

Disclaimer

The environmental screening checklist and workbook are tools to be used to help you evaluate compliance at your facility. They do not contain an exhaustive list or 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 tribal, state, and local requirements.

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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. EPA's Office of Compliance, through various meetings with industry representatives, facility owners, and technicians, determined there is a need for clear information for facilities to help them attain or remain in compliance with applicable federal environmental regulations. The checklist and workbook highlight important or key environmental requirements as they apply to the various federal environmental programs.

HOW CAN I USE THE CHECKLIST AND WORKBOOK?

You can use the checklist and workbook to evaluate your facility's compliance with the federal environmental regulations which are applicable to the short line railroad industry. The term **facility** refers to, but is not limited to, a railroad site overseen by owners/operators, managers, field personnel, etc. who engage in railroad operations. If problems with compliance are discovered while completing the checklist, you may want to conduct a more comprehensive self-audit.

Use With the Short Line Railroad Handbook: The checklist and workbook are intended for use with the *Environmental Compliance Handbook for Short Line Railroads (Handbook)*. The Handbook provides information on environmental requirements for short line railroad operations and contact numbers for obtaining additional information.

You can use the checklist and workbook to evaluate the compliance of either specific activities or areas of your facility or your entire facility. Specific areas of your facility that you may want to review are shown in Exhibit 1. This exhibit, "Index of Activities and Requirements for Short Line Railroads," is a pictorial representation of specific activities that are regulated or specific environmental requirements at a short line railroad facility. A page reference is included next to each activity/requirement which takes you to the appropriate section of the workbook where this topic is discussed. In addition, this exhibit also includes hotlines that you can contact to obtain more information on applicable environmental requirements. As indicated on the exhibit, one good source of environmental information for the transportation sector is the Transportation Environmental Resource Center (TERC). You can reach TERC to request more information on environmental issues or get answers to your transportation-related environmental questions by phone or on the world wide web.

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

TERC Website Address: <http://www.transource.org>

Please remember that all of these materials are a beginning, not the final word, on environmental compliance requirements. While federal environmental requirements are highlighted in the checklist and workbook, a comprehensive discussion of all requirements is NOT included. In addition to federal requirements, you may be subject to state, tribal, and/or local requirements. You can use these materials to build a basic understanding or increase your knowledge of federal environmental requirements, and then seek additional assistance from various federal, state, tribal, and local agencies.

This page reserved for

Exhibit 1: Index of Activities and Requirements for Short Line Railroads
(To be inserted)

HOW ARE THE CHECKLIST AND WORKBOOK ORGANIZED?

What Is Included? Following this introductory section are the **checklist** and **workbook**. These materials, which are tailored after the *Handbook*, include 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

Section 5.0 *Other Operations* includes requirements for several operations, such as metal machining and painting. While these operations are not as common for most short line railroads, they may be of interest to some facilities. Following these five sections, a **glossary** is provided for your use.

Where Do I Start? You may first want to become familiar with the workbook because it is more comprehensive than the checklist in terms of environmental compliance information and issues. Once you have become familiar with the workbook, you can use the checklist by itself to conduct a compliance evaluation of your facility.

The two page checklist, located after this introductory text, is basically a streamlined version of the workbook and has been included to help make the evaluation of your facility's compliance as easy and efficient as possible. **Because the checklist was designed to evaluate specific activities and requirements at your operation, it does NOT include all of the questions or activities found in the workbook.**

Each checklist question will ask you about key environmental requirements that are applicable to a short line railroad facility. After reading each question, pick the most appropriate response for your facility. If you are unsure of what is being asked by the question or what a response means when using the checklist, refer to the same question in the workbook. The workbook includes

some general explanatory text for each question, as well as explanations of each response. A "✓" next to a response in the workbook indicates that it is a preferred response in terms of environmental compliance (see box). The use of the workbook is encouraged as it will help you and others at your facility conducting evaluations to respond to the compliance questions consistently and accurately.

WHAT DOES THE "✓" MEAN?

A "✓" next to a response in the guide indicates that is the preferred response in terms of **environmental compliance**. If you select a response without a "✓", you may still be in compliance. However, you should verify that you are in compliance by contacting the appropriate federal or state regulatory agency and discussing your activity with them.

Can the checklist be personalized? The checklist can be personalized to fit the needs of your facility. When evaluating environmental compliance, you or the person conducting the evaluation should record certain information on the checklist, including the date, name of the facility, name of the person conducting the evaluation, and any comments or questions regarding the compliance evaluation. Such information will help you monitor your facility's

continued progress towards environmental compliance.

WHERE CAN I GET HELP?

During the evaluation and everyday operation of your facility, you may need to obtain additional information on specific environmental requirements. Many resources are available to you which can provide valuable information on federal environmental requirements, pollution prevention, and other topics. Some of these resources, which can be contacted by telephone or accessed through the Internet, include publications, hotlines and information lines, EPA Headquarters and regional offices, financial assistance information, and pollution prevention websites.

EMERGENCY RESPONSE & ASSISTANCE

! National Response Center (NRC) - U.S. Coast Guard Oil & Hazardous Material Spills (800-424-8802)

! CHEMTREC operated by Chemical Manufacturers Association on Health and Safety (800-424-9300)

! Environmental Health Effects: (National Institute of Health) Information on chemicals in ground and surface water, hazardous wastes (800-643-4794)

! Local Emergency Number: 911

Publications

- *Sector Notebooks*. The following sector notebooks, which may be of interest to the railroad industry, can be downloaded electronically at:
<http://es.epa.gov/oeca/sector/index.html> Also copies can be ordered from GPO at (202) 512-1800.
 - S *Profile of the Ground Transportation Industry - Railroad, Trucking, and Pipeline*, EPA/310-R-97-002 (134 pages)
 - S *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 or check website: **<http://www.epa.gov/OST/guide/tecifs22.html>**
- *Code of Federal Regulation (CFR) References*.
Website: **<http://www.access.gpo.gov/nara/cfr/index.html>**

Hotlines and Information Lines

- *Transportation Environmental Resource Center (TERC) Information Line*
Telephone: (888) 459-0656
Website: **<http://www.transource.org>**

This resource center is designed to help transportation industries stay on top of environmental requirements and technologies.

- *Air Risk Information Support Center Hotline*

Telephone: (919) 541-0888

Fax: (919) 541-0245

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

- *Emergency and Remedial Response Fax-On Demand Service*

Telephone: (202) 651-2062

This service 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)

- *Environmental Justice Hotline*

Telephone: (800) 962-6215

This hotline provides environmental assistance and information relating to environmental justice issues, including brownfields. See "Brownfields" listing under *Pollution Prevention Websites* below for more information.

- *Hazardous Waste Generator and Recycling*

Telephone: (703) 308-8850

This office provides information regarding regulations and guidance concerning hazardous waste generators, including RCRA manifest and the definitions.

- *Hazardous Waste - Permits and State Programs*

Telephone: (703) 308-8404

This office provides 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

This office provides toxicology and exposure data; health and ecological risk assessment; and sampling, statistical, and analytical methods.

- *Hazardous Waste Information*

Telephone: (703) 308-8482

This office provides a RCRA coordination program information collection outreach and guidance. (<http://www.epa.gov/wastemin>)

- *National Pesticides Information Line*
Telephone: (800) 858-7378

This service provides pesticide information, including information about labels, incident investigations, emergency human and animal treatment safety practices and clean-up and disposal.

- *National Response Center Hotline/Oil and Hazardous Material Spills*
Telephone: (800) 424-8802 or (202) 267-2675
Fax: (202) 267-2165

This hotline can be used to report oil and hazardous material spills that (1) violate applicable water quality standards, (2) cause a film or “sheen” upon surface waters or adjoining shorelines, or (3) cause a sludge or emulsion to be deposited beneath surface waters or upon adjoining shorelines. This hotline is staffed 24 hours a day, 7 days a week, by U.S. Coast Guard officers and marine science technicians.

- *Pollution Prevention Information Clearinghouse (PPIC)*
Telephone: (202) 260-1023
Fax: (202) 260-4659
Website: <http://www.epa.gov/opptintr/library/libppic.htm>

PPIC is a free, non-regulatory service of EPA that provides answers and referrals in response to questions from the public concerning pollution prevention.

- *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

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) 426-4791 or (703) 285-1093
Fax: (703) 285-1101
E-mail: hotline-sdwa@epamail.epa.gov

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 for water resources and information on drinking water and groundwater.

- *Small Business Ombudsman Clearinghouse/Hotline*
Telephone: (800) 368-5888 or (703) 305-5938
Fax: (703) 305-6462

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

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

This hotline serves as a clearinghouse for information concerning EPA's storm water general permits. Information specialists are available to answer technical questions concerning permit eligibility, specific permit requirements, and provide guidance materials.

- *Toxic Substances Control Act (TSCA) Assistance Information Service*
Telephone: (202) 554-1404
Fax: (202) 554-5603

The information service provides technical assistance and general information about programs implemented under TSCA, including inquiries about import/export of chemicals under the regulatory program.

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

This office directs callers on where to obtain information regarding underground storage tanks.

- *Used Filter Hotline*
Telephone: (800) 99-FILTER (993-4583)
Website: <http://www.filtercouncil.org>

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."

- *Wetlands Information Hotline*
Telephone: (800) 832-7828 or (703) 748-1304

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

EPA Headquarters and Regional Office Information

- *EPA Headquarters*
Telephone: (202) 260-1090
Fax: (202) 260-0279
Website: <http://www.epa.gov/>
- *Region 1 (CT, MA, ME, NH, RI, VT)*
Telephone: (617) 918-1111
Toll-free: (888) 372-7341
Website: <http://www.epa.gov/region1/>
- *Region 2 (NJ, NY, PR, VI)*
Telephone: (212) 637-3000
Website: <http://www.epa.gov/region2/>
- *Region 3 (DC, DE, MD, PA, VA, WV)*
Telephone: (215) 814-5000
Toll-free: (800) 438-2474
Website: <http://www.epa.gov/region3/>
- *Region 4 (AL, FL, GA, KY, MS, NC, SC, TN)*
Telephone: (404) 562-9900
Toll-free: (800) 241-1754
Website: <http://www.epa.gov/region4/>
- *Region 5 (IL, IN, MI, MN, OH, WI)*
Telephone: (312) 353-2000
Toll-free: (800) 621-8431
Website: <http://www.epa.gov/region5/>
- *Region 6 (AR, LA, NM, OK, TX)*
Telephone: (214) 665-2200
Toll-free: (800) 887-6063
Website: <http://www.epa.gov/region6/>

- *Region 7 (IA, KS, MO, NE)*
Telephone: (913) 551-7003
Toll-free: (800) 223-0425
Website: <http://www.epa.gov/region7/>
- *Region 8 (CO, MT, ND, SD, UT, WY)*
Telephone: (303) 312-6312
Toll-free: (800) 227-8917
Website: <http://www.epa.gov/region8/>
- *Region 9 (AZ, CA, HI, NV)*
Telephone: (415) 744-1305
Website: <http://www.epa.gov/region9/>
- *Region 10 (AK, ID, OR, WA)*
Telephone: (206) 553-1200
Toll-free: (800) 424-4372
Website: <http://www.epa.gov/region10/>

Financial Assistance Information

- *Railroad Rehabilitation and Improvement Financing*
Website: <http://www.fhwa.dot.gov/tea21/factsheets/r-rrehab.htm>

This program is administered by the U.S. Department of Transportation's Federal Railroad Administration. It is intended to make funding available through non-federal loans and guarantees for *railroad improvements*. The purpose of the funding is to provide direct loans and loan guarantees to:

- State and local governments
- Government sponsored authorities
- Corporations, railroads, and joint ventures that include at least one railroad.

These loans can be used to acquire, improve, develop or rehabilitate intermodal or rail equipment of facilities, including track, bridges, yards, and shops; refinance existing debt incurred for the previous purposes; and develop and establish new intermodal or railroad facilities.

- *Small Business Improvement Loans*
Website: <http://www.GetSmart.com>

GetSmart.com is a leading financial search engine allowing consumers to compare different loan products from multiple lenders in a single location. The website's search engine matches the borrower's financing preferences with lenders who are pre-screened and ready to fulfill their requests.

Pollution Prevention Websites

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

This site provides information about EPA offices, programs and initiatives, and regulations.
- *EPA's Compliance Assistance Centers*
Website: <http://es.epa.gov/oeca/mfcac.html>

This site provides links to EPA's Compliance Assistance Centers.
- *EPA's Pollution Prevention*
Website: <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 P2 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.
- *EPA's Office of Pollution Prevention and Toxics (OPPT)*
Website: <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.
- *EPA's Office of Underground Storage Tanks*
Website: <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.
- *EPA's Oil Program*
Website: <http://www.epa.gov/oilspill>

This site contains comprehensive information on oil spill prevention, preparedness, and response.
- *EPA's Brownfields*
Website: <http://www.epa.gov/swerosps/bf/index.html#info>

EPA's Office of Solid Waste and Emergency Response's *Brownfields* site provides information about projects and initiatives, tools, contacts, publications, and other information regarding Brownfields.

- *Chemical Emergency Preparedness and Prevention Office*
Website: <http://www.epa.gov/ceppo/>

This site provides information regarding hazardous and extremely hazardous substances, including planning and reporting requirements.

- *EPA's Enviro\$en\$e*
Website: <http://es.epa.gov>

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

- *National Fire Protection Association*
Website: <http://www.nfpa.org>

This site contains information on the National Fire Protection Association codes and standards.

- *National Pollution Prevention Roundtable Home Page*
Website: <http://www.p2.org/>

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

- *Pollution Prevention Information Clearinghouse*
Website: <http://www.epa.gov/opptintr/library/libppic.htm>

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.

- *Pollution Prevention Cooperatives*

Coordinated with EPA's Enviro\$en\$e program, these cooperatives provide easy access to pollution prevention and cleaner production resources around the Internet.

- (1) *U.S. Federal Agency Pollution Prevention Cooperative*
Website: <http://es.epa.gov/cooperative/federal/>

- (2) *State and Local Government/Business Assistance Cooperative*
Website: <http://es.epa.gov/cooperative/stateandlocal/>

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

This on-line guide provides pollution prevention information on solvent and process alternatives for parts cleaning and degreasing. It also provides access to EPA's Air Pollution Prevention and Control Division website.

- *EPA's Small Business and Self Assessment Policies*
Website: <http://es.epa.gov/oeca/finalpolstate.pdf>

This website contains information on how a facility might qualify for penalty reductions through self-disclosure.

Website: <http://es.epa.gov/oeca/sbcp2000.pdf>

This website contains information on the Small Business Compliance Policy.

ENVIRONMENTAL SCREENING CHECKLIST FOR SHORT LINE RAILROADS

Facility Name:
Facility Location:

Site Reviewer:
Date:

1.0 WASTE MANAGEMENT - GENERAL

Hazardous Waste Generation, Storage, and Transport*	How much hazardous waste does the facility generate per month? (p. W-6)	(1) Up to 220 lbs (CESQG) (2) 220 - 2,200 lbs (SQG) (3) Over 2,200 lbs (LQG)
	Does the facility have an EPA hazardous waste generator ID number? (p. W-7)	Y N NA
	Does the facility store hazardous waste in appropriate storage containers? (p. W-7)	Y N NA
	How does the facility manage/dispose of its hazardous waste? (p. W-8)	Ships hazardous waste off site / Disposes of hazardous waste on site and is RCRA-permitted TSDF / Other / NA
	Does the facility have a written contingency plan on site or basic contingency procedures in place for responding to spills and releases of hazardous wastes? (p. W-9)	Y N NA
Used Oil and Used Filters*	Are used oil containers/tanks and associated piping labeled "used oil"? (p. W-11)	Y N NA
	Are used oil containers/tanks and associated piping leak free? (p. W-11)	Y N NA
	Does the facility prevent the mixing of used oil with hazardous waste ? (p. W-11)	Y N NA
	How does the facility dispose of its used oil? (p. W-12)	Sent off site for recycling / Burned in an on-site space heater / Burned off site / Other / NA
	How does the facility manage/dispose of its used oil filters? (p. W-14)	Recycle / Service company / Other / NA
	How does the facility manage/dispose of its used fuel filters? (p. W-15)	Recycle / Service company / Managed as hazardous waste / Other / NA
Spent solvents	If halogenated solvents are used in cleaning equipment, has the facility submitted a <u>notification report</u> to the air permitting agency? (p. W-17)	Y N NA
	Does the facility store its spent solvents in labeled containers ? (p. W-18)	Y N NA
	How does the facility manage/dispose of its spent solvents? (p. W-18)	Third party vendor / Permitted discharge to sanitary sewer /TSDF/ Other / NA
Used Battery Storage and Disposal*	If storing used batteries, does the facility protect them from storm water contact ? (p. W-20)	Y N NA
	How does the facility manage/dispose of used batteries? (p. W-21)	Return to supplier / Recycle / Service company / Universal waste handler / Send to hazardous waste landfill / Other / NA
Used Rags and Shop Towels*	How does the facility manage used rags and shop towels? (p. W-22)	Laundry service / Burned for heat / Other / NA
Absorbents/ Track Mats*	Does the facility determine if used absorbents (e.g., track mats) are hazardous wastes before disposal? (p. W-24)	Y N NA
	How does the facility manage absorbents used for oil spills? (p. W-24)	Sent to supplier or service company / Burned for energy / Disposed of as hazardous waste / Other / NA
Fueling*	Are overfill protection measures, spill containment methods, and spill response equipment used during fueling? (p. W-27)	Y N NA
Recordkeeping	Does the facility maintain all required environmental compliance records? (p. W-29)	Y N Don't Know
	Does the facility keep all service receipts? (p. W -29)	Y N NA
2.0 MECHANICAL OPERATIONS		
Brake Repair	How does the facility manage used brake shoes and/or other locomotive components? (p. W-30)	Recycled off site/Disposed at EPA-approved disposal site / Other / NA
Equipment Cleaning*	Does the facility keep the lids of solvent cleaning equipment closed? (p. W-32)	Y N NA
Coolant and Antifreeze Disposal*	How does the facility manage/dispose of used locomotive coolants ? (p. W-33)	Recycle / Permitted discharge to sanitary sewer / On-site wastewater treatment / NA
	If the facility does not reclaim used antifreeze on site in a closed loop system, how does the facility manage it? (p. W-36)	Recycled in a non-closed system on site / Recycled off site / Disposed at landfill that has a tank designated for used antifreeze / Other / NA

3.0 ENGINEERING OPERATIONS			
Track Ballast Disposal*	Does the facility manage used track ballast according to the substance (e.g., used oil, hazardous materials) with which it is contaminated? (p. W-37)	Y	N NA
Asbestos*	Are all buildings and structures built before 1980?	Y	N NA
	If Yes, has the facility assessed all buildings and structures built prior to 1980 for their potential for containing asbestos and treated accordingly? (p. W-38)	Y	N NA
Construction Activities*	How does the facility manage/dispose of its construction wastes ? (p. W-40)	Off site / NA	
Crossties*	How does the facility manage/dispose of used crossties? (p. W-42)	Recycled / Other	
Pesticide Use	Are restricted use pesticides (RUPs) applied only by a certified commercial applicator? (p. W-44)	Y	N NA
On-site Disposal	Does the facility dispose of nonhazardous waste on site in a permitted landfill or dump? (p. W-44)	Y	N NA
Trackside Lubricating	Does the facility place absorbent fabric around rail lubricators to prevent ground contamination with oil? (p. W-45)	Y	N NA
Storage Tanks*	Has the State/Tribal UST program office been notified of any USTs located on site? (p. W-47)	Y	N NA
	Does the facility conduct leak detection for tanks and piping of all on site USTs? (p. W-47)	Y	N NA
	Do USTs at the facility meet requirements for spill, overfill, and corrosion protection? (p. W-48)	Y	N NA
	Does the facility inspect the ASTs daily for leaks and other hazardous conditions? (p. W-51)	Y	N NA
	Does the facility have a Spill Prevention, Control, and Countermeasures (SPCC) plan signed by a Professional Engineer? (p. W-53)	Y	N NA
Wastewater/ Storm Water Management*	Does the facility have an NPDES permit for direct discharges? (p. W- 58)	Y	N NA
	Does the facility have a storm water permit?	Y	N NA
	If Yes, does the facility have a storm water pollution prevention plan (SWPPP)? (p. W-59)	Y	N NA
	Is a certification included in the SWPPP? (p. W-59)	Y	N NA
	If the facility discharges wastewater to a municipal sanitary sewer, has facility notified the publicly-owned treatment works (POTW) and received approval for pretreatment discharges? (p. W-60)	Y	N NA
Yard Dust Control*	Does the facility prohibit the use of used oils or other liquid wastes to suppress dust? (p. W-63)	Y	N NA
4.0 TRANSPORTATION OPERATIONS			
Hazardous Material Transport	Does the facility routinely conduct hazardous material inspections? (p. W-64)	Y	N NA
Locomotive Emissions	Is the facility familiar with the new emission standards for locomotives? (p. W-66)	Y	N NA
	Does the facility minimize the locomotive emissions by (1) limiting idling times, or (2) limiting the areas in which locomotive engines can idle? (p. W-66)	Y	N
Leaks and Spills	Are facility crews trained to detect and report all spills and leaks immediately? (p. W-66)	Y	N
5.0 OTHER OPERATIONS			
Painting/Paint Removal Operations*	Does the facility have air permits? (p. W-69)	Y	N NA
	How does the facility manage/dispose of paint stripping wastes and baghouse dusts? (p. W-71)	Recycling / Landfill / Other / NA	
	How does the facility manage/dispose of used paints and painting waste products? (p. W-72)	Return to supplier / Reuse / Recycle / Other / NA	
Air Conditioning* Repair	Does the facility employ or hire trained and certified technicians to maintain CFC-containing equipment? (p. W-77)	Y	N NA

* For additional questions regarding these environmental compliance issues refer to the workbook.

Note: Refer to the workbook for environmental compliance information and questions regarding *metal machining* (p. W-67) and *PCB-containing equipment* (p. W-74).

SECTION 1.0 WASTE MANAGEMENT

1.1 Hazardous Waste Generation, Storage, and Transport

(SEE HANDBOOK - PAGES 73-85)

NOTE: The following questions, some of which are included in the accompanying checklist (highlighted in **bold**), will help the facility examine its operations relating to *hazardous waste generation, storage, and transport* for compliance with environmental requirements:

- a. *Has the facility determined whether it generates hazardous waste? (p. W-3)*
- b. **How much hazardous waste does the facility generate per month? (p. W-6)**
- c. **Does the facility have an EPA hazardous waste generator ID number? (p. W-7)**
- d. **Does the facility store hazardous waste in appropriate storage containers? (p. W-7)**
- e. *Does the facility meet all hazardous waste storage (quantity and time) requirements? (p. W-8)*
- f. **How does the facility manage/dispose of its hazardous waste? (p. W-8)**
- g. *Does the facility keep copies of its manifests for the 3 year minimum requirement? (p. W-9)*
- h. **Does the facility have a written contingency plan or basic contingency procedures in place for responding to spills and releases of hazardous wastes? (p. W-9)**

These questions appear in the following text and may be accompanied with a discussion of the preferred answers (indicated with a "✓") for environmental compliance.

Identifying Hazardous Waste

Short line railroads may produce hazardous wastes. It is important to identify and manage hazardous wastes properly to protect facility employees and others in the community, as well as the environment. If the facility is a hazardous waste generator, it is responsible for all steps in hazardous waste management, from generation to final disposal. **The facility can be held liable for any mismanagement of wastes, even after they leave the facility.** Therefore, it is important to know the facts. Some of these hazardous wastes are listed in **Exhibit 2**.

If the facility is unsure of whether its wastes are hazardous it can call the **RCRA/UST, Superfund, and EPCRA Hotline at 1-800-424-9346**, or the **Chemical Referral Service Hotline at 1-800-262-8200**, which is maintained by the National Chemical Manufacturers Association.

What is Hazardous Waste?

To be considered “hazardous waste,” materials must first meet EPA’s definition of “solid waste.” Solid waste is discarded material, such as garbage, refuse, and sludge, and can be solids, semisolids, liquids, or contained gaseous materials. Solid wastes that meet the following criteria are considered hazardous and subject to regulations under the Resource Conservation and Recovery Act (RCRA) (40 CFR Part 261):

- **Listed waste.** 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 waste.** If 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:** Ignitable wastes can create fire under certain conditions (e.g., temperature, pressure) or are spontaneously combustible (40 CFR 261.21). Examples include certain used paints, degreasers, oils and solvents.
 - **Corrosive:** Corrosive wastes are acids or bases that are capable of corroding metal, such as storage tanks, containers, drums, and barrels (40 CFR 261.22). Examples include rust removers, acid or alkaline cleaning fluids, and battery acid.
 - **Reactive:** Reactive wastes are unstable and explode or produce toxic fumes, gases, and vapors when mixed with water (40 CFR 261.23). Examples include lithium-sulfide batteries and explosives.
 - **Toxic:** Toxic wastes are harmful or fatal when ingested or absorbed, or leach toxic chemicals into the soil or groundwater when disposed of on land (40 CFR 261.24). Examples include wastes that contain high concentrations of heavy metals, such as cadmium, lead, or mercury.

The facility can determine if its waste is toxic by having it tested using the **Toxicity Characteristic Leaching Procedure (TCLP)**, or by **process knowledge**. **TCLP** can be done at a laboratory. It is designed to replicate the leaching process and other effects that occur when wastes are buried in a typical municipal landfill. If the leachate from the waste contains any of the regulated contaminants at concentrations equal to or greater than the regulatory levels, then the waste exhibits the toxicity characteristic. **Process knowledge** is detailed information on wastes obtained from existing published or documented waste analysis data or studies conducted on hazardous wastes generated by similar processes. For example, EPA’s lists of hazardous wastes in 40 CFR Part 261 (as discussed above) can be used as process knowledge.

Universal Waste Rule

In 1995, EPA issued the **Universal Waste Rule** as an amendment to RCRA to reduce the regulatory burden on businesses by providing an alternative and less stringent set of management standards for three types of waste that potentially would be regulated as hazardous: (1) batteries (e.g., nickel cadmium, small sealed lead acid) that are spent (i.e., will not be reclaimed or regenerated at a battery recycling/reclamation facility);

Universal Waste Rule

On July 6, 1999, EPA issued a final rule called the universal waste rule. This rule provides alternative, less stringent procedures for several types of wastes such as batteries, pesticides, mercury thermostats and lamps including fluorescent. Copies of the rule and corresponding fact sheet can be obtained from the RCRA/UST, Superfund, EPCRA Hotline at 1-800-424-9346.

(2) pesticides that have been suspended or canceled, including those that are part of a voluntary or mandatory recall under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and (3) mercury thermostats including temperature control devices containing metallic mercury. *Check with the state regulatory agency to see if it has adopted the Universal Waste Rule.* For more information, check website: <http://www.epa.gov/epaoswer/hazwaste/id/univwast.htm>

1.1a Has the facility determined whether it generates hazardous waste?

- Yes** Facility has gone through the waste determination process or used process knowledge and determined that it does generate hazardous waste. See **Exhibit 2** for common hazardous wastes generated by short line railroads.
- No** Facility has determined that it does not generate hazardous waste.
- NA / Not determined** Facility has not gone through this process. **Note: Facility must immediately conduct this process to determine if it is generating a hazardous waste.**

Exhibit 2. Typical Wastes Generated at Railroad Shops and Typical Category by Disposal Method¹

Waste Stream	Common Usage at Facility	Typical Category If Not Mixed With Other Hazardous Waste²	Typical Category If Recycled	Typical Category If Disposed in Landfill and Not Mixed With a Hazardous Waste³
Used Motor Oil	Support Vehicles, Locomotives, Shop	Used Oil	Used Oil	Hazardous Waste
Used Oil Filters	Support Vehicles, Locomotives	Nonhazardous Solid Waste If No Free Flowing Used Oil	Used Oil- If Not Drained	Nonhazardous Solid Waste If No Free Flowing Used Oil
Oil Spill Absorbent Material (e.g., Shop Rags)	Shop	Used Oil	Used Oil	Depends on Used Oil Characterization
Used Hydraulic Fluid	Tampers, Lift Gates, Backhoes, etc.	Used Oil	Used Oil	Hazardous Waste
Used Transmission Fluid	Support Vehicles, Locomotives, Shop	Used Oil	Used Oil	Hazardous Waste
Used Brake Fluid	Support Vehicles, Locomotives, Shop	Used Oil	Used Oil	Hazardous Waste
Used Locomotive Coolant	Locomotives, Shop	Nonhazardous Waste	Nonhazardous Waste	Nonhazardous Waste
Used Antifreeze	Support Vehicles, Locomotives, Shop	Not Determined by Federal Regulations. Check with State.	Not Determined by Federal Regulations. Check with State.	Not Determined by Federal Regulations. Check with State.
Spent solvents	Shop	Hazardous Waste	Hazardous Waste	Hazardous Waste
Used Citric Solvents	Shop	Nonhazardous Waste	Nonhazardous Waste	Nonhazardous Waste
Spilled or Unused Fuels	Shop	Hazardous Waste	Hazardous Waste	Hazardous Waste

Spilled or Unusable Paints and Thinners	Shop	Hazardous Waste	Hazardous Waste	Hazardous Waste
Abrasive grit blast media	Shop, Exterior of buildings, locomotives	Depends on the material or paint being blasted (e.g. , latex vs. lead paint)	Depends on the material or paint being blasted (e.g. , latex vs. lead paint)	Depends on the material or paint being blasted (e.g. , latex vs. lead paint)
Batteries (1) Lead acid, Ni/Cd, Ni/Fe (2) Alkaline	Signaling and Crossing Signs, Walkie-Talkies, Locomotive, Truck, Car	(1) If Hazardous, Universal Waste (2) Typically a Nonhazardous Waste	(1) If Hazardous, Universal Waste (2) Nonhazardous Waste	(1) If Hazardous, Universal Waste (2) Typically a Nonhazardous Waste
Used Crossties	Railroad	Nonhazardous Waste	Nonhazardous Waste	Nonhazardous Waste
Track ballast with hazardous waste	Railroad	Hazardous Waste	Nonhazardous Waste	Hazardous 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 the generator status (i.e., conditionally exempt small quantity generator versus small quantity generator or large quantity generator).
- 2 If any solid waste is mixed with a hazardous waste, then the mixture becomes a hazardous waste.
- 3 Municipal landfills are not permitted to accept hazardous waste from small quantity or large quantity generators.

1.1b How much hazardous waste does the facility generate per month?

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

The facility generates: (*Pick one*)

No more than 220 lbs (100 kg) of hazardous waste per month. This is approximately 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.

Between 220 lbs (100 kg) and 2,200 lbs (1000 kg) of hazardous waste per month. In this case, the facility generates more than ½ of a 55 gallon drum of hazardous waste, but less than 5 (five) 55-gallon drums 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.

Over 2,200 lbs (1000 kg) of hazardous waste per month. In this case, the facility generates approximately 5 (five) 55-gallon drums 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: If the facility is a CESQG and generates no more than 2.2 lbs (1 kg) of acutely hazardous waste (or 220 lbs [100 kg] of acutely hazardous waste spill residues) in a calendar month, and never store more than that amount for any period of time, the facility may manage the acutely hazardous waste according to the CESQG requirements. If the facility generates more than 2.2 lbs (1 kg) of acutely hazardous waste, it must manage the waste according to the LQG requirements.

The total weight of 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.

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 SQG requirements; if the same generator produces 1,500 kg of hazardous waste in April, that waste is subject to LQG requirements.

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

If the facility is an SQG or an LQG (as discussed in *Question 1.1b*), it must have an EPA hazardous waste generator ID number. This requirement applies even to **episodic generators** who may fall into the SQG or LQG categories for one month only. The facility must enter the number on all hazardous waste manifests. It is usually placed near the top of the form under the heading, "Generator ID #." If the state issues the number, it will start with the state abbreviation followed by the number (e.g., NY-12345678). CESQGs are not required to have an identification number under federal law. Contact the 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/UST, Superfund, EPCRA Hotline** at **1-800-424-9346**.

- Yes** Facility has obtained an 8-digit ID number from EPA or the state regulatory agency that has been granted authority by EPA. ✓
- No** Facility has not obtained an EPA ID number.
- NA** Facility is a CESQG and therefore is not required to obtain an EPA ID number.

1.1d Does the facility store hazardous waste in appropriate storage containers?

Containers must meet the following requirements (40 CFR 262.34):

- Clearly marked with the words "**Hazardous Waste**" and the date when waste accumulation began. *Labels for this purpose may be available from the waste hauler.*
- 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, except if volatile explosion is possible and emergency ventilation is needed.
- Inspected at least once per week for leaks or corrosion. *Note: Some states may require facilities to keep a written record of these inspections. Any problems should be corrected immediately. If any corrections are made, they should be noted in a permanent record and kept on file for at least 3 years.*
- Stored in a manner that minimizes the potential for accidental mixing of incompatible materials.

- Yes** Facility stores waste in containers that meet the above requirements. ✓
- No** Facility stores waste in containers that do not meet the above requirements.
- NA** Facility does not generate hazardous waste.

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

Hazardous waste generators must store hazardous waste according to the following requirements:

- **LQGs** may accumulate any amount of hazardous waste for no more than 90 days.
- **SQGs** can accumulate no more than 13,228 lbs (6,000 kg) of hazardous waste on site for up to 180 days without permit (or up to 270 days if the facility must transport the hazardous waste more than 200 miles away for recovery, treatment, or disposal). If these limits are exceeded, the facility is a treatment, storage, and disposal facility (TSDF) and must obtain an operating permit.
- **CESQGs** have no maximum on-site time limits for storage *but cannot accumulate more than 2,200 lbs (1000 kg) of hazardous wastes or 2.2 lbs (1 kg) of acutely hazardous waste, or 220 lbs (100 kg) of acutely hazardous waste spill residues, at any time.*

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.

NA Facility does not generate hazardous waste.

1.1f How does the facility manage/dispose of its hazardous waste?

Ships hazardous waste off site to:

- A RCRA-permitted TSDF. ✓
- A recycling facility. ✓
- An interim status facility; or ✓
- An exempt facility. ✓

Disposes of hazardous waste on site and is a RCRA-permitted TSDF. ✓

Other *Note: If not managing hazardous waste by one of the above options, facility is out of compliance and must rectify the situation immediately.*

NA Facility does not generate hazardous waste.

1.1g Does the facility keep copies of its manifests for the 3 year minimum requirement?

The facility must meet various recordkeeping requirements as part of hazardous waste management obligations. The Uniform Hazardous Waste Manifest Form is a multi-copy shipping document that reports the contents of its shipment, the transport company used, and the treatment/disposal facility receiving the wastes. The hazardous waste generator, the transporter, and the treatment/disposal facility must each sign this document and keep a copy. The waste disposal/treatment facility also must send a copy back to the hazardous waste generator, so that the generator can be sure that its shipment was received. A copy of the manifest is required to be kept at the facility for 3 years.

- Yes** Facility maintains a copy of its manifest for a minimum of 3 years. ✓
- No** Facility has not maintained a copy of its manifest for a minimum of 3 years.
- NA** Facility does not generate hazardous waste.

1.1h Does the facility have a written contingency plan on site or basic contingency procedures in place for responding to spills and releases of hazardous wastes?

If the facility is an LQG, it must have a **written contingency plan** that includes the following elements (40 CFR 262.34):

- Instructions on what to do in the event of a fire, explosion, or release.
- The arrangements agreed to by local police and fire departments, hospitals, and State and local emergency response teams to provide emergency services.
- The names, addresses, and phone numbers of all persons qualified to act as emergency coordinator.
- Location of all emergency equipment at the facility and
- An evacuation plan.

Although a **written contingency plan** is not federally required for SQGs or CESQGs, it is strongly recommended.

SQGs are required to have **basic contingency procedures**, which include the following:

- An *emergency coordinator* (employee) who is responsible for coordinating all emergency response measures.
- *Information posted next to the telephone*, including: (1) name and number of the emergency coordinator; (2) locations of the fire extinguishers and spill control material; and (3) telephone number of the fire department.
- Ensure that all employees are thoroughly familiar with *proper waste handling and emergency procedures*.

It is also important to check with the state and local authorities for any additional contingency plan or emergency preparedness requirements.

- Yes** Facility has a written contingency plan or basic contingency procedures in place. ✓
- No** Facility does not have a written contingency plan or basic contingency procedures in place.
- NA** Facility is not an SQG or an LQG (i.e., facility is a CESQG) and is not required to meet RCRA's emergency preparedness requirements.

1.2 Used Oil and Used Filters

(SEE HANDBOOK - PAGES 14,18-20,
33-34, 75-76)

NOTE: The following questions, some of which are included in the accompanying checklist (highlighted in **bold**), will help the facility examine its operations relating to *used oil and used filters* for compliance with environmental requirements.

- a. **Are used oil containers/tanks and associated piping leak free and labeled "used oil"?** (p. W-11)
- b. **Does the facility prevent the mixing of used oil with hazardous waste?** (p. W-11)
- c. **How does the facility manage/dispose of its used oil?** (p. W-12)
- d. *If the facility transports more than 55 gallons of used oil off site at one time, (1) does it have an EPA ID number, and (2) is it licensed as a used oil transporter?* (p. W-13)
- e. *Does the facility completely drain used oil filters and/or used fuel filters before disposal?* (p. W-14)
- f. **How does the facility manage/dispose of its used oil filters?** (p. W-14)
- g. *Has the facility determined if its used fuel filters are hazardous?* (p. W-15)
- h. **How does the facility manage/dispose of its used fuel filters?** (p. W-15)
- i. *Does the facility inspect used oil filter storage areas for oil spills and leaks?* (p. W-15)
- j. *Does the facility inspect locomotive storage track areas for oil spills and leaks?* (p. W-16)

These questions appear in the following text and may be accompanied with a discussion of the preferred answers (indicated with a "✓") for environmental compliance.

Used Oil

Facilities should consider several environmental issues when performing any oil handling activities such as oil changes or oil/fuel filter replacement to motor vehicles, maintenance equipment, and other motors. Most facilities recycle or reclaim used oil. Used oils are regulated under the **Used Oil Standards** (40 CFR Part 279), and are typically not in the class of hazardous wastes at the federal level. However, some states may have stricter disposal requirements. *In addition, used oil generators are also subject to all applicable Spill Prevention, Control and Countermeasures (SPCC) and underground storage tank (UST) standards.* Contact the state regulatory agency to determine the used oil disposal requirements. Facilities should maintain all records on their used oil storage and recycling activities.

1.2a Are used oil containers/tanks and associated piping leak free and labeled “used oil”?

The facility must store used oil in leak free containers labeled with the words “**used oil.**” No special labels are necessary, provided that the words “used oil” are visible at all times. Spray painting, crayon, or handwritten (preferably not in pencil) labels are okay. One can mix used motor oil with other used oils (hydraulic oils, transmission fluids, brake fluids) and store them in the same tank.

Note: If a facility uses storage tanks to store waste oil, such tanks may be regulated under underground storage tank (UST) or aboveground storage tank (AST) regulations.

Some facilities have *pipes* that connect to the used oil storage tank. Piping runs from the inside of the building to the outside disposal point (i.e., tank). 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. In this case, the funnel/bucket or piping should have a label with the words “**used oil.**”

- Yes** Used oil is in a leak free container(s) labeled with the words “used oil.” ✓
- No** Used oil is not in a leak free container(s) and/or is not labeled “used oil.”
- NA** Facility does not generate used oil.

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

A facility should not mix hazardous waste fluids, such as spent solvent, gasoline, or other hazardous substances, with used oil, or the entire volume may be classified as hazardous waste. For example, although mixing a *listed hazardous waste* with used oil will result in a hazardous waste, mixing a *characteristic hazardous waste* with used oil will not result in a hazardous waste, *unless it exhibits a hazardous characteristic* (see

Section 1.1). A facility can mix used motor oil with other used oils (e.g., transmission fluid or brake fluid) and store it in the same container/tank. For questions about which specific products may be mixed with used oil, call the **RCRA/UST, Superfund, and EPCRA Hotline** at **1-800-424-9346**.

- Yes** Facility prevents the mixing of used oil with hazardous waste. ✓
- No** Facility does not prevent the mixing of used oil with hazardous waste.
- NA** Facility does not generate used oil.

1.2c How does the facility manage/dispose of its used oil?

Recycling and burning (for energy recovery) of used oil that has not been mixed with any other waste are the most environmentally protective and often the most economical approach to handling used oil.

Under Used Oil Management Standards, generators can burn used oil as long as:

- ! The used oil is generated on site.
- ! Space heaters with maximum heating capacity of 0.5 million BTUs per hour or less are used to burn the used oil.
- ! The gases from the space heater are vented outside.

A facility can manage used hydraulic oils and dispose of it as used oil and blende them with other used oils, such as engine and lube oils. Recycling and reclamation are preferred over disposal.

- Sent off site for recycling** Facility has a regular hauler who takes the used oil to a recycling facility. ✓
- Burned in an on site space heater** Facility burns its used oil in an on-site heater with maximum heating capacity of 0.5 million BTUs used to heat the facility or heat hot water. **Note:** *There may be Clean Air Act (CAA) requirements that apply when burning used oil. Contact the state or local air pollution control agency for more information.* ✓
- Burned off site** Facility has a hauler or takes its own oil to a used oil burner. ✓
- Other** Facility does not use any of the methods described above. **Note:** *Used oil should not be disposed of in sewers, drains, dumpsters, or on the ground, or used as a dust suppressant or control.*
- NA** Facility does not generate used oil.

1.2d If the facility transports more than 55 gallons of used oil off site at one time, (1) does it have an EPA ID number, and (2) is it licensed as a used oil transporter?

If the facility transports *more than 55 gallons* of used oil off site to an approved used oil collection center, it must : (1) have an EPA ID number and (2) have a license/permit as a used oil transporter.

- Yes** Facility has an EPA ID number and is licensed as a used oil transporter. ✓
- No** Facility does not have an EPA ID number, or does not have a license/permit as a used oil transporter.
- NA** Facility does not transport more than 55 gallons of used oil off site at one time.

Used Filters

Used Oil Filters: Used oil filters are exempt from federal hazardous waste requirements as long as the filters:

- Are not terne-plated. (Terne is an alloy of tin and lead. The lead in the terne-plating makes the filters hazardous.)
- Are properly drained (i.e., hot-drained) of used oil.

According to federal regulations, a facility can dispose filters as solid waste (in some states) provided that the filter has been **hot-drained** to remove residual used oil. This means that no matter what draining option is used, the facility should remove the filter from a warm engine and drain it immediately. Four distinct methods of **hot-draining** can be used:

- Gravity Draining: When the filter is removed from the engine, one should place it with its gasket side down in a drain pan. If the filter has an anti-drain valve, the “dome end” of the filter should be punctured with a screwdriver (or similar device) so that oil can flow freely. The filter then should be allowed to drain for 12 to 14 hours.
- Crushing: A mechanical, pneumatic, or hydraulic device crushes the filter to squeeze out the used oil/fuel and compact the remaining filter materials.
- Disassembly: A mechanical device separates the filter into its different parts. This allows most of the used oil/fuel to be removed from the filter, and the metal, rubber, and paper parts of the filter to be recycled separately.
- Air Pressure: One places the filter into a device where air pressure forces the used oil/fuel out of the filter.

Protect storage containers designated for used oil filters from storm water with a cover. In addition, the container should be capable of holding any used oil that seeps from the filters.

Used fuel filters: Drain used fuel filters (using the same procedure as used oil filters) and then test to determine if they are hazardous. If the fuel filters are hazardous, they count toward the facility's generator status (see *Section 1.1* for more information). Used fuel filters should be in a separate, marked, fireproof container. If the facility is a CESQG, it can dispose of used fuel filters in a licensed landfill or give them to a hazardous waste hauler. If the facility is an SQG or an LQG, then it must use a hazardous waste hauler with an approved EPA ID number. Manage metal filters as scrap metal if properly drained.

Note: *Since disposal requirements of used filters may vary by state, one should consult the state regulatory agency for proper disposal.* For more information regarding state filter management regulations, and referrals to state agencies and companies that provide filter management services, refer to the **Used Filter Hotline** at **1-800-993-4583**. This hotline is sponsored by the Filter Manufacturers Council.

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

- Yes** Facility completely drains filters (i.e., no visible signs of free-flowing oil remains) prior to disposal. ✓
- No** Facility does not completely drain filters prior to disposal.
- NA** Facility does not generate used oil or fuel filters.

1.2f How does the facility manage/dispose of its used oil filters?

- Recycle** Facility recycles filters for scrap metal. ✓
- Service** Facility contracts with a service which takes filters. ✓
- Trash** Facility disposes of filters in the dumpster (e.g., not segregated from other waste such as paper, plastics, food, etc.).
- Other** Method of disposal is not listed above. **Note:** *The facility may be out of compliance. Contact the state regulatory agency for assistance.*
- NA** Facility does not generate used oil filters.

1.2g 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.
- NA** Facility does not generate used fuel filters.

1.2h How does the facility manage/dispose of its used fuel filters?

Note: If one determines used fuel filters are hazardous waste, the facility must count them towards the facility's generator status and manage them accordingly. See Section 1.1 for more information on hazardous waste management.

- Recycle** Facility recycles used fuel filters. ✓
- Service** Facility contracts with a service which takes used fuel filters as they are. ✓
- Managed as hazardous waste** Facility manages used fuel filters as hazardous waste. ✓
- Trash** Filters are discarded in the dumpster (e.g., not segregated from other waste such as paper, plastics, food, etc.).
- Other** Method of disposal is not listed above. **Note:** The facility may be out of compliance. Contact the state regulatory agency for assistance.
- NA** Facility does not generate used fuel filters.

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. A facility should take measures to minimize oil dripping by regular maintenance of railroad cars and support vehicles. Take care not to store used oil and used oil filters near floor drains. Many facilities keep absorbent materials close to oil drums or oil handling locations in order to protect nearby areas from contamination.

A facility should inspect all areas where oils are received, stored, used, changed, and potentially spilled regularly for spills. Use one of the following indicators to identify oil spills: (1) sheen on water, (2) stained soil, (3) lack of vegetation, or (4) visible leaks. Contain all spills and clean up immediately after detection. The facility should consult the Spill Prevention, Control, and Countermeasures (SPCC) plan in the event of a spill

or leak. The SPCC plan contains detailed information on spill cleanup and remediation. In addition, if any oil enters surface waterways and produces a sheen, notify the **National Response Center (1-800-424-8802)** and state emergency response agency *immediately*.

- Yes** Facility inspects storage areas for oil spills. ✓
- No** Facility does not inspect storage areas for oil spills.
- NA** Facility does not have storage areas for used oil and filters.

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, conduct regular inspections for locomotive leaking. Whenever leaks are detected, the facility should take immediate action to minimize drippings. Actions should include engine maintenance, the use of absorbents, and regular emptying of drip pans installed under the locomotive idle and storage areas to catch drips of oil, fuel, and coolant.

Tip: It is a good idea for a short line railroad facility to have **spill kits** near areas where experience has shown leaks and spills likely to occur. Such spill kits may include kitty litter, organic-based absorbents and other tools for containment.

Consult the SPCC plan in the event of a spill or leak. In addition, if any oil enters surface waterways and produces a sheen, notify the **National Response Center (1-800-424-8802)** and state emergency agency *immediately*.

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

1.3 Spent solvents

(SEE HANDBOOK - PAGES 11-13, 22)

Note: All of the following questions are included in the accompanying checklist to help the facility examine its operations relating to *spent solvents* for compliance with environmental requirements.

- a. *If halogenated solvents are used in cleaning equipment, has the facility submitted a notification report to the air permitting agency? (p. W-17)*
- b. *Does the facility store its spent solvents in labeled containers? (p. W-18)*
- c. *How does the facility manage/dispose of its spent solvents? (p. W-18)*

These questions appear in the following text and may be accompanied with a discussion of the preferred answers (indicated with a “✓”) for environmental compliance.

Spent solvents

1.3a *If halogenated solvents are used in cleaning equipment, has the facility submitted a notification report to the air permitting agency?*

Although most facilities use soap and water for parts cleaning, some facilities use halogenated solvents. On December 2, 1994, EPA issued national emission standards for hazardous air pollutants (NESHAP) to control toxic air pollutant emissions from solvent cleaning equipment (including dip tanks and parts washers) that use any of six halogenated solvents. These halogenated solvents include:

- Methylene chloride
- 1,1,1-Trichloroethane
- Chloroform
- Perchloroethylene
- Trichloroethylene
- Carbon tetrachloride.

Tip: A facility can tell if these chemicals are contained in the solvent by reading the label on the container or reading a Material Safety Data Sheet (MSDS) that should accompany any hazardous material the facility has on site. If the facility does not have an MSDS, one may be requested from its vendor.

All owners and operators of solvent cleaning equipment that use these solvents must submit an initial **notification report** to its state/local air permitting agency. This report must include information on each solvent cleaning machine and control equipment, and the yearly estimated consumption of each halogenated solvent used. Additional NESHAP requirements depend on the type of solvent cleaning machine (e.g., batch

vapor, in-line) that a facility uses. Contact the state/local air pollution control agency for more information.

- Yes** Facility has submitted a notification report. ✓
- No** Facility has not submitted a notification report.
- NA** Facility does not use halogenated solvents to conduct equipment cleaning.

1.3b Does the facility store its spent solvents in labeled containers?

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

Labeled. Containers holding spent solvents that are hazardous and will be transported for disposal must have labels. **Note:** *Solvents that are being used in a parts washer do not need labels.*

- Yes** Spent solvents are stored in labeled containers. ✓
- No** Spent solvents are not stored in labeled containers.
- NA** No solvents are used at the facility.

1.3c How does the facility manage/dispose of its spent solvents?

If a vendor is not used to assure proper handling and disposal, it is important for the facility to determine if the spent solvents are hazardous. If the spent solvents are hazardous, no one should mix them with nonhazardous wastes such as used oils. Be sure all hazardous waste is stored, manifested, transported and disposed of in compliance with RCRA requirements. Only treatment, storage, and disposal facilities (TSDFs) should dispose of hazardous waste.

Sludges: Facilities must also determine if sludges, which may be generated during parts cleaning, are hazardous. If so, they must be managed in accordance with RCRA.

- 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 washers, and collect the spent solvents, provide transportation, and recycle or dispose of the waste. ✓
- Storm sewers or surface waters** Facility has obtained an NPDES permit to discharge nonhazardous waste to storm sewers or to surface waters. ✓

Sanitary sewer	Facility has obtained approval from the POTW to discharge nonhazardous waste to sanitary sewers. Discharge may require pretreatment. ✓
UIC well	Facility discharges nonhazardous waste to an underground injection control (UIC) well. The facility complies with UIC program requirements (40 CFR Part 144). For additional questions, contact your State UIC agency. (A facility cannot discharge hazardous waste to a UIC well.)
TSDf	Facility sends hazardous waste to a TSDf for disposal. ✓
Ground	Facility discards spent solvents on the ground which may affect groundwater or may flow with storm water into storm sewers and surface waterways. Caution: All states forbid the disposal of hazardous spent solvents on the ground.
Other	Method of disposal is not known.
NA	Facility does not generate spent solvents or sludge.

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

NOTE: The following questions, some of which are included in the accompanying checklist (highlighted in **bold**), will help the facility examine its operations relating to *used battery storage and disposal* for compliance with environmental requirements:

- a. *Has the facility determined whether its batteries are regulated as universal waste or hazardous waste? (p. W-20)*
- b. **If storing used batteries, does the facility protect them from storm water contact? (p. W-20)**
- c. **How does the facility manage/dispose of used batteries? (p. W-21)**

These requirements appear in the following text and may be accompanied with a discussion of the preferred answers (indicated with a "✓") for environmental compliance.

1.4a Has the facility determined whether its batteries are regulated as universal waste or hazardous waste?

There are many types of used batteries with different disposal requirements. Some of these batteries may be classified as hazardous waste (see *Section 1.1*) if they are not properly handled.

For more information on how batteries are covered under the Universal Waste Rule, contact the **RCRA/UST, Superfund, and EPCRA Hotline** at **1-800-424-9346**. Note: Because the Universal Waste Rule is less stringent than RCRA, some states have not adopted it. Check with the state regulatory agency to see if it has adopted the Universal Waste Rule.

Under the Universal Waste Rule (40 CFR Part 273), if batteries do not exhibit hazardous waste characteristics (see *Section 1.1*), they may be regulated as

universal wastes and subject to less stringent requirements than

other hazardous wastes. For example, many small sealed lead acid batteries (used for electronic equipment and mobile telephones) and nickel-cadmium batteries are regulated as universal wastes. Most alkaline batteries are not considered hazardous waste under RCRA and can be disposed of as general trash. *Check with the local waste authority to see if they have a battery collection program.*

- Yes** Facility has gone through the waste determination process (*as discussed in Section 1.1*) to determine whether its batteries are universal or hazardous waste. ✓
- No** Facility has not determined whether its batteries should be regulated as universal or hazardous waste.
- NA** Facility does not generate used batteries.

1.4b If storing used batteries, does the facility protect them from storm water contact?

When placed out-of-service, the facility should transport batteries to an accumulation area specifically designed for storage prior to removal from the site. The storage accumulation area should protect the batteries from weather and storms. It should be designed (1) with secondary containment to prevent any spillage or leakage from contaminating the soil or surface waters; and (2) without floor drains that could receive spills and deliver them to the storm sewer, sanitary sewer, surface water, or injection well. Battery storage maybe done inside or outside under a tarp or roof. Store batteries in a containment such as pan or other device so that any leakage cannot enter floor drains or spill onto the ground. Improperly stored batteries are considered "abandoned."

- Yes** Used batteries are protected from storm water discharges. ✓

- No** Used batteries are not protected from storm water discharges.
- NA** Facility does not store used batteries.

1.4c How does the facility manage/dispose of used batteries?

- Return to supplier** Facility returns used batteries to supplier. ✓
- Recycle** Facility sends batteries to a recycling facility. ✓
- Service** Facility pays service company to pick up used batteries. ✓
- Universal waste handler** Facility sends used batteries classified as universal waste to a universal waste handler. ✓
- 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.
- NA** Facility does not generate used batteries.

1.5 Used Rags and Shop Towels

(SEE HANDBOOK - PAGE 76)

NOTE: The following questions, one of which is included in the accompanying checklist (highlighted in **bold**), will help the facility examine its operations relating to *used rags and shop towels* for compliance with environmental requirements:

- a. **How does the facility manage used rags and shop towels? (p. W-22)**
- b. *How does the facility store used rags and shop towels on site? (p. W-22)*

These questions appear in the following text and may be accompanied with a discussion of the preferred answers (indicated with a “✓” for environmental compliance.

Used Shop Rags and Towels

A facility must manage used shop rags and towels as **hazardous waste** if they are contaminated with a hazardous waste or display a hazardous characteristic due to the presence of gasoline or metal-contaminated antifreeze. EPA allows facilities to manage these

used rags and towels by sending them to a laundry service, or disposing of them through an EPA-licensed hazardous waste transporter and disposal facility.

Used shop rags and towels contaminated with **used oil** only can be recycled; burned for energy recovery under the same Used Oil Management Standards existing for burning used oil (see page W-12, question 1.2c); or disposed of. According to the used oil regulations, a facility should handle oil-contaminated rags and towels as used oil until the oil is removed from them (40 CFR Part 279). EPA considers used oil satisfactorily removed when *no visible sign of free flowing oil* remains in the rags/towels. **Note:** *After used oil has been removed, the material may still need to be handled as a hazardous waste if it contains a hazardous waste or exhibits any property of hazardous waste. See Section 1.1 for more information regarding hazardous wastes. Many facilities avoid the hazardous waste determination process by sending rags to a laundering facility for washing, rather than disposal.*

Shop Rag/Towel Laundering
 Many states do not consider rags going for laundering to be hazardous waste (although a hazardous waste could be generated by the launderer). This is because the rag/towel, even if contaminated with hazardous waste, is not being discarded and therefore, the hazardous waste requirements do not apply. Keep in mind that some states may consider these rags/towels as solid wastes, even if they are to be sent for laundering. Check with the state regulatory agency on requirements for managing shop rags/towels.

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

- Laundry service** Facility sends used rags/towels off site to be laundered, often with technicians' uniforms. ✓
- Burned for heat** Facility mixes used rags/towels with used oil and burned in a shop space heater with maximum heating capacity 0.5 million BTU per hour or sent to a used oil burner. This does not include burning in a barrel simply for disposal. ✓
- Hazardous waste transporter** Facility mixes used rags/towels with hazardous waste and disposes through an EPA-licensed hazardous waste transporter and disposal facility.
- Trash** Facility disposes of used rags/towels with trash (in a dumpster) which is not segregated. *If rags/towels are contaminated with hazardous waste, they should not be disposed of with trash, but managed according to one of the above options.*
- Other** Facility's method of disposal is not listed.
- NA** Facility does not generate used rags or shop towels.

1.5b How does the facility store used rags and shop towels on site?

Separate container	Facility stores used rags/shop towels in a container (e.g., bucket, can, barrel, on a shelf or bench, etc.). ✓
Stored as hazardous waste	Facility stores used rags/shop towels contaminated with hazardous waste according to hazardous waste requirements (see Section 1.1). ✓
Shop trash can	Facility disposes used rags/shop towels in a can/dumpster that contains all shop waste and not segregated.
Floor	Facility places use rags/shop towels on the floor, in a pile, or they are simply scattered.
Other	Method of storage is not listed.
NA	Facility does not generate used shop rags/shop towels.

1.6 Absorbents/Track Mats

(SEE HANDBOOK - PAGES 33-34, 64)

NOTE: The following questions, some of which are included in the accompanying checklist (highlighted in **bold**), will help the facility examine its operations relating to *absorbents and track mats* for compliance with environmental requirements.

- a. *Does the facility use sawdust, soil, or other commercial absorbents for spills and leaks? (p. W-23)*
- b. **Does the facility determine if used absorbents (e.g., track mats) are hazardous wastes before disposal? (p. W-24)**
- c. **How does the facility manage absorbents used for oil spills? (p. W-24)**

These questions appear in the following text and may be accompanied with a discussion of the preferred answers (indicated with a “✓”) for environmental compliance.

Absorbents

Cleaning up spills and releases of chemicals and petroleum products involves the use of materials such as kitty litter type substances (known as “quick dry,” “speedi dry,” or “oil dry”), clay absorbent, pads, pillows, booms, towels, and other such absorbent materials. Sawdust is also sometimes used as an absorbent. One must use the proper absorbent for the type of chemical spilled. Once used in a cleanup, the facility must dispose of these materials properly.

1.6a 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.

1.6b Does the facility determine if used absorbents (e.g., track mats) are hazardous wastes before disposal?

Absorbents are hazardous waste if: (1) they are contaminated with a hazardous material such as solvent or gasoline, or (2) they are characterized as hazardous by the facility. Although used oil is not considered a hazardous waste if it is recycled, it is a hazardous waste if it is disposed of in a landfill and has hazardous characteristics. Thus, anything that absorbs used oil and is thrown in the trash could be considered a hazardous waste, even if it is not mixed with a hazardous waste. *For more information regarding used oil regulatory requirements, refer to 40 CFR Part 279.*

Track Mats
Some facilities use track mats as absorbents to protect the track and ballast area from locomotive leaks. The facility should test such absorbents to determine whether they are hazardous or not and managed accordingly. If the track mats are hazardous, then the facility must include them when determining its generator status. Some service companies will pick up contaminated track mats.

Yes Facility has determined whether used absorbents are considered hazardous before disposal. ✓

No Facility does not characterize its absorbents.

NA Facility does not generate used absorbents.

1.6c How does the facility manage absorbents used for oil spills?

Note: the facility should determine whether used absorbents are hazardous before disposal.

Sent to supplier or Service company Facility returns used absorbents to its supplier or pays service company to pick up used absorbents. ✓

Burned for energy Facility burns absorbents used to soak up used oil for energy recovery in a space heater with maximum heating capacity of less than 0.5 million BTU per hour. ✓

Disposed of as Facility places hazardous absorbents in drums, labeled as

hazardous waste	“Hazardous Waste,” and disposes of them through a hazardous waste hauler. ✓
Nonhazardous and landfilled	Facility determined that the absorbents are a nonhazardous solid waste and disposes of them with regular trash. ✓
Other	Facility’s method of management is not listed here.
NA	Facility does not use absorbents.

1.7 Fueling

(SEE HANDBOOK - PAGES 63-65)

NOTE: The following questions, one of which is included in the accompanying checklist (highlighted in **bold**), will help the facility examine its operations relating to *fueling operations* for compliance with environmental requirements:

- a. *Has the facility installed Stage I vapor recovery equipment for unloading of gasoline?* (p. W-25)
- b. *Has the facility installed Stage II vapor recovery equipment at the pumps?* (p. W-26)
- c. *Do fuel delivery records indicate compliance with appropriate fuel requirements?* (p. W-26)
- d. *Has the facility clearly labeled the pumps with the product they contain?* (p. W-27)
- e. *Do gasoline pump nozzles comply with 10 gallon per minute flow rate?* (p. W-27)
- f. ***Are overfill protection measures, spill containment methods, and spill response equipment used during fueling?*** (p. W-27)

These questions appear in the following text and may be accompanied with a discussion of the preferred answers (indicated with a “✓”) for environmental compliance.

Fueling

1.7a *Has the facility installed Stage I vapor recovery equipment for unloading of gasoline?*

If a facility dispenses gasoline on site for its vehicles, and is located **within an ozone non-attainment area**, the gasoline delivery truck

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

driver **MUST** use Stage I vapor recovery equipment while filling the facility's gasoline storage tanks.

Stage I vapor recovery equipment captures and controls gasoline vapors which would otherwise go into the atmosphere (1) during the storage of gasoline, or (2) during the loading and unloading of a gasoline delivery vessel.

- | | |
|-------------------|---|
| Yes | Facility ensures that Stage I vapor recovery equipment is used. ✓ |
| No | Facility knows that Stage I vapor recovery equipment is not used. |
| Don't Know | Facility does not know if Stage I vapor recovery equipment is used. |
| NA | The facility is either not located in an ozone non-attainment area <u>or</u> facility does not dispense gasoline. |

1.7b Has the facility installed Stage II vapor recovery equipment at the pumps?

If facility dispenses gasoline and is located in a serious or above ozone non-attainment area, Stage II vapor recovery equipment must be present and work properly at each nozzle which dispenses gasoline at the facility. Stage II vapor recovery captures the vapors from the automobile tank and returns them to the storage tank. Stage II vapor recovery is the "black boot" on the gasoline nozzle and black hose extending to the upper fuel pump canopy at dispensing stations.

- | | |
|-------------------|---|
| Yes | Facility has installed Stage II equipment and it is working. ✓ |
| No | Facility has not installed Stage II equipment. |
| Don't Know | Facility does not know if Stage II equipment is installed and/or working. |
| NA | The facility is either not located in a serious or above ozone non-attainment area or does not dispense gasoline. |

1.7c 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 (e.g., gasoline, diesel, kerosene), how much was received, when it was received, and whether the delivered fuel complies with appropriate fuel requirements.

If the facility is located within an ozone nonattainment area and dispenses gasoline, the fuel delivery ticket MUST say “**RFG, certified for use in an ozone nonattainment covered area**” or “**RFG.**” RFG stands for reformulated gasoline.

Contact the local air pollution control authority to determine if the facility is located in an ozone nonattainment area and if air releases from fueling operations are regulated.

If the facility is **NOT** located within an ozone nonattainment area, the fuel delivery ticket should say “**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 the facility dispenses diesel fuel to on-the-road vehicles, the fuel delivery ticket MUST say “**LOW SULFUR**” or “**LOW SULFUR DIESEL FUEL.**”

- Yes** Delivery records indicate compliance with appropriate fuel requirements. ✓
- No** Delivery tickets do not indicate compliance with fuel requirements.
- NA** Facility does not receive fuel.

1.7d Are pumps clearly labeled with the product they contain?

Pumps must have labels to indicate a description of the product (e.g., gasoline, diesel, kerosene), product grade (e.g., regular, mid-grade, premium), and octane (e.g., 87 octane) that is being dispensed from the nozzle.

- Yes** The facility clearly labels the pumps. ✓
- No** The facility does not label pumps.
- NA** Facility does not have pumps.

1.7e Do gasoline pump nozzles comply with 10 gallon per minute flow rate?

After January 1, 1996, every retailer handling over 10,000 gallons of fuel per month must equip each pump, from which gasoline or methanol flows into vehicles, with a nozzle that dispenses fuel at a flow rate not to exceed 10 gallons per minute. After January 1, 1998, this requirement applies to every retailer.

- Yes** Facility tested the pump nozzles, and they comply with 10 gallon per minute flow rate. ✓
- No** Facility tested the pump nozzles, but they do not comply.
- Don't** Facility does not know if pump nozzles have been tested.

Know

NA Facility does not dispense gasoline or methanol.

1.7f Are overfill protection measures, spill containment methods, and spill response equipment used during fueling?

When fueling vehicles, facilities should use overfill protection, spill containment, and spill response equipment to prevent overflows and spills.

- **Overfill protection.** Facilities can prevent fuel overflows during tank filling by installing preventive measures, such as self-locking fuel measures and regularly monitoring transfers. In addition, a facility can prevent spills that result from “topping off” tanks by training employees on proper fueling techniques.
- **Spill containment.** Facilities should clean leaks and spills immediately using dry methods such as absorbent wipes.
- **Spill response.** Portable absorbent booms should be readily available for a quick response to spills. Use dry absorbent materials such as kitty litter or organic-based absorbents to absorb oil and grease. *Dispose of used absorbent properly in accordance with federal and state regulations.*

Yes Facility uses the measures, methods, and equipment described above. ✓

No Facility does not use the measures, methods, or equipment described above.

NA Facility does not have fueling operations.

1.8 Recordkeeping Requirements

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

NOTE: Both of the following questions are included in the accompanying checklist to help the facility examine its operations relating to *recordkeeping requirements* for compliance with environmental requirements:

- Does the facility maintain all required environmental compliance records? (p. W-29)***
- Does the facility keep all service receipts? (p. W-29)***

These questions appear in the following text and may be accompanied with a discussion of the preferred answers (indicated with a “✓”) for environmental compliance.

Recordkeeping

Many environmental compliance records must 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.

1.8a Does facility maintain all required environmental compliance records?

Yes Facility maintains all required records. ✓

No Facility does not maintain all required records.

Don't Know Facility is unsure of what records are required to be kept. **Note:** Contact the state regulatory agency for assistance.

1.8b Does the facility keep all service receipts?

The facility should maintain all of its service receipts, such as those used to pick up used oil and used batteries.

Yes Facility keeps all of its service receipts. ✓

No Facility does not keep all of its service receipts.

NA Facility does not hire service company(s).

SECTION 2.0 MECHANICAL OPERATIONS

2.1 Brake Repair

(SEE HANDBOOK- PAGE 8)

NOTE: The following question is included in the accompanying checklist to help the facility examine its operations relating to *brake repair* for compliance with environmental requirements:

a. How does the facility manage used brake shoes and/or other locomotive components? (p. W-30)

This question appears in the following text and is accompanied with a discussion of the preferred answer (indicated with a “✓”) for environmental compliance.

Brake Repair

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.

2.1a. How does the facility manage 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 facility should notify the recycling or reclamation company. If landfilling, the facility should seek a determination for asbestos prior to disposal. If asbestos is present, use only landfills or disposal sites approved for asbestos.

Asbestos Containing Material (ACM) waste must be disposed of as soon as practical at an EPA-approved disposal site. The facility must label asbestos containers with the name and location of the waste generator. Vehicles used to transport the asbestos must be clearly labeled during loading and unloading. All must maintain the waste shipment records so that the asbestos shipment can be tracked and substantiated.

Recycled Off site A manufacturer or a recycling company collects used brake shoes for recycling. ✓

Disposed by Vendor A vendor disposes of the brake shoes by landfilling or other means of disposal.

EPA-approved disposal site	Facility disposes of ACM waste at an EPA-approved disposal site. ✓
Other	Facility's method of management is not listed. <i>Contact the regulatory agency to verify that the method of management is acceptable.</i>
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)

NOTE: The following questions, one of which is included in the accompanying checklist (highlighted in **bold**), will help the facility examine its operations relating to *equipment cleaning* for compliance with environmental requirements:

- a. *Does the facility conduct equipment cleaning? (p. W-32)*
- b. *What kind of cleaning agents does the facility use to conduct equipment cleaning? (p. W-32)*
- c. ***Does the facility keep the lids of solvent cleaning equipment closed? (p. W-32)***

These questions appear in the following text and may be accompanied with a discussion of the preferred answers (indicted with a “✓”) for environmental compliance.

Equipment Cleaning

A facility may conduct various kinds of equipment cleaning using solvents. Wastes generated from equipment cleaning include sludge, wastewater, and spent chemical solvents. Hazardous waste may result depending on the cleaning agents used to clean tools, equipment parts, and other small items, and on the nature of the material being cleaned.

Facilities are required to follow EPA waste management regulations for “waste” or “spent” solvents (i.e., those that have been generated as wastes). Solvents that are *currently in use*, such as in a parts cleaning sink, may be regulated under EPA air regulations, but are not regulated under RCRA since they are not yet a waste. (See also the section on spent solvents on page 17.)

Note: EPA is proposing a regulation, the ***Transportation Equipment Cleaning Industry Effluent Guidelines and Standards - Proposed Rule***, that will establish technology-based effluent limitation guidelines for the discharge of pollutants into waters of the U.S. and into POTWs by existing and new facilities that perform transportation equipment cleaning operations. (<http://www.epa.gov/OST/guide/te cifs22.html>)

2.2a Does the facility conduct equipment cleaning?

A short line railroad facility may conduct different kinds of equipment cleaning.

- Large scale equipment cleaning typically involves the cleaning of rail cars and support vehicles.
- Small scale equipment cleaning, commonly referred to as **parts cleaning**, typically involves the cleaning of engine parts, tools, and other small items. The facility may conduct parts cleaning using some type of solvent cleaning equipment, such as a parts washer or a dip tank.

Yes Facility conducts equipment cleaning.

No Facility does not conduct equipment cleaning.

2.2b What kind of cleaning agents does the facility use to conduct equipment cleaning?

Various cleaning agents can be used for equipment cleaning, including steam/pressure water, surfactants (soap), and chemical solvents. If using chemical solvents that are hazardous, care should be taken to wear protective safety gear and follow good housekeeping practices (e.g., clear, easy to read labeling of all chemicals and wastes to avoid misuse and potential injury or contamination).

The facility uses one or more of the following cleaning agents:

Water Steam
Surfactants Chemical solvents
Other _____

2.2c Does the facility keep the lids of solvent cleaning equipment closed?

Facilities should keep the lids or covers of solvent cleaning equipment (e.g., parts washers, dip tanks) closed except when actually cleaning parts or adding or removing liquid to prevent evaporation of solvents.

Yes Facility keeps lids of solvent cleaning equipment closed. ✓

No Facility does not keep lids of solvent cleaning equipment closed.

NA Facility does not conduct parts cleaning using solvent cleaning equipment.

2.3 Coolant and Antifreeze Disposal (SEE HANDBOOK - PAGES 15-16)

NOTE: The following questions, some of which are included in the accompanying checklist (highlighted in **bold**), will help the facility examine its operations relating to *locomotive coolant and antifreeze disposal* for compliance with environmental requirements:

- a. **How does the facility manage/dispose of used locomotive coolants?** (p. W-33)
- b. *Has the facility determined if it generates any antifreeze that is a hazardous waste?* (p. W-34)
- c. *Does the facility reclaim used antifreeze on site in a closed loop system?* (p. W-35)
- d. *If the facility does not reclaim waste antifreeze in a closed loop system, is waste antifreeze counted toward the facility generator status?* (p. W-35)
- e. **If the facility does not reclaim used antifreeze on site in a closed loop system, how does the facility manage it?** (p. W-36)

These questions appear in the following text and may be accompanied with a discussion of the preferred answers (indicted with a “✓”) for environmental compliance.

2.3a How does the facility manage/dispose of used locomotive coolants?

To protect locomotives’ cooling systems 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.*

Such locomotive coolants are nonhazardous and can go into sanitary sewers with the approval of the POTW. If the facility treats its wastewater on site and discharges directly to a receiving waterway, check with the requirements of the 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. ✓

On site wastewater treatment	Facility treats wastewater on site 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 sewer or surface water	Facility discharges locomotive coolant to storm sewers or to surface waters .
NA	Facility does not generate used locomotive coolant.

2.3b Has the facility determined if it generates any antifreeze that is a hazardous waste?

A facility may characterize antifreeze as hazardous waste through testing or by process knowledge. If the facility makes the hazardous/nonhazardous determination solely by testing, the facility must test each batch of antifreeze changed from each vehicle serviced. If process knowledge is used, the facility's determination must involve a demonstrated understanding of the potentially hazardous constituents in antifreeze. Such a demonstrated understanding could include a combination of the information on the MSDS for the type of antifreeze used, a referral to a previous test that demonstrated that antifreeze from new vehicles does not contain metals, and/or having a procedure to ensure that any suspect antifreeze is segregated from antifreeze known not to be hazardous. See Section 1.1a for more information about process knowledge.

In addition to testing and process knowledge, there are two functional indicators that show the antifreeze is (or is likely to be) a hazardous waste. First, antifreeze is considered hazardous if it is mixed with a hazardous waste such as certain spent solvents or if it displays hazardous characteristics (see Section 1.1 discussion for more information). Second, antifreeze could also be hazardous if it comes from a vehicle where the antifreeze may have picked up enough metals (primarily lead) to be characterized as hazardous for metals content.

- Yes** Facility has determined whether its antifreeze is hazardous. ✓
- No** Facility has not determined whether its used antifreeze is a hazardous waste.
- NA** Facility does not have antifreeze.

2.3c Does the facility reclaim used antifreeze on site in a closed loop system?

To avoid having to manage and dispose of used antifreeze as a hazardous waste, a facility can reclaim used antifreeze in a **closed loop system** that connects directly to the radiator, filters the antifreeze and returns the antifreeze directly back into the vehicle. EPA does not consider such reclaimed material to be a solid waste. Thus, even though the antifreeze may be hazardous, it is not hazardous waste because the antifreeze is returned to its original use as a coolant.

Non-closed systems are available that connect to a used antifreeze storage drum. However, because these are not closed loop systems, the antifreeze in the drum may be a hazardous waste and the facility must store it according to the hazardous waste provisions of RCRA. Closed loop systems are preferred for reclaiming/recycling antifreeze.

- Yes** Facility reclaims used antifreeze in a “closed loop” system. ✓
- No** Facility does not reclaim used antifreeze in a “closed loop” system.
- NA** Facility does not generate used antifreeze.

2.3d If the facility does not reclaim waste antifreeze in a closed loop system, is waste antifreeze counted toward the facility generator status?

Waste antifreeze that is a hazardous waste and not reclaimed in a closed loop system, needs to be considered as part of the total volume of hazardous waste generated in any month.

- Yes** Facility includes hazardous waste antifreeze that is not reclaimed in a closed loop system in the total volume of hazardous waste generated. ✓
- No** Facility does not include hazardous waste antifreeze.
- NA** Facility does not generate used antifreeze.

2.3e If the facility does not reclaim used antifreeze on site in a closed loop system, how does the facility manage it?

Recycled in a non-closed system on site

Facility manages used antifreeze in a non-closed system on site according to RCRA hazardous waste requirements. ✓

Recycled off site

Facility recycles used antifreeze off site. *Facility has on file the EPA ID number of the recycler (see the DOT shipping papers).* ✓

Landfill

Facility disposes used antifreeze at a landfill. Many landfills have a tank designated for used antifreeze. "Landfill" does not include antifreeze that is dumped in the trash.

Mixed with other fluids

Facility mixes antifreeze with used oil, solvents, or other fluid.

UIC well

Facility discharges used antifreeze into an underground injection control (UIC) well. **Note:** *The facility should immediately stop this method of disposal and notify the EPA regional and/or state UIC authority.*

Other

Method of disposal is not listed here.

NA

Facility does not generate used antifreeze.

SECTION 3.0 ENGINEERING OPERATIONS

3.1 Track Ballast Disposal

(SEE HANDBOOK - PAGE 39)

NOTE: The following questions, one of which is included in the accompanying checklist (highlighted in **bold**), will help the facility examine its operations relating to *track ballast disposal* for compliance with environmental requirements:

- a. **Does the facility manage used track ballast according to the substance (e.g., used oil, hazardous materials) with which it is contaminated?** (p. W-37)
- b. Does the facility keep track ballast (contaminated and uncontaminated) away from storm water? (p. W-38)

These questions appear in the following text and may be accompanied with a discussion of the preferred answers (indicted with a "✓") for environmental compliance.

Track Ballast Disposal

Ballast rock removed from track beds is generally not 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 federal and state waste regulations.

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.

3.1a Does facility manage used track ballast according to the substance (e.g., used oil, hazardous materials) with which it is contaminated?

If ballast materials become contaminated by such substances as used oil or hazardous materials, the facility needs to store and dispose of them according to federal and state requirements for that particular contaminating substance. Test contaminated ballast to determine whether is hazardous or not and manage accordingly.

- Yes** Facility manages contaminated track ballast as described above. ✓
- No** Facility does not manage contaminated track ballast as described above.
- NA** Facility does not have contaminated track ballast.

3.1b Does the facility keep track ballast (contaminated and uncontaminated) away from storm water?

The facility should protect track ballast from storm water runoff (e.g., stored either inside or under a tarp or roof). Track ballast should be kept from all drains, waterways, and flood plains.

- Yes** Track ballast is kept away from storm water runoff. ✓
- No** Track ballast is not kept away from storm water runoff.
- NA** Facility does not store track ballast on site.

3.2 Asbestos (Building Renovation/Demolition)

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

NOTE: The following questions, one of which is included in the accompanying checklist (highlighted in **bold**), will help the facility examine its operations relating to asbestos for compliance with environmental requirements:

- a. **Has the facility assessed all buildings and structures built prior to 1980 for their potential for containing asbestos and treated accordingly? (p. W-38)**
- b. Does the facility document demolition procedures? (p. W-39)
- c. Has the facility informed employees of buildings and structures containing asbestos and trained them to work on asbestos-containing material? (p. W-39)

These questions appear in the following text and may be accompanied with a discussion of the preferred answers (indicated with a "✓") for environmental compliance.

3.2a **Has the facility assessed all buildings and structures built prior to 1980 for their potential for containing asbestos and treated accordingly?**

A new OSHA standard issued in 1995 modified the way facilities assess asbestos in buildings. 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. Only a certified inspector can perform asbestos inspections according to AHERA guidelines.

A facility must use State-licensed contractors, transporters, and disposal sites. If planning a demolition, it is necessary to remove the asbestos before starting. In addition, notify local, state, and federal agencies **at least 10 days before the abatement, demolition, or renovation begins.**

- Yes** Facility assesses all buildings built prior to 1980 for asbestos. ✓
- No** Facility does not assess all buildings built prior to 1980 for asbestos.
- NA** Facility does not have buildings built prior to 1980.

3.2b Does the facility document demolition procedures?

- Yes** Facility documents all demolition procedures. ✓
- No** Facility does not document demolition procedures.
- NA** Facility has determined that asbestos is not present in any of the buildings.

3.2c Has the facility informed employees of buildings and structures containing asbestos and trained them to work on asbestos-containing material?

Inform all employees that may encounter asbestos-containing materials (ACM) of its existence. In particular, inform all employees who must perform repairs, maintenance, and custodial activities. In addition, train all employees to follow the proper procedures on the proper use of protective equipment, and the use of control measures if their work can disturb asbestos-containing material and release fibers.

- Yes** Facility informs and trains all employees as described above. ✓
- No** Facility does not inform or train all employees as described above.
- NA** Facility determines that asbestos is not present in any of the buildings.

3.3 Construction Activities

(SEE HANDBOOK- PAGE 42)

NOTE: The following questions, one of which is included in the accompanying checklist (highlighted in **bold**), will help the facility examine its operations relating to *construction activities* for compliance with environmental requirements.

- a. How does the facility manage/dispose of its construction wastes? (p. W-40)**
- b. Are there any endangered species which may be affected by construction activities? (p. W-40)
- c. Has the facility obtained a Section 404 permit for any projects that may impact wetlands? (p. W-41)

These questions appear in the following text and may be accompanied with a discussion of the preferred answers (indicated with a “✓”) for environmental compliance.

3.3a How does the facility manage/dispose of its construction wastes?

Do not dispose of construction waste, including that from building, tunnel, and bridge maintenance, on site without disposal permits. Some States prohibit open burning of scrap wood, material bags, aerosol cans, etc. When in doubt, check with your state/local agencies. Segregate all waste 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. Only licensed contractors should transport and dispose of construction wastes that are hazardous.

- Off site** Facility hires a licensed disposal contractor to haul the wastes to a municipal or hazardous waste landfill. ✓
- Open burning** Facility burns construction wastes.
- On site** Facility disposes of construction waste on site. **Note:** *On-site disposal of wastes requires permits.*
- NA** Facility is not conducting construction activities at this time.

3.3b Are there any endangered species which may be affected by construction activities?

The Endangered Species Act (ESA) establishes a program for the conservation of endangered and threatened species and the habitats in which they exist. The ESA prohibits the taking, possession, import, export, sale, and transport of any listed fish or wildlife species. The term “taking” includes harassing, harming, hunting, killing, capturing, and collecting. An individual may obtain a permit from the U.S. Fish & Wildlife Service (USFWS) to capture or move species under certain conditions.

Loss of habitat can be attributed to many construction-related activities. 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 if 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, the facility must take some form of mitigating action to prevent harming the species. There are some exceptions under the ESA and one can consult with the local USFWS in cases where species are present. For more information on the ESA, access USFWS’s website at <http://www.fws.gov/r9endspp/endspp.html>.

- Yes** Either facility has identified endangered species present at the site of construction activities, and has determined what impact construction activities will have on them or facility has determined that no endangered species are present. ✓

No Facility has not determined whether endangered species are present.

NA Facility is not conducting construction activities at this time.

3.3c Has the facility obtained a Section 404 permit for any projects that may impact wetlands?

Construction activities that include dredging and filling of wetlands may require the facility to obtain a CWA Section 404 permit from 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 identified wetlands and taken steps to obtain a Section 404 permit as necessary. ✓

No Facility is conducting construction activities that would impact wetlands but it has not obtained a Section 404 permit.

NA Facility is not conducting any construction activities that could impact wetlands.

3.4 Crossties	(SEE HANDBOOK - PAGE 43-44)
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NOTE: The following questions, one of which is included in the accompanying checklist (highlighted in **bold**), will help the facility examine its operations relating to *crossties* for compliance with environmental requirements.

a. How does the facility manage/dispose of used crossties? (p. W-42)

b. *When storing crossties on site, are they protected from contact with storm water? (p. W-42)*

These questions appear in the following text and may be accompanied with a discussion of the preferred answers (indicated with a "✓") for environmental compliance.

Crossties

Industry uses creosote to treat and protect crossties. Spills of creosote liquid can be a significant soil contamination source. Therefore, it is especially important not to bury crossties on site. Workers should handle crossties with the appropriate protective equipment to prevent

skin contact. When practical, use tongs to lift and move creosote treated crossties. Workers should wear gloves at all times during crosstie handling.

The preferred method of crosstie disposal is recycling, either for less severe railroad service, for cogeneration of energy recovery, or for sale to an outside company for recycling services.

Facilities cannot burn crossties without a permit and special air emission controls. The facility should ensure all incineration units have permits to burn the creosote ties. If a crosstie fire occurs your facility may face fines for air pollution violations. 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 one should consider future liability.

Some states regulate used crossties as “residual waste” and limit the time these wastes can be kept on site. In addition, some states may classify treated wood as hazardous wastes when disposed.

3.4a How does the facility manage/dispose of used crossties?

Recycled	Facility reuses crossties on site for less severe railroad service, for cogeneration for energy recovery, or sells them to an outside company for recycling purposes. ✓
On-site incineration	Facility incinerates crossties on site. Note: <i>Incineration requires an approved air pollution permit with appropriate equipment and air pollution controls.</i>
Off site incineration	Facility discards of crossties by off-site incineration.
Sold/given to the public	Facility sells/gives crossties to the public as landscape timbers. Note: <i>this method may result in future liability issues.</i>
Off site landfill	Facility uses an approved industrial waste facility. Note: <i>Landfilling may have long-term liability if creosote leaches into the groundwater.</i>
Other	Method of disposal is not listed. Note: <i>Your facility may be out of compliance. Contact your state regulatory agency for assistance.</i>

3.4b When storing crossties on site, are they protected from contact with storm water?

- Yes** Crossties are kept from storm water runoff. ✓
- No** Crossties are not kept from storm water runoff.

NA Facility does not store crossties on site.

3.5 Pesticide Use

(SEE HANDBOOK - PAGES 46, 105)

NOTE: The following questions, some of which are included in the accompanying checklist (highlighted in **bold**), will help the facility examine its operations relating to *pesticide use* for compliance with environmental requirements.

- a. *Does the facility use pesticides only as directed by their labels? (p. W-43)*
- b. **Are restricted use pesticides (RUPs) applied only by a certified commercial applicator? (p. W-44)**

These questions appear in the following text and may be accompanied with a discussion of the preferred answers (indicated with a “✓”) for environmental compliance.

Pesticide Use

Pesticides for non-restricted use (e.g., herbicides, fungicides, rodenticides, insecticides and disinfectants / antimicrobials) may be used on site for pest control. Under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), EPA register all pesticides used in the United States. Registered pesticides are properly labeled and if used in accordance with the label, they will not cause unreasonable harm to the environment. Pesticides *can only be applied in a manner consistent with the label*. Do not repackage. Store in original containers, and keep them out of reach of children.

Most pesticides are classified as non-restricted use and anyone can apply them. Only commercial certified applicators or someone under the direct supervision of a certified applicator can purchase and apply **restricted use pesticides (RUPs)**. Pesticide labels will clearly state whether a particular pesticide is classified as restricted use only.

3.5a Does the facility apply pesticides only as directed by their labels?

- Yes** Facility applies all pesticides in accordance with the direction on the labels. ✓
- No** Facility does not apply pesticides as directed by labels.
- NA** Facility does not use any pesticides.

3.5b ***Are restricted use pesticides (RUPs) applied only by certified commercial applicator?***

Only a certified applicator or someone under the direct supervision of a certified applicator can apply RUPs. States oversee the program for certification of commercial (and private) applicators of restricted use pesticides. Facilities that are interested in having their staff become certified applicators should contact their state. Facilities should ensure that all vendors and employees applying RUPs are properly certified and trained.

- Yes** Facility uses certified applicators to apply RUPs. ✓
- No** Facility does not use certified applicators to apply RUPs.
- NA** The facility does not apply RUPs.

3.6 On site Waste Disposal of Nonhazardous Waste

(SEE HANDBOOK - PAGES 47, 83-84)

NOTE: The following question is included in the accompanying checklist to help the facility examine its operations relating to *on site waste disposal of nonhazardous waste* for compliance with environmental requirements.

a. *Does the facility dispose of nonhazardous waste on site in a permitted landfill or dump? (p. W-44)*

This question appears in the following text and is accompanied with a discussion of the preferred answer (indicated with a “✓”) for environmental compliance.

3.6a ***Does the facility dispose of nonhazardous waste on site in a permitted landfill or dump?***

EPA/States regulate all waste disposal in an on-site landfill or on-site dump. Facilities must obtain local and/or state permits as required. These permits must be current for the type of waste being disposed of and they must be kept on site. If these conditions are not met, then disposal on site is prohibited.

On-site disposal of hazardous waste is strictly prohibited if the facility is not a treatment, storage, and disposal facility (TSDF). (See Section 1.0 for information on proper disposal of hazardous waste.) Any time hazardous waste is buried, discharged, or abandoned on site, then the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) requires the facility to report to the EPA. EPA/States may require cleanup actions.

- Yes** Facility disposes of nonhazardous waste in an on site landfill or dump, and all local and/or state permits have been obtained. ✓
- No** Facility disposes of nonhazardous waste on site, but not in a permitted landfill or dump.
- NA** Facility does not dispose of nonhazardous wastes on site.

3.7 Trackside Lubricating

(SEE HANDBOOK - PAGE 49)

NOTE: The following questions, one of which is included in the accompanying checklist (highlighted in **bold**), will help the facility examine its operations relating to *trackside lubricating* for compliance with environmental requirements.

- a. *Does the facility conduct trackside lubricating using a trackside lubricator or grease block? (p. W-45)*
- b. **Does the facility place absorbent fabric around rail lubricators to prevent ground contamination with oil? (p. W-45)**

These questions appear in the following text and may be accompanied with a discussion of the preferred answers (indicated with a "✓") for environmental compliance.

3.7a Does the facility conduct trackside lubricating using a trackside lubricator or grease block?

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. Facilities should dispose of this ballast according to state regulations during track renovations.

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

3.7b 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.
- NA** Facility does not conduct trackside lubricating.

3.8 Storage Tanks

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

(ASTs - SEE HANDBOOK - PAGES 36-37)

(SPILLS - SEE HANDBOOK - PAGES 31-34)

NOTE: The following questions, some of which are included in the accompanying checklist (highlighted in **bold**), will help the facility examine its operations relating to *storage tanks* for compliance with environmental requirements:

- a. **Has the State/Tribal UST program office been notified of any USTs located on site?** (p. W-47)
- b. **Does the facility conduct leak detection for tank and piping of all on-site UST systems?** (p. W-47)
- c. **Do USTs at the facility meet requirements for spill, overfill, and corrosion protection?** (p. W-48)
- d. *Are records and documentation readily available for leak detection, corrosion protection, corrective action, closure, and financial responsibility?* (p. W-49)
- e. *Does the facility have aboveground storage tanks (ASTs)?* (p. W-49)
- f. *Do ASTs meet or exceed National Fire Protection Association (NFPA) 30A requirements?* (p. W-50)
- g. **Does the facility inspect the ASTs daily for leaks and other hazardous conditions?** (p. W-51)
- h. *Does the facility's total tank storage capacity make it subject to the Oil Pollution Regulation?* (p. W-52)
- i. *Could spilled oil from the facility reach navigable waters or adjoining shorelines?* (p. W-52)
- j. **Does the facility have a Spill Prevention Control and Countermeasures (SPCC) plan signed by a Professional Engineer?** (p. W-53)
- k. *Is the phone number for the National Response Center posted on site for immediate reporting of oil spills?* (p. W-54)

These questions appear in the following text and may be accompanied with a discussion of the preferred answers (indicated with a "✓") for environmental compliance.

Underground Storage Tanks

A facility may have **underground storage tanks** (USTs) to supply fuel to trains or support vehicles. USTs also store used oil or fuel to run emergency power generators. A UST is a tank and any underground piping connected to the tank that has at least ten percent of its combined volume underground.

Note: USTs that store flammable and combustible liquids must meet provisions under the *National Fire Protection Association (NFPA) 30 Flammable and Combustible Liquids Code*. Requirements under *NFPA 30* include provisions for tank storage and piping systems. See *Question 3.8f* for more information.

To protect human health and the environment from dangerous releases, USTs must have leak detection and spill, overfill, and corrosion protection. Other UST requirements address notification, installation, corrective action, financial responsibility, and recordkeeping. Tanks installed after 1988 need to comply with all UST requirements upon installation. Tanks installed before 1988 had until December 1998 to comply with spill, overfill, and corrosion protection requirements, but these USTs should be in compliance with all requirements now. For more information on USTs, visit EPA's Office of Underground Storage Tanks website at <http://www.epa.gov/oust/>.

Some USTs are not under federal regulations (e.g., tanks storing heating oil used on premises where it is stored, tanks on or above the floor of underground areas, such as basements or tunnels, emergency spill and overflow fill tanks); however, state, tribe or local regulatory agency may regulate such USTs. Be sure to ask the state, tribal, or local regulatory agencies to find out if additional or more stringent requirements apply to the facility.

3.8a Has the State/Tribal UST program office been notified of any USTs located on site?

Facilities with on-site regulated UST systems must submit a notification form to the responsible state/tribal Underground Storage Tank (UST) program office. 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 **RCRA/UST, Superfund, and EPCRA Hotline** at **1-800-424-9346**.

- Yes** Facility has submitted a notification form to the responsible state/tribal UST program office. ✓
- No** Facility has not submitted a notification form to the responsible state/tribal UST program office.
- NA** Facility has no USTs.

3.8b Does the facility conduct leak detection for tanks and piping of all on-site USTs?

Facilities with federally regulated UST systems must conduct leak detection. The **monthly monitoring methods** for conducting leak detection of tanks include the following:

- Automatic tank gauging
- Monitoring for vapors in soil
- Interstitial monitoring
- Groundwater monitoring
- Statistical inventory reconciliation
- Other methods approved by the regulatory authority.

Note: Facilities with USTs may use inventory control and tank tightness testing instead of one of the monthly monitoring methods for a maximum of 10 years after the tank is installed or upgraded with corrosion protection (40 CFR 280.41). Call the **RCRA/UST, Superfund, and EPCRA Hotline** at **1-800-424-9346** for more information.

In addition, 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. *Check with the State/Tribal UST program to determine which leak detection methods are acceptable in the state.*

- Yes** Facility conducts at least one leak detection method described above. ✓
- No** Facility does not conduct leak detection.
- NA** Facility does not have any federally regulated USTs.

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

Facilities must operate all USTs subject to regulations to ensure that spills or overflows do not cause releases into the environment. Facility owners and operators had until December 22, 1998, to make certain that all UST systems met the federal requirements for leak detection, and spill, overflow, and corrosion protection in accordance with the provisions of 40 CFR Part 280. Owners of noncompliant USTs

Now that the **December 22, 1998** deadline for all UST systems has passed, owners and operators of facilities that continue to operate UST systems not meeting the federal requirements for leak detection, and spill, overflow, and corrosion protection are **out of compliance**. Besides posing a threat to human health and the environment, such operation can subject the owner/operator to considerable fines.

may close the UST temporarily for up to 12 months (December 22, 1999), as long as (1) the facility continues to monitor for leaks by maintaining the UST's leak detection and corrosion protection system; and (2) if temporarily closed for more than 3 months, the UST must have vent lines open, but all other lines must be capped and secured. After 12 months of temporary closure, the facility must permanently close the UST. *To find out more about federal UST requirements, call EPA's **RCRA/UST, Superfund, and EPCRA Hotline at 1-800-424-9346 or go to their website: <http://www.epa.gov/OUST/>***. Check with the state and local regulatory agencies to find out if there are additional or more stringent state and/or local UST requirements.

- Yes** Facility has spill, overflow, and corrosion protection devices. ✓
- No** Facility does not have protection devices installed.
- NA** Facility does not have any federally regulated USTs.

Recordkeeping

If the facility has a federally regulated UST, it must maintain all records, including permits, registrations, and installation or closure records to EPA or the state agency. The facility must keep records that prove it meets certain requirements. The facility must keep those records to show the facility's compliance status in five major areas: (1) leak detection, (1) corrosion

protection, (3) corrective actions, (4) closure, and (5) financial responsibility. Check with the state and local regulatory agencies about specific recordkeeping requirements.

3.8d Are records and documentation readily available for leak detection, corrosion protection, corrective action, closure and financial responsibility?

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.

Corrective action records document that any releases from USTs have been reported to the appropriate agency and have been responded to as required.

Closure records document that the facility remove the UST from service in accordance with federal requirements for notification and correct, safe closure. **Note:** Facility must maintain such records for at least 3 years after closing a UST.

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.

Yes Records are readily available as described above. ✓

No Records are not readily available.

NA Facility does not have USTs.

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.

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

For facilities with fleet vehicle service stations, all ASTs must meet the National Fire Protection Association (NFPA) requirements under *NFPA 30A Automotive and Marine Service Station Code* and *NFPA 30 Flammable and Combustible Liquids Code*. NFPA defines a fleet vehicle service station as a “portion of a commercial, industrial, governmental, or manufacturing property where liquids used as fuels are stored and dispensed into the fuel tanks of motor vehicles that are used in connection with such businesses...”

NFPA 30A Automotive and Marine Service Station Code requirements address the following:

- Tank location and capacity
- Control of spillage
- Vaults
- Fire-resistant tanks
- Piping and ancillary equipment
- Physical protection
- Corrosion protection
- Tank filling operations.

Requirements under *NFPA 30 Flammable and Combustible Liquids Code* include the following:

• **Tanks**

- S Design and construction
- S Installation
- S Storage tank buildings
- S Supports, foundations, and anchorage for all tank locations
- S Operating instructions
- S Sources of ignition
- S Testing and maintenance
- S Fire protection and identification
- S Prevention of overfilling of tanks
- S Leak detection and inventory records for underground storage tanks.

• **Piping systems**

- S Materials for piping, valves, and fittings
- S Pipe joints
- S Supports
- S Protection against corrosion
- S Underground piping
- S Valves
- S Testing
- S Identification.

Note: *NFPA 30* also apply to USTs. For more information call NFPA at **617-770-3000** or access their website at <http://www.nfpa.org>.

- Yes** Tanks meet or exceed NFPA requirements. ✓
- No** Tanks do not meet NFPA requirements.
- NA** Facility does not have ASTs.

3.8g Does the facility inspect the ASTs daily for leaks and other hazardous conditions?

If regulated under SPCC requirements, facilities must inspect ASTs 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.
- NA** Facility does not have ASTs.

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

In 1973, EPA issued the Oil Pollution regulation (40 CFR Part 112) to address the oil spill prevention provisions contained in the Clean Water Act of 1972. The regulation forms the basis of EPA's oil spill prevention, control, and countermeasures (SPCC) program, which seeks to prevent oil spills from certain ASTs and USTs. In particular, the regulation applies to facilities that:

- Have an aboveground storage capacity of more than 660 gallons in a single AST or more than 1,320 gallons in multiple ASTs, or a total underground storage capacity of 42,000 gallons; and
- Could reasonably be expected to discharge oil in harmful quantities into navigable waters of the United States.

On December 2, 1997, EPA proposed a rule called the **Oil Pollution Prevention and Response; Non-Transportation Related Onshore and Offshore Facilities - Proposed Rule**. It eliminates the requirement of preparing an SPCC plan for those non-transportation related facilities having an aboveground capacity in excess of 660 gallons, as long as the facility stores 1,320 gallons or less of oil. This rule is expected to become final in October 2000. For more information, call EPA's RCRA/UST, Superfund, and EPCRA Hotline at 1-800-424-9346.

3.8h Does the facility's total tank storage capacity make it subject to the Oil Pollution regulation?

If the facility has total gasoline, fuel oil, or lubricating oil storage capacity greater than 1,320 gallons (or greater than 660 gallons in any one tank) in aboveground storage tanks or total underground tank storage capacity greater than 42,000 gallons, then it is subject to the Oil Pollution regulation and must have an SPCC plan.

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

NA Facility does not have storage tanks.

3.8i Could spilled oil from the facility reach navigable waters or adjoining shorelines?

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

Yes A spill could reach navigable waters or adjoining shorelines.

No A spill could not reach navigable waters or adjoining shorelines.

NA Facility does not have storage tanks.

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

If the answers to questions 3.8h and 3.8i are “yes,” then an SPCC plan must be on site if the facility is normally attended for at least 8 hours per day. Otherwise, it must be at the nearest field office. An SPCC plan is a written description of how a facility’s operations comply with the prevention guidelines under the Oil Pollution Prevention regulation. Each SPCC plan, while unique to the facility it covers, must include certain elements to ensure compliance with the regulations. These elements include:

- Written descriptions of any spills occurring within the past year, corrective actions taken, and plans for preventing their recurrence.
- A prediction of the direction, rate of flow, and total quantity of oil that could discharge, where experience indicates a potential equipment failure.
- A description of secondary containment and/or diversionary structures or equipment to prevent discharged oil from reaching navigable waters.
- If containment and/or diversionary equipment or structures are not practical, a strong oil spill contingency plan and a written commitment of manpower, equipment, and materials to quickly control and remove spilled oil.
- A complete discussion of the spill prevention and control measures applicable to the facility and/or its operations.

Secondary Containment

Under SPCC guidelines, all storage tank installations should be constructed so that secondary containment is provided for the entire contents of the largest single tank plus sufficient freeboard to allow for precipitation. Diked areas should be sufficiently impervious to contain spilled oil. If dikes are not appropriate, an alternative system may be used.

Facilities must have an SPCC plan signed 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.” For more information refer to EPA’s website at <http://www.epa.gov/oerrpage/oilspill/spccplan.htm>.

- Yes** The facility has an SPCC plan on site that has been signed and sealed by a professional engineer. ✓
- No** The facility does not have an SPCC plan or the plan is not signed by a Professional Engineer.
- NA** The facility is not required to have an SPCC plan.

Note: Facilities must have an SPCC Plan, and must also conduct an initial screening to determine whether they need to develop a **facility response plan**. For more information refer to <http://www.epa.gov/oilspill/netplans.htm> or call the **RCRA/UST, Superfund and EPCRA Hotline** at 1-800-424-9346.

3.8k *Is the phone number for the National Response Center posted on site for immediate reporting of oil spills?*

In addition to an SPCC plan, EPA requires that if a facility has an accidental release of an oil that meets federal reporting requirements (e.g., 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), they must report the oil spill to the **National Response Center (NRC) at 1-800-424-8802**.

- Yes** NRC phone number is available on site. ✓
- No** NRC phone numbers is not available.

3.9 Wastewater/ Storm Water Management

(SEE HANDBOOK -- PAGES 57-60, 87-93)

NOTE: The following questions, some of which are included in the accompanying checklist (highlighted in **bold**), will help the facility examine its operations relating to *wastewater and storm water management* for compliance with environmental requirements:

- a. *Can the facility identify the final destination of all its drains? (p. W-56)*
- b. *How does the facility manage its wastewater? (p. W-57)*
- c. *How does the facility manage its storm water? (p. W-57)*
- d. ***Does the facility have an NPDES permit for direct discharges? (p. W-58)***
- e. *If the facility stores materials outside, does the facility protected them from contact with storm water? (p. W-58)*
- f. ***Does the facility have a storm water pollution prevention plan (SWPPP)? (p. W-59)***
- g. ***Is certification included in the SWPPP? (p. W-59)***
- h. ***If the facility discharges wastewater to a municipal sanitary sewer, has the facility notified the publicly-owned treatment works (POTW) and received approval for pretreatment discharges? (p. W-60)***
- i. *If the facility discharges to a UIC well, does the facility comply with UIC program requirements? (p. W-60)*

- j. *How does the facility manage the sludge from an oil/water separator? (p. W-61)*
- k. *Does the facility have activities (e.g., metal finishing) that are subject to categorical pretreatment standards? (p. W-62)*
- l. *If yes, is the facility in compliance with the categorical standards for the processes? (p. W-62)*

These questions appear in the following text and may be accompanied with a discussion of the preferred answers (indicated with a "✓") for environmental compliance.

Wastewater Discharges

Short line railroads may discharge wastewater and/or storm water from the following activities: repair and maintenance of on-site vehicles, vehicle and equipment cleaning, building and grounds maintenance, chemical storage and handling, fueling of vehicles, and painting and paint removal operations. Facilities that discharge wastewater must have a **National Pollutant Discharge Elimination System (NPDES)** permit and/or state permit if the wastewater is collected and discharged off site through a distinct pipe or ditch to waters of the United States. Either EPA or an authorized state can issue NPDES permits. As of September 1999, EPA authorized 43 states and one territory to administer the NPDES program.

Persons responsible for wastewater discharges requiring an NPDES permit must apply for an individual permit or seek coverage under a general permit (if available) at least 180 days before discharge of wastewater is scheduled to begin. Some states do not allow certain discharges into the environment.

Storm Water Discharges

Under the Clean Water Act, it is illegal to discharge any pollutants into navigable waters of the United States from a point source unless the discharge is authorized by a National Pollutants Discharge Elimination System (NPDES) permit. Storm water regulations have identified eleven major categories that are associated with industrial activity (40 CFC § 122.26 (b) (14) (i - x)). Those facilities identified under these eleven categories must apply for NPDES permit for storm water discharge. Transportation facilities are classified as category (viii) which includes activities such as vehicle maintenance shops, equipment cleaning operations, painting, fueling operations or airport deicing operations. *Contact the state or federal permitting agency for more information regarding NPDES discharge permitting requirements.*

The following discharges do NOT require NPDES permits:

- Introduction of sewage, industrial wastes or other pollutants into a publicly owned treatment works (POTW) by indirect discharges. (Although not federally required, a POTW may require a permit. A facility should contact the local sewer authority to find out more about these requirements).
- Discharges of dredged or fill material into waters of the United States. (These discharges are regulated under CWA Section 404 permits.)

- Discharges of storm water/wastewater into an underground injection well. [These discharges are under the Safe Drinking Water Act (SDWA) Underground Injection Control (UIC)] program. *For more information, contact the Safe Drinking Water Hotline at 1-800-426-4791*].

Discharges to Publicly Owned Treatment Works (POTW)

POTWs are treatment plants that receive and treat wastewater through municipal sanitary sewers prior to discharge to receiving waters (e.g., streams, lakes, rivers). They may also be called as municipal wastewater treatment plants (WWTPs). POTWs 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 their local POTW to see if any pretreatment requirements or limits apply to them. Although contacting the POTW is not a federal requirement, 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.

3.9a Can the facility identify the final destination of all its drains?

Your facility may have interior and/or exterior drains (e.g., painting booths, waste storage areas, service areas, fueling areas, etc.). The facility should identify the final destination of all drains located at the facility.

- If a drain discharges to a UIC well and the well has not been inventoried (in a non-delegated state), your facility must submit an inventory to EPA. If a drain and/or injection well is located in or near loading docks, storage areas, or service areas, such that it could receive contaminants, a UIC well permit may be required.
- If a drain discharges to storm water or surface water, an NPDES permit is required.
- If a drain discharges to a municipal sanitary sewer, the facility may need a permit from the publicly-owned treatment works (POTW), and general pretreatment requirements may apply.
- If an interior drain that may be receiving contaminants discharges onto the ground surface, the facility must contact the state agency for applicable permitting requirements.

Yes Facility can certify the final destination of all drains (e.g., storm sewer drains, floor drains, and sanitary sewer drains). ✓

No Facility cannot certify the final destination of all drains.

NA Facility does not have drains.

3.9b How does the facility manage its wastewater?

There are several methods a facility can use to manage its wastewater. Wastewater may contain pollutants (e.g., chemical solvents used for large scale equipment cleaning). Prior to discharging wastewater, a facility may “treat” the wastewater using an oil-water separator or some other method of treatment to reduce pollutant concentrations. Wastewater may go to floor drains inside the facility and then drain to an oil-water separator prior to discharge either (1) directly to surface waters (requires a permit), or (2) to a sanitary sewer or combined sewer leading to a POTW. An NPDES permit or the POTW may require treatment of wastewater.

Surface water	Facility discharges effluent directly to surface waters (in accordance with an NPDES storm water permit (see <i>Question 3.9d</i>). ✓
Sanitary sewer	Facility discharges to a municipal sanitary sewer or combined sewer with permission of the POTW (see <i>Question 3.9h</i>). ✓
UIC well	Facility discharges to a UIC well, generally via a floor drain (see <i>Question 3.9i</i>). <i>Although there are some exceptions, as a general rule, discharging industrial wastewater to a UIC well is NOT appropriate.</i>
Ground	Facility discharges onto the ground. Wastewater may affect groundwater or may flow into storm sewers and surface waterways. Caution: Many states forbid the disposal of washwater/rinsewater onto the ground.
Other	Method of disposal is not listed.
NA	Facility does not discharge wastewater.

3.9c How does the facility manage its storm water?

Storm water is a potential source of wastewater at a facility. Storm water discharges begin when rain comes in contact with potential contaminants, such as spills, waste containers, or spilled liquids related to vehicle or mechanical parts maintenance. The pollutants in storm water will be dependent on the type of material(s) the rain comes in contact with prior to discharge. A facility may “treat” storm water using an oil-water separator or some other method of treatment to reduce pollutant concentrations prior to discharge either (1) directly to surface waters, or (2) to a sanitary sewer or combined sewer leading to a POTW. An NPDES permit (see *Question 3.9d*) or by the POTW (see *Question 3.9h*) may require treatment.

Surface water	Storm water discharges go directly to surface waters (in accordance with an NPDES storm water permit). ✓
Sanitary sewer	Storm water discharges go to a municipal sanitary sewer or combined sewer with permission of the POTW. ✓

- UIC well** Storm water discharges go to a UIC well (via a floor drain).
Although there are some exceptions, as a general rule, discharging industrial wastewater to a UIC well is NOT appropriate.
- Other** Method of storm water management is not listed.
- NA** Facility does not discharge wastewater.

3.9d Does the facility have an NPDES permit for direct discharges?

NPDES permits must be in place in order to discharge industrial wastewater which may include storm water through a storm sewer or directly into surface waters. The facility may need to treat the wastewater on site to reduce pollutant concentrations prior to discharge to be in compliance with NPDES permit limits. **Note:** *Some NPDES permits may include both wastewater and storm water discharge requirements. Other facilities have a separate permit for each type of discharge.*

- Yes** Facility has an NPDES permit. ✓
- No** Facility does not have an NPDES permit.
- NA** Facility does not discharge wastewater directly from the facility to a body of water.

3.9e If facility stores materials outside, are they protected from contact with storm water?

A facility may need to store materials, including drums, cargoes, trash, and parts, outside of facility buildings. These materials must have protection from contact with storm water (including rain or snow) or other forms of water (e.g., washing overspray). To prevent contact with storm water, a facility can store materials on pallets (or something else that keeps them off the ground) and cover them with a tarp or roof. Dumpsters should be closed and sealed to the extent that storm water will not enter or exit the dumpster. Used oil (in some states), hazardous waste, and batteries must be stored in an area with secondary containment, and in a manner that will protect them from storm water.

- Yes** Facility protects materials from rain/snow. ✓
- No** Facility does not protect materials from rain/snow.
- NA** Facility does not store any materials outside.

3.9f Does the facility have a storm water pollution prevention plan (SWPPP)?

If a facility must obtain an NPDES storm water permit, it will prepare and implement an SWPPP. Facilities must develop SWPPPs to prevent storm water from coming in contact with potential contaminants.

- Yes** Facility has an SWPPP. ✓
- No** Facility does not have an SWPPP.
- NA** Facility is not required to have an SWPPP.

3.9g Is a certification included in the SWPPP?

Each SWPPP must include a **certification**, signed by an authorized individual, stating that discharges from the site have been tested or evaluated for the presence of non-storm water discharges. The certification must include the following:

- A description of possible significant sources of non-storm water
- The results of any test and/or evaluation to detect such discharges
- The test method or evaluation criteria, the dates of the tests or evaluations, and the on site drainage points.

If certification is not feasible, the SWPPP must describe why (e.g., no access to discharge sites).

- Yes** Facility's SWPPP includes a certification that discharges from the site have been tested. ✓
- No** Facility's SWPPP does not have a certification that discharges from the site have been tested.
- NA** Facility is not required to have an SWPPP or certification is not feasible because of circumstances described above.

3.9h If the facility discharges wastewater to a municipal sanitary sewer, has the facility notified the publicly-owned treatment works (POTW) and received approval for pretreatment discharges?

Facilities should contact the POTW to see if any pretreatment requirements apply to them. Although contacting the POTW is not a federal requirement, the facility could be liable if it discharges a significant amount of oil or other material and those discharge causes the POTW to violate its own NPDES permit.

- Yes** Facility has contacted POTW and has received approval for its wastewater discharges. ✓
- No** Facility has not contacted POTW or has not received approval for its wastewater discharges.
- NA** Facility does not discharge to a POTW.

3.9i If the facility discharges to a UIC well, does the facility comply with UIC program requirements?

Facilities that discharge industrial wastewater to underground injection control (UIC) wells must comply with the rules established under the UIC program. Railroad facilities may typically use Class V UIC wells. Generally, Class V wells include shallow non-hazardous industrial waste injection wells, septic systems and storm water drainage wells. Class V UIC wells (e.g., septic systems, storm water drainage wells) are authorized by rule provided they do not endanger underground sources of drinking water and meet certain minimum requirements. The UIC program requirements stipulate facilities must submit that basic inventory information about a Class V well to the EPA or the primacy state agency. In addition, many UIC primacy state programs have additional prohibitions or permitting requirements. However, the fluids released by certain types of Class V wells have a high potential to contain elevated concentrations of contaminants that may endanger drinking water. Therefore, new requirements went into effect December 7, 1999, which further regulate two types of Class V wells, Large Capacity Cesspools and Motor Vehicle Waste Disposal Wells. **Note:** See following page for information relating to EPA's new rule regarding Class V wells.

Note: As a general rule, the discharge of industrial wastewater to UIC wells is NOT appropriate.

- Yes** Facility complies with UIC program requirements. ✓
- No** Facility does not comply with UIC program requirements.
- NA** Facility does not discharge industrial wastewater to UIC wells.

New Rule for Regulating Class V Wells

EPA is further regulating two types of **UIC Class V wells** in Source Water Protection Areas for community and non-transient non-community water systems that use groundwater as follows:

- **Large-Capacity Cesspools.** New cesspools are prohibited nationwide as of April 5, 2000, and existing cesspools will be phased out nationwide by April 5, 2005.
- **Motor Vehicle Waste Disposal Wells.** New wells are prohibited nationwide as of April 5, 2000. Existing wells in regulated areas will be phased out, but owners and operators can seek a waiver and obtain a permit. *For more information about this new rule, contact the SDWA Hotline at 1-800-426-4791.*

3.9j How does the facility manage the sludge from an oil/water separator?

Oil/water separators, which are typically connected to floor drains or wash racks, remove metals and other pollutants (e.g., oil) from wastewater. Oil-water separators require periodic servicing to maintain their performance. Prior to cleaning an oil/water separator, the facility should test the contents of the grit chamber and the oily sludge for hazardous constituents. If the sludge exhibits any characteristic of a hazardous waste, the facility should handle it as such. If the sludge is nonhazardous, the facility should manage it as a used oil. The facility should not dispose nonhazardous sludge on site unless it is under a state and/or local permits.

Off site disposal as hazardous waste	Facility disposes of <u>hazardous</u> sludge off site. The facility stores, manifests, transports, and disposes of it in compliance with all provisions of RCRA, including using a permitted TSDF. ✓
Off site disposal to other facility	Facility disposes of <u>nonhazardous sludge</u> off site. The facility disposes of it using an approved transportation, treatment, and disposal facility. ✓
On site disposal	Facility disposes of nonhazardous sludge on site and has the required state and/or local permits. ✓
Landfill	Facility improperly landfills its oil/water separator sludge.
NA	No sludge is produced.

3.9k Does the facility have activities (e.g., metal finishing) that are subject to categorical pretreatment standards?

Under the Clean Water Act, categorical standards (also known as effluent limitation guidelines) are established for specific types of categories of industries or processes. For example, if a railroad facility conducts processes such as electroplating or coating, that facility may be subject to the metal finishing categorical standards.

Finalizing Categorical Standards: EPA is finalizing 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.

The categorical standards for facilities that conduct these and other operations that are in the metal finishing categorical regulations include limits for certain pollutants in the facility's process discharge. (Specific categorical limits apply to the facility's discharge either if it goes directly to surface water or to a municipal wastewater treatment plant.) For more information, contact the POTW or state permitting agency.

- Yes** Facility has determined whether it has activities that make it subject to categorical pretreatment standards. ✓
- No** Facility has not determined whether it has activities that make it subject to categorical pretreatment standards.

3.9l If yes, is the facility in compliance with the categorical standards for the processes?

The EPA/State or POTW permitting agency will incorporate applicable categorical standards into the facility's NPDES or POTW permit.

- Yes** Facility is in compliance with applicable categorical standards. ✓
- No** Facility is not in compliance with applicable categorical standards.
- NA** Facility does not conduct any operations or processes that are subject to categorical standards.

3.10 Yard Dust Control

(SEE HANDBOOK - PAGE 61)

NOTE: One of the following questions is included in the accompanying checklist (highlighted in **bold**) to help the facility examine its operations relating to *yard dust control* for compliance with environmental requirements.

- a. *Does the facility control the road and yard dust emissions by using water or other dust suppressants? (p. W-63)*
- b. **Does the facility prohibit the use of used oils and other liquid wastes to suppress dust? (p. W-63)**

These questions appear in the following text and may be accompanied with a discussion of the preferred answers (indicated with a “✓”) for environmental compliance.

3.10a Does the facility control the road and yard dust emissions by using water or other dust suppressants?

Some facilities may have “fugitive dust,” including dust from unpaved roads, yards, bulk material handling, sand towers, etc. Facilities often control dust emissions by the use of water or other suppressants.

Yes Facility controls road and yard dust emissions as described above. ✓

No Facility does not control road and yard dust emissions.

3.10b Does the facility prohibit the use of used oils or other liquid wastes to suppress dust?

Historically, industry and government applied some used oils or other liquid wastes for dust control. Laws strictly prohibit this practice now. States only allow commercially available suppressants and in some states the products require specific authorization from the state environmental agency.

Yes Facility does not allow the use of prohibited suppressants. ✓

No Facility does not prohibit the use these suppressants. **Note:** *Facility may be out of compliance and should contact its state regulatory agency for assistance.*

NA Facility does not control road and yard dust emissions.

SECTION 4.0 TRANSPORTATION OPERATIONS

4.1 Hazardous Material Transport

(SEE HANDBOOK - PAGE 66)

NOTE: The following question is included in the accompanying checklist to help the facility examine its operations relating to *hazardous material transport* for compliance with environmental requirements:

a. Does the facility routinely conduct hazardous material inspections?
(p. W-64)

This question appears in the following text and is accompanied with a discussion of the preferred answer (indicated with a “✓”) for environmental compliance.

4.1a Does the facility routinely conduct hazardous material inspections?

The Department of Transportation (DOT) regulates hazardous material. DOT and EPA jointly regulate hazardous waste transportation. EPA requires hazardous waste manifest. If hazardous materials pass through the yard, the facility should inspect rail containers for the following:

- proper labeling,
- valve cover placement,
- stenciling, and
- shipping papers.

Routine inspections also should include examination for spills and leaks of hazardous materials. Report all spills and leaks promptly to the dispatcher.

Yes Facility conducts hazardous materials inspections routinely. ✓

No Facility does not conduct hazardous materials inspections.

NA Hazardous materials do not pass through the rail yard.

4.2 Locomotive Emissions

(SEE HANDBOOK - PAGES 68, 97)

NOTE: Both of the following questions are included in the accompanying checklist to help the facility examine its operations relating to *locomotive emissions* for compliance with environmental requirements:

- a. ***Is the facility familiar with the new emission standards for locomotives? (p. W-66)***
- b. ***Does the facility minimize locomotive emissions by (1) limiting idling times, or (2) limiting the areas in which engines can idle? (p. W-66)***

These questions appear in the following text and may be accompanied with a discussion of the preferred answers (indicted with a “✓”) for environmental compliance.

Locomotive Emissions

Under Section 213(a)(5) of the Clean Air Act (CAA), EPA must regulate emissions from locomotives. On April 16, 1998, EPA issued a final rule for emission standards for locomotives and locomotive engines (63 FR 18977). The primary focus of this rule is to reduce nitrogen oxide (NO_x) emissions, which contributes to the formation of smog. The rule also contains emission standards for hydrocarbons (HC), carbon monoxide (CO), particulate matter (PM), and smoke. These standards will take effect in 2000.

The following locomotives are exempted from the new emission standards:

- Locomotives manufactured before 1973
- Historic steam locomotives
- Locomotives powered by engines less than 750 kw (1006 horse power)
- Repowered locomotives and switch locomotives using certified nonroad engines
- Tier 0 locomotives owned and operated by small businesses
- Exported locomotives
- Mexican and Canadian locomotives used for border traffic.

In addition to the emission standards, the rule includes a variety of provisions to implement the standards and to ensure that the standards are met in-use. These provisions include certification test procedures and assembly-line and in-use compliance testing programs. The rule also includes an emissions averaging, banking and trading program to improve feasibility and provide flexibility in achieving compliance with proposed standards. It should be noted that the regulations in this rule preempt certain state and local requirements relating to the control of emissions from new locomotives and new locomotive engines. For more information refer to EPA's website at <http://www.epa.gov/oms/locomotv.htm> or contact the state or local air pollution authority.

4.2a Is the facility familiar with the new emission standards for locomotives?

- Yes** The facility is familiar with the new emission standards for locomotives. ✓
- No** The facility is not familiar with the new emission standards for locomotives.
- NA** The new emission standards do not apply to the facility.

4.2b Does the facility minimize locomotive emissions by (1) limiting idling times, or (2) limiting the areas in which engines can idle?

Some state and local governmental jurisdictions regulate the emissions from locomotives. Primarily the requirements include restrictions on idling times and locations. Check with your state and local air pollution control agencies to determine their specific requirements.

- Yes** Facility minimizes locomotive emissions by limiting idling times and/or limiting the areas in which engines can idle. ✓
- No** Facility does not minimize locomotive emissions through limiting of idling times and/or limiting of areas in which engines can idle.

4.3 Leaks and Spills

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

NOTE: The following question is included in the accompanying checklist to help the facility examine its operations relating to *leaks and spills* for compliance with environmental requirements:

- a. ***Are facility crews trained to detect and report all spills and leaks immediately? (p. W-66)***

This question appears in the following text and may be accompanied with a discussion of the preferred answer (indicted with a “✓”) for environmental compliance.

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

- Yes** Facility trains crews to report all spills and leaks to the central dispatcher immediately upon detection. ✓
- No** Facility does not train crews.

SECTION 5.0 OTHER OPERATIONS

5.1 Metal Machining

(SEE HANDBOOK - PAGE 17)

NOTE: The questions in this section are not included in the accompanying checklist, however, they are still important to consider when examining your facility's compliance with environmental requirements:

- a. *Does the facility store scrap metal in a covered and contained area? (p. W-67)*
- b. *How does the facility manage metal scraps? (p. W-68)*
- c. *How does the facility manage waste cutting oils and degreasing solvents used in its metal machining processes? (p. W-68)*

These questions appear in the following text and may be accompanied with a discussion of the preferred answers (indicated with a "✓") for environmental compliance.

Metal Machining and Machine Cooling

Metal scraps may contain cutting oils, lubricating oils, and grease. Most metal scraps have economic value for recycling or reclamation. During storage of scrap metal, the facility should put the materials in container and cover them to prevent the release of pollutants to the ground and storm water. There must be no free liquids present.

The major hazardous wastes from metal machining are waste cutting oils, spent machine coolant, and degreasing solvents. However, scrap metal also can be a component of hazardous waste produced at a machine shop. Material substitution and recycling are the two best means to reduce the volume of these wastes. Facilities should attempt to substitute the oils and solvents with water-soluble cutting oils whenever possible. They should also segregate wastes carefully to facilitate reuse and recycling.

Tip: *Your local scrap metal recycling plant may accept your scrap metal if sorted and properly stored.*

5.1a Does the facility store scrap metal in a covered and contained area?

Facilities should store metal scraps in a covered, contained area that prevents soil and water contamination.

- Yes** Facility stores metal scraps in a covered and contained area. ✓
- No** Facility does not store metal scraps in a covered and contained area.
- NA** Facility does not have any metal scraps.

5.1b How does the facility manage metal scraps?

Recycle	Facility recycles metal scraps. ✓
Reuse	Facility reuses metal scraps. ✓
Sale	Facility collects metal scraps and sells these to metal recyclers. ✓
Other	Facility does not use one of the methods listed above to manage metal scraps.
NA	Facility does not have any metal scraps.

5.1c How does the facility manage waste cutting oils and degreasing solvents used in its metal machining processes?

Recycling	Facility recycles waste cutting oils if nonwater-soluble oils must be used. ✓
Reuse	Facility reuses and recycles solvents whenever possible. ✓
Disposed of as hazardous waste	Facility keeps waste cutting oils and degreasing solvents separately in drums, labeled as "Hazardous Waste," and disposed of by a hazardous waste hauler.
NA	Facility does not conduct metal machining.

5.2 Painting/Paint Removal Operations

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

NOTE: The following questions, some of which are included in the accompanying checklist (highlighted in **bold**), will help the facility examine its operations relating to *painting and paint removal operations* for compliance with environmental requirements:

- a. Does the facility conduct painting/paint removal operations? (p. W-69)
- b. **Does the facility have air permits?** (p. W-69)
- c. If yes, are air permit conditions being met? (p. W-69)
- d. Does the facility prepare surfaces to be painted by shot or grit blasting, grinding, or sanding? (p. W-70)
- e. If yes, does the facility test surfaces and paints for asbestos and lead? (p. W-70)
- f. Does the facility collect paint chips and metal dusts? (p. W-70)
- g. **How does the facility manage paint stripping wastes and baghouse dusts?** (p. W-71)

- h. Does the facility use low VOC paints in its painting operations? (p. W-71)
- i. Does the facility mix paint amounts according to need? (p. W-71)
- j. Does the facility take measures to minimize overspray? (p. W-72)
- k. Does the facility properly contain and label paints not in use? (p. W-72)
- l. How does the facility manage used paints and waste paint products? (p. W-72)**
- m. How does the facility dispose of spray paint booth air filters? (p. W-73)

These questions appear in the following text and may be accompanied with a discussion of the preferred answers (indicated with a “✓”) for environmental compliance.

Painting/Paint Removal Operations

5.2a Does the facility conduct painting/paint removal operations?

Facilities may conduct painting in specific areas such as paint booths. **Note:** The facility should verify that there are no drains in the areas where painting occurs.

- Yes** Facility conducts painting/paint removal operations.
- No** Facility does not conduct painting/paint removal operations.

5.2b Does the facility have air permits?

States typically issue air pollution permits for certain operations such as **painting** and surface preparation if certain state regulatory criteria apply. If air pollution control equipment is installed, such as a baghouse or scrubber, you must have a permit. Check with the state for specific criteria and requirements.

- Yes** Facility has air permits and they are current. ✓
Permit No(s): _____
- No** Facility has not obtained 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.
- NA** Permits are not required.

5.2d Does the facility prepare surfaces to be painted by shot or grit blasting, grinding, or sanding?

In preparation for painting of locomotives or buildings, shot or grit blasting is used to remove old paint. Grinding and sanding are often used to prepare the surface to be painted.

Tip: If using chemical strippers containing hazardous pollutants, be sure the facility is meeting **air quality standards**. Contact the state or local air pollution control agency for more information about air quality standards.

- Yes** Facility uses one of the above methods.
- No** Facility does not use one of the above methods.
- NA** Facility is not preparing surfaces for painting at this time.

5.2e If yes, does the facility test surfaces and paints for asbestos and lead?

If a facility uses shot or grit blasting, grinding, or sanding to remove old paint, then test the surfaces and paints for asbestos and lead.

- Yes** Facility tests surfaces and paints for asbestos and lead. ✓
- No** Facility does not test surfaces and paints for asbestos and lead.
- NA** Facility does not prepare surfaces by shot/grit blasting, grinding, or sanding.

5.2f Does the facility collect paint chips and metal dusts?

An effective practice 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 chips and metal dusts. ✓
- No** Facility does not collect paint chips and metal dusts.
- NA** Facility does not conduct paint removal operations.

5.2g How does the facility manage/dispose of paint stripping wastes and baghouse dusts?

All materials collected from shot and grit blasting and sanding/grinding operations may potentially be hazardous waste, depending on the previous paint coatings. If the previous paints contained lead or chromium, the waste chips and dusts may be toxic hazardous waste, depending on Toxicity Characteristic Leaching Procedure (TCLP) test results. See Section 1.0 for information on TCLP tests.

Recycling	Facility recycles paint stripping wastes and baghouse dusts on site or ships them to a recycling facility. ✓
Landfill	Based on characterization, facility disposes of material at a municipal or hazardous waste landfill. ✓
On-site disposal	Facility disposes of paint wastes and residues on site (e.g., landfill).
Other	Facility's method of disposal is not listed.
NA	Facility does not have paint stripping wastes and/or baghouse dusts.

5.2h Does the facility use low VOC paints in its painting operations?

Paint labels or product data sheets (or material safety data sheets [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.
- NA** Facility does not have painting operations.

5.2i Does the facility mix paint amounts according to need?

Facilities should mix paint by the job, as opposed to in large batches, thus reducing potential paint waste.

- Yes** Facility mixes paint by the job. ✓
- No** Facility mixes paints in large batches.
- NA** Facility does not have painting operations.

5.2j Does the facility take measures to minimize overspray?

Facilities may take various measures, such as air-assisted; airless, high-volume, low pressure turbine; air atomized electrostatic; and airless, electrostatic application techniques to minimize overspray. Another technique is the use of high transfer efficiency spray applicators. High efficiency sprayers should have label 'HVLP' on the gun. This is not yet a federal regulatory requirement. (*Note: Required in some states.*)

- Yes** Facility takes steps to minimize overspray. ✓
- No** Facility does not use measures to minimize overspray.
- NA** Facility does not have painting operations.

5.2k Does the facility properly contain and label paints not in use?

Facilities must ensure that paints that are not in use are in labeled containers. Paint containers must have tight-fitting lids. Storage must prohibit spills from reaching a drain or otherwise leave the facility. Containers labels must indicate contents.

- Yes** Facility contains and labels paints as described above. ✓
- No** Facility does not contain and/or label paints as described above.
- NA** Facility does not store paints.

5.2l How does the facility manage/dispose of used paints and painting waste products?

Facilities should not bury or discard waste paint cans, residuals, or unused paint products on site. Organic solvent-based paints and residuals may be classified as hazardous waste and may require manifesting, storage, transportation, and disposal in full compliance with RCRA. Facilities can recycle paint cans (that once contained hazardous waste) that are classified as "empty" by the RCRA definition. Facilities can dispose of latex paints off site at an approved facility as nonhazardous waste.

A container is "empty" if a facility removes all wastes and hazardous residues that can be removed using a common practice 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 may be hazardous waste and may require manifesting, storage, transportation, and disposal in full compliance with RCRA. Aerosol cans that are empty and depressurized (i.e., all propellant is discharged) may be classified as nonhazardous solid waste for off-site disposal.

Return to supplier	Facility returns all unused paints and thinners to the supplier. ✓
Reuse	Facility gives leftover/unused paints and thinners to customers, employees, or at “paint swaps.” ✓
Recycle	Facility recycles items by hiring a paint, solvent, or thinner recycler. (Generally this will apply to solvents or thinners.) ✓
On-site disposal	Facility disposes of paint wastes and residues on site.
Mix with other fluids	Facility mixes materials with other fluids (solvent, used oil).
Landfill	Facility disposes materials at a municipal or hazardous waste landfill based on characterization.
Drain	Facility pours leftover paint down the drain. Warning: <i>This practice must be stopped immediately.</i>
Other	Method of disposal is not listed here.
NA	Facility does not generate used paints and waste paint products.

5.2m How does the facility dispose of spray paint booth air filters?

Facilities must dispose of filters containing hazardous paints using a hazardous waste hauler. Facility must maintain records indicating where they send hazardous filters. Facilities can dispose of filters containing nonhazardous paints in a landfill or recycle them.

Dispose as hazardous waste	Facility disposes of filters containing <i>hazardous paints</i> as hazardous waste. ✓
Recycle	Facility sends <i>nonhazardous filters</i> to a recycling facility. ✓
Landfill	Facility sends <i>nonhazardous filters</i> to a landfill. ✓
Other	Method of disposal is not listed.
NA	Facility does not use filters.

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

NOTE: The following questions are not included in the accompanying checklist, however, they are still important to consider when examining your facility's operations for environmental compliance:

- a. Does electrical equipment contain PCBs? (p. W-74)
- b. Does the facility label and inspect PCB-containing equipment quarterly? (p. W-75)
- c. Does the facility store all out-of-service PCB-containing equipment in a designated area? (p. W-75)
- d. Do trained personnel cleanup PCB leaks/spills within 24 hours? (p. W-75)

These questions appear in the following text and may be accompanied with a discussion of the preferred answers (indicated with a "✓") for environmental compliance.

5.3a Does electrical equipment contain PCBs?

Electrical equipment, such as electrical light ballasts, transformers, and capacitors, containing insulating or dielectric oils, may contain polychlorinated biphenyls (PCBs). Assume equipment manufactured before 1978 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).

Some short line railroad facilities have electrical equipment such as **electrical light ballasts**. An electrical light ballast is the primary component of fluorescent light fixtures. These items generally are located within the fixture under a metal cover plate. The function of a light ballast is to accumulate and hold a charge of electricity. According to EPA, all small light ballasts manufactured through 1979 contain **PCBs**. Ballasts manufactured after 1979 that do not contain PCBs are labeled, "**No PCBs**." Light ballasts for which no information is known must be assumed to be **PCB-contaminated**.

Facilities must assess all electrical equipment for their potential to contain PCBs. If all the electrical equipment is found to be free of PCBs, then label all equipment as PCB-free.

Yes Facility has electrical equipment that contains PCBs.

No Facility does not have electrical equipment that contains PCBs.

Don't know Facility has assessed electrical equipment for its potential to contain PCBs, and is unsure.

5.3b Does the facility label and inspect PCB-containing equipment quarterly?

Facilities must label all electrical equipment (e.g., transformers and capacitors) containing PCBs with the appropriate PCB classification. They must inspect this equipment quarterly for leaks and to assure the labels are in place.

Yes Facility has labeled all equipment and inspects it quarterly. ✓

No Facility has not labeled all equipment or does not inspect it quarterly.

NA Facility does not have equipment that contains PCBs.

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

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

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

Yes Facility stores all out-of-service PCB-containing equipment in a designated area. ✓

No Facility does not store out-of-service equipment in a designated area.

NA Facility does not have out-of-service PCB-containing equipment.

5.3d Do trained personnel clean up PCB leaks/spills within 24 hours?

Assume all electrical equipment involved in spill or leaks to have PCBs unless sampled and labeled to indicate otherwise. If a spill occurs, initiate a cleanup within 24 hours. Complete cleanups within 48 hours, regardless of the regular business hours. Assure trained personnel perform all cleanups and they meet recordkeeping requirements.

Initiate a cleanup immediately if one observes there is a transformer spillage and leaks. The facility must develop a program and procedures to ensure that PCB equipment and transformers are inspected for leaks and cleaned up when leaks appear. 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.
- NA** Facility does not have equipment that contains PCBs.

5.4 Air Conditioning Repair

(SEE HANDBOOK - PAGES 38, 95-98)

NOTE: The following questions, some of which are included in the accompanying checklist (highlighted in **bold**), will help the facility examine its operations relating to *air conditioning repair* for compliance with environmental requirements:

- a. *Does the facility maintain and/or repair CFC-containing equipment? (p. W-77)*
- b. **Does the facility employ or hire trained and certified technicians to maintain CFC-containing equipment? (p. W-77)**
- c. *Are certificates on file? (p. W-77)*
- d. *Does the facility remove all CFCs from equipment prior to maintenance activities? (p. W-77)*
- e. *Has EPA approved the CFC recovery and/or recycling equipment? (p. W-78)*
- f. *Does the facility have documentation that refrigerants from recovery equipment are sent to an EPA-approved reclaimer? (p. W-78)*
- g. *Does the facility repair leaks of appliances containing ozone-depleting refrigerants in a timely manner? (p. W-79)*
- h. *How does the facility manage appliances containing ozone-depleting refrigerants? (p. W-79)*
- i. *Has the facility ensured that its CFCs have been legally purchased? (p. W-80)*

These questions appear in the following text and may be accompanied with a discussion of the preferred answers (indicated with a "✓") for environmental compliance.

Air Conditioning Repair

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 [e.g., chlorofluorocarbons (CFCs)] to the environment. For a list of ozone-depleting substances, contact the **Stratospheric Ozone Information Hotline at 1-800-296-1996**.

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

The most common CFC-containing equipment maintained and repaired at a railroad facility 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 Does the facility employ or hire trained and certified technicians to maintain CFC-containing equipment?

Refrigerant technicians must have EPA approved training. Each technician must have his/her own certification. Certificates must be posted at the place of business (40 CFR Part 82).

Yes Technicians are certified. ✓

No Technicians are not certified.

NA Facility does not maintain CFC-containing equipment.

5.4c Are certificates on file?

Yes Technicians' certificates are on the wall, in a file, or in their wallet. ✓

No Technicians' certificates are not on file.

NA Facility does not maintain CFC-containing equipment.

5.4d Does the facility remove all CFCs from equipment prior to maintenance activities?

A facility should only work on equipment repairs that would release CFCs after the facility removes and collects the refrigerants.

Yes Facility removes and collects CFCs from equipment prior to maintenance activities. ✓

No Facility does not remove or collect CFCs from equipment prior to maintenance activities.

NA Facility does not maintain and/or repair CFC-containing equipment.

5.4e 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. Currently, EPA has approved both the Air-Conditioning and Refrigeration Institute (ARI) and Underwriters Laboratories (UL) to certify recycling and recovery equipment. Certified equipment is identified by a label reading: "This equipment has been certified by ARI/UL to meet EPA's minimum requirements for recycling and/ or recovery equipment intended for use with [appropriate category of appliance--e.g., small appliances, HCFC appliances containing less than 200 pounds of refrigerant, all high-pressure appliances, etc.]." Lists of certified equipment may be obtained by contacting ARI at 703-524-8800 and UL at 708-272-8800 ext. 42371.

To demonstrate EPA approval, the equipment must have a label stating 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];" or
- 2) "UL approved" or "ARI approved."

Yes Equipment has the "ARI / UL approval" and it has the appropriate labels . ✓

No Equipment does not have the "ARI / UL approval".

NA Facility does not maintain and/or repair CFC-containing equipment.

5.4f Does the facility have documentation that refrigerants from recovery equipment are sent to 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 reclaimer is EPA approved. ✓

No Facility does not maintain documentation where refrigerants are sent.

NA Facility does not maintain and/or repair CFC-containing equipment.

5.4g Does the facility repair leaks of appliances containing ozone-depleting refrigerants in a timely manner?

If the facility's appliances (e.g., air conditioners, refrigerators) contain 50 or more pounds of refrigerant, the facility must repair leaks in a timely manner and maintain records of those repairs. See *Question 5.2b for recordkeeping requirements*.

- Yes** Facility repairs leaks of appliances containing 50 pounds or more of refrigerant in a timely manner. ✓
- No** Facility does not repair leaks of appliances containing 50 pounds or more of refrigerant in a timely manner.
- NA** Facility does not have appliances that contains 50 pounds or more of refrigerant.

5.4h How does the facility manage appliances containing ozone-depleting refrigerants?

- Landfill** Facility disposes of appliances containing ozone-depleting refrigerants in a landfill that contains refrigerant-recovery equipment. ✓
- Waste hauler** Facility has waste hauler pick up appliances. Waste hauler has refrigerant-recovery equipment. ✓
- Scrap metal recycler** Facility sends appliances to scrap metal recycler that has refrigerant-recovery equipment. ✓
- Other** Method of disposal is not listed.

5.4i Has the facility ensured that its CFCs have been legally purchased?

When purchasing CFCs, the facility should know where the specific brand was produced and the name of the manufacturer. Ask the seller for documents of prior ownership of the product (and a laboratory analysis of the quality).

Investigating the source of the material and the chain of ownership is your responsibility. If the material

was imported, the facility should know when, where, and from whom it was imported. The facility should also ensure that the packaging for the material is appropriate. Illegally imported refrigerant is sometimes packaged in wrong size containers or fixed with improper values.

Warning: If an individual knowingly buys or possesses CFCs smuggled into the United States, that person is committing a punishable, criminal offense and could face severe penalties. For more information regarding CFCs and enforcement actions under the Clean Air Act (CAA), call EPA's **Stratospheric Ozone Protection Hotline at 1-800-296-1996.**

- Yes** Facility has ensured that CFCs have been legally purchased. ✓
- No** Facility has not ensured that CFCs have been legally purchased.
- NA** Facility has not purchased CFCs.

GLOSSARY OF TERMS

Aboveground storage tank: Any tank or other container that is aboveground, partially buried, bunkered, or in a subterranean vault. This includes floating fuel system.

Acute Hazardous Waste: Commercial chemical products and manufacturing intermediates having the generic names listed in 40 CFR 261.33; off-specification commercial chemical products and manufacturing chemical intermediates which, if they met specification, would have the generic names listed; any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill of any of these substances; any residue remaining in containers that are not empty by RCRA standards (40 CFR 261.7)

Aquifer: A saturated water bearing formation of permeable rock, sand, or gravel.

Ambient Standards: Standards for the quality of outdoor air.

Asbestos: A naturally occurring fibrous mineral used in buildings for its heat retarding properties that may cause serious respiratory problems if inhaled. CAA regulates removal and disposal.

Caustic: Any substance which can burn, dissolve, corrode, or eat away by chemical reaction.

CERCLA Hazardous Substances: CERCLA Section 101(14), as amended, defines "hazardous substance" by referencing other environmental statutes, including: CWA Sections 311 and 307(a); CAA section 112; RCRA Section 3001; and TSCA Section 7. A list of over 600 CERCLA hazardous substances is provided in 40 CFR 302.4. EPA has the authority to designate additional hazardous substances not listed under the statutory provisions cited above.

CFR: Code of Federal Regulations. A codification of the regulations published by federal government agencies.

Chlorofluorocarbons (CFCs): The chemical group found in refrigerants such as freon and in propellants for aerosol containers. These chemicals have been determined to be partially responsible for depletion of ozone levels in the upper atmosphere.

Civil Penalties: Monetary penalties which can be imposed on companies and individuals for violations of civil laws and regulations.

Clean Air Act (CAA): The federal law designed to improve air quality by regulating air pollution emission from stationary and non-stationary sources. The Act includes National Ambient Air Quality Standards (NAAQS) for specific pollutants.

Cleanup: Actions taken to deal with a release or threat of a hazardous substances release that could affect people or the environment. The term "cleanup" is sometimes used interchangeably with the terms "remedial action," "removal action," "response action," "remedy," "remediation," or "correction action."

Cleanup Operation: An operation in which hazardous substances are removed, contained, incinerated, neutralized, stabilized, cleaned up, or in any other manner processed or handled with the ultimate goal of making the site safer for people or the environment.

Clean Water Act (CWA): The purpose of this federal law is to restore and maintain the water quality of lakes, streams and rivers. This goal is being pursued by controlling both point sources and non-point sources of discharge into surface water.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): The federal law established in 1980 to identify, investigate, and clean up sites that might release hazardous substances into the environment. It also established funding for these cleanup projects (commonly called Superfund) and procedures for recovering any fund money expended. CERCLA also requires the reporting of spills and releases of hazardous substances.

Conditionally Exempt Small Quantity Generators: Hazardous waste generators who are basically exempt from the majority of RCRA regulations due to the small amounts generated and the low frequency of production. One must generate less than 100 kilograms of hazardous waste per month, or less than 1 kg of acute hazardous waste to qualify as a conditionally exempt small quantity generator.

Container: Any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled, including drums, pails, buckets, and inner liners.

Corrosive: Material with a pH of less than 2.0 or greater than 12.5 or a material capable of dissolving or wearing away steel at a rate greater than 0.25 inch per year.

Cradle-to-Grave: The Resource Conservation and Recovery Act requirement for management and tracking of hazardous waste is documented from the source of the waste (i.e., generator) through its transportation, to treatment, storage and eventually acceptance by a disposal facility.

Criminal Penalties: Penalties imposed for a willful and/or knowing violation of a criminal law. They include monetary fines for companies and individuals and jail time for individuals.

Department of Transportation (DOT): The federal agency that regulates the transport of hazardous materials under the Hazardous Materials Transportation Act. These materials include CERCLA hazardous substances and RCRA hazardous wastes.

Direct Discharge: Clean Water Act defines direct discharge as any addition of any pollutant or combination of pollutants to (a) U.S. waters from any "point source", or (b) waters of the "contiguous zone" or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation. This definition includes additions of pollutants into waters of the U.S. from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person which do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works.

Discharge: The accidental or intentional spilling, leaking, pumping, pouring, emitting, emptying, or dumping of waste into or on any land or water.

Disposal: The discharge deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into any land or water so that such solid waste or hazardous waste, or any constituent thereof, enters the environment, is emitted into the air, or is discharged into any waters, including groundwater.

Disposal Facility: A facility or part of facility at which solid or hazardous waste is intentionally placed into or on any land or water, and at which waste will remain after closure.

Effluent: Any gaseous, liquid, or solid waste material that is released into the environment.

Emergency Response: A response effort by employees from outside the immediate release area or by other designated responders (i.e., mutual-aid groups, local fire departments, etc.) to an occurrence which results, or is likely to result, in an uncontrolled release of a hazardous substance. Responses to incidental releases of hazardous substances which can be absorbed, neutralized, or otherwise controlled at the time of release by employees in the immediate release area, or by maintenance personnel, are not considered to be emergency responses within the scope of the OSHA HAZWOPER standard. Responses to releases of hazardous substances which involve amounts under the reportable quantities (RQs) are not emergency responses. (See 40 CFR Part 302)

Emergency Planning and Community Right-to-Know Act (EPCRA): The federal law requiring corporate disclosure to local communities about certain chemicals used by the company. It also requires the notification of certain spills and releases.

EPA Hazardous Waste Code: The code assigned by EPA to each hazardous waste listed in RCRA regulations and to each hazardous waste characteristic identified in RCRA regulations.

EPA ID Number: The identification number assigned by EPA to each hazardous waste generator, transporter and treatment, storage, and disposal facility.

EPA Region: The states and territories found in any one of ten EPA regions, such as Region 4—Tennessee, Kentucky, North Carolina, South Carolina, Georgia, Florida, Alabama, and Mississippi.

Erosion: The process of being worn away or deteriorated by wind or water.

Evacuation: A personnel or population protection strategy that provides for the orderly movement of people away from an actual or potential hazard.

Facility: All buildings, structures, equipment, and other stationary items that are located on a single site or on continuous or adjacent sites and that are owned or operated by the same person (or by any person which controls, is controlled by, or under common control with such person). Under certain circumstances, a facility can include rolling stock and other transport vehicles.

Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA): The federal law which regulates the sale, distribution, and use of pesticides and establishes requirements for registration, labeling, use, and disposal of these products.

Fire Hazards: Hazardous chemicals, including flammable chemicals, that are liable to cause fire through friction, absorption, spontaneous chemical changes, retained heat, or which can be ignited readily and burn vigorously and persistently; combustible liquids having flashpoints at or above 90°F but below 100°F; flammable liquids with flash points below 100°F; pyrophoric chemicals that ignite spontaneously in air at temperatures of 130°F or below; and oxidizers that can promote combustion in other materials, causing fire either by themselves or through the release of oxygen or other gases.

Freeboard: The vertical distance from the normal water surface to the top of the confining wall.

Friable Asbestos Material: Any material that contains more than one percent asbestos by weight, and can be crumbled, pulverized, or reduced to powder by hand pressure.

Fugitive Emissions: Air emissions not normally vented through a stack, chimney, vent, or equivalent opening. Fugitive emissions includes emissions from ponds, lagoons, landfills, and piles of stored materials.

Generator of Hazardous Waste: Entity that produces hazardous waste. Generators are classified by how much hazardous waste they produce in a given time period. In general, there are three classes of waste generators: conditionally exempt small quantity generators, small quantity generators, and large quantity generators. The generator is required to determine if a waste is hazardous. If the waste is hazardous, the generator must apply for and obtain an EPA ID number before transporting the waste to an approved treatment, storage, and disposal facility. The generator must also use a hazardous waste manifest to track the hazardous waste, must package and label the hazardous waste, and must keep records of its shipments for 3 years.

Groundwater: Water below the land surface in a zone of saturation.

Hazard: A circumstance or condition that can do harm. Hazards are categorized into four groups: biological, chemical, radiation, and physical.

Hazard Classes: These are descriptive terms prescribed by the Department of Transportation to categorize the nature of DOT regulated materials. There are nine numeric classes and two word classes as follows: Class 1 (explosives), Class 2 (gases), Class 3 (flammable liquids), Class 4 (flammable solids and substances), Class 5 (oxidizing substances), Class 6 (poisonous and infectious substances), Class 7 (radioactive), Class 8 (corrosive), and Class 9 [miscellaneous substances, and Combustible Liquids, ORM-D (consumer commodities)].

Hazardous Material: A substance designated by the Department of Transportation as posing a potential hazard when transported. See 49 CFR 171.101 for a list of DOT hazardous materials. Hazardous wastes requiring a manifest are considered hazardous materials.

Hazardous Substance: CERCLA Section 101(14), as amended, defines “hazardous substance” by referencing other environmental statutes, including: CWA Sections 311 and 307(a); CAA section 112; RCRA Section 3001; and TSCA Section 7. A list of over 600 CERCLA hazardous substances is provided in 40 CFR 302.4. EPA has the authority to designate additional hazardous substances not listed under the statutory provisions cited above.

Hazardous Waste: A solid waste material that may cause or significantly contribute to serious illness or death or that may pose a substantial threat to human health or the environment if not managed properly, and which includes liquids, semisolids, and contained gases. Hazardous wastes are subject to manifest reporting requirements. A material is considered a hazardous waste under RCRA if it meets one of the following conditions:

- The material has been listed as a hazardous waste by regulations.
- It is ignitable, corrosive, reactive, or toxic.
- It is a mixture of a listed hazardous waste and a non-hazardous waste.

Hazmat: A contraction of Hazardous Materials.

Ignitable: Material that has a flashpoint less than 140°F, is combustible through friction, is combustible through absorption of moisture, or can spontaneously combust.

Incident: A release or potential release of a hazardous material, substance, or waste into the environment.

Indirect Discharge: A discharge which goes to a publicly-owned treatment works (POTW). Indirect discharges do not need a National Pollutant Discharge Elimination System (NPDES) permit but must comply with the POTW pretreatment standards.

Influent: Wastewater or other raw or partially treated liquid flowing into a basin, treatment process, or treatment plant.

Land Disposal: Includes, but is not limited to placement of hazardous waste in a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, salt bed formation, underground mine or cave, or concrete vault or bunker intended for disposal purposes. Land disposal facilities are a subset of treatment, storage, and disposal facilities (TSDFs). Groundwater monitoring is required at all land disposal facilities. Waste material can only be disposed of at a permitted facility.

Land Disposal Restrictions: Regulations prohibiting the disposal of hazardous waste on land without prior treatment of the waste. Land disposal restriction notifications ensure proper treatment of the waste prior to disposal.

Landfill: A disposal facility or part of a facility where waste is placed in or on land and which is not a land treatment facility, a surface impoundment, or an injection well.

Large Quantity Generators: One of three classes of hazardous waste generators under RCRA producing 1,000 kilograms or more of hazardous waste in one calendar month at a given location.

Listed Waste: Waste listed as hazardous under 40 CFR Part 261. A waste is listed as a hazardous waste based on the process from which the waste was generated and/or the constituents found in the waste.

Local Emergency Planning Committee (LEPC): A local community group, including police and fire departments, which must be notified in the event of an accidental release that exceeds the reportable quantity of the following substances (1) EHSs (listed in 40 CFR Part 355, Appendices A and B); or (2) hazardous substances subject to emergency notification requirements under CERCLA Section 103(a) (listed in 40 CFR 302.4).

Major Stationary Source: Any stationary source that emits or has the potential to emit 100 tons per year or more of any air pollutant.

Manifest: The “cradle-to-grave” paperwork recording hazardous waste movement from its generation through final storage or disposal. All parties must keep records for 3 years.

Material Safety Data Sheets (MSDS): Information sheets which provide workers with details on the health and physical hazards of chemicals to which they may be exposed in the workplace.

Maximum Achievable Control Technology (MACT): Generally, the best available control technology, taking into account cost and technical feasibility.

Milligrams per Kilogram (mg/kg): Weight of a substance, measured in milligrams, contained in a weight of the total material, measured in kilograms. A concentration used to measure solid materials such as contamination in soil.

Milligrams per Liter (mg/l): Weight of a substance, measured in milligrams, contained in a volume of solution measured in liters. A concentration used for liquid substances.

Monitoring: The process of measuring certain environmental parameters on a real-time basis for spatial and time variations. For example, air monitoring may be conducted with direct reading instruments to indicate relative changes in air contaminant concentration at various times.

National Ambient Air Quality Standards (NAAQS): Standards established by the Clean Air Act for air quality of an area in terms of allowable levels of specific pollutants.

National Emission Standards for Hazardous Air Pollutants (NESHAP): The EPA regulations which govern specific processes which could possibly emit certain hazardous pollutants such as asbestos into the air.

National Pollutant Discharge Elimination System (NPDES): A permitting system under the CWA established for regulating direct discharges of wastewater from industries and municipalities into surface waters of the United States.

National Priority List (NPL): The prioritized list required by CERCLA of abandoned or uncontrolled hazardous waste sites.

National Response Center: The center (1-800-424-8802) which must be notified immediately of releases of hazardous substances in excess of their reportable quantities and hazardous materials (under certain circumstances).

New Source Performance Standards (NSPS): Standards established by the EPA under the CAA for new, modified, or reconstructed operations which emit air pollutants.

Nonattainment: The status of an area that is determined to exceed any national ambient air quality standard for a particular pollutant.

Oil: Oil of any kind or in any form, including but not limited to petroleum, fuel oil, oil sludge, oil refuse, and oil mixed with wastes.

On site: The same or geographically contiguous property which may be divided by public or private right-of-way, provided the entrance and exit between the properties are at a crossroads intersection and access is by crossing, as opposed to going along, the right-of-way. However, non-contiguous properties owned by the same person but connected by a right-of-way which he or she controls and to which the public does not have access are also considered on-site properties.

Operator: The person responsible for the overall operation of a facility or process.

Occupational Safety and Health Administration (OSHA): A federal agency which protects worker health and safety under the Occupational Safety and Health Act and plays an important role in environmental issues such as chemical exposure in the workplace.

Outfall: The mouth of a drain or sewer which flows directly into surface water.

Owner: The person who owns a facility or part of a facility.

Parts per Million (ppm): A standard or measurement for concentrations of pollutants. A ratio (volume/volume or weight/weight) usually used for airborne concentration of gases or vapors, for concentrations of chemicals in water, or concentrations of chemicals in soil.

Permit: A written document issued by the government that establishes standards and/or pollutant limits for water discharges, air emissions, or for the handling, treating, storing, or disposing of hazardous waste.

Pesticide: Any substance or mixture of substances intended for preventing, destroying, repelling or mitigating any pest; any substance/mixture of substances intended as a plant regulator, defoliant or desiccant.

pH: A measure of alkalinity or acidity on a scale whose values range from 0 to 14 with 7 representing neutral. Numbers less than 7 correspond to increasing acidity. Numbers greater than 7 correspond to increasing alkalinity.

Point Source Discharges: Any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or

other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

Pollutant or Contaminant: Any element, substance, compound, or mixture which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingesting through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions, or physical deformation in such organisms or their offspring. It presents an imminent and substantial danger to public health or welfare.

Pollution Prevention: Any source reduction activity that results in the reduction of total volume of waste or reduction of toxicity of waste, or both, as long as the reduction is consistent with the goal of minimizing present and future risks to public health and the environment. Transfer of hazardous constituents from one environmental medium to another does not constitute waste minimization (see waste minimization).

Polychlorinated biphenyls (PCBs): A hazardous chemical once widely used in electrical transformer oil and now subject to a manufacturing ban and use restrictions under TSCA.

Preliminary Assessment/Site Investigation (PA/SI): The first phase of a site investigation for possible chemical contamination. It consists of a record search, investigation of prior site uses, on-site inspections, and possible site sampling to determine if a potential threat exists.

Publicly-Owned Treatment Works (POTW): Any device or system used in the treatment (including recycling and reclamation) of municipal sewage or industrial wastes of a liquid nature which is owned by a "State" or "municipality." This definition includes sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment.

Reasonably Available Control Technology (RACT): Control technology that is reasonably available and both technologically and economically feasible. Usually applied to existing sources in nonattainment areas; in most cases is less stringent than new source performance

Regulated Material: A substance or material that is subject to regulations set forth by the EPA, Department of Transportation, or any other federal and/or state agency.

Releases: Defined by federal and most state laws as any spilling, leaking, pouring, dumping, emitting, discharging, injecting, escaping, leaching, or disposing of hazardous wastes or hazardous substances into the environment. This includes the abandonment of barrels, containers, and other closed receptacles containing any hazardous substance or pollutant. Under environmental laws, the term "release" does not include releases which result in

exposure to persons solely within a workplace, with respect to a claim which such persons may assert against the employer of such persons.

Reportable Quantity (RQ): The minimum quantity of a CERCLA hazardous substance or EPCRA extremely hazardous substance which is reportable. A release equal to or greater than the RQ within a 24-hour period must be reported to the appropriate authorities (i.e., National Response Center).

Resource Conservation and Recovery Act (RCRA): The federal act which regulates the management of hazardous waste from the point of generation through transport, storage, and disposal. It also regulates underground storage tanks and nonhazardous waste disposal under separate subtitles.

SARA Title III: The part of SARA (Superfund Amendments and Reauthorization Act), now known as EPCRA (Emergency Planning and Community Right-to-Know Act) which regulates emergency response plans, community right-to-know issues, and chemical release reporting.

Safe Drinking Water Act (SDWA): The federal act which deals with the quality of treated drinking water. Regulations developed by EPA under authority of this act include drinking water standards.

Sedimentation: The act or process of depositing sediment.

Site Inspection: The collection of information from a Superfund site to determine the extent and severity of hazards posed by the site. It follows and is more extensive than a preliminary assessment.

Sludge: A solid, semi-solid, or liquid material produced by the process of settling or sinking caused by gravity. Sludges are generally waste products and are commonly generated by municipal and industrial water treatment processes and air pollution control processes. Sludges also occur in process tanks where liquids are stored. Sludges must be tested to determine if they are hazardous wastes.

Small Quantity Generators (SQGs): One of the three classes of hazardous waste generators under RCRA. SQGs produce between 100 and 1,000 kilograms of hazardous waste at a given location.

Soil and Groundwater Analysis: Tests used to determine the presence of substance contamination and concentration levels. The analysis may involve soil borings and the installation of test pits and/or monitoring wells.

Solid Waste: Any garbage, refuse, sludge, or other waste materials not excluded by definition. Exclusions include domestic sewage and any mixture of other wastes that pass through a sewer system to a publicly-owned treatment works (POTW); industrial wastewater discharges that are point source discharges subject to regulation under the Clean Water Act; irrigation return flows; nuclear materials defined by the Atomic Energy Act; and "in situ" or "in position" mining materials. Note that wastewaters being collected, stored, or treated before discharge

and sludges generated by wastewater treatment are not excluded. EPA defines hazardous waste as a subset of solid waste.

Solvent: Any substance that can dissolve another substance. The term is most often used to mean petroleum-based solvents, capable of dissolving greases, oils, tars, and asphalts. Many petroleum-based solvents are volatile, flammable, may be hazardous, and may be regulated as an air pollutant. Used solvents being disposed of (even if recycled) must be manifested as hazardous waste unless exempted.

Source Standards: Standards for emission levels at the source or point of emission.

Special Waste: A type of waste which is not a hazardous waste but requires more care than a regular solid waste and may require special disposal procedures. Examples include: certain sludges, asbestos containing waste materials, and oil waste.

Spill Prevention, Control, and Countermeasure (SPCC) Plan: Plan designed to ensure that a facility puts in place containment and other control measures that will prevent oil spills from reaching navigable U.S. waters.

State Emergency Response Commission (SERC): The state agency which must be notified in the event of an accidental release of an extremely hazardous substance, a CERCLA hazardous substance, or a chemical with an MSDS above the chemical's threshold planning quantity (TPQ) or its reportable quantity (RQ).

Stationary Source: Any building, structure, facility, or installation that emits or may emit any air pollutant.

Storage: The holding of hazardous waste for a temporary period, at the end of which the hazardous waste is treated, disposed of, or stored elsewhere. Generators are required to have a RCRA permit for storage of hazardous waste for more than 90 days or 180 days, depending on the generator's status. Treatment or disposal facilities must be permitted.

Superfund Amendments and Reauthorization Act (SARA): The amendments to CERCLA which increased available funds for site cleanups, added cleanup standards, and required hazardous waste operations training for site workers and emergency response personnel.

Superfund: The common name for CERCLA. It also refers to the fund that is to be used for cleaning up hazardous substance sites.

Toxic Substances Control Act (TSCA): The federal law designed to evaluate the human health and environmental effects of all chemical substances (excluding pesticides) entering the U.S. market, to establish an inventory of existing chemicals, and to regulate the use and disposal of toxic substances. PCBs are regulated under TSCA.

Toxicity Characteristic Leaching Procedure (TCLP): A physical/chemical analytical procedure used to determine if a substance is classified as a toxic hazardous waste. If the test results show that a solid waste exceeds any of the limits prescribed for 39 specific contaminants, the waste is deemed to be a characteristically toxic hazardous waste. (The other three characteristics are corrosivity, ignitability and reactivity.)

Transporter of Hazardous Waste: Entity that moves or transports hazardous waste by truck, rail, boat, or plane and has received an EPA hazardous waste transporter ID number. Some states also require proper permits. (On-site movement of hazardous waste does not apply.) Transporters of hazardous waste must properly manifest and record movement as part of “cradle-to-grave” tracking required by RCRA. In addition, transporters must follow Department of Transportation (DOT) Hazardous Materials regulations and must immediately notify the appropriate officials if a release or incident occurs. Transporters are responsible for undertaking emergency response to any accident that occurs during transportation.

Treatment: Any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste to neutralize such waste, to recover energy or material resources from the waste, or to render such waste non-hazardous, safer to transport, store or dispose of, or amenable to recovery, storage, or reduction in volume.

Treatment, Storage, and Disposal Facilities (TSDFs): Usually refers to off-site facilities where untreated hazardous waste can be taken for treatment, storage, and/or disposal. TSDFs are subject to RCRA requirements and permits. TSDFs complete the “cradle-to-grave” cycle by continuing record keeping requirements. There are many complex rules for facility operations and training of employees.

Underground Injection Control (UIC): The program under the Safe Drinking Water Act that regulates the use of wells to pump fluids into the ground.

Underground Storage Tank (UST): USTs are regulated under RCRA, Subtitle I by the federal government and by individual states under state programs. A UST is a tank, including any underground pipes, which contains or used to contain regulated hazardous substances or petroleum and has at least 10% of its volume beneath the surface of the ground.

United States Environmental Protection Agency (EPA): The federal regulatory agency in charge of administering and enforcing various federal environmental laws.

Used Oil: Any oil that has been refined from crude oil or any synthetic oil that has been used and as a result of that use is contaminated by physical or chemical impurities.

Waste Minimization: This is the reduction in volume or toxicity of wastes generated by source reduction or recycling. Generators and TSDFs operating under RCRA permits are required to certify annually that they have waste minimization plans in place and that the plans are being implemented at their facilities. Generators must also sign a waste minimization statement when signing the manifest.

Waste Pile: Any non-containerized accumulation of solid, non-flowing hazardous waste that is used for treatment or storage.

Waters of the United States: (1) Navigable waters, waters subject to tidal action shoreward to the mean high water mark and currently used or may be used to transport goods moving in interstate or foreign commerce, including oceans, coastal and inland waters, lakes, rivers and

streams that are navigable; (2) Tributaries of navigable waters; (3) Wetlands, including those adjacent to waters of the United States as defined above; and (4) Surface waters.