonaire	Communication and signal, track signal equipment, motor and/or shop utility vehicle batteries	Some are classified as universal wastes if hazardous, and are not subject to full regulation.
Single-use disposable, carbon/zinc (with/without mercury)	Lantern batteries	Typically nonhazardous. Return to retailer for recycling or dispose of as normal solid waste after checking with local authorities.

Storage. Improper storage results in batteries being considered “abandoned.” Proper storage includes labeling and accumulation in an area specifically designed to prevent contamination of soil and surface waters. The storage accumulation area should protect the batteries from weather and storms. It should be designed with secondary containment to prevent any spillage or leakage from contaminating the soil or surface waters.

1.4a What types of batteries are used at the facility?

- | | |
|--|--|
| <input type="checkbox"/> Lead acid
<input type="checkbox"/> Nickel-iron
<input type="checkbox"/> Carbon/zinc
<input type="checkbox"/> Other _____ | <input type="checkbox"/> Nickel-cadmium
<input type="checkbox"/> Carbonaire
<input type="checkbox"/> Single-use disposable |
|--|--|

1.4b Does the facility properly store used batteries?

- Yes** Used batteries are properly stored onsite. Facility collects all used batteries when placed out-of-service and transports them to an accumulation area specifically designed for storage awaiting removal from the site. Facility stores used batteries inside or outside under a tarp or roof, and stores batteries in a pan or other device so that any leakage can not enter floor drains or the ground. ✓
- No** Used batteries are not properly stored and can be observed to be discarded or abandoned onsite.

1.4c How does facility dispose of used batteries?

- Return to supplier** Facility returns used batteries to supplier. ✓

- Recycle** Facility sends batteries to a recycling facility. ✓
- Hazardous waste landfill** Facility sends used batteries to a hazardous waste landfill. Facility has records of where and how many batteries were sent.
- Other** Method of disposal is not listed here. ✓

1.4d If a facility has batteries that are classified as universal wastes, are they managed according to the Universal Waste Rule?

- Yes** Facility manages these wastes according to the Universal Waste Rule. ✓
- No** Facility does not manage these wastes according to the Universal Waste Rule.
- NA** Facility does not generate universal wastes.

1.5 Rags/Shop Towels

(See Handbook - Page 76)

1.5a How does the facility dispose of used rags and shop towels?

- Laundry service** Rags/shop towels are sent offsite to be laundered, often with technicians' uniforms. ✓
- Burned for heat** Rags/shop towels are mixed with used oil or other fluids and burned in the shop furnace or sent to a used oil burner. This does not include burning in a barrel simply for disposal. ✓
- Trash** Rags/shop towels are disposed with trash (in a dumpster) and not segregated.

1.5b How are used rags and shop towels stored while onsite?

- Separate container** In a container (e.g., bucket, can, barrel, on a shelf or bench, etc.) that only contains rags. ✓
- Shop trash can** Can/dumpster that contains all shop waste (not segregated).
- Floor** On the floor, in a pile, or simply scattered.

1.6 Fueling

(SEE HANDBOOK - PAGES 63-65)

1.6a Does the facility use measures to prevent fuel spills during fueling of locomotives and vehicles?

- Yes** During fueling, preventative measures are used such as self-locking fueling nozzles. In addition, catchment pans or buckets are used to minimize the risk of fuel spills during locomotive fueling. ✓
- No** Preventative measures are not used during locomotive fueling.

1.6b Is Stage I vapor recovery equipment operated properly during unloading of gasoline?

If a facility dispenses gasoline onsite for its vehicles, and is located ***within an ozone non-attainment area***, Stage I vapor recovery equipment **MUST** be used by the gasoline delivery truck driver while filling the facility's gasoline storage tanks.

Tip: Contact your local air pollution authority to determine if air releases from fueling operations are regulated.

- Yes** Facility uses Stage I equipment when gasoline is delivered. ✓
- No** Facility does not use Stage I equipment when gasoline is delivered.
- NA** Either the facility is not located in an ozone non-attainment area or facility does not dispense gasoline. **Move to Section 1.7.**

1.6c Is Stage II vapor recovery equipment installed and working at pumps?

If located in a *serious or above ozone non-attainment* area, Stage II vapor recovery equipment should be present and working at each nozzle which dispenses gasoline at the facility.

- Yes** Stage II equipment is installed and working. ✓
- No** Stage II equipment is not installed and working.
- NA** Either facility is not located in a serious or above ozone non-attainment area or facility does not dispense gasoline.

1.6d Do fuel delivery records indicate compliance with appropriate fuel requirements?

Fuel delivery tickets (i.e., product transfer documents) are receipts the facility receives from the fuel deliverer which indicate the type of fuel (gasoline, diesel, kerosene), how much was received, when it was received, and whether the delivered fuel complies with appropriate fuel requirements.

- Yes** If the facility is located within an ozone non-attainment area, the fuel delivery ticket should say something like **“RFG, certified for use in an ozone non-attainment covered area”** or **“RFG”**. If the facility is **not** located within an ozone non- attainment area, the fuel delivery ticket should say something like **“CONVENTIONAL GASOLINE, This product does not meet the requirements for reformulated gasoline, and may not be used in any reformulated gasoline covered areas”** or **“CONVENTIONAL”**. ✓

If facility also dispenses diesel to on-the-road vehicles, the diesel fuel delivery ticket **MUST** say **“LOW SULFUR”** or **“LOW SULFUR DIESEL FUEL”**.

- No** Delivery tickets do not indicate proper fuel requirements as described above or records are not available.

1.6e Are pumps clearly labeled with the product they contain?

- Yes** Pumps are labeled to indicate a description of the product (e.g., gasoline, diesel, kerosene), product grade (e.g., regular, mid-grade, premium), and octane (e.g., 86-93) that is being dispensed from that nozzle. ✓
- No** Pumps are not sufficiently labeled to indicate what product comes from that nozzle.

1.6f Do gasoline pump nozzles comply with 10 gallon per minute flow rate?

- Yes** Pump nozzles at facility have been tested and do comply with 10 gallon per minute flow rate. ✓
- No** Pump nozzles have been tested and do not comply.
- Don't know** Unsure if pump nozzles have been tested yet.

1.6g Is fueling overfill protection/spill containment/spill response equipment provided?

- Yes** Fueling overfill protection/spill containment/spill response equipment is available when fueling locomotives and vehicles. ✓
- No** Equipment is not available.

1.7 Absorbents

(SEE HANDBOOK - PAGES 33-34, 64)

Cleaning up spills and releases of chemicals and petroleum products generally involves the use of materials such as kitty litter type substances (known as "quick dry", "speedi dry", "oil dry"), clay absorbent, pads, pillows, booms, towels, and other such absorbent materials. Sawdust is sometimes used as an absorbent in rural areas. The proper absorbent must be used for the type of chemical spilled. Once used in a cleanup, these materials need to be disposed of properly.

1.7a Does the facility use sawdust, soil, or other commercial absorbents for spills or leaks?

- Yes** Facility uses one or more of the above substances. ✓
- No** Facility does not use any of the above substances.

1.7b How does the facility dispose of absorbents used for oil spills?

- Burned for energy** Absorbents are burned for energy recovery. ✓
- Landfilled** Facility has determined that the absorbents are a nonhazardous solid waste and disposes of them with regular trash.
- Characterized as special waste** Absorbents have been characterized as a special waste and are disposed at a landfill or processed for energy recovery.
- NA** Absorbents are not used.

1.8 Recordkeeping Requirements

(SEE HANDBOOK - RECORDKEEPING REQUIREMENTS
UNDER EACH LAW IN CHAPTER III - PAGE 73-109)

Many environmental compliance records are required to be maintained at the facility including, but not limited to:

- Manifests or shipping papers for all hazardous waste shipments
- SPCC facility inspection and maintenance records
- Annual employee training records (SPCC and storm water pollution prevention plan)
- Biennial reports for large quantity generators
- EPCRA Tier II reports
- Spill reports.

1.8 ***Does facility maintain all required environmental compliance records?***

- Yes** Facility maintains all required records. ✓
- No** Facility does not maintain all required records.

Section 2.0 MECHANICAL OPERATIONS

2.1 Brake Repair

(SEE HANDBOOK- PAGE 8)

Currently locomotive and freight car brake shoes are produced with steel and composite materials. In the past, asbestos may have been used in production. The facility should evaluate if used brake shoes or any other locomotive components (e.g., gaskets and pipe lagging) contain asbestos materials.

2.1 How does facility discard used brake shoes and/or other locomotive components?

Recycling and reclamation are the preferred methods for discarding brake shoes. If asbestos is known or suspected of being present, the recycling or reclamation company should be informed. If landfilling, a determination for asbestos should be made prior to disposal. If asbestos is present, only landfills or disposal sites approved for asbestos should be used.

- Recycled Offsite** The manufacturer or a recycling company collects the brake shoes and uses the components to produce new brake products. ✓
- Reclaimed** A metal salvage and reclamation company collects the brake shoes and reclaims the metal. ✓
- Disposed by Vendor** A vendor is used to dispose of the brake shoes by landfilling or other means of disposal.
- NA** Facility does not discard brake shoes and/or other locomotive components.

2.2 Equipment Cleaning

(LARGE SCALE - SEE HANDBOOK - PAGES 9-11)
(SMALL SCALE - SEE HANDBOOK - PAGES 12-13)

Large scale equipment cleaning, including the cleaning of locomotives, freight cars, maintenance of way (MOW) equipment, axles, and other large items, is conducted by washing. Various cleaning agents can be used, including steam/pressure water, surfactants (soap), and chemical solvents. Small scale equipment cleaning, which typically involves the use of solvents, can generate spent solvents and sludge which requires proper disposal.

EPA is proposing a regulation, the *Transportation Equipment Cleaning Industry Effluent Guidelines and Standards - Proposed Rule*, that will establish technology-based

effluent limitations guidelines for the discharge of pollutants into waters of the U.S. and into publicly owned treatment works by existing and new facilities that perform transportation equipment cleaning operations. For more information, call (202) 260-4992.

2.2a Does the facility conduct large scale equipment cleaning?

- Yes** Facility conducts large scale equipment cleaning.
- No** Facility does not conduct large scale equipment cleaning. **Move to section below on small scale cleaning (Section 2.2.d).**

2.2b If yes, how is washwater disposed?

Discarded washwater may contain pollutants depending on the type of materials being washed from the equipment and the washing agents used.

- Storm sewer/
surface water** Facility has a NPDES permit and discharges to storm sewer or directly to surface water. Storm sewers are direct links to rivers and streams and are designed to carry only uncontaminated rainwater to the nearest body of water. This water generally does not receive any treatment prior to discharging to a stream or river. Storm sewers are usually located outside the shop, in the parking lot or street. Storm water runoff from industrial activities, including equipment washing, requires a permit and a Storm Water Pollution Prevention Plan. ✓
- Municipal
sanitary sewer** Facility discharges washwater to a municipal sanitary sewer with the permission of the publicly owned treatment works (POTW). This is the same place household water/toilet water goes. This water is treated by the POTW before it goes to a stream or river. ✓
- Street** Facility discharges to street (e.g., driveways, parking lots, or other paved areas adjacent to the shop). Dumping water in this manner is equivalent to dumping it directly in a storm sewer because that is where the paved areas drain.
- Ground** Facility discharges washwater onto ground which may affect groundwater or may flow with storm water into storm sewers and surface waterways. Caution: Many states forbid the disposal of washwater onto the ground.

2.2c Does the facility have all required wastewater discharge permits?

- Yes** Facility has all required wastewater discharge permits. ✓
- No** Facility does not have all required wastewater discharge permits.
- NA** No permits are required.

2.2d Does the facility conduct small scale cleaning?

- Yes** Facility conducts small scale cleaning.
- No** Facility does not conduct small scale parts cleaning. *Move to Section 2.3.*

2.2e What kind of cleaning agents does the facility use to conduct small scale cleaning?

Hazardous waste may be generated depending on the degreasing/cleaning agents used to clean tools, equipment parts, and other small items, and on the nature of the material being cleaned. The use of volatile solvents may require air pollution permitting, depending on regional considerations. The facility may use one or more of the following degreasing/cleaning agents:

- Water
- Surfactants
- Other _____
- Steam
- Chemical solvents

2.2f Are parts cleaner sinks kept closed and sealed except when actually cleaning parts?

- Yes** Sinks are closed with lid shut to prevent evaporation of solvents except when a technician is actually cleaning the parts. ✓
- No** Sinks are observed open when no actual cleaning is being done.

2.2g How are spent cleaning agents and sludge discarded?

If a vendor is not used to assure proper handling and disposal, it is important for the facility to properly classify the spent materials and sludges as either nonhazardous or hazardous waste. If the spent materials are determined to be hazardous, they should not be mixed with nonhazardous wastes such as used oils. Hazardous waste can be treated onsite, but should not be disposed of onsite. All hazardous waste should be stored, manifested, transported, and disposed in full compliance with RCRA. Only treatment, storage, and disposal facilities (TSDFs) should be used for disposal of hazardous waste.

- Third party vendor** Facility uses a third party vendor. Many facilities elect to use third party vendors providing “turn key” assistance. These vendors typically provide the solvents and parts washing equipment. They also collect the spent solvents, provide transportation, and recycle or dispose of the waste properly. ✓
- Storm sewers or surface waters** Facility discharges spent materials to storm sewers or to surface waters. If the spent materials are nonhazardous, they may be discharged to storm sewers or to surface waters if a NPDES permit is obtained. ✓
- Sanitary sewer** Facility discharges nonhazardous spent materials to sanitary sewers. Facility has received approval from POTW. Discharge may require some pretreatment. ✓
- Ground** Facility discards degreasing agents to the ground which may affect groundwater or may flow with storm water into storm sewers and surface waterways. Caution: Many states forbid the disposal of degreasing agents onto the ground.

2.3 Hydraulic Oils

(SEE HANDBOOK - PAGE 14)

Used hydraulic oils can be handled and disposed as used oil. Used hydraulic oil can be blended with other used oils such as engine and lube oils. Recycling and reclamation are preferred over disposal. [Note: Solvents and other wastes considered hazardous **should not** be blended with hydraulic oil. Hazardous waste added to used hydraulic oils can render the total blend to be legally classified as hazardous waste.]

2.3a How does the facility dispose of used hydraulic oil?

- Recycle** Facility has a regular hauler who takes the oil to a recycling facility. ✓
- Blended with oils** Facility blends used hydraulic oil with other used oils, such as engine and lube oils, and disposes of the mixture as used oil. ✓
- Mixed with hazardous fluids** Facility mixes used hydraulic oils with hazardous fluids (e.g., solvents, antifreeze, etc.). This renders the entire volume as hazardous waste.

2.3b Does facility inspect regularly for hydraulic oil spills?

All spills should be contained and cleaned up immediately after detection. The National Response Center (1-800-424-8802) and the state environmental agency should be notified immediately if any hydraulic oil enters surface waterways producing a sheen. All areas where hydraulic oils are received, stored, used, changed, and potentially spilled should be inspected regularly for spills. Facility uses one of the following indicators to identify hydraulic oil spills: (1) sheen on water, (2) stained soil, (3) lack of vegetation, or (4) visible leaks.

- Yes** Facility inspects regularly for hydraulic oil spills. ✓
- No** Facility does not inspect regularly.

2.4 Locomotive Coolant Disposal (SEE HANDBOOK - PAGES 15-16)

2.4 How are used locomotive coolants discarded?

Locomotive coolants do not contain automotive type ethylene glycol-based antifreeze. However, to protect the cooling system from corrosion, locomotive coolants contain a dilute additive package which is basically a mixture of sodium borate and sodium nitrate. The additive package usually contains a dye to help identify leaks.

Tip: Coolants from maintenance and fleet vehicles should be recycled. Because this type of coolant contains ethylene-glycol, it must not be mixed with locomotive coolant when recycling.

Locomotive coolants are nonhazardous and can be discharged into sanitary sewers with the approval of the POTW. If your facility treats its wastewater onsite and discharges directly to a receiving waterway, check with the requirements of your discharge permit before disposing of coolant down the drain. Locomotive coolants should be recycled whenever feasible, and should not be discharged onto the ground.

- Recycle** Facility has a regular hauler who takes the used coolant to a recycling facility. ✓
- Sanitary sewer** Facility discharges locomotive coolants to sanitary sewers. Discharge may require POTW approval and sometimes pretreatment. ✓
- Onsite wastewater treatment** Facility treats wastewater onsite and discharges directly to receiving waterway. Facility has checked the requirements of the discharge permit to ensure the disposal of coolant in the drain is acceptable. ✓
- Ground** Facility discards locomotive coolant to the ground which may affect groundwater or may flow with storm

water into storm sewers and surface waterways.
Caution: Many states forbid the disposal of coolants
onto the ground.

***Storm sewers or
surface waters***

Facility discharges locomotive coolant to storm
sewers or to ***surface waters***.

Section 3.0 ENGINEERING OPERATIONS

3.1 Track Ballast Disposal

(SEE HANDBOOK - PAGE 39)

Ballast rock removed from track beds is generally not considered to be contaminated and would not require any special disposal. The ballast may be of economic value and can be reused. However, if the ballast is contaminated with oil or chemicals (e.g., herbicides), proper disposal should be arranged in compliance with state waste regulations.

3.1 ***Does facility store and dispose of track ballast contaminated by petroleum products or hazardous materials?***

- Yes** Facility stores and disposes of contaminated track ballast materials according to the requirements for that particular contaminating substance. ✓
- No** Facility does not store and dispose of contaminated track ballast materials according to the requirements for that particular contaminating substance.

Tip: Contaminated ballast may be amenable to more cost effective treatment and disposal methods other than landfilling including in situ bioremediation and reuse as a feed material for asphalt batching plants.

3.2 Asbestos (Building Renovation/Demolition)

(SEE HANDBOOK - PAGES 40-41, 95-98)

3.2a ***Have all buildings and structures built prior to 1980 been assessed for their potential for containing asbestos?***

A new OSHA standard issued in 1995 modified the way building asbestos is assessed. It was once possible to make subjective judgments ruling out the presence of asbestos based on the assessor's knowledge. Now, for buildings built prior to 1980, the materials potentially containing asbestos must be assumed to be asbestos-containing unless bulk sampling reveals otherwise. Asbestos inspections must be performed according to AHERA guidelines by a certified inspector.

State-licensed contractors, transporters, and disposal sites must be used and established procedures are required. If demolition is planned, the asbestos materials must be removed prior to start of the demolition. In addition, notification of local, state,

and federal agencies must be ***made at least 10 days before the abatement or demolition begins.***

- Yes** Facility has assessed all buildings built prior to 1980 for asbestos. ✓
- No** Facility has not assessed all buildings built prior to 1980 for asbestos.

3.2b Does the facility document demolition procedures?

- Yes** Facility documents all demolition procedures. ✓
- No** Facility does not document demolition procedures.

3.2c Are employees informed of buildings and structures containing asbestos and trained to work with asbestos-containing materials?

All employees that may encounter asbestos containing materials should be informed of its existence. In particular, all employees required to perform repairs, maintenance, and custodial activities must be informed. In addition, employees should be trained in the proper procedures to follow, the protective equipment to use, and the control measures to employ if their work can disturb asbestos-containing materials and release fibers.

- Yes** Facility has informed all employees of buildings and structures known to contain asbestos, and trained them to work with asbestos-containing materials. ✓
- No** Facility has not informed all employees of buildings and structures known to contain asbestos or trained employees appropriately.

3.3 Construction Activities

(SEE HANDBOOK- PAGE 42)

3.3a How are construction wastes discarded?

All construction waste, including that from building, tunnel, and bridge maintenance, should not be disposed of onsite or along the right-of-way. Open burning of scrap wood, material bags, aerosol cans, etc. is strictly prohibited. All waste should be segregated as either trash, industrial nonhazardous solid waste, or hazardous waste. Some construction materials, such as asphalt, concrete, brick, and cinder block, may qualify as clean fill. Transportation and disposal of construction wastes must be conducted by licensed contractors.

- Offsite** Facility hires a licensed disposal contractor to haul the wastes to a municipal or hazardous waste landfill. ✓

- Open burning** Facility burns construction wastes.
- Onsite** Facility disposes of construction waste onsite. Onsite disposal of wastes requires permits.

3.3b Have you determined if there any endangered species which may be affected by your construction activities?

The Endangered Species Act establishes a program for the conservation of endangered and threatened species and the habitats in which they are found. The ESA prohibits the taking, possession, import, export, sale, and transport of any listed fish or wildlife species. The term “take” includes harassing, harming, hunting, killing, capturing, and collecting. An individual may, by permit, be allowed an incidental taking to an otherwise lawful activity if the applicant submits, and the U.S. Fish & Wildlife Service (USFWS) approves, a conservation plan addressing the impact of the taking, mitigation measures, funding, and alternative actions considered. Many construction-related activities have been identified as contributing to habitat loss, which can cause the acts that are prohibited under the ESA. For more information on the ESA, access EPA’s website at <http://www.epa.gov/oeca/tcac/tcac.html> or the USFWS’s website at <http://www.fws.gov/r9endspp/endspp.html>.

Persons engaged in, or planning to engage in, construction activities must be aware if any endangered or threatened species exist on the property involved, or the property is considered part of a listed species’ critical habitat. If neither is the case, the ESA does not apply. However, if the action will “take” or degrade critical habitat, some form of mitigating action must be taken to prevent harming the species. There are some exceptions under the ESA and the local USFWS should always be consulted in cases where species are present.

- Yes** Facility has identified endangered species present at the site of construction activities. Facility has determined what impact construction activities will have on endangered species, if such species are present. ✓
- No** Facility has not determined whether endangered species are present at their construction site, therefore creating the potential to harm such species.

3.3c Have you determined if there are any wetlands that may be affected by your construction activities and which may require a CWA 404 permit?

Construction activities that include dredging and filling of wetlands may require the facility to obtain a CWA Section 404 permit from the EPA and U.S. Army Corps of Engineers. The facility should identify any wetlands that may potentially be impacted by construction activities, consult with their state wetlands coordinator or EPA wetlands contact, and obtain a permit from the appropriate regulatory agency if necessary. For

more information, call the Wetlands Information Hotline at **1-800-832-7828** or **703-748-1304**.

- Yes** Facility has assessed whether there are any potentially impacted wetlands on the premises prior to beginning any construction in or around such an area. Facility may even have taken steps to obtain a 404 permit if necessary. ✓
- No** Facility has not determined the presence of wetlands that may be affected by construction activities.

3.4 Crosstie Replacement and Disposal HANDBOOK - PAGE 43-44)

Since crossties contain a substantial amount of creosote, it is especially important not to bury onsite or to open burn crossties. Some states regulate used ties as “residual waste” and limit the time these wastes can be kept onsite. In addition, some states may classify treated wood as hazardous wastes when disposed.

Although these ties can legally be given away for landscaping purposes, this practice has been seriously called into question with regard to potential liability questions. Giving ties away has the potential for exposure to the public. It may be allowable to dispose of crossties in permitted landfills, but again future liability should be considered. Disposal by cogeneration with energy recovery is the preferred method of disposal. The facility should ensure all incineration units are permitted to burn the creosote ties.

3.4 How are crossties discarded?

- Landfill onsite** Facility landfills crossties onsite. Specific solid waste permits are required for onsite landfilling.
- Onsite chipping** Facility chips and disposes of crossties onsite.
- Onsite incineration** Facility incinerates crossties onsite. Incineration requires an approved air pollution permit with appropriate equipment with air pollution controls.
- Give to the public** Facility gives crossties to the public as landscape timbers.
- Offsite landfill** Facility uses an approved industrial waste facility. Landfilling may have long-term liability if creosote leaches into the groundwater.
- Offsite incineration** Facility discards of crossties by offsite incineration.
- Abandonment** Facility stores and/or abandons crossties along

**and storage along
right of way in yards**

right of way and or in yards.

3.5 Pesticide Use

(SEE HANDBOOK - PAGES 46, 105)

Pesticides (e.g., herbicides, fungicides, rodenticides, and insecticides) may be used onsite for pest control. Under FIFRA, some pesticides deemed by EPA to pose particular environmental hazards may only be applied by certified pesticide applicators. These are referred to as restricted use pesticides. Pesticide labels will clearly state whether a particular pesticide is restricted use only.

3.5a Does facility use any restricted use pesticides?

- Yes** Facility uses restricted use pesticides.
- No** Facility does not use restricted use pesticides.

3.5b If yes, does the state require facilities applying restricted use pesticides to register?

- Yes** State does require facilities applying restricted use pesticides to register.
- No** State does not require facilities to register.

3.5c If yes, is the facility registered with the state?

- Yes** Facility is registered with the state. ✓
- No** Facility is not registered with the state.

3.5d Are all restricted use pesticides applied only by a trained certified applicator?

Application of restricted use pesticides require a certified applicator. Assure all vendors and employees applying restricted use pesticides are currently certified.

- Yes** Facility uses only trained and certified applicators. ✓
- No** Facility does not use trained and certified applicators.

3.5e If pesticides are applied by subcontractors, does facility obtain copies of MSDSs?

- Yes** Facility receives copies of MSDSs. ✓
- No** Facility does not receive copies of MSDSs.

3.6 Onsite Waste Disposal

(SEE HANDBOOK - PAGES 47, 83-84)

All waste disposal onsite is regulated and permits are required. If permits are not specifically available and current for the type of waste in question, then disposal onsite is prohibited. If your facility is not a TSD, onsite disposal of hazardous waste is strictly prohibited. If it is known that waste was buried, discharged, or abandoned onsite at any time in the past, then CERCLA requires reporting to the EPA and cleanup actions may be required.

3.6 Does the facility dispose of nonhazardous waste onsite in a permitted landfill or dump?

- Yes** Facility disposes of nonhazardous waste in an onsite landfill or dump. All local and/or state permits have been obtained.
- No** Facility disposes of nonhazardous waste onsite but landfill/dump is not permitted.
- NA** Facility does not dispose of nonhazardous wastes onsite.

3.7 Trackside Lubricating

(SEE HANDBOOK - PAGE 49)

3.7a Does facility conduct trackside lubricating?

Trackside lubricator grease is relatively immobile and is not expected to leach. However, the accumulation of lubricator grease over time may require cleanup activities. Some railroads use used motor oil for trackside lubrication. Ballast in this area should be disposed of according to state regulations during track renovations.

- Yes** Facility conducts trackside lubricating.
- No** Facility does not conduct trackside lubricating.

3.7b If yes, does the facility place absorbent fabric around rail lubricators to prevent ground contamination with oil?

- Yes** Facility uses absorbent fabric to prevent ground contamination with oil. ✓

- No** Facility does not use absorbent fabric.

3.8 Storage Tanks

(USTs - SEE HANDBOOK - PAGES 53-56, 84-85)

(ASTs - SEE HANDBOOK - PAGES 36-37)

(SPILLS - SEE HANDBOOK - PAGES 31-34)

Underground Storage Tanks

3.8a Has the State UST program been notified of any USTs located onsite?

Facilities are required to submit a **NOTIFICATION FORM** to the responsible State UST program office for all onsite UST systems. The form includes certification of compliance with federal requirements for installation, cathodic protection, release detection, and financial responsibility for UST systems installed after December 22, 1988. For more information on how to obtain and complete the form, call EPA's UST Hotline at **1-800-424-9346** or visit EPA's Office of Underground Storage Tanks website at <http://www.epa.gov/OUST/>.

- Yes** Facility has submitted a Notification Form to the responsible State UST program office.
- No** Facility has not submitted a Notification Form to the responsible State UST program office.
- NA** Facility has no USTs. *Move to Question 3.8e.*

3.8b Does facility conduct leak detection for tank and piping of all onsite UST systems?

- Yes** Facility conducts at least one of the following leak detection methods (*sources of detailed information on leak detection methods can be found in the NOTE at the end of Section 3.1*):
- All USTs can use **monthly monitoring** consisting of one of the following methods or other methods approved by the regulatory agency:
 - Automatic tank gauging
 - Vapor monitoring
 - Interstitial monitoring
 - Groundwater monitoring
 - Statistical inventory reconciliation.

Check with your state UST program to determine which methods are acceptable in your state. Also, any pressurized piping must have: (1) monthly monitoring (as described above) or annual line testing, and (2) an automatic flow restrictor, an automatic shutoff device, or a continuous alarm system installed.

- USTs installed on or before December 22, 1988 can temporarily use monthly inventory control and annual tank tightness testing. **This is not an acceptable method after December 22, 1998.**
- USTs installed or upgraded with spill, overfill and corrosion protection can use monthly inventory control combined with tank tightness testing every 5 years. **This combined method can be used only until 10 years after the tank has been protected from corrosion or until December 22, 1998, whichever is later.**

No The facility does not conduct leak detection.

3.8c Do USTs at the facility meet requirements for spill, overfill, and corrosion protection?

Yes The facility either (1) had devices installed to provide spill, overfill, and corrosion protection or (2) the UST system was constructed with spill, overfill, and corrosion protection. (*Sources of detailed information on spill, overfill, and corrosion protection can be found in the NOTE at the end of Section 3.1.*)

- USTs installed on or before December 22, 1988 must meet these requirements no later than **December 22, 1998.**
- USTs installed after December 22, 1988 must meet these requirements at the time of installation.

No The facility does not have spill, overfill, and corrosion protection devices installed.

3.8d Are records and documentation readily available (as applicable) for installation, leak detection, corrosion protection, spill/overflow protection, corrective action, financial responsibility and closure?

- Yes** Records and documentation are readily available.
- Leak detection records include past year's monitoring results and most recent tightness test; copies of performance claims; maintenance, repair, and calibration of leak detection equipment.
 - Corrosion protection records include results of the last two tests proving the cathodic protection system is working and the last three inspections proving that impressed current systems are operating properly.
 - Financial responsibility documentation shows one of the following: the facility participates in a state financial assurance fund; the facility has insurance coverage; the facility has a guarantee from another firm; the facility has a surety bond; the facility has a letter of credit; the facility has passed a financial test; the facility has set up a trust fund; or the facility uses another financial method(s) of coverage approved by your state.
 - Closure records document that the UST was removed from service in accordance with federal requirements for notification and correct, safe closure.
 - Corrective action records document that any releases from USTs have been reported to the appropriate agency and have been responded to as required.
- No** Records are not readily available and the facility does not know where they are.

NOTE: To find out more about federal UST requirements, call EPA's UST Hotline at **1-800-424-9346** or visit EPA's Office of Underground Storage Tanks website at **<http://www.epa.gov/OUST/>**. State and local UST requirements can differ from federal requirements, so be sure to check with **your State and local regulatory agencies**.

Aboveground Storage Tanks

3.8e Does the facility have aboveground storage tanks (ASTs)?

- Yes** Facility has aboveground storage tanks.
- No** Facility does not have aboveground storage tanks. **Move to Section 3.9.**

Note: Facilities with aboveground storage tanks exceeding 1,320 gallons or a single aboveground storage tank greater than 660 gallons are required to have and follow a spill prevention control and countermeasures (SPCC) plan.

3.8f Do ASTs meet or exceed NFPA 30A requirements?

All ASTs are required to meet the National Fire Protection Association (NFPA) requirements. For more information, call the NFPA at 617-770-3000 or access their website at <http://www.nfpa.gov>.

- Yes** Tanks meet or exceed NFPA 30A requirements. ✓
- No** Tanks do not meet NFPA 30A requirements.

3.8g Are ASTs inspected daily for leaks or other hazardous conditions?

ASTs are required to be inspected daily for evidence of leaks or other hazardous conditions (e.g., rust, structural deterioration, etc.).

- Yes** Facility inspects ASTs daily. ✓
- No** Facility does not inspect ASTs daily.

**Spill Prevention Control, and Countermeasures (SPCC) and
Emergency Response**

All USTs and ASTs must be operated to ensure that spills or overflows do not cause releases into the environment. Federal requirements cover all underground and aboveground tanks **except** those used for heating oil. Tanks storing heating oil used on the premises where it is stored are exempt from these regulations; however, a release from a heating oil tank must be managed similar to a release from any other tank.

By December 1998, all USTs must have spill, overfill, and corrosion protection in accordance with the provisions of 40 CFR Part 280. USTs installed prior to implementation of these regulations (December 1988) must be: (1) upgraded to include appropriate protection features by December 1998, (2) replaced with new USTs, or (3) closed properly.

.8h Does the facility have gasoline, fuel oil, or lubricating oil capacity storage total greater than 1,320 (or greater than 660 gallons in any one tank) in ASTs or total underground tank storage capacity greater than 42,000 gallons?

Note that the limits are different for above and below ground tanks. When adding the totals, note that capacity:

- Includes amount of oil that could be contained (e.g., 1,500-gallon tank with 350 gallons of oil would still count as 1,500 gallons toward the total).
- Includes oil stored in drums, buckets, etc. (e.g., 1,600-gallon aboveground tank, plus a 1,500-gallon aboveground tank, plus five 55-gallon drums would equal 3,375 gallons total storage).

- Yes** Facility exceeds capacity limits indicated above.
- No** Facility storage capacity is less than limits above.

3.8i If yes, could spilled gasoline, fuel oil, or lubricating oil conceivably reach navigable waters?

Navigable waters- This generally means *any* body of water. The word eventually is the key here. If a spill could get to groundwater, storm water, a creek, etc., it is considered to be able to “eventually” reach navigable waters. Spills are considered able to eventually reach navigable waters even if man-made structures (e.g., dikes, berms, storage containers) are present.

- Yes** A spill could conceivably reach navigable waters. ✓
- No** A spill could not conceivably reach navigable waters.

3.8j If yes, does the facility have a Spill Prevention, Control and Countermeasures (SPCC) plan signed by a Professional Engineer?

- Yes** The facility has a “Spill Prevention Control and Countermeasures Plan” (SPCC) that has been signed and sealed by a professional engineer. This is not the same as a “hazardous materials plan,” or an “emergency response plan.” However, some facilities may combine the SPCC plan with another plan. If this is done, the plan should include wording such as “spill control and emergency response plan.” ✓
- No** The facility does not have a plan or the plan is not signed by a Professional Engineer.

3.8k Are phone numbers of the national, state and local emergency contacts available onsite for immediate reporting of oil or chemical spills?

The accidental release of a hazardous substance or an oil spill that meets federal reporting requirements (a discharge of oil that causes a discoloration or "sheen" on the surface of water, violates water quality standards, or causes a sludge or emulsion to be deposited beneath the surface or on adjoining shorelines) must be reported to the National Response Center (NRC) at **1-800-424-8802**.

- Yes** Phone numbers are available.
- No** Phone numbers are not available.

3.9 Wastewater Management (SEE HANDBOOK -- PAGES 57-60, 87-93)

3.9a Does the facility prevent the discharge of industrial wastewater to septic systems, dry wells, cesspools, drain fields, etc.?

Industrial wastewater should not be discharged in any manner other than approved by permit. Septic systems, dry wells, cesspools, and drain fields are not appropriate for industrial wastewater discharges.

- Yes** Facility prevents industrial wastewater discharges as described above. ✓
- No** Facility does not prevent industrial wastewater discharge as described above.
- NA** Facility does not discharge industrial wastewater as described above.

3.9b Can the facility identify the final destination of all its drains and sumps?

- Yes** Facility can certify the final destination of all drains and sumps. ✓
- No** Facility cannot certify the final destination of all drains and sumps.

3.9c If wastewater is discharged to storm water sewer or directly to surface waters, does facility have an NPDES permit?

NPDES permits are required in order to discharge industrial waste or cooling waters through a storm water sewer or directly into surface waters. If wastewater is treated

onsite prior to discharge, pretreatment specifications may be included in the NPDES permit.

- Yes** Facility has a pipe that goes directly from the facility to a body of water and has a multi-page NPDES permit. ✓
- No** Facility has a pipe that goes directly from the facility to a body of water and does not have an NPDES permit.
- NA** Facility has no pipes that go directly from the facility to a body of water.

3.9d Does the facility have an emergency response/storm water management plan?

- Yes** Facility has an emergency response/storm water management plan. ✓
- No** Facility does not have an emergency response/storm water management plan.

3.9e If yes, has the plan been reviewed annually?

- Yes** The emergency response/storm water management plan has been reviewed annually. ✓
- No** Plan has not been reviewed annually.

3.9f If wastewater is discharged to municipal sanitary sewer, has facility notified POTW about potential contamination in wastewater and received approval for discharges?

Publicly owned treatment works (POTWs) are where the municipal sanitary sewer drains, and where sanitary sewer discharges are treated prior to entering streams and rivers. They may also be referred to as municipal wastewater treatment plants (WWTP). Municipal WWTPs may implement a pretreatment program and regulate discharges to the sanitary sewer through prohibitions on certain discharges, discharge limits, and discharge permits. Facilities should contact the WWTP to see if any pretreatment requirements apply to them. Although contacting the POTW is not required by federal regulations, the facility could be liable if it discharges a significant amount of oil, or other fluid, and those discharges cause the POTW to violate its own NPDES permit.

- Yes** Facility has contacted POTW, and if necessary, received approval for treatment discharges. ✓
- No** Facility has not contacted POTW or has not received approval for treatment discharges.

- NA** Facility does not discharge to a municipal sanitary sewer.

3.9g How is sludge, produced from wastewater pretreatment, discarded?

Sludge may be produced from wastewater treatment. The facility should be determine if the waste sludge is hazardous or nonhazardous. Onsite disposal of sludge is not allowed without specific authority covered by state and local permits.

- Offsite disposal to TSDF** Facility disposes of hazardous sludge offsite. It is stored, manifested, transported, and disposed of in compliance with all provisions of RCRA including using a permitted TSDF.
- Offsite disposal to other facility** Facility disposes of nonhazardous sludge offsite. Disposal is arranged using approved transportation, treatment, and disposal facility.
- Onsite** Facility disposed of sludge onsite.
- NA** No sludge is produced.

3.9h Are there any activities at the facility that may impact wetlands and require a CWA Section 404 permit?

Activities that include dredging and filling of wetlands may require the facility to obtain a CWA Section 404 permit from the EPA and U.S. Army Corps of Engineers. The facility should identify any wetlands that may potentially be impacted by construction activities, consult with their state wetlands coordinator or EPA wetlands contact, and obtain a Section 404 permit if necessary. State regulations generally protect wetlands and streams from encroachment, filling, waste disposal, and development. Check with your state regulatory agency for specific state regulations. For more information, call the Wetlands Information Hotline at **1-800-832-7828** or **703-748-1304**.

- Yes** Facility takes necessary steps to not endanger wetlands and has checked with state regulatory agency for specific state requirements. ✓
- No** Facility does not take necessary steps to protect from the endangerment of wetlands.

3.9i If facility stores parts, fluids and/or other materials outside, are the materials protected from rain/snow to prevent storm water discharges?

Facility may store any materials outside, including drums, trash, and parts. Items should be protected in any manner so they will not come in contact with rain or snow, or some other form of water (e.g., washing). Items can be protected by being stored on pallets, or something else that keeps them off the ground, and covered by a tarp or

roof. Dumpsters need to be closed and sealed to the extent that water will not enter them or exit them. Used oil (in some states), hazardous waste, and batteries are required to be stored in a manner that will protect them from storm water and provide secondary containment.

- Yes** Materials are protected from rain/snow. ✓
- No** Materials are not protected from rain/snow.
- NA** Facility does not store any materials outside.

3.10 Yard Dust Control

(SEE HANDBOOK - PAGE 61)

3.10a Are road and yard dust emissions controlled by the use of water or other dust suppressants?

“Fugitive dust” including dust from unpaved roads, yards, bulk material handling, sand towers, etc. is often controlled by the use of water or chemical suppressants.

- Yes** Facility controls road and yard dust emissions by the use of water or other dust suppressants. ✓
- No** Facility does not control road and yard dust emissions.

3.10b If yes, does facility prohibit the use of used oils or other liquid wastes to suppress dust?

Historically some used oils or other liquid wastes were applied by industries and government for dust control. This practice is now strictly prohibited. Only commercially available suppressants can be used and in some states the products used require specific authorization from the state environmental agency.

- Yes** Facility prohibits the use of used oils and other liquid wastes to suppress dust. ✓
- No** Facility does not prohibit the use of used oils and other liquid wastes to suppress dust, even though this practice is not allowed.

Section 4.0 TRANSPORTATION OPERATIONS

4.1 Hazardous Material Transport (SEE HANDBOOK - PAGE 66)

4.1 *Are hazardous material inspections conducted routinely by transportation crews?*

Hazardous material transportation is regulated by the Department of Transportation. Hazardous waste transportation is jointly regulated by DOT and EPA. It is important to assure that the proper labeling, valve cover placement, stenciling, and shipping papers are used when transporting hazardous materials and hazardous wastes. Routine inspections should include examination for spills and leaks of hazardous materials. All spills and leaks should be reported promptly to the dispatcher.

- Yes** Facility conducts hazardous materials inspections routinely. ✓
- No** Facility does not conduct hazardous materials inspections.

4.2 Locomotive Emissions (SEE HANDBOOK - PAGES 68, 97)

4.2 *Are locomotive emissions currently minimized by (1) limiting idling times, or (2) limiting the areas in which engines can idle?*

In some state and local governmental jurisdictions, the emissions from locomotives are regulated. Primarily the requirements include restrictions on idling times and locations. Check with your state and local environmental agencies to determine their specific requirements.

- Yes** **No** Minimized by limiting idling times. ✓
- Yes** **No** Minimized by limiting areas in which engines can idle. ✓

4.3 Leaks and Spills

(SEE HANDBOOK - PAGES 31-34, 64-65, 69-70)

4.3 Are crews trained to detect and report all spills and leaks immediately?

- Yes** Crews are trained to report all spills and leaks to the central dispatcher immediately upon detection. ✓
- No** Crews are not trained.

Section 5.0 OTHER OPERATIONS

5.1 Metal Machining

(SEE HANDBOOK - PAGE 17)

5.1 Is scrap metal stored in a covered and contained area?

Metal scraps may contain cutting oils, lubricating oils, and grease. Most metal scraps have economic value and can be recycled or reclaimed. During storage of scrap metal, the materials should be containerized and covered to prevent the release of pollutants to the ground and storm water, and there may be no free liquids present.

Tip: Metal scrap can be recycled if sorted and properly stored.

- Yes** Facility stores metal scraps in a manner that prevents soil and water contamination. ✓
- No** Facility does not store metal scraps in a manner that prevents soil and water contamination.

5.2 Depainting/Painting

(SEE HANDBOOK - PAGES 21-25, 95-98)

Paint Stripping and Shot Blasting

5.2a Does the facility conduct depainting/painting operations?

- Yes** Facility conducts depainting/painting operations.
- No** Facility does not conduct depainting/painting operations. **Move to Section 5.3.**

5.2b Does the facility have any air permits?

Air pollution permits are typically issued by states for operations like painting and surface preparation if they meet specific state regulatory criteria. Generally, if air pollution control equipment is used, such as a baghouse or scrubber, a permit is required. Check with your state for specific criteria and requirements.

- Yes** Facility has all required air permits and they are current. ✓
Permit No(s): _____

- No** Facility has not obtained the required air permits.
- NA** Permits are not required.

5.2c If yes, are air permit conditions being met?

- Yes** Facility is meeting all air permit conditions. ✓
- No** Facility is not meeting air permit conditions.

5.2d Are surfaces to be painted prepared by shot or grit blasting, grinding, or sanding?

In preparation for painting, locomotives and freight cars may be shot or grit blasted to remove old paint. Grinding and sanding are often used to prepare the surface to be painted.

- Yes** Facility uses one of the above methods to prepare surfaces for painting.
- No** Facility does not use one of the above methods to prepare surfaces for painting.

5.2e If yes, are paint stripping waste and metal dusts collected?

The best way to assure the optimum collection of paint dusts and chips is to blast and sand within a booth or enclosure designed with dust collection ventilation and air pollution control devices (e.g., baghouse). Conducting operations indoors without dust collection and air pollution controls may expose employees to levels of airborne dust in excess of the OSHA permissible limits for personal exposure to metals, such as lead and cadmium.

Conducting operations outdoors can allow dusts and paint debris to be dispersed into the environment and may not be allowed by local and state air pollution regulations. Check with state and local agencies and obtain the required air pollution permits.

- Yes** Facility collects paint stripping waste and metal dusts. ✓
- No** Facility does not collect paint stripping waste and metal dusts.

5.2f If yes, how are paint stripping waste and baghouse dusts discarded?

All the materials collected from shot and grit blasting and sanding/grinding operations may potentially be classified as hazardous waste, depending on the previous paint coatings. If the previous paints contained lead or chromium, the waste chips and dusts may be hazardous waste, depending on the concentrations of these metals in the waste.

- Onsite disposal** Facility disposes of paint wastes and residues onsite.
- Landfill** Based on characterization, materials are disposed at a municipal or hazardous waste landfill. ✓
- Other** Method of disposal is not listed here.

5.2g In its painting operations, does the facility use low VOC paints?

Paint labels, or product data sheets (or MSDSs), should contain the VOC content of the paint. In general, VOC content greater than or equal to 5 lbs/gallon is high, between 4 and 5 lbs/gallon is low, and below 4 lbs/gallon is very low.

- Yes** Facility uses paints with VOC content less than 5 lbs/gallon. ✓
- No** Facility uses paints with VOC content of 5 lbs/gallon or higher.

5.2h Does facility mix paint amounts according to need?

- Yes** Facility mixes paint by the job, as opposed to in large batches, thus reducing potential paint waste. ✓
- No** Facility mixes paints in large batches.

5.2i Are measures used to minimize overspray?

- Yes** Measures such as air-assisted; airless, high-volume, low pressure turbine; air atomized electrostatic; and airless, electrostatic application techniques are being used. ✓
- No** Measures are not being used to minimize overspray.

5.2j Are paints and thinners properly contained and labeled when not in use?

Properly contained and labeled means that containers are labeled with the contents of the container, containers are closed with lids tight when not in use, and containers are stored in such a way that a spill would not reach a drain or otherwise leave the facility.

- Yes** Facility properly contains and labels paints and thinners. ✓
- No** Facility does not contain and/or label paint and thinners as indicated above.

5.2k How are used paint, thinners and solvents discarded?

Paint cans, residuals, or unused paint products should not be buried or discarded onsite. Organic solvent-based paints and residuals and aerosol cans may be classified as hazardous waste and may require manifesting, storage, transportation, and disposal in full compliance with RCRA. Paint cans (that once contained hazardous waste) that are classified as “empty” by the RCRA definition and latex paints may be recycled or disposed offsite at an approved facility as nonhazardous waste.

A container is considered “empty” if all wastes or hazardous residues have been removed that can be removed using a practice commonly for that type of container (e.g., pouring, pumping, etc.), AND

- No more than 2.5 centimeters (i.e., one inch) of hazardous waste residue remains on the bottom of the container or inner liner, OR
- (A) If the container is \leq 110 gallons in size, no more than 3 percent by weight of the total capacity of the container remains in the container or inner liner, OR
- (B) If the container is greater than 110 gallons in size, no more than 0.3 percent by weight of the total capacity of the container remains in the container or inner liner.

Aerosol cans that are depressurized may be classified as nonhazardous solid waste for offsite disposal.

- Returned to supplier** Facility returns all unused paints and thinners to the supplier. ✓
- Reuse** Leftover paints and thinners are given away to customers, employees, or at “paint swaps.” ✓

- Recycle** Items are recycled by a paint, solvent, or thinner recycler. (Generally this will apply to solvents or thinners.) ✓
- Onsite disposal** Facility disposes of paint wastes and residues onsite.
- Mix with other fluids** Materials are mixed with other fluids, such as new solvent or used oil.
- Landfill** Based on characterization, materials are disposed at a municipal or hazardous waste landfill.

Tip: EPA recommends that aerosol cans be recycled. Aerosol cans may be emptied and depressurized before recycling.

5.2l If hazardous paints are used, are spray paint booth air filters disposed of properly as hazardous waste?

- Yes** Facility disposes of hazardous filters using a hazardous waste hauler. The filters are ultimately landfilled or burned in an EPA permitted facility. Facility maintains records indicating where hazardous filters are sent. ✓
- No** Facility disposes of hazardous filters with normal trash.

5.2m If filters are not hazardous, how are they disposed?

- Recycle** Sent to a recycling facility. ✓
- Landfill** Sent to a landfill.

5.3 PCB-Containing Equipment SEE HANDBOOK - PAGES 50-52, 99-100

5.3a Has the facility assessed electrical equipment for potential to contain PCBs?

All electrical equipment (e.g., transformers, capacitors) containing insulating or dielectric oils may contain PCBs. Equipment manufactured before 1978 should be assumed to contain PCBs unless proven otherwise by analytical testing or other records. If PCBs are present, the equipment is classified by the concentration of PCBs in the oil. The following are the three classifications:

- Non-PCB equipment (less than 50 ppm)
- PCB contaminated equipment (50- 499 ppm)
- PCB (500 ppm or greater).

If all the electrical equipment has been assessed and found to be free of PCBs, then label all equipment as PCB-free.

- Yes** Facility has assessed all electrical equipment for their potential to contain PCBs. ✓
- No** Facility has not assessed all electrical equipment for their potential to contain PCBs.

5.3b *Is all PCB-containing equipment labeled and inspected quarterly?*

All transformers and capacitors should be labeled to communicate the appropriate PCB classification. The equipment should be inspected quarterly for leaks and to assure the labels are in place.

- Yes** Facility has labeled all PCB-containing transformers and inspects them quarterly. ✓
- No** Facility has not labeled all PCB-containing transformers or does not inspect them quarterly.

5.3c *Does the facility store all out-of service PCB-containing equipment in a designated area?*

All PCB-containing equipment not in service and those awaiting disposal should be stored in a designated area designed with protection from the rain, 100-year floods, and with complete containment. The floor or pad of the designated area should be relatively impervious with a 6-inch high curb and no drains. The area should be marked with a 6" x 6" sign indicating "Caution: Contains PCBs." All items and doorways should also be marked.

All leaking equipment should be stored in an over-pack or suitable non-leaking container filled with enough sorbent material to soak up all the fluid if released. Any transformers and other equipment with PCBs found to be outside of the designated area should be moved to a proper storage area immediately.

- Yes** Facility stores all out-of-service PCB-containing equipment in a designated area. No abandoned transformers or capacitors are observed. ✓
- No** Facility does not store all out-of-service PCB-containing equipment in a designated area.

5.3d Does the facility cleanup all PCB leaks properly?

All electrical equipment involved in spill or leaks should be assumed to have PCBs unless sampled and labeled to indicate otherwise. If a spill occurs, initiate a cleanup within 24 hours. Cleanups should be completed within 48 hours, regardless of the regular business hours. All cleanup must be performed by a trained person and the recordkeeping requirements must be met.

If transformer spillage and leaks are observed, initiate a cleanup immediately. The facility must develop a program and procedures to insure that PCB equipment and transformers are inspected for leaks and cleaned up when found leaking. The program should detail the specific actions to be taken regarding response, notifications, cleanup, personal protective equipment, storage, and disposal.

- Yes** Facility cleans up all PCB leaks properly. ✓
- No** Facility does not clean up PCB leaks properly.

5.4 Air Conditioning Repair

(SEE HANDBOOK - PAGES 38, 95-98)

As of July 1, 1992, it became unlawful for any person maintaining, servicing, repairing, or disposing of any appliance or industrial refrigeration to knowingly vent, release, or dispose of any ozone-depleting substance to the environment.

5.4a Does the facility maintain and/or repair CFC-containing equipment?

The most common CFC-containing equipment maintained and repaired on railroad property includes building and vehicle air conditioners, refrigeration equipment, and ice machines.

- Yes** Facility maintains and/or repairs CFC-containing equipment.
- No** Facility does not maintain and/or repair CFC-containing equipment.

5.4b If yes, is maintenance of CFC-containing equipment conducted by trained and certified technicians?

Technicians that perform a service that may release CFCs must be trained and certified by EPA. Each technician must have his/her own certification.

- Yes** Technicians are certified. ✓
- No** Technicians are not certified.

5.4c Are all CFCs removed from equipment prior to maintenance activities?

Equipment repairs that would release CFCs should only be performed after the refrigerants are removed and collected.

- Yes** CFCs are removed and collected from equipment prior to maintenance activities. ✓
- No** CFCs are not removed from equipment prior to maintenance activities.

5.4d Is CFC recovery and/or recycling equipment EPA approved?

Technicians repairing or servicing air conditioners and other CFC-containing equipment can only use recovery and/or recycling equipment that is approved by EPA.

- Yes** To be EPA approved, the equipment must have a label reading one of the following:
 - 1) “THIS EQUIPMENT HAS BEEN CERTIFIED BY [APPROVED EQUIPMENT TESTING ORGANIZATION] TO MEET EPA’S MINIMUM REQUIREMENTS FOR RECYCLING OR RECOVERY EQUIPMENT FOR USE WITH [WHATEVER PROCESS THE EQUIPMENT IS BEING USED FOR]. ✓
 - 2) “UL approved” or “ARI approved.” ✓
- No** Equipment is not labeled.
- NA** Facility does not use recovery or recycling equipment.

5.4e If recovery equipment is used, is refrigerant reclaimed by an EPA-approved reclaimer?

Facilities that use recovery equipment must provide documentation that the refrigerant is sent to an EPA-approved reclaimer.

- Yes** Facility maintains documentation that the reclaimed is EPA approved. ✓
- No** Facility does not maintain documentation where refrigerants are sent.

Appendix A

Pollution Prevention and Other Websites

EPA's Home Page
<http://www.epa.gov>

This site provides information about EPA offices, programs and initiatives, and regulations.

EPA's Compliance Assistance Centers
<http://es.epa.gov/oeca/mfcac.html>

This site provides links to EPA's Compliance Assistance Centers.

Sector Notebooks
<http://es.epa.gov/oeca/sector/index.html#trans>
<http://es.inel.gov/comply/sector/index.html>

These sites contain sector notebooks, including: *Profile of the Ground Transportation Industry - Railroad, Trucking, and Pipeline* and *Profile of the Transportation Equipment Cleaning Industry*. Within each sector notebook, pollution prevention information is provided about the industry.

EPA's Pollution Prevention
<http://www.epa.gov/opptintr/p2home/>

EPA's pollution prevention (P2) site includes general P2 information and publications, information on P2 in the regulations, the definition of pollution prevention as defined under the Pollution Prevention Act of 1990, and information about voluntary P2 programs. There are also links to EPA and non-EPA P2 sites.

U.S. EPA Office of Pollution Prevention and Toxics
<http://www.epa.gov/opptintr/index.html>

This site provides access to federal publications, OPPT programs and initiatives, and other information sources related to pollution prevention. Allows access to the U.S. EPA Home Page.

U.S. EPA Office of Underground Storage Tanks
<http://www.epa.gov/OUST/>

This site provides access to federal publications and links to other resources about preventing pollution from underground storage tanks containing petroleum or hazardous substances.

Endangered Species Act Information
<http://www.epa.gov/oeca/tcac/tcac.html>
<http://www.fws.gov/r9emdspp/endspp.html>

Pollution Prevention and Other Websites

These sites contain information on the Endangered Species Act.

Enviro\$en\$e
<http://es.inel.gov>

This EPA site provides pollution prevention information, as well as a link to the National P2 Roundtable described below.

National Fire Protection Association
<http://www.nfpa.gov>

This site contain information on the National Fire Protection Association requirements.

National Pollution Prevention Roundtable Home Page
<http://es.inel.gov/nppr/>

This site provides access to the latest information on legislative and regulatory P2 developments, National Roundtable publications, state P2 program web sites, and a directory of industrial P2 publications.

Pollution Prevention Information Clearinghouse
<http://www.epa.gov/opptintr/p2home/ppicfs.txt>

Operated by EPA's Office of Pollution Prevention and Toxics, this clearinghouse is a free, non-regulatory service that provides telephone reference and referral, document distribution for selected EPA documents, and a special collection available for interlibrary loan.

PROCOR Pollution Prevention Regulations
<http://procor.misi.net/PPRegIdx.htm>

This site provides access to federal and state pollution prevention regulations.

P2 Education and Research Center (PPEREC)
http://www.sppsr.ucla.edu/res_ctr/pperc.htm

This site provides information on conservation of resources, reduction or elimination of use of toxic substances, and improvement on human and environmental health. The site allows access to PPEREC education, research, and publications.

Solvents Alternative Guide (SAGE)
<http://clean.rti.org/>

This online guide provides pollution prevention information on solvent and process alternatives for parts cleaning and degreasing. It also provides access to the U.S. EPA Air Pollution Prevention and Control Division website.

Storm Water Pollution Prevention Plans
<http://www.dhc.net/~trench/de00002.htm>

This site provides documents on the storm water pollution prevention plan that must be submitted when a construction site has an impact on five or more acres. The web site assists in compliance with EPA's National Pollutant Discharge Elimination System Program.