

### **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. 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 Airports and Tenant Operations* as a public service to the air transportation 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 be in 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 air transportation industry. The term **facility** refers to, but is not limited to an airport or airport site overseen by owners/operators, tenants, managers, field personnel, etc. who engage in air transportation operations. If problems with compliance are discovered while completing the checklist, you may want to conduct a more comprehensive self-audit.

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 Airports and Tenant Operations," is a pictorial representation of specific activities that are regulated or specific environmental requirements at an air transportation 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 Internet 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 Airports and Tenant Operations**

## HOW ARE THE CHECKLIST AND WORKBOOK ORGANIZED?

**What Is Included?** Following this introductory section are the **checklist** and **workbook**. These materials include the following sections:

- Section 1.0 Maintenance
- Section 2.0 Materials Storage and Handling
- Section 3.0 Fueling
- Section 4.0 Deicing
- Section 5.0 Wastewater and Storm Water Management
- Section 6.0 Air Transportation Support Activities
- Section 7.0 Management and Administration

Following these seven 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 air transportation facilities. 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 it 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.

### Publications

- *Sector Notebooks.* The following sector notebooks, which may be of interest to the air transportation 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 Aerospace Industry*, EPA/310-R-97-001 (131 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

#### 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

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 RCRA coordination program information collection outreach and guidance. For additional information on waste minimization,

check website: <http://www.epa.gov/wastemin>

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

This service provides information relating to pesticide usage, including label information, 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](mailto: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**

- *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 AIRPORTS AND TENANT OPERATIONS

**Facility/Location:**  
**Tenant:**

**Site Reviewer:**  
**Date:**

### 1.0 MAINTENANCE

Hazardous Waste Generation Storage and Management*	Does the facility have an EPA hazardous waste generator ID number? (p. W-6)	Y	N	NA
	Does the facility store hazardous waste in appropriate storage containers? (p. W-6)	Y	N	NA
	How does the facility manage/dispose of its hazardous waste? (p. W-7)	RCRA-permitted TSDF / Recycling facility / An Interim status facility / On site RCRA-permitted TSDF / Other / NA		
	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-8)	Y	N	NA
Used Oil and Used Filters*	Are used oil containers/tanks and associated piping labeled "used oil"? (p. W-10)	Y	N	NA
	Are used oil containers/tanks and associated piping leak free? (p. W-10)	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 manage/dispose of used oil? (p. W-11)	Sent off site for recycling / Burned in an on-site space heater / Burned offsite / Other / NA		
	How does the facility manage/dispose of used oil filters? (p. W-13)	Recycle / Service company / Other / NA		
Used Antifreeze*	In terms of storage, does the facility contain, segregate, and label used antifreeze? (p. W-15)	Y	N	NA
	Has the facility determined if it generates any antifreeze that is hazardous waste? (p. W-16)	Y	N	NA
Spent Solvents and Parts Cleaning*	If halogenated solvents are used in cleaning equipment, has the facility submitted a notification report to the air permitting agency? (p. W-20)	Y	N	NA
	Does the facility store spent solvents in labeled containers? (p. W-20)	Y	N	NA
	How does the facility manage/dispose of spent solvents? (p. W-21)	Third party vendor / Permitted discharge to storm sewers or surface waters / Permitted discharge to sanitary sewer / Other / NA		
Used Battery Storage and Disposal*	If storing used batteries, does the facility protect them from storm water contact? (p. W-23)	Y	N	NA
	How does the facility manage/dispose of used batteries? (p. W-23)	Return to supplier / Recycle / Service company / Universal waste handler / Send to hazardous waste landfill / Other / NA		
Painting/Paint Removal Operations*	Does the facility have any air permits? (p. W-25)	Y	N	NA
	How does the facility dispose of paint stripping wastes and baghouse dusts? (p. W-26)	Recycling / Landfill / Other / NA		
	How does the facility dispose of paints and painting waste products? (p. W-28)	Return to supplier / Reuse / Recycle / Other / NA		
Used Rags/Shop Towels*	How does the facility manage used rags and shop towels? (p. W-33)	Laundry service / Burned for heat / Hazardous waste transporter / Other / NA		
Used Tires	How does the facility dispose of used tires? (p. W-36)	Resale / Retread / Recycle / Other / NA		
Used Brakes*	How does the facility manage asbestos brake pads and other asbestos-containing material (ACM) waste? (p. W-38)	Recycled off site / Disposed by vendor / EPA-approved disposal site / Other / NA		
Metal Finishing and Coating Applications*	Is the facility subject to categorical pretreatment standards? (p. W-41)	Y	N	NA
	Does the facility have air permits for metal finishing and/or coating application operations? (p. W-42)	Y	N	NA

### 2.0 MATERIALS STORAGE AND HANDLING

Storage Tanks*	Has the facility notified the State/Tribal underground storage tank (UST) program of any USTs located on site? (p. W-46)	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-47)	Y	N	NA
	Does the facility inspect ASTs periodically for leaks and other hazardous conditions? (p. W-49)	Y	N	NA
	Does the facility have a Spill Prevention, Control, and Countermeasures (SPCC) plan signed by a Professional Engineer? (p. W-50)	Y	N	NA
	Does the facility have the phone number for the National Response Center posted on site for immediate reporting of oil spills? (p. W-51)	Y	N	

Hazardous/ Extremely Hazardous Substances*	Did the facility participate in emergency planning activities when it has <u>extremely hazardous substances</u> (EHSs) in excess of their threshold planning quantities (TPQs)? (p. W-53)	Y	N	NA
	Did the facility immediately notify the proper authorities after an accidental release of a hazardous or extremely hazardous substance ? (p. W-53)	Y	N	NA
Fire Control Agents (Halons)*	How does the facility dispose of halons and halon-containing equipment? (p. W-57)	Returns to manufacturer / Returns to fire equipment distributor / Returns to halon recycler / Destroys equipment / Other / NA		
Cargo Loading and Off Loading *	If the facility loads hazardous materials onto an airplane, does the facility inspect containers for 1) labeling/placarding, 2) signs of leakage, and 3) compatibility with other hazardous materials? (p. W-61)	Y	N	NA
		Y	N	NA
		Y	N	NA
<b>3.0 FUELING</b>				
Aircraft Fueling*	Does the facility use measures to prevent fuel spills during fueling of aircraft? (p. W-62)	Y	N	
<b>4.0 DEICING</b>				
Aircraft Deicing*	Does the facility have deicing fluid collection systems that prevent discharge to storm water sewers? (p. W-68)	Y	N	NA
	How does the facility dispose of spent deicer? (p. W-69)	Recycle / Treats on site / Discharge to POTW/ Permitted discharge to surface water / Off-site disposal / Other / NA		
Runway Deicing*	If discharging deicing wastes to a municipal sanitary sewer or a combined sewer that goes to a Publicly-Owned Treatment Works (POTW), has the facility notified the POTW? (p. W-70)	Y	N	NA
	Does the facility meet deicing fluid parameter limits/conditions in its NPDES permit? (p. W-70)	Y	N	NA
<b>5.0 WASTEWATER AND STORM WATER MANAGEMENT**</b>				
Wastewater and Storm Water Management at Airports*	Can the facility identify the final destination of all its drains? (p. W-72)	Y	N	NA
	If the facility discharges to a surface water, does it have an NPDES permit ? (p. W-74)	Y	N	NA
	Does the facility have a storm water permit?	Y	N	
	If Yes, does the facility have a storm water pollution prevention plan (SWPPP)? (p. W-75)	Y	N	NA
	If discharging to a municipal sanitary sewer, has the facility notified the Publicly-Owned Treatment Works (POTW) and received approval for discharges? (p. W-76)	Y	N	NA
	How does the facility manage the sludge from an oil/water separator? (p. W-77)	Off-site disposal as hazardous waste / Off-site disposal to other facility / On-site disposal of nonhazardous sludge / NA		
Activities Generating Storm Water*	If the facility stores materials outside, does the facility protect them from contact with storm water? (p. W-79)	Y	N	NA
<b>7.0 MANAGEMENT AND ADMINISTRATION</b>				
Recordkeeping*	<b>NPDES:</b> Does the facility keep records of NPDES monitoring information for a minimum of 3 years? (p. W-86)	Y	N	NA
	<b>NPDES:</b> As part of the SWPPP, does the facility maintain records of spills, discharges, and other information describing the quality and quantity of storm water discharges? (p. W-87)	Y	N	NA
	<b>Air:</b> Is the facility keeping records as required by its air permits? (p. W-87)	Y	N	NA
	<b>RCRA:</b> Does the facility keep a copy of its manifest for a minimum of 3 years? (p. W-88)	Y	N	NA
	<b>USTs:</b> Does the facility maintain records of leak detection, spill, overfill, and corrosion protection; corrective actions; closure; and financial responsibility? (p. W-89)	Y	N	NA
	<b>Pesticides:</b> Does the facility maintain records of use and storage of pesticides? (p. W-89)	Y	N	NA
* For additional questions regarding these environmental compliance issues refer to the workbook. ** Refer to workbook for questions in <b>Section 6.0 Air Transportation Support Activities</b> , including questions regarding, <i>buildings and groundskeeping</i> (p. W-80), <i>nonhazardous waste management</i> (p. W-81), <i>new construction</i> (p. W-82), <i>asbestos</i> (p. W-84), and <i>training requirements</i> (p. W-90). In addition, the workbook includes environmental compliance questions regarding <i>air conditioning maintenance</i> (p. W-29), <i>absorbents</i> (p. W-34), <i>metal machining and machine cooling</i> (p. W-39), <i>PCB-containing equipment</i> (p. W-58), <i>airport support vehicle fueling</i> (p. W-63).				

# SECTION 1.0 MAINTENANCE

## 1.1 Hazardous Waste Generation, Storage, and Management

**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. *Does the facility generate hazardous waste? (p. W-3)*
- b. *If yes, how much hazardous waste does the facility generate a month? (p. W-5)*
- c. ***Does the facility have an EPA hazardous waste generator ID number? (p. W-6)***
- d. ***Does the facility store hazardous waste in appropriate storage containers? (p. W-6)***
- e. *Does the facility meet all hazardous waste storage (quantity and time) requirements? (p. W-7)*
- f. ***How does the facility manage/dispose of its hazardous waste? (p. W-7)***
- g. *Does the facility have hazardous waste manifests or DOT shipping papers on file? (p. W-8)*
- 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-8)***

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

An air carrier or airport facility may produce wastes that are hazardous. Therefore, it is important that the facility identify and manage them properly to protect facility employees and others in the community, as well as the environment. As a waste generator, the facility is responsible for all steps in hazardous waste management, from generation to final disposal. **The facility can be held liable for any mismanagement of its 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 or not its waste is hazardous 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, including garbage, refuse, and sludge (solids, semisolids, liquids, or contained gaseous materials). Solid wastes that meet the following criteria are considered hazardous and subject to regulations under Resource Conservation and Recovery Act (RCRA) (40 CFR Part 261):

- **Listed wastes.** Waste is considered hazardous if it appears on one of four lists of hazardous wastes published in 40 CFR Part 261 Subpart D. Currently, more than 400 wastes are listed. Wastes are listed as hazardous because they are known to be harmful to human health and the environment when not properly managed. Even when properly managed, some listed wastes are so dangerous that they are called “acutely hazardous wastes.” Examples of acutely hazardous wastes include wastes generated from some pesticides that can be fatal to humans even in low doses.
- **Characteristic wastes.** If the 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 they leach toxic chemicals into the soil or groundwater when disposed of on land (40 CFR 261.24). Examples are 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 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); (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>*

### 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.**

### 1.1a Does the facility generate 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 air transportation facilities.
- 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 hazardous wastes.**

Exhibit 2. Typical Wastes Generated at Airports and Typical Category by Waste Management Method<sup>1</sup>

Waste Stream	Typical Category If Not Mixed With Other Hazardous Waste	Typical Category If Recycled	Typical Category If Disposed in Landfill and Not Mixed With a Hazardous Waste <sup>2,3</sup>
Used Oil (and Shop Rags for Used Oil)	Used oil	Used oil	Hazardous waste
Used Oil Filters <sup>4</sup>	Nonhazardous solid waste <b>If No Free Flowing Used Oil</b>	Used oil- If Not Drained	Nonhazardous solid waste <b>If No Free Flowing Used Oil</b>
Used Transmission Fluid	Used oil	Used oil	Hazardous waste
Used Brake Fluid	Used oil	Used oil	Hazardous waste
Used Antifreeze	Depending on characterization	Depends on characterization	Depends on characterization
Used Solvents	Hazardous waste	Hazardous waste	Hazardous waste
Used Citric Solvents	Nonhazardous solid waste	Nonhazardous solid waste	Nonhazardous solid waste
Oil Spill Absorbent Material	Used oil	Used oil	Depends on used oil characterization
Shop Rags and Spill Material for Chemical Solvent and Gasoline	Hazardous waste	Hazardous waste	Hazardous waste
Spilled or Unused Fuels	Hazardous waste	Hazardous waste	Hazardous waste
Spilled or Unusable Paints and Thinners	Hazardous waste	Hazardous waste	Hazardous waste
Abrasive grit blast media	Depends on the material or paint being blasted (e.g., latex vs. lead paint)	Depends on the material or paint being blasted	Depends on the material or paint being blasted
Batteries (1) Lead acid, Ni/Cd, Ni/Fe (2) Alkaline	(1) If hazardous, universal waste (2) Typically a nonhazardous waste	(1) If hazardous, universal waste (2) Nonhazardous waste	(1) If hazardous, universal waste (2) Typically a nonhazardous waste
Used Tires	Nonhazardous solid waste	Nonhazardous solid waste	Nonhazardous solid waste

- 1 Disclaimer: This list is not an actual regulatory determination. It is a list that identifies specific materials in air transportation operations and how they could be classified. These restrictions on how the waste may be disposed of may change based on the generator status (i.e., conditionally exempt small quantity generator versus small quantity generator or large quantity generator).
- 2 Municipal landfills are not permitted to accept hazardous waste from small quantity or large quantity generators; however, they may accept waste from CESQGs.
- 3 If any solid waste is mixed with a hazardous waste, then the mixture becomes a hazardous waste.
- 4 Used fuel filters are regulated separately from used oil filters. They are regulated depending on the type of fuel.

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

When determining the volume of waste generated, only waste 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 (1,000 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 five 55-gallon drum 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 (1,000 kg) of hazardous waste per month. In this case, the facility generates approximately 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 stores 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, the facility must manage 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 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. This number must be entered on all hazardous waste manifests. It is usually placed near the top of the form under the heading, "Generator ID #." If the number is issued by the state, the number will start with the state abbreviation followed by the number (e.g., NY-12345678). CESQGs do not need 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 identification number from EPA or the state regulatory agency that has been granted regulatory authority by EPA. ✓
- No** Facility has not obtained an EPA identification number.
- NA** Facility is a CESQG and therefore not required to obtain a generator identification 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 the facility 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 considered 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 (1,000 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/or 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 have hazardous waste manifests or DOT shipping papers on file?**

For SQGs and LQGs, a **Uniform Hazardous Waste Manifest** must accompany each hazardous waste shipment. [Exception: SQGs are not required to have manifests for certain recyclable materials such as solvents, and there are some hazardous materials (e.g., scrap metal) which do not have to be manifested.] Contact the state regulatory agency for a Uniform Hazardous Waste Manifest form. CESQGs are not required to use manifests.

A hazardous waste transporter should be able to assist in completing the manifest. Manifests must be kept for 3 years. Additionally, **DOT shipping papers** may need to accompany each hazardous waste shipment. These papers document the shipment type, quantity, origin, and destination, and must accompany each hazardous waste shipment. For more information, contact the **RCRA/UST, Superfund, and EPCRA Hotline** at 1-800-424-9346, or the state regulatory agency.

- Yes** Facility has manifests and/or shipping papers on file for hazardous wastes transported. ✓
- No** Facility does not have manifests and/or shipping papers for hazardous wastes shipments.
- NA** Facility does not ship hazardous waste off site.

**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:

- Assign an *emergency coordinator* (employee) who is responsible for coordinating all emergency response measures.
- *Post information 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 not required to meet RCRA's emergency preparedness requirements.

See Section 7.2 for Emergency Response Training Requirements.

## 1.2 Used Oil and Used Filters

**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:

- Are used oil containers/tanks and associated piping leak free and labeled "used oil"?*** (p. W-10)
- Does the facility prevent the mixing of used oil with hazardous waste?*** (p. W-11)
- How does the facility manage/dispose of used oil?*** (p. W-11)
- 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-12)
- Does the facility completely drain used oil filters and/or fuel filters before disposal?* (p. W-13)
- How does the facility manage/dispose of used oil filters?*** (p. W-13)
- Has the facility determined if its used fuel filters are hazardous?* (p. W-13)

- h. How does the facility manage/dispose of used fuel filters? (p. W-14)**
- i. Does the facility inspect used oil filter storage areas for oil spills and leaks? (p. W-14)*

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 classified as 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 a leak free containers with a label 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. Used motor oil may be mixed with other used oils (hydraulic oils, transmission fluids, brake fluids) and stored in the same tank.

**Note:** *If the 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 also be labeled with the words "**used oil.**"

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

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

The facility should not mix hazardous waste fluids, such as used solvent, gasoline, or other hazardous substances, with used oil, or the entire volume may be classified as hazardous waste. For example, while 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). One may mix used motor oil with other used oils (e.g., transmission fluid or brake fluid) and stored in the same container/tank. If the facility has 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 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 approaches 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 BTU per hour or less are used to burn the used oil.
- ! The gases from the space heater are vented outside.

The facility can handle and dispose of used hydraulic oils as used oil and it can be blended with other used oils, such as engine and lube oils. Recycling and reclamation are preferred over disposal.

- |  |  |
|--|--|
| <b>Sent off site for recycling</b>       | Facility has a regular hauler who takes the used oil to a recycling facility. ✓  |
| <b>Burned in an on site space heater</b> | Facility burns its used oil in an on site heater with maximum heating capacity of 0.5 million BTU used to heat the facility or heat hot water. <b>Note:</b> <i>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.</i> ✓ |
| <b>Burned off site</b>                   | Facility has a hauler or takes its own oil to a used oil burner. ✓   |
| <b>Other</b>                             | Facility does not use any of the methods described above. <b>Note:</b> <i>Used oil <u>should not</u> be disposed of in sewers, drains, dumpsters, or on the ground, or used as a dust suppressant or control.</i>  |
| <b>NA</b>                                | 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, it is required to (1) have an EPA ID number and (2) be licensed as a used oil transporter when transporting used oil to an approved used oil collection center.

- 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 is not licensed 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.)
- Have been properly drained (i.e., hot-drained) of used oil.

According to federal regulations, filters can be disposed of 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 filter should be removed from a warm engine and drained immediately. Four distinct methods of **hot-draining** can be used:

- Gravity Draining: When the filter is removed from the engine, it should be placed 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: The filter is crushed by a mechanical, pneumatic, or hydraulic device to squeeze out the used oil/fuel and compact the remaining filter materials.
- Disassembly: The filter is separated into its different parts using a mechanical device. 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: The filter is placed into a device where air pressure forces the used oil/fuel out of the filter.

Storage containers designated for used oil filters should be protected 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:** Facilities should properly drain used fuel filters (using the same procedure as

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

**Note:** *Since disposal requirements of used filters may vary by state, please consult the state regulatory agency to assure 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 used oil filters?**

- Recycle** Filters are recycled for scrap metal. ✓
- Service** Facility contracts with a service which takes filters. ✓
- Trash** Filters are disposed of 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 used fuel filters?

**Note:** If used fuel filters have been determined to be hazardous waste, you must count them towards the facility's generator status and managed accordingly. See Section 1.1 for more information on hazardous waste management.

<b>Recycle</b>	Facility recycles used fuel filters. ✓
<b>Service</b>	Facility contracts with a service which takes used fuel filters as they are. ✓
<b>Managed as hazardous waste</b>	Facility manages used fuel filters as hazardous waste. ✓
<b>Trash</b>	Filters are discarded in the dumpster (e.g., not segregated from other waste such as paper, plastics, food, etc.).
<b>Other</b>	Method of disposal is not listed above. <b>Note:</b> The facility may be out of compliance. Contact the state regulatory agency for assistance.
<b>NA</b>	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 planes 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 regularly for spills, in areas where oils are received, stored, used, changed, and potentially spilled. 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. All spills should be contained and cleaned 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.

## 1.3 Used Antifreeze

**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 antifreeze* for compliance with environmental requirements:

- a. ***In terms of storage, does the facility contain, segregate, and label used antifreeze? (p. W-15)***
- b. ***Has the facility determined if it generates any antifreeze that is hazardous waste? (p. W-16)***
- c. *Does the facility reclaim used antifreeze on site in a closed loop system? (p. W-17)*
- d. *If not reclaimed in a closed loop system, does the facility count the waste antifreeze toward the facility generator status? (p. W-17)*
- e. *If facility does not reclaim used antifreeze on site in a closed loop system, how does the facility manage it? (p. W-17)*

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 Antifreeze

Aircraft and aviation-support vehicles require regular changing of coolants, such as antifreeze. To minimize releases to the environment, the facility should drain and replace antifreeze in areas where there are no connections to storm drains or municipal sewers. They should clean up minor spills prior to reaching drains. The facility should collect and store antifreeze in separate containers and not mix with other fluids.

#### **1.3a *In terms of storage, does the facility contain, segregate, and label used antifreeze?***

**Contained.** Containers are closed (e.g., lids are on, caps are screwed on tight, except when actually adding or removing liquid).

**Segregated.** Used antifreeze is in its own container and not mixed with other liquids.

**Labeled.** Labels or color coding indicates that the container holds only antifreeze. In contrast to used oil, there are no specific labels for antifreeze. To be considered properly labeled, the drum/container/tank should simply have the words "used antifreeze," "waste antifreeze," "antifreeze only," or similar wording that distinguishes antifreeze storage from oil and solvent storage. Words can be spray painted, stenciled, crayoned, or more formally labeled.

**Yes** Used antifreeze is contained, segregated, and labeled. ✓

**No** Used antifreeze is not contained, segregated, and labeled.

**NA** Facility does not generate used antifreeze.

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**1.3b Has the facility determined if it generates any antifreeze that is hazardous waste?**

A facility can characterize used antifreeze as hazardous waste through testing or by process knowledge.

- If a facility makes the hazardous/nonhazardous determination solely by testing, it must test each batch of antifreeze changed from each vehicle serviced.
- If a facility uses process knowledge, the 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 hazardous if it is mixed with a hazardous waste such as certain spent solvents. 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 used antifreeze is hazardous through testing or from process knowledge. ✓
- No** Facility has not determined whether its used antifreeze is hazardous.
- NA** Facility does not generate used antifreeze.

### 1.3c 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 considered to be a 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 considered a hazardous waste and must be stored according to the hazardous waste provisions of RCRA. Although closed loop systems are preferred for reclaiming/recycling antifreeze, non-closed systems are also used in maintenance shops.

**Yes** Used antifreeze is reclaimed by a “closed loop” system. ✓

**No** Used antifreeze is not reclaimed in a “closed loop” system.

**NA** Facility does not generate used antifreeze.

### 1.3d If not reclaimed in a closed loop system, does the facility count the waste antifreeze toward the facility generator status?

If you have waste antifreeze that is a hazardous waste and not reclaimed in a closed loop system, you need to consider it as part of the total volume of hazardous waste generated in any month.

**Yes** Hazardous waste antifreeze that is not reclaimed in a closed loop system is included in the total volume of hazardous waste generated. ✓

**No** Hazardous waste antifreeze is not included.

**NA** Facility does not have hazardous antifreeze.

### 1.3e If 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** Used antifreeze is recycled off site. *Facility has on file the EPA ID number of the recycler (see the DOT shipping papers).* ✓

**Landfill** Used antifreeze is disposed of at a landfill. Many landfills have a tank designated for used antifreeze. “Landfill” does not include antifreeze that is dumped in the trash.

<b>Mixed with other fluids</b>	Antifreeze is mixed with used oil, solvents, or other fluid.
<b>UIC well</b>	Used antifreeze is discharged into an underground injection control (UIC) well. <b>Note:</b> <i>The facility should immediately stop this method of disposal and notify the EPA regional and/or state UIC authority.</i>
<b>Other</b>	Method of disposal is not listed here.
<b>NA</b>	Facility does not generate used antifreeze.

## 1.4 Spent Solvents and Equipment Cleaning

**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 *spent solvents and parts cleaning* for compliance with environmental requirements:

- a. *Does the facility conduct equipment cleaning? (p. W-19)*
- b. *What kind of cleaning agents does the facility use to conduct equipment cleaning? (p. W-19)*
- c. *Does the facility keep the lids of solvent cleaning equipment closed? (p. W-19)*
- d. ***If the facility uses halogenated solvents in solvent equipment cleaning, has the facility submitted a notification report to the air permitting agency? (p. W-20)***
- e. ***Does the facility store spent solvents in labeled containers? (p. W-20)***
- f. ***How does the facility manage/dispose of spent solvents? (p. W-21)***

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 and 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. One may generate hazardous waste, 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).

**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/teci fs22.htm>)

Solvents that are *currently being used*, such as in a parts cleaning sink, may be under EPA air regulations, but are not under RCRA since they are not yet a waste.

#### **1.4a Does the facility conduct equipment cleaning?**

An air transportation facility may conduct different kinds of equipment cleaning.

- Large scale equipment cleaning typically involves the cleaning of aircraft 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.

#### **1.4b 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 _____	

#### **1.4c 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.

**1.4d If halogenated solvents are used in solvent 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:

**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.

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

All owners and operators of solvent cleaning equipment that use these solvents must submit an initial **notification report** to its 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.

**1.4e Does the facility store 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 must have a label before the facility transports it for disposal. **Note:** *Solvents that are being used in a parts washer are not required to be labeled.*

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

### 1.4f How does the facility manage/dispose of 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, they should not be mixed with nonhazardous wastes such as used oils. All hazardous waste should be 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 an NPDES permit to discharge non-hazardous 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).

**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.

## 1.5 Used Battery Storage and Disposal

**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-22)*
- b. *If storing used batteries, does the facility protect them from storm water contact? (p. W-23)***
- c. *How does the facility manage/dispose of used batteries? (p. W-23)***

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

### 1.5a ***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.

Under the Universal Waste Rule (40 CFR Part 273), if batteries do not exhibit hazardous waste characteristics (see *Section 1.1*), they may come under the **universal wastes** category and may have 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 in place.*

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.

- Yes** Facility has gone through the waste determination process (*as discussed in Section 1.1*) to determine whether its batteries should be regulated as 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.

**1.5b If storing used batteries, does the facility protect them from storm water contact?**

When placed out-of-service, a 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. The areas should have: (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. Batteries storage areas may be inside or outside under a tarp or roof. Batteries should also be stored in a pan or other device so that any leakage cannot enter floor drains or spill onto the ground. Improperly stored batteries may be regarded as “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.

**1.5c 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.

## 1.6 Painting/Paint Removal Operations

**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/paint removal operations* for compliance with environmental requirements:

- a. *Does the facility conduct painting/paint removal operations? (p. W-24)*
- b. *Does the facility have air permits? (p. W-25)***
- c. *Does the facility prepare surfaces to be painted by shot or grit blasting, grinding, or sanding? (p. W-25)*
- d. *If yes, does the facility test surfaces and paints for asbestos and lead? (p. W-25)*
- e. *Does the facility collect paint chips and metal dusts? (p. W-26)*
- f. *How does the facility manage/dispose of paint stripping wastes and baghouse dusts? (p. W-26)***
- g. *Does the facility use low VOC paints in its painting operations? (p. W-26)*
- h. *Does the facility mix paint amounts according to need? (p. W-27)*
- i. *Does the facility take measures to minimize overspray? (p. W-27)*
- j. *Does the facility contain and label paint not in use? (p. W-27)*
- k. *How does the facility manage/dispose of used paints and painting waste products? (p. W-28)***
- l. *How does the facility dispose of spray paint booth air filters? (p. W-29)*

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

### **1.6a Does the facility conduct painting/paint removal operations?**

Painting may be conducted 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.

**1.6b Does the facility have air permits?**

Air pollution permits are typically issued by states for certain operations such as **painting** and surface preparation if certain state regulatory criteria are met. Generally if air pollution control equipment is used, such as a baghouse or scrubber, a permit must be in place. 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.

**1.6c Does the facility prepare surfaces to be painted by shot or grit blasting, grinding, or sanding?**

In preparation for painting, a facility may remove old paint on aircraft and support vehicles by shot or grit blasting. Grinding and sanding the surface occurs before the surface is painted.

**Tip:** If using chemical strippers containing hazardous pollutants, be sure the facility meets the **Aerospace National Emission Standards for Hazardous Air Pollutants** (NESHAP) (40 CFR Part 63 Subpart GG). Contact the local air pollution control agency for more information about Aerospace NESHAP requirements.

**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.

**1.6d 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 the surfaces and paints should be tested 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.

**1.6e 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 disperse into the environment; and state/ local agencies may not allow this. *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.

**1.6f 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 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 materials at a municipal or hazardous waste landfill. ✓
- On-site disposal** Facility disposes of paint wastes and residues on site (e.g., landfill).
- Other** Method of disposal is not listed here.
- NA** Facility does not have paint stripping wastes and/or baghouse dusts.

**1.6g 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.

**1.6h Does the facility mix paint amounts according to need?**

Facility 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.

**1.6i 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 a 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 take measures to minimize overspray.
- NA** Facility does not have painting operations.

**1.6j Does the facility contain and label paints not in use?**

Facilities must ensure that paints that are not in use, are in properly labeled containers. Paint containers must be closed with tight-fitting lids, and stored so that a spill would not reach 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.

### 1.6k How does the facility manage/dispose of 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. Paint cans (that once contained hazardous waste) that are classified as “empty” by the RCRA definition and latex paints may be recycled or disposed off site at an approved facility as nonhazardous waste.

A container is “empty” if all wastes or hazardous residues have been removed 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 “nonhazardous solid waste” and disposed of, for purposes of “off site” disposal.

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

### 1.6I How does the facility dispose of spray paint booth air filters?

Filters containing hazardous paints must be disposed of using a hazardous waste hauler. Facility must maintain records indicating where hazardous filters are sent. Filters containing nonhazardous paints can be disposed of in a landfill or recycled.

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

## 1.7 Air Conditioning Maintenance

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

- a. Does the facility maintain and/or repair CFC-containing equipment? (p. W-30)
- b. Does the facility remove CFC from equipment prior to maintenance activities? (p. W-30)
- c. Has EPA approved the CFC recovery and/or recycling equipment? (p. W-30)
- d. Does the facility have documentation that refrigerants from recovery equipment are sent to an EPA-approved reclaimer? (p. W-31)
- e. Does the facility repair leaks of appliances containing ozone-depleting refrigerants in a timely manner? (p. W-31)
- f. How does the facility manage appliances containing ozone-depleting refrigerants? (p. W-31)
- g. Has the facility ensured that its CFC have been legally purchased? (p. W-32)

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

**1.7a Does the facility maintain and/or repair CFC-containing equipment?**

The most common CFC-containing equipment maintained and repaired at an airport includes building, aircraft, and support 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.

**1.7b Does the facility remove CFC from equipment prior to maintenance activities?**

Equipment repairs that would release CFC should only be performed after the facility removes and collects the refrigerants.

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

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

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

**1.7c Has EPA approved the CFC recovery and/or recycling equipment?**

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 can be 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 "ARI / UL approval".

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

**1.7d 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.

**1.7e 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.

**1.7f 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.

**1.7g Has the facility ensured that its CFC have been legally purchased?**

When purchasing CFC, 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).

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

**Investigating the source of the material and the chain of ownership is the facility's responsibility.** If the material

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

**Yes** Facility has ensured that CFC have been legally purchased. ✓

**No** Facility has not ensured that CFC have been legally purchased.

**NA** Facility has not purchased CFC.

## 1.8 Used Rags/Shop Towels

**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-33)**

**b. How does the facility store used rags and shop towels on site? (p. W-34)**

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 Rags/Shop 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 having them washed through 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-11, question 1.2c) According to the used oil regulations, facilities must 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 facility may still need to handle the material 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 to be solid wastes, even if they are to be sent for laundering. Check with the state regulatory agency on requirements for managing shop rags/towels.

### 1.8a How does the facility manage used rags and shop towels?

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

**1.8b How does the facility store used rags and shop towels on site?**

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

<b>1.9 Absorbents</b>
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**NOTE:** The following questions are not included in the accompanying checklist, however, they are still important to consider when examining the facility's operations for compliance with environmental requirements:

- a. *Does the facility use sawdust, soil, or other commercial absorbents for spills or leaks? (p. W-34)*
- b. *Does the facility determine if used absorbents are hazardous before disposal? (p. W-35)*
- c. *How does the facility manage absorbents used for oil spills? (p. W-35)*

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

### **1.9a 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.

**1.9b Does the facility determine if used absorbents are hazardous before disposal?**

Absorbents are considered hazardous waste if they are contaminated with a hazardous material such as hazardous solvents. Although used oil is not a hazardous waste if it is recycled, it could be considered 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 (if it exhibits a hazardous characteristic), even if it is not mixed with a hazardous waste. *For information regarding used oil regulatory requirements, refer to 40 CFR Part 279.*

**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.

**1.9c How does the facility manage absorbents used for oil spills?**

<b><i>Sent to supplier or Service company</i></b>	Facility returns used absorbents to its supplier or pays service company to pick up used absorbents. ✓
<b><i>Burned for energy</i></b>	Facility burns absorbents used to soak up used oil for energy recovery in a space heater with maximum heating capacity of 0.5 million BTU per hour. ✓
<b><i>Disposed of as hazardous waste</i></b>	Facility places hazardous absorbents in drums labeled as "Hazardous Waste," and disposes of them through a hazardous waste hauler. ✓
<b><i>Nonhazardous and landfilled</i></b>	Facility determines that the absorbents are a nonhazardous solid waste and disposes of them with regular trash. ✓
<b><i>Other</i></b>	Method of management is not listed here.
<b><i>NA</i></b>	Facility does not use absorbents.

## 1.10 Used Tires

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

**a. How does the facility manage/dispose of used tires? (p. W-36)**

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

### Used Tires

Although not federally required, a facility should reuse used tires (i.e., resold, retreaded, recycled) rather than just throw them away. For most cases, retread tires perform under the same conditions and at the same speeds as new tires with no loss in safety or comfort. Retreading tires also helps conserve a valuable nonrenewable resource - oil.

#### 1.10a How does the facility manage/dispose of used tires?

<b>Resale</b>	Facility sells used tires. ✓
<b>Retread</b>	Facility retreads used tires. ✓
<b>Recycle</b>	Facility recycles used tires. <i>This may include state or local programs that shred tires and then use them for asphalt.</i> ✓
<b>Other</b>	Facility uses some method other than those listed above for disposal.
<b>NA</b>	Facility does not generate used tires.

## 1.11 Used Brakes

**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 brakes* for compliance with environmental requirements:

- a. *Does the facility label asbestos-containing material (ACM) handling equipment? (p. W-37)*
- b. *Does the facility manage spent brake washing solvent as hazardous waste? (p. W-37)*
- c. *Does the facility manage used vacuum filters and brake pads as ACM waste? (p. W-38)*
- d. **How does the facility manage asbestos brake pads and other asbestos containing material (ACM) waste? (p. W-38)**

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 Brakes

Asbestos brake pads require proper handling, packaging and disposal in order to protect workers and the environment. The asbestos National Emission Standard for Hazardous Air Pollutants (NESHAP) and the proper disposal method for asbestos brake pads are in 40 CFR Part 61 Subpart M. The Occupational Safety and Health Administration (OSHA) provides rules for protection of workers during the handling of asbestos-containing material (ACM), which workers should review prior to working with known or suspect ACM (including brake pads).

Facilities should remove asbestos brake pads using appropriate control measures so that no visible emissions will be discharged to the outside air. These measures can include wetting, vacuuming, or a combination of wetting and vacuuming.

### ***1.11a Does the facility label asbestos-containing material (ACM) handling equipment?***

ACM equipment, such as a solvent bath basin and a vacuum, must be labeled with the words: **DANGER - Asbestos, Avoid Creating Dust, Cancer and Lung Hazard**. Used filters from the vacuum as well as the particles collected in the vacuum also must have labels.

**Yes** Facility labels ACM equipment as described above. ✓

**No** Facility does not label ACM equipment .

**NA** Facility does not have ACM equipment.

### ***1.11b Does the facility manage spent brake washing solvent as hazardous waste?***

In most cases, when a facility removes spent solvent from the brake washing solvent bath, and determines to be unusable, the facility must manage and dispose of this material as hazardous waste. This is due to the flammability of the solvent, not the asbestos content.

**Yes** Facility manages spent solvent as hazardous waste. ✓

**No** Facility does not manage spent solvent as hazardous waste.

**NA** Facility does not generate brake washing solvent.

### 1.11c Does the facility manage used vacuum filters and brake pads as ACM waste?

Used filters from the vacuum as well as the particles collected in the vacuum must be contained and disposed of as ACM waste. If wet with solvent or any other wetting agent, used asbestos pads must be sealed in air-tight containers or in leak-tight wrapping. The containers or wrapped packages must be labeled using warning labels as described above.

- Yes** Facility stores used vacuum filters and brake pads as described above. ✓
- No** Facility does not store used vacuum filters and brake pads as describe above.
- NA** Facility does not generate used vacuum filters or brake pads.

### 1.11d How does the facility manage asbestos brake pads and other asbestos containing material (ACM) waste?

Recycling and reclamation are the preferred methods for discarding asbestos brake pads. If asbestos is known or suspected of being present, inform the recycling or reclamation company. If landfilling, make a determination for presence of asbestos prior to disposal. If asbestos is present, use only landfills or disposal sites approved for asbestos.

One must dispose of ACM waste as soon as practical at an EPA-approved disposal site. Label the 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. 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 pads for recycling. ✓
- Disposed by vendor** A vendor disposes of the brake pads by landfilling or other means of disposal. ✓
- EPA-approved disposal site** The ACM waste is sent to EPA-approved site for disposal. ✓
- Other** Method of disposal is not listed here.
- NA** Facility does not generate ACM waste.

## 1.12 Metal Machining and Machine Cooling

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

- a. *Does the facility store scrap metal in a covered and contained area? (p. W-39)*
- b. *How does the facility manage metal scraps? (p. W-40)*
- c. *How does the facility manage waste cutting oils and degreasing solvents used in its metal machining processes? (p. W-40)*

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 and can be recycled or reclaimed. When storing scrap metal, the facility should containerize the materials and cover them to prevent the release of pollutants to the ground and storm water, and 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:** A local scrap metal recycling plant may accept the facility's scrap metal if sorted and properly stored.

#### **1.12a Does the facility store scrap metal in a covered and contained area?**

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

- |            |  |
|------------|--|
| <b>Yes</b> | Facility stores metal scraps in a covered and contained area that prevents soil and water contamination. ✓ |
| <b>No</b>  | Facility does not store metal scraps in a covered and contained area.                                      |
| <b>NA</b>  | Facility does not have any metal scraps.   |

**1.12b How does the facility manage metal scraps?**

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

**1.12c How does the facility manage waste cutting oils and degreasing solvents used in its metal machining processes?**

<b>Recycling</b>	Facility recycles waste cutting oils if nonwater-soluble oils must be used. ✓
<b>Reuse</b>	Facility reuses and recycles solvents whenever possible. ✓
<b>Disposed of as hazardous waste</b>	Facility separates waste cutting oils and degreasing solvents which are placed in drums, labeled as "Hazardous Waste," and disposes of by a hazardous waste hauler.
<b>NA</b>	Facility does not conduct metal machining.

**1.13 Metal Finishing and Coating Applications**

**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 *metal finishing and coating applications* for compliance with environmental requirements:

- a. Does the facility perform metal finishing operations? (p. W-41)
- b. Is the facility subject to the categorical pretreatment standards? (p. W-41)**
- c. Does the facility perform coating application operations? (W-42)
- d. Does the facility have air permits for metal finishing and/or coating application operations? (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.

## Metal Finishing and Coating Applications

**Metal finishing** processes are used to prepare the surface of a part for better adhesion, improved surface hardness, and improved corrosion resistance. Typical metal finishing operations include chemical conversion coating, anodizing, electroplating, and any operation that chemically affects the surface layer of a part. Each of these operations has the potential to significantly impact the environment by discharging metals, cyanides, phosphates, acids, and other contaminants to waterways, soil, or groundwater.

**Coating Application** involves a material being applied to the surface of a part to form a decorative or functional solid film. The most common coatings are primers and topcoats. Facilities can apply coatings to aircraft components using several methods of application, which include spraying, brushing, rolling, flow coating, and dipping. Nearly all coatings contain a mixture of organic solvents.

### 1.13a Does the facility perform metal finishing operations?

- Yes** Facility performs metal finishing operations, such as chemical conversion coating, anodizing, electroplating, or any other operation that chemically affects the surface layer of a part.
- No** Facility does not perform these activities.

### 1.13b Is the facility 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 an airport conducts processes such as electroplating or coating, that facility may be subject to the metal finishing categorical standards.

**Proposed Categorical Standards:** 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.

The categorical standards for facilities that conduct these and other operations (as described 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.

**1.13c Does the facility perform coating application operations?**

- Yes** The facility performs coating application operations (e.g., spraying, brushing, rolling, flow coating, dipping).
- No** Facility does not perform these activities.

**1.13d Does the facility have air permits for metal finishing and/or coating application operations?**

Hazardous air pollutant (HAP) emissions are one of the most significant environmental aspects of **metal finishing operations**. As the organic chemicals in the processing solutions evaporate, they may generate hazardous vapors and emissions. Evaporation of solution also occurs from refurbished parts as they are removed from the processing tanks. In **coating applications**, processes that involve evaporation of solvents may generate HAP emissions during mixing, application, and from overspray, which is exhausted from spray booths or hangars.

Under the Clean Air Act Amendments (CAAA) of 1990, EPA has issued the **Aerospace National Emission Standards for Hazardous Air Pollutants (NESHAP)** to control HAP emissions from the aerospace manufacturing and rework industry, which includes those facilities that produce or repair aerospace vehicles or vehicle parts (e.g., airplanes, helicopters). Approximately 2,800 aerospace manufacturing facilities nationwide are considered major sources of HAPs, and affected by the regulation. The following operations are subject to the regulation: cleaning, primer and topcoat application, repainting, and chemical milling maskant. *Contact the state or local pollution control agency for more information regarding the Aerospace NESHAP.*

If the facility emits HAPs (e.g., from metal finishing or coating application operations) the facility must determine whether it is required to have an air permit. The type of permit that may be required depends on the activity being (or to be) performed, the potential amount of emissions, and the location of each source. Permits can take several forms, including an **operating permit (Title V)** and a **pre-construction permit**. An operating permit specifies operating and monitoring requirements, including limits on the emission of air pollutants and operating requirements for pollution control equipment. A pre-construction permit may be required before a new facility can be built or before any new piece of equipment can be installed or modified. *For more information about which air permits are required, contact the state or local air pollution control authority.*

- Yes** Facility has air permits for metal finishing/coating application operations. ✓
- No** Facility does not have air permits for metal finishing/coating application operations.
- NA** Air permits are not required.

## 1.14 Dry Cleaning

**NOTE:** The following questions are not included in the accompanying checklist, however, they are still important to consider when evaluating the facility's operations relating to dry cleaning for compliance with environmental requirements:

- a. *How does the facility maintain aircraft upholstery? (p. W-44)*
- b. *If conducting its own dry cleaning (e.g., for aircraft upholstery), is the facility familiar with the requirements under the NESHAP rule? (p. W-44)*

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

### Dry Cleaning

For cleaning items, such as aircraft upholstery, airports typically contract with a dry cleaning service. However, some may have a dry cleaning facility on site. While there are many compliance obligations for a dry cleaning operation, the main concern for dry cleaners is the use of perchloroethylene, commonly referred to as "perc". Perc is regulated because it is suspected to cause cancer in humans, is considered toxic, and causes dizziness, nausea, and headaches. Dry cleaners are the largest source of perc emissions in the U.S.

The **National Emission Standards for Hazardous Air Pollutants (NESHAP)** for Perchloroethylene Dry Cleaning Facilities divides dry cleaners into three separate categories -- small area sources, large area sources, and "major" sources -- and contains different requirements for each category. There are two types of dry cleaning machines: dry-to-dry and transfer. A dry-to-dry machine consists of one machine, which does both the washing and the drying of the articles being cleaned. A transfer machine consists of two machines: a washer and a dryer. Clothing is transferred from the washer to the dryer at transfer machines, and this step is a significant source of perc emissions. The NESHAP requires all new dry cleaning machines to be dry-to-dry machines. It does not, however, require the replacement of existing transfer machines with new dry-to-dry machines.

There are two sources of perc emissions at dry cleaning facilities: process vent emissions (i.e., the dry cleaning machine vent); and fugitive emissions (e.g., clothing transfer at transfer machines, equipment leaks, open containers, etc.). NESHAP requirements include control of process vent emissions at all new dry cleaning facilities and control of process vent emissions at large area source and major source existing dry cleaning facilities. The rule also requires control of fugitive emissions at all new dry cleaning facilities and control of fugitive emissions at all existing dry cleaning facilities with the exception of fugitive emissions from clothing transfer at transfer machines. Only transfer machines at major source existing dry cleaning facilities are required to control fugitive emissions from clothing transfer.

The use of refrigerated condensers is required to control (1) process vent emissions at new dry cleaning facilities, and (2) process vent emissions at existing dry cleaning facilities, except those existing facilities that have already installed a carbon adsorber for control of process vent emissions. Existing dry cleaning facilities that currently use a carbon adsorber may continue to use this carbon adsorber to comply with the requirements of the rule.

**1.14a How does the facility maintain aircraft upholstery?**

- |                            |   |
|----------------------------|---|
| <b>On-site dry cleaner</b> | Facility conducts its own dry cleaning or uses a central, on-site dry cleaner at the airport. |
| <b>Sends to contractor</b> | Facility sends its upholstery off site to be cleaned by a contracted dry cleaning service.    |
| <b>Other</b>               | Facility's method of maintaining aircraft upholstery is not listed here.                      |

**1.14b If conducting its own dry cleaning (e.g., for aircraft upholstery), is the facility familiar with the requirements under the NESHAP rule?**

- Yes** Facility has contacted its state to ensure its dry cleaning operations meet the requirements under NESHAP. ✓
- No** Facility has not contacted its state.
- NA** Facility does not conduct its own dry cleaning.

# SECTION 2.0 MATERIALS STORAGE AND HANDLING

## 2.1 Storage Tanks

**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 facility notified the state/tribal UST program of any USTs located on site? (p. W-46)**
- b. **Does the facility conduct leak detection for tanks and piping of all on site USTs? (p. W-47)**
- c. **Do USTs at the facility meet requirements for spill, overfill, and corrosion protection? (p. W-47)**
- d. *Does the facility have aboveground storage tanks (ASTs)? (p. W-48)*
- e. *Do the ASTs meet or exceed National Fire Protection Association (NFPA) 30A requirements? (p. W-48)*
- f. **Does the facility inspect ASTs periodically for leaks and other hazardous conditions? (p. W-49)**
- g. *Does the facility's total tank storage capacity make it subject to the Oil Pollution regulation? (p. W-50)*
- h. *Could spilled oil from the facility reach navigable waters or adjoining shorelines? (p. W-50)*
- i. **Does the facility have a Spill Prevention, Control, and Countermeasures (SPCC) plan signed by a Professional Engineer? (p. W-50)**
- j. **Does the facility have the phone number for the National Response Center posted on site for immediate reporting of oil spills? (p. W-51)**

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 (USTs)

Airports may have **underground storage tanks** (USTs) to supply fuel for aircraft and support vehicles. They also use USTs to 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 2.1e* 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/>.

The Federal regulations do not cover some USTs (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, states, tribes and local government agencies may regulate 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.

### **2.1a Has the facility notified the state/tribal UST program 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. The form includes certification of compliance with federal requirements for installation, cathodic protection, release detection, and financial responsibility for UST systems installed after December 22, 1988. For more information on how to obtain and complete the form, call EPA's UST Hotline at **1-800-424-9346**.

- 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.

**2.1b 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 methods described above. ✓

**No** Facility does not conduct leak detection.

**NA** Facility does not have any federally regulated USTs.

**2.1c Do USTs at the facility meet requirements for spill, overfill, and corrosion protection?**

All USTs subject to federal regulations must not cause spills or overflows or 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, overfill, and corrosion protection in accordance with the provisions of 40 CFR Part 280. Owners of noncompliant USTs 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 Hotline at 1-800-424-9346. Check with the state and local regulatory agencies to find out if there are additional or more stringent state and/or local UST requirements.*

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, overfill, 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.

**Yes** Facility has spill, overfill, and corrosion protection devices. ✓

**No** Facility does not have protection devices installed.

**NA** Facility does not have any federally regulated USTs.

## **Aboveground Storage Tanks**

### **2.1d Does the facility have aboveground storage tanks (ASTs)?**

**Yes** Facility has ASTs.

**No** Facility does not have ASTs.

### **2.1e Do the ASTs meet or exceed National Fire Protection Association (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 Sources of ignition   |
| S Installation  | S Testing and maintenance   |
| S Storage tank buildings                                      | S Fire protection and identification                                  |
| S Supports, foundations, and anchorage for all tank locations | S Prevention of overfilling of tanks                                  |
| S Operating instructions                                      | S Leak detection and inventory records for underground storage tanks. |

#### **• Piping systems**

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

**Do the ASTs meet or exceed National Fire Protection Association (NFPA) 30A requirements?**

**Yes** Tanks meet or exceed NFPA requirements. ✓

**No** Tanks do not meet NFPA requirements.

**NA** Facility does not have ASTs.

**2.1f Does the facility inspect ASTs periodically for leaks and other hazardous conditions?**

If regulated under the SPCC program, the facility must inspect ASTs on a periodic basis for evidence of leaks or other hazardous conditions (e.g., rust, structural deterioration, etc.). (See Section 4.3 for additional information.)

**Yes** Facility inspects ASTs on a periodic basis. ✓

**No** Facility does not inspect ASTs on a periodic basis.

**NA** Facility does not have aboveground storage tanks, or ASTs are not subject to SPCC requirements.

**Spill Prevention, Control, and Countermeasures Program**

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
- Has physical potential 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.

**2.1g 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 is required to 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.

**2.1h 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 considered to be able to reach navigable waters. Spills are considered able to 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.

**2.1i Does the facility have a Spill Prevention, Control, and Countermeasures (SPCC) plan signed by a Professional Engineer?**

If the answer to 2.1g and 2.1h is "yes", then the facility must have an SPCC plan. The SPCC plan must be on site if the facility is normally manned for at least eight hours per day. Otherwise, the facility can keep it 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 be discharged 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 that has been 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** Facility has an SPCC that has been signed by a professional engineer. ✓
- No** Facility does not have an SPCC plan, or the plan is not signed by a Professional Engineer.
- NA** Facility is not required to have an SPCC plan.

**2.1j Does the facility have 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 spill 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), the facility must report an oil spill to the **National Response Center (NRC) at 1-800-424-8802**.

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

## 2.2 Hazardous/Extremely Hazardous Substances

**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/extremely hazardous substances* for compliance with environmental requirements:

- a. **Did the facility participate in emergency planning activities when it has extremely hazardous substances (EHSs) in excess of their threshold planning quantities (TPQs)? (p. W-53)**
- b. **Did the facility immediately notify the proper authorities after an accidental release of a hazardous or extremely hazardous substance? (p. W-53)**
- c. *When reporting a spill, did the facility include the required information for initial notification? (p. W-54)*
- d. *After initial notification of any spills and releases, has the facility provided a written follow-up emergency notice(s) to the proper emergency agencies? (p. W-55)*
- e. *Has the facility met the reporting requirement under Section 311 of EPCRA? (p. W-55)*
- f. *Does the facility meet its reporting requirement annually under Section 312 of EPCRA? (p. W-56)*

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

### EPCRA Planning Requirements

Title III of the Superfund Amendments and Reauthorization Act (SARA), also known as Emergency Planning and Community Right-to-Know Act (EPCRA), establishes requirements for federal, state, and local governments, and industry regarding emergency planning and "community right-to-know" reporting of **hazardous** and **toxic** chemicals. It requires industry to report detailed information concerning the use, generation, and release of hazardous and toxic materials.

The purpose of EPCRA is to: (1) encourage and support industry's emergency planning for response to chemical accidents (in coordination with state and local governments) through emergency planning and emergency notification; and (2) provide local governments and the public with information about possible chemical hazards in their communities by requiring facilities to report to federal, state and local authorities their hazardous chemical inventory and toxic chemical releases.

The **emergency planning sections** (Sections 301-303) of EPCRA are designed to develop state and local government emergency response and preparedness capabilities through better coordination and planning, especially with the local community.

**Note:** *The air transportation sector (SIC 45) is not subject to EPCRA Section 313 requirements; however, it is subject to Sections 302, 304, 311, and 312 EPCRA requirements. For more information, called the RCRA/UST, EPCRA, and Superfund Hotline at 1-800-424-9346.*

**2.2a Did the facility participate in emergency planning activities when it has extremely hazardous substances (EHSs) in excess of their threshold planning quantities (TPQs)?**

Under Section 302 of EPCRA, if a facility has any of the 400 extremely hazardous substances (EHSs) (e.g., ammonia, chlorine, nitric acid, sulfuric acid) listed in 40 CFR Part 355 in excess of their threshold planning quantities (TPQs), the facility must notify its state emergency response commission (SERC) within 60 days that the facility is subject to emergency planning requirements.

In addition, the facility must participate in the local emergency process and must provide any information to the local emergency planning committee (LEPC) deemed necessary for development or implementation of a local emergency plan.

A **threshold planning quantity (TPQ)** is the amount of an extremely hazardous substance (in pounds) at a facility that triggers a reporting requirement. EHSs and their TPQs are listed in 40 CFR Part 355.

- Yes** The facility did participate in emergency planning activities. ✓
- No** The facility did not participate in emergency planning activities.
- NA** The facility does not have any EHSs in excess of their TPQs, and so is not required to participate in emergency planning activities.

## Emergency Notification

**2.2b Did the facility immediately notify the proper authorities after an accidental release of a hazardous or extremely hazardous substance?**

Under Section 304 of EPCRA, the facility must immediately notify the *Local Emergency Planning Committees (LEPCs)* and the *State Emergency Response Commissions (SERCs)* likely to be affected, if there is a release into the environment of a hazardous substance that exceeds the reportable quantity for that substance (40 CFR Part 355). The substances (some are common to both lists) which are subject to these requirements include:

- “Extremely Hazardous Substances” listed in Appendices A and B of 40 CFR Part 355.
- “Hazardous Substances” subject to emergency notification requirements under CERCLA Section 103(a). These substances and reportable quantities are listed in 40 CFR Section 302.4. **Note:** *There are federally permitted release exemptions of these substances that may be applicable to the facility. Refer to the appropriate regulatory agency for more information about these exemptions.*

The LEPCs and SERCs will coordinate response activity to the facility’s spill or accident, and prevent harmful effects to the public and community at large. In addition, if the facility releases a CERCLA hazardous substance, the facility must notify the **National Response Center (NRC) at 1-800-424-8802.**

- Yes** The facility immediately notified the proper authorities. ✓
- No** The facility did not immediately notify the proper authorities.
- NA** The facility did not experience any accidental releases of hazardous or extremely hazardous substances.

**2.2c When reporting a spill, did the facility include the required information for initial notification?**

Under EPCRA, the facility must notify the emergency authorities *immediately* upon discovering a reportable spill. (The term immediately is not further defined.) Thus the person making the report must use good judgement in determining how much time to spend in collecting information prior to making the notification. Initial notifications can be made by telephone, radio, or in person. To the extent possible, the following information should be provided (40 CFR 355.40):

- Chemical name/identity of material(s) released
- Whether the material(s) is an extremely hazardous or a hazardous substance
- Estimate of the quantity of any material that was released
- Time and duration of the release
- Whether the release was to the air, water, and/or land
- Any known or anticipated acute or chronic health risks associated with the emergency
- Proper precautions to take as a result of the release, including evacuation
- Name and telephone number of the person(s) to be contacted for further information.

**Yes** The facility included the information listed above to the extent practicable. ✓

**No** The facility did not include the information listed above to the extent practicable.

**NA** The facility has not experienced a spill of a hazardous or extremely hazardous substance.

**2.2d After initial notification of any spills and releases, has the facility provided a written follow-up emergency notice(s) to the proper emergency agencies?**

After initial notification of spills and releases to the appropriate agencies, the facility must provide a written follow-up emergency notice(s), as soon as practical after the release. The follow-up notice(s) must update information provided in the initial notice and provide information on actual response actions taken and advice regarding medical attention necessary for exposed individuals.

- Yes** Facility submitted a written follow-up emergency notice(s) to the proper emergency agencies. ✓
- No** Facility did not submit a written follow-up emergency notice(s) to the proper emergency facilities.
- NA** The facility has not experienced a spill of a hazardous or extremely hazardous substance.

**EPCRA Hazardous Chemical Reporting**

Section 311 of EPCRA requires the facility to report to the SERC, LEPC, and local fire department the presence of hazardous chemicals in excess of reporting thresholds at the facility (40 CFR Part 370). This reporting is a one-time requirement unless new information becomes available that reveals a chemical has an additional hazard. Additionally, this reporting requirement must be met within 90 days for any new chemical in excess of the reporting threshold handled on site. The chemicals subject to this requirement include:

- EPCRA extremely hazardous substances (EHS) listed at 40 CFR Part 355 Appendix A in excess of 500 lbs or the threshold planning quantity, whichever is lower (40 CFR 370.20); and
- Any chemical considered a hazardous chemical by the Occupational Safety and Health Administration (OSHA) in excess of 10,000 lbs (40 CFR 370.20).

**2.2e Has the facility met the reporting requirement under Section 311 of EPCRA?**

To meet the Section 311 reporting requirement, the facility must submit to the LEPC, the SERC, and the fire department either (1) the MSDSs (or copies), or (2) a list of the EPCRA extremely hazardous substances and OSHA hazardous chemicals above threshold quantities on site at the facility (40 CFR 370.21). (The list must include the chemical or common name of each substance and must identify the applicable hazard categories.)

- Yes** The facility has met the Section 311 reporting requirement. ✓
- No** The facility has not met the Section 311 reporting requirement.
- NA** The facility has none of the regulated chemicals above the threshold quantities.

## 2.2f Does the facility meet its reporting requirement annually under Section 312 of EPCRA?

Under Section 312 of EPCRA, the facility must meet an annual reporting requirement for OSHA hazardous chemicals and EPCRA's EHSs in excess of reporting thresholds (40 CFR Part 370). The reporting thresholds are 500 lbs or the threshold planning quantity (TPQ), whichever is lower for EPCRA EHSs and 10,000 lbs for an OSHA hazardous chemical. If exceeding the reporting thresholds at any time in the preceding calendar year, the facility must submit to the LEPC, SERC, and the fire department an "Emergency and Hazardous Chemical Inventory Form" by March 1 of the following year for those substances.

States can choose one of two formats for the chemical inventory forms: Tier I and Tier II. The Tier I form provides aggregate information on hazardous chemicals and includes estimates of the maximum and average daily amounts present, and the location of the chemicals. Tier II information is similar to Tier I information, except that it must be chemical-specific, not aggregate information. Most states use Tier II reporting forms.

- Yes** The facility submitted a Tier I and/or Tier II Form for all OSHA hazardous chemicals and EPCRA's EHSs in excess of reporting thresholds to the LEPC, SERC, and the fire department by March 1 of the following year. ✓
- No** The facility did not submit a Tier I and/or Tier II Form for all OSHA hazardous chemicals and EPCRA's EHSs in excess of reporting thresholds to the LEPC, SERC, and the fire department by March 1 of the following year.
- NA** The facility has none of the regulated chemicals in excess of threshold quantities.

## 2.3 Fire Control Agents (Halons)

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

- a. *Do technicians servicing halon-containing equipment have halon emissions reduction training? (p. W-57)*
- b. How does the facility dispose of halons and halon-containing equipment? (p. W-57)**

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

## Halons

Halons are gaseous or easily vaporized halocarbons used primarily for fire suppression. Despite their effectiveness as a fire suppressant, halons are among the most ozone-depleting chemicals in use today. As a result, EPA issued a final rule relating to the manufacturing and emissions of halons (63 FR 11084), which was effective on April 6, 1998. Under the final rule, EPA is promulgating several actions relating to the manufacture and emission of halons, including:

- (1) **Banning the manufacture of new halon blends.** However, due to the safety, health, and environmental advantages that these products brings to the aviation community, EPA is exempting the aviation applications from this ban, as long as the manufacturers, or their designees, follow several requirements relating to recycling of halon blends.
- (2) **Prohibiting intentional release of halons.** For safety reasons, EPA is granting an exemption from this ban for halon release used as part of the test of fire extinguishing systems in Class C and D compartments aboard aircraft when such a test is required by the Federal Aviation Administration (FAA) under its Airworthiness Standards.
- (3) **Requiring technician training regarding halon emission reduction.**
- (4) **Requiring proper disposal of halons and halon-containing equipment.**

### **2.3a Do technicians servicing halon-containing equipment have halon emissions reduction training?**

Facilities must ensure that the organization hired to service its halon-containing equipment provides training to its technicians regarding halon emissions reduction. If not, the facility itself must provide training to the technicians hired to service halon-containing equipment. For more information call the **Stratospheric Protection Hotline** at **1-800-296-1996**.

- Yes** Facility ensures that the technicians are trained as indicated above. ✓
- No** Facility does not ensure that technicians servicing halon-containing equipment are trained as indicated above.
- NA** Facility does not use halon-containing equipment.

### **2.3b How does the facility dispose of halons and halon-containing equipment?**

- Returns to manufacturer** The facility returns it to the manufacturer. ✓
- Returns to fire equipment distributor** The facility returns the halons to a fire equipment distributor. ✓
- Returns to halon recycler** The facility returns the halons to a halon recycler operating in accordance with National Fire Protection Association (NFPA) 10 and 12A standards. ✓

<b><i>Destroys equipment</i></b>	The facility arranges for the destruction of halon-containing equipment using specified methods (40 CFR 82.270(e)). ✓
<b><i>Other</i></b>	Method of disposal is not listed.
<b><i>NA</i></b>	Facility does not use halon-containing equipment.

## 2.4 PCB-Containing Equipment

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

- a. *Does electrical equipment contain PCBs? (p. W-58)*
- b. *Is PCB-containing equipment labeled and inspected quarterly? (p. W-59)*
- c. *Does the facility store all out-of-service PCB-containing equipment in a designated area? (p. W-59)*
- d. *Do trained personnel initiate cleanup of PCB leaks/spills within 24 hours? (p. W-60)*

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

### **2.4a 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). Equipment manufactured before 1978 should be assumed to contain PCBs unless proven otherwise by analytical testing or other records. If PCBs are present, the equipment is classified by the concentration of PCBs in the oil. The following are the three classifications:

Many air transportation 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**.

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

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.

**2.4b Is PCB-containing equipment labeled and inspected quarterly?**

Facilities must label all electrical equipment (e.g., transformers and capacitors) containing PCBs with the appropriate PCB classification. The facility should 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.

**2.4c Does the facility store all out-of service PCB-containing equipment in a designated area?**

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

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. If any transformers and other equipment with PCBs are found to be outside of the designated area, the facility should move them 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.

### 2.4d Do trained personnel initiate clean up all PCB leaks/spills within 24 hours?

All electrical equipment involved in spill or leaks should be assumed to have PCBs unless sampled and labeled to indicate otherwise. If a spill occurs, initiate a cleanup within 24 hours. Cleanups should be completed within 48 hours, regardless of the regular business hours. Only trained personnel can perform clean up, and they must complete the recordkeeping requirements.

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

- Yes** Facility cleans up all PCB leaks as described above. ✓
- No** Facility does not clean up PCB leaks as described above.
- NA** Facility does not have equipment that contains PCBs.

## 2.5 Cargo Loading and Off Loading

**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 *cargo loading and off loading* for compliance with environmental requirements:

- a. **If the facility loads hazardous materials onto an airplane, does the facility inspect containers for labeling/placarding, signs of leakage, and compatibility with other hazardous materials? (p. W-61)**
- b. *Is the facility prepared for leaks or spills of hazardous materials during loading or off-loading activities? (p. W-61)*

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

### Cargo Loading and Off Loading

Aircraft loading and off loading includes all activities associated with the movement of materials, items, and people in and out of airplanes. Aircraft cargo loads consist of several different items, including but not limited to passengers, baggage, mail, live animals, dangerous goods (including hazardous materials), and wet cargo (e.g., fresh fish, seafood, meat, casings, etc.). The primary loading and off loading activity with a potentially significant impact on human health and the environmental is the loading and off loading of hazardous materials.

**2.5a If the facility loads hazardous materials onto an airplane, does the facility inspect containers for labeling/placarding, signs of leakage, and compatibility with other hazardous materials?**

If the facility transports hazardous materials by aircraft, the materials are subject to U.S. Department of Transportation (DOT) requirements that regulate aircraft inspections, placement of materials, packaging, and shipping papers (e.g., waybills, manifests). It is important to ensure that proper labeling, valve cover placement, stenciling, and shipping papers are used when transporting hazardous materials and hazardous wastes. Routine inspections should include examination for spills and leaks of hazardous materials. Report all spills and leaks promptly to the dispatcher.

- Yes** During loading, facility inspects containers and all required paperwork is completed. ✓
- No** Facility does not inspect hazardous materials containers on a regular basis during loading.
- NA** Facility does not transport hazardous materials.

**2.5b Is the facility prepared for leaks or spills of hazardous materials during loading or off-loading activities?**

Though a rare occurrence, leaks or spills that occur during loading/off-loading activities have the potential to contaminate soil, groundwater, or surface water. Facilities minimize and control these impacts through development and implementation of spill prevention, control, and countermeasures (SPCC) plans, storm water pollution prevention plans (SWPPPs), and other emergency response programs.

- Yes** Facility has developed SPCC plans, SWPPPs, and/or other emergency response programs to prepare for accidental leaks/spills. ✓
- No** Facility has not developed SPCC plans, SWPPPs, and/or other emergency response programs to prepare for accidental leaks/spills.
- NA** Facility does not have hazardous materials on site.

## SECTION 3.0 FUELING

### 3.1 Aircraft Fueling

**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 *aircraft fueling* for compliance with environmental requirements:

- a. *How does the facility fuel its aircraft? (p. W-62)*
- b. Does the facility use measures to prevent fuel spills during fueling of aircraft? (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.

#### Aircraft Fueling

Aircraft fueling operations should focus on the prevention of fuel spillage and the associated air, water, and hazardous waste pollution. Fuel tank monitoring and automatic shutoff devices are key spill prevention measures. One technique to prevent fuel spills is to install catchment basins, including containment at hydrant pits. If anyone finds leaking pipe joints, nozzle connections, and any damage to the fueling hose (e.g., kinks, crushing, breaks in the carcass, bulges, blistering, soft spots at the coupling, deep cracks or cuts, spots wet with fuel, or excessive wear), they must report this, to the extent required by law or permit. The facility must repair these problems immediately to reduce their potential impact on the environment. Using dry cleanup methods for the fuel area can reduce water runoff and associated contamination of groundwater and surface water supplies.

#### 3.1a How does the facility fuel its aircraft?

<b>Truck and hose system</b>	Facility uses a truck and hose system to fuel aircraft.
<b>Fuel distribution system</b>	Facility uses a fuel delivery system to fuel aircraft.
<b>Other</b>	Method of fueling is not listed.

#### 3.1b Does the facility use measures to prevent fuel spills during fueling of aircraft?

- Yes** Facility uses preventive measures such as self-locking fueling nozzles and automatic shutoff devices to minimize the risk of fuel spills during fueling. ✓
- No** Facility does not use preventive measures during fueling.

## 3.2 Airport Support Vehicle Fueling

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

- a. *Has the facility installed Stage I vapor recovery equipment for unloading of gasoline?* (p. W-63)
- b. *Has the facility installed Stage II vapor recovery equipment at the pumps?* (p. W-64)
- c. *Do fuel delivery records indicate compliance with appropriate fuel requirements?* (p. W-64)
- d. *Has the facility clearly labeled the pumps with the product they contain?* (p. W-65)
- e. *Does the facility prevent the use of dyed, high-sulfur diesel/kerosene?* (p. W-65)
- f. *Do gasoline pump nozzles comply with 10 gallon per minute flow rate?* (p. W-65)
- g. *Does the facility use overfill protection measures, spill containment methods, and spill response equipment during fueling?* (p. W-66)

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

**Tip:** Contact the local air pollution control authority to determine if air releases from fueling operations are regulated (i.e., if the facility is in a non-attainment area).

Stage I vapor recovery equipment captures and controls gasoline vapors which would normally be emitted to 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** Either the facility is not located in an ozone non-attainment area or facility does not dispense gasoline.

**3.2b 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 working 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 canopies 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.

**3.2c 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, 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.

**3.2d Has the facility clearly labeled the pumps with the product they contain?**

The facility must label the pumps 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.

**3.2e Does the facility prevent the use of dyed, high-sulfur diesel/kerosene?**

**The facility can only dispense low sulfur diesel into motor vehicles used on the road.** Motor vehicles in this case include, but are not limited to, any diesel powered truck (e.g., diesel tractor trailers, diesel pick-up trucks and diesel automobiles) licensed and tagged for on-road travel.

Facilities can prevent dyed, high-sulfur diesel/kerosene fuel from being dispensed into on-road diesel vehicles by (1) securing the pump nozzle with lock and key, (2) monitoring pump use, or (3) locating the pump in a place where on-road diesel vehicles cannot pull-up and dispense the fuel.

**Yes** Facility prevents dyed, high-sulfur diesel/kerosene fuel from being dispensed into on-road diesel vehicles. ✓

**No** Facility does not prevent high-sulfur diesel/kerosene fuel from being dispensed into on-road diesel vehicles.

**NA** Facility does not have pumps with dyed, high-sulfur diesel/kerosene fuel.

**3.2f 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 is introduced 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 Know** Facility does not know if pump nozzles have been tested.

**NA** Facility does not dispense gasoline or methanol.

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**3.2g Does the facility use overfill protection measures, spill containment methods, and spill response equipment 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.

## SECTION 4.0 DEICING

Deicing operations generate spent deicer fluids (e.g., propylene, ethylene glycol, and water). Spraying deicing fluids onto aircraft and/or runway surfaces may result in the draining of deicing fluids from aircraft and/or runway surfaces to drains that lead to on-site water treatment facilities, storm drains, or paved surfaces where they may be released directly to the environment. In compliance with Clean Water Act requirements, the facility treats spent deicing fluids either in a wastewater treatment system, a publicly owned wastewater treatment plant, or it goes directly to surface water in accordance with permit conditions. **Airports with deicing operations may need to have a storm water permit and a storm water pollution prevention plan.** For more information about storm water requirements relating to deicing operations, contact the federal or state National Pollutant Discharge Elimination System (NPDES) permitting authority.

If discharging deicing fluids into surface water (in accordance with permit conditions), the facility must be aware of the toxic effects that deicing fluids may have on surface and ground waters. Deicing fluids, such as ethylene and propylene glycol, may consume high levels of oxygen during decomposition. If the rate of decomposition of glycols in water is too high, dissolved oxygen in the water decreases, thereby causing toxic effects on life forms in those waters (e.g., fish kills). If the rate of oxygen consumption (i.e., biochemical oxygen demand) is too high, mitigation measures may be necessary. Mitigation measures to reduce glycol levels include construction of deicing facilities, glycol containment systems, retention ponds, or discharge to publicly-owned treatment works (POTW).

**Tip:** It is a good idea to periodically inspect a facility's effluent and receiving waters for signs (e.g., sheens, foams) of high concentrations of deicing fluids. In addition, facilities should collect samples of runoff during winter storm events to determine concentrations of aircraft deicing fluids.

FAA allows the reuse of deicing fluids that are reformulated and re-certified to meet appropriate aircraft deicing fluid specifications. Depending on the local weather and airport infrastructure, airports may be able to recycle certain deicing fluids. Some airports have constructed deicing fluid collection systems that prevent discharge to storm water sewers and segregate spent deicer from other wastewater for reclamation, recycling, on-site treatment, or disposal off site. Certain reclaimed deicing fluids have value in secondary markets (e.g., windshield deicers for automobiles).

## 4.1 Aircraft Deicing

**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 *aircraft deicing* for compliance with environmental requirements:

- a. *Does the facility conduct deicing operations of aircraft? (p. W-68)*
- b. Does the facility have deicing fluid collection systems that prevent discharge to storm water sewers? (p. W-68)**
- c. How does the facility dispose of spent deicer? (p. W-69)**
- d. *Does the facility meet deicing fluid parameter limits/conditions in its NPDES permit? (p. W-69)*

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

### **4.1a Does the facility conduct deicing operations of aircraft?**

**Yes** Facility conducts deicing operations of aircraft.

**No** Facility does not conduct deicing operations of its aircraft.

### **4.1b Does the facility have deicing fluid collection systems that prevent discharge to storm water sewers?**

**Yes** Facility has a fluid collection system. ✓

**No** Facility does not have a fluid collection system in place.

**NA** Facility does not conduct deicing operations.

**4.1c How does the facility dispose of spent deicer?**

<b>Recycle</b>	Facility sends spent deicer to recycling facility. ✓
<b>Treat on site</b>	Facility treats the spent deicer at the on-site facility wastewater treatment system. ✓
<b>Discharge to POTW</b>	Facility discharges to POTW <u>with POTW permission.</u> ✓
<b>Discharge to surface water</b>	Facility discharges directly to surface water <u>in accordance with NPDES permit conditions.</u> ✓
<b>Off-site disposal</b>	Facility sends spent deicer to hazardous waste disposal facility. ✓
<b>Other</b>	Method of disposal is not listed. <i>Check with the state regulatory authority to make sure it is an acceptable method of disposal.</i>
<b>NA</b>	Facility does not conduct deicing operations.

**4.1d Does the facility meet deicing fluid parameter limits/conditions in its NPDES permit?**

- Yes** Facility meets permit limits/conditions for deicing fluid parameters. ✓
- No** Facility does not meet permit limits/conditions.
- NA** Facility does not conduct deicing operations.

<b>4.2 Runway Deicing</b>
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**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 *runway deicing* for compliance with environmental requirements:

- Does the facility conduct deicing operations on its runways? (p. W-70)*
- If discharging deicing wastes to a municipal sanitary sewer or a combined sewer which goes to a publicly-owned treatment works (POTW), has the facility notified the POTW? (p. W-70)?**
- Does the facility meet deicing fluid parameter limits/conditions in its NPDES permit? (p. W-70)**

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

## Runway Deicing

Airport runways, taxiways, and gate areas are sprayed with deicer and anti-icer to remove and prevent the buildup of ice and snow that would inhibit taxiing, takeoff, and landing. Runway and ramp deicing is usually done with one or more substances (e.g., glycol, urea, sodium formate, and/or potassium acetate). Sand is usually reserved to prevent slippage at the gate area, but not on taxiways and runways due to the potential for engine ingestion hazards.

Deicing mixtures have the potential to contaminate groundwater and surface water supplies as they flow from airport runways to storm drains or to waterways as sheet runoff. Deicing chemicals that mix with storm water discharges must be managed according to the facility's NPDES storm water permit if one is required. In an effort to control storm water contamination, many facilities direct storm water to an on-site treatment facility prior to discharge.

### **4.2a Does the facility conduct deicing operations on its runways?**

**Yes** Facility conducts deicing operations.

**No** Facility does not conduct deicing operations.

### **4.2b If discharging deicing wastes to a municipal sanitary sewer or a combined sewer which goes to a publicly-owned treatment works (POTW), has the facility notified the POTW?**

**Yes** Facility has notified the POTW or permitting authority of the deicing wastes. ✓

**No** Facility has not contacted the POTW.

**NA** Facility does not conduct deicing operations.

### **4.2c Does the facility meet the deicing fluid parameter limits/conditions in its NPDES permit?**

**Yes** Facility meets permit limits/conditions for deicing fluid parameters. ✓

**No** Facility does not meet NPDES permit limits/conditions for deicing fluid parameters.

**NA** Facility does not conduct deicing operations.

# SECTION 5.0 WASTEWATER AND STORM WATER MANAGEMENT

## 5.1 Wastewater and Storm Water Management at Airports

**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-72)
- b. *How does the facility manage its wastewater?* (p. W-73)
- c. *How does the facility manage its storm water?* (p. W-74)
- d. **If the facility discharges to a surface water, does it have an NPDES permit?** (p. W-74)
- e. **Does the facility have a storm water pollution prevention plan (SWPPP)?** (p. W-75)
- f. *Is a certification included in the SWPPP?* (p. W-75)
- g. **If discharging to a municipal sanitary sewer, has the facility notified the POTW and received approval for discharges?** (p. W-76)
- h. *If discharging to a UIC well, does the facility comply with UIC program requirements?* (p. W-76)
- i. **How does the facility manage the sludge from an oil/water separator?** (p. W-77)

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

Airport facilities may discharge *wastewater* as a result of 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 stripping. 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 a U.S. waterway. NPDES permits can be issued by either EPA or an authorized state. As of September 1999, EPA authorized 43 states and 1 territory to administer the NPDES program.

Persons responsible for new 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 CFR § 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 regulated 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 referred to 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 required by federal regulations, the facility could be liable if it discharges a significant amount of oil, or other fluid, and those discharges cause the POTW to violate its own NPDES permit.

#### **5.1a Can the facility identify the final destination of all its drains?**

The 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-primacy state), the 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, the facility may need a UIC well permit.
- 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.

**S** 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.

### **5.1b 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, or (2) to a sanitary sewer or combined sewer leading to a POTW. Wastewater treatment may be required by an NPDES permit or by the POTW.

**Surface water** Facility discharges effluent directly to surface waters (in accordance with an NPDES storm water permit (see *Question 5.1d*). ✓

**Sanitary sewer** Facility discharges to a municipal sanitary sewer or combined sewer with permission of the POTW (see *Question 5.1g*). ✓

**UIC well** Facility discharges to a UIC well, generally via a floor drain (see *Question 5.1h*). *Although there are some exceptions, as a general rule, discharging industrial wastewater to a UIC well is NOT appropriate.*

**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.

**5.1c 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. Wastewater treatment may be necessary because of an NPDES permit (see *Question 5.1d*) or by the POTW (see *Question 5.1g*).

**Fuel Testing**

FAA requires that fuel samples from air carrier tanks be tested for contaminants before takeoff. In the past, fuel samples may have been discarded onto the ground, but this practice can contaminate storm water discharges and create potential for soil and groundwater contamination. In order to prevent such pollution, technological advances have developed a fuel tester called the **GATS Jar**, now on the market, which allows pre-flight fuel samples to be returned to the fuel tank by separating all non-fuel contaminants as it pours, thereby only allowing pure fuel to enter the fuel tank.

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

**5.1d If the facility discharges to a surface water, does it have an NPDES permit?**

EPA requires NPDES permits in order to discharge industrial wastewater directly into surface waters. The wastewater may need to be treated 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.

**5.1e Does the facility have a storm water pollution prevention plan (SWPPP)?**

If a facility is required to obtain an NPDES storm water permit, it will likely be required to prepare and implement an SWPPP. Facilities are required to 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.

**5.1f Is certification included in the SWPPP?**

Each SWPPP must include a **certification**, signed by an authorized individual, 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 conducted to detect such discharges
- The test method or evaluation criteria used, the dates on which tests or evaluations were performed, and the on site drainage points directly observed during the test or evaluation.

If certification is not feasible, because facility personnel do not have access to an outfall, manhole, or other point of access to the conduit that ultimately receives the discharge, the SWPPP must describe why certification was not feasible.

**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.

**5.1g If discharging to a municipal sanitary sewer, has the facility notified the POTW and received approval for discharges?**

Facilities should contact the POTW to see if any pretreatment requirements apply to them. Although contacting the POTW is not required by federal regulations, the facility could be liable if it discharges a significant amount of oil or other 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.

**5.1h If discharging 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. Air transportation facilities may 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 that basic inventory information about a Class V well must be submitted 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 contaminants that may endanger drinking water. Therefore, new requirements went into effect December 7, 1999, which further regulate two (2) 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.*

**5.1i 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.

<b>Off-site disposal as hazardous waste</b>	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. ✓
<b>Off-site disposal to other facility</b>	Facility disposes of <u>nonhazardous</u> sludge off site. The facility disposes of it using an approved transportation, treatment, and disposal facility. ✓
<b>On-site disposal</b>	Facility disposes of nonhazardous sludge on site and has the required state and/or local permits. ✓
<b>Landfill</b>	Facility improperly landfills its oil/water separator sludge.
<b>NA</b>	No sludge is produced.

## 5.2 Activities Generating Wastewater and/or Storm Water

**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 *activities generating wastewater and/or storm water* for compliance with environmental requirements:

- a. *How does the facility clean the floors and surrounding areas? (p. W-78)*
- b. *If the facility stores materials outside, does the facility protect them from contact with storm water? (p. W-79)***

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

### 5.2a ***How does the facility clean the floors (such as hangar, maintenance shop, terminal or other) and surrounding areas?***

**Dry Cleanup** Facility uses “dry methods” such as dry mop, broom, rags, absorbents, etc., thus reducing generation of contaminated wastewater. ✓ See box below.

**Water** Facility uses a hose or wet mop, thus generating wastewater.

#### Suggested Dry Cleanup Methods

**Small Spills:** Use shop towels which are sent to an industrial laundry. Avoid paper towels! If paper towels are used to pick up hazardous waste, they become hazardous waste.

**Medium-Sized Spills:** Use absorbent, portable berms as temporary holding areas to contain the liquid while cleaning. Soak up the liquid and put in containers. Then wipe with a shop towel.

#### **Oil and Water/Antifreeze Spills:**

1. Use a hydrophobic mop for cleaning up spills containing oil and recycle recovered oil in a mop bucket labeled “waste oil.”
2. Use a regular mop for cleaning up antifreeze and recycle recovered antifreeze in a mop bucket labeled “waste antifreeze.”
3. If there is a slight film on the ground after steps 1 and 2, use a shop towel to clean it up. Use an industrial laundry to clean shop towels.
4. Finally, if there is material still on the floor, clean it up with soap and water.

**5.2b If the facility stores materials outside, does the facility protect them from contact with storm water?**

A facility may need to store materials, including drums, trash, and parts, outside of facility buildings. The facility should protect these materials from coming in contact with storm water (including rain or snow) or other forms of water (e.g., washing overspray). To prevent contact with storm water, you can store materials on pallets (or something else that keeps them off the ground) and covered by a tarp or roof. You can close the dumpsters and seal them so storm water will not enter or exit the dumpster. You must store used oil (in some states), hazardous waste, and batteries in an area with secondary containment, and in a manner that will protect them from storm water.

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

# SECTION 6.0 AIR TRANSPORTATION SUPPORT ACTIVITIES

## 6.1 Buildings and Groundskeeping

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

- a. *Does the facility use pesticides only as directed by their labels? (p. W-80)*
- b. *Are restricted use pesticides (RUPs) applied only by a certified commercial applicator? (p. W-81)*

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

### Buildings and Groundskeeping

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.

#### **6.1a Does the facility use pesticides only as directed by their labels?**

- |            |  |
|------------|--|
| <b>Yes</b> | Facility applies all pesticides in accordance with the directions on the pesticide labels. ✓ |
| <b>No</b>  | Facility does not apply pesticides as directed by pesticide labels.                          |
| <b>NA</b>  | Facility does not use any pesticides.  |

**6.1b Are restricted use pesticides (RUPs) applied only by a 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**        Facility does not apply RUPs.

See Section 7.2d for requirements regarding pesticide applicator training and certification requirements.

## 6.2 Nonhazardous Waste Management

**NOTE:** The following question is not included in the accompanying checklist; however, it is still important to consider when examining the facility's operations for compliance with environmental requirements:

- a. *Does the facility dispose of nonhazardous waste on site in a permitted landfill or dump? (p. W-82)*

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

**6.2a Does the facility dispose of nonhazardous waste on site in a permitted landfill or dump?**

All waste disposal in an on-site landfill or on-site dump is regulated. Facilities must obtain local and/or state permits as required. These permits must be kept current for the type of waste being disposed of and they must be 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 reporting to the EPA. Cleanup actions may be required.

- 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.

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## **6.3 New Construction**

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

- a. *How does the facility manage its construction wastes? (p. W-83)*
- b. *Are there any endangered species which may be affected by construction activities? (p. W-83)*
- c. *Has the facility obtained a Section 404 permit for any projects that may impact wetlands? (p. W-84)*

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

**6.3a How does the facility manage its construction wastes?**

Do not dispose of construction waste, including that from building, tunnel, and bridge maintenance, on site without proper disposal permits. Some States prohibit open burning of scrap wood, material bags, aerosol cans, etc. When in doubt, check with the state/local regulatory 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.

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

**6.3b 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 are found. 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, some form of mitigating action must be taken to prevent harming the species. There are some exceptions under the ESA and the local USFWS should always be consulted in cases where species are present. 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.
- NA** Facility is not conducting construction activities at this time.

**6.3c 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 obtained a Section 404 permit. ✓
- 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.

## **6.4 Asbestos (Building Renovation/Demolition)**

**NOTE:** The following questions do not appear in the accompanying checklist, however, they are still important to consider when examining the facility's operations 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-85)*
- b. *Does the facility document demolition procedures? (p. W-85)*
- c. *Has the facility inform employees of buildings and structures containing asbestos and trained them on asbestos-containing material (ACM) ? (p. W-85)*

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

**6.4a 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. Asbestos inspections must be performed according to AHERA guidelines by a certified inspector.

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

**Yes** Facility has assessed all buildings built prior to 1980 for asbestos. ✓

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

**NA** Facility has no buildings built prior to 1980.

**6.4b 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.

**6.4c Has the facility informed employees of buildings and structures containing asbestos and trained them on asbestos-containing material?**

Inform all employees that may encounter asbestos-containing materials (ACM) of its existence. In particular, inform all employees required to do repairs, maintenance, and custodial activities. In addition, train 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 has informed and trained all employees as described above. ✓

**No** Facility has not informed all employees or trained them as described above.

**NA** Facility has determined that asbestos is not present in any of the buildings.

# SECTION 7.0 MANAGEMENT AND ADMINISTRATION

## 7.1 Recordkeeping

**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 *recordkeeping* for compliance with environmental requirements:

- a. **NPDES: Does the facility keep records of NPDES monitoring information for a minimum of 3 years? (p. W-86)**
- b. **NPDES: As part of the SWPPP, does the facility maintain records of spills, discharges, and other information describing the quality and quantity of storm water discharges? (p. W-87)**
- c. *NPDES: As part of the SWPPP, does the facility maintain records documenting inspections and maintenance activities? (p. W-87)*
- d. **Air: Does the facility keep records as required by its air permit(s)? (p. W-87)**
- e. *CFC: If the facility owns/operates appliances (e.g., motor vehicle air conditioners, refrigerators, etc.) that contain ozone-depleting refrigerants, does the facility maintain all required records? (p. W-88)*
- f. **RCRA: Does the facility keep a copy of its manifest for a minimum of 3 years? (p. W-88)**
- g. **USTs: Does the facility maintain records of leak detection; spill, overfill and corrosion protection; corrective actions; closure; and financial responsibility? (p. W-89)**
- h. **Pesticides: Does the facility maintain records of use and storage of pesticides? (p. W-89)**

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

### NPDES Recordkeeping

#### **7.1a Does the facility keep records of NPDES monitoring information for a minimum of 3 years?**

It is extremely important to keep accurate records of monitoring information. Facilities must report monitoring results for wastewater discharges on a Discharge Monitoring Report (DMR) form to the NPDES permitting agency. The permit will specify the monitoring and reporting schedule. Such requirements are determined on a facility-specific basis. Records of monitoring information generated under the NPDES program must include:

- The date, exact place, method, and time of sampling and the names of the person or persons taking the samples.
- The dates of analyses.
- Who performed the analyses.

- The analytical techniques or methods used.
- The results of such analyses.

NPDES permits require that the facility maintain all records related to monitoring at the facility for at least 3 years. **Note:** *Many states require these records to be maintained for at least 5 years.*

- Yes** Monitoring records include all of the information listed above and are maintained for at least 3 years. ✓
- No** Monitoring records do not include all of the information listed above and/or are not maintained for a minimum of 3 years.
- NA** Facility does not have wastewater discharges.

**7.1b As part of the SWPPP, does the facility maintain records of spills, discharges, and other information describing the quality and quantity of storm water discharges?**

- Yes** Facility maintains records describing the quality and quantity of storm water discharges. ✓
- No** Facility does not maintain records describing the quality and quantity of storm water discharges.
- NA** Facility is not required to have an NPDES permit.

**7.1c As part of the SWPPP, does the facility maintain records documenting inspections and maintenance activities?**

- Yes** Facility maintains records documenting inspections and maintenance activities. ✓
- No** Facility does not maintain records documenting inspections and maintenance activities.
- NA** Facility is not required to have an NPDES permit.

## Air Permit Recordkeeping

**7.1d Does the facility keep records as required by its air permit(s)?**

If the facility conducts certain operations (e.g., parts cleaning, painting, paint removal, burning of fuel, etc.), it may need an air permit. Many air permits require recordkeeping to verify permit compliance. *Contact the local air pollution control agency for more information.*

- Yes** Facility is familiar with the recordkeeping requirements of its air permit(s). ✓
- No** Facility is not familiar with the recordkeeping requirements of its air permit(s).

**NA** Facility is not required to have an air permit.

## CFC - Containing Equipment

### **7.1e If the facility owns/operates appliances (e.g., motor vehicle air conditioners, refrigerators, etc.) that contain ozone-depleting refrigerants, does the facility maintain all required records?**

EPA has established recordkeeping requirements for servicing and disposal of air-conditioning and refrigeration equipment that contains regulated ozone-depleting refrigerants. If the facility owns or operates appliances containing ozone-depleting refrigerants, it must maintain the following records:

- Dates and types of service.
- Date of refrigerant purchase.
- Refrigeration technician's certification records ( see 40 CFR Part 82).

**Yes** Facility maintains records as described above. ✓

**No** Facility does not maintain records as described above.

**NA** Facility does not own/operate appliances that contain ozone-depleting refrigerants.

## RCRA Recordkeeping

Various recordkeeping requirements apply to airports as part of their hazardous waste management obligations. The Uniform Hazardous Waste Manifest Form is a multi-copy shipping document that reports the contents of the facility's 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 airport facility to verify that the shipment was received. A copy of the manifest is required to be kept at the facility for 3 years or until a *signed copy* of the manifest is received from the waste disposal/treatment facility. The signed copy of the manifest is required to be kept on file for 3 years. Generators may have other recordkeeping and reporting requirements. Contact your State or EPA Region for more information.

### **7.1f Does the facility keep a copy of its manifest for a minimum of 3 years?**

**Yes** Facility maintains a copy of its manifest for at least 3 years. ✓

**No** Facility has not maintained a copy of its manifest for at least 3 years.

**NA** Facility does not generate hazardous waste.

## Underground Storage Tanks

### **7.1g Does the facility maintain records of leak detection; spill, overfill, and corrosion protection; corrective actions; closure; and financial responsibility?**

If the facility has a federally regulated UST, it must keep records that prove it meets certain requirements. These records must be kept to show the facility's recent compliance status in five major areas: (1) leak detection; (2) corrosion protection; (3) corrective actions; (4) closure; and (5) financial responsibility. The facility must submit appropriate notification information to EPA or the state regulatory agency. Check with the state or local regulatory agency about particular recordkeeping requirements. Generally, one should follow this useful rule of thumb for recordkeeping: When in doubt, keep it.

- Yes** Facility maintains all records listed above on site. ✓
- No** Facility does not maintain all records listed above on site.
- NA** Facility does not have a UST.

## Records of Pesticide Application

### **7.1h Does the facility maintain records of use and storage of pesticides?**

Federal law requires that facilities keep accurate records of use and storage of restricted use pesticides (RUPs). Records of use are necessary to track when the next application should occur to control pest problems. Frequency of application is determined by label directions. Records of stored (RUP) pesticides allow management to do the inventory, so that oldest pesticides can be used first, and excess pesticides are not purchased and stored. In addition, accurate recordkeeping for pesticide storage can be crucial in the event of an accidental spill or fire, so that emergency responders can know exactly the hazards posed.

- Yes** Facility maintains accurate records of use and storage of RUP pesticides. ✓
- No** Facility does not maintain accurate records of use and storage of RUP pesticides.
- NA** Facility does not use pesticides.

## 7.2 Training Requirements

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

- a. *RCRA: Has the facility trained its employees on procedures for handling hazardous waste and emergencies? (p. W-90)*
- b. *CFC: Does the facility employ or hire trained and certified technicians to maintain CFC-containing equipment? (p. W-91)*
- c. *CFC: Are all certificates on file? (p. W-91)*
- d. *When applying restricted use pesticides (RUPs) on property, does the facility ensure that the pesticide applicator is currently certified in the appropriate category? (p. W-91)*

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

### RCRA Emergency Response

#### **7.2a *Has the facility trained its employees on procedures for handling hazardous waste and emergencies?***

Under RCRA, the facility must train its employees on procedures for properly handling hazardous waste, as well as on emergency procedures. *For Large Quantity Generators (LQGs), the training must be formalized and be completed by employees within six months of accepting a job involving the handling of hazardous waste. In addition the facility must provide annual review of the initial training.*

- Yes** Facility has trained its employees as described above. ✓
- No** Facility has not trained its employees as described above.
- NA** Facility is not an LQG.

## Employee Training for Air Conditioning Repair Technicians

### **7.2b Does the facility employ or hire trained and certified technicians to maintain CFC-containing equipment?**

Technicians that perform a service that may release refrigerant must complete training and obtain the certification of EPA. 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.

### **7.2c 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.

## Pesticide Applicator Certification

### **7.2d When applying restricted use pesticides on property, does the facility ensure that the pesticide applicator is currently certified in the appropriate category?**

EPA classifies certain pesticides as *restricted use pesticides* (RUPs) based on toxicity or environmental hazard as opposed to non-restricted use pesticides which do not require certified RUP applicators. The facility will know if the pesticide is classified as a *restricted use pesticide* (RUP) by reading the label. These pesticides may be applied only by a certified applicator or under the direct supervision of a certified applicator. States oversee the program for the certification of applicators of restricted use pesticides. Facilities that are interested in having their personnel become certified applicators should contact their State.

- Yes** The RUP pesticide applicators are currently certified and trained. ✓
- No** The RUP pesticide applicators are not certified and trained.
- NA** The facility does not apply restricted use pesticides on its property.

## 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.

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

**Chlorofluorocarbons (CFC):** 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.

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

**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 registration

**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 standards.

**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, 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.

**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 TSD facilities 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.