

Environmental Overview Handbook

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This Environmental Overview Handbook is intended to be a general guide for assisting EMCOR companies in identifying and complying with basic environmental regulatory requirements. It should not be considered to be a comprehensive environmental management program specific to any particular company. This handbook discusses federal requirements. Where possible, we have included state-specific requirements in this handbook; however, you should be aware that certain municipalities (e.g., New York, Chicago, etc.), counties, and/or states may have additional requirements beyond those outlined in this handbook.

1 Hazardous Waste Handling, Storage and Disposal

1.1 Hazardous Waste

Federal laws such as the Resource Conservation and Recovery Act (the “RCRA”) govern the use, handling, storage and disposal of hazardous wastes. EMCOR companies are required to comply with the RCRA as well as other applicable federal, state and/or local laws governing hazardous wastes. (Please refer to the end of this Section 1.1 on page 4 for a definition of hazardous waste.)

Under the RCRA, requirements for the use, handling, storage and disposal of hazardous wastes vary depending upon the total aggregate amount of all hazardous wastes generated monthly by a company. There are three categories of generators under the RCRA.

CATEGORY	MONTHLY HAZARDOUS WASTE GENERATION	CLASSIFICATION
1	Less than 220 lbs (100 kg)	Conditionally Exempt Small Quantity Generator
2	220 lbs – 2,200 lbs (100-1,000 kg)	Small Quantity Generator
3	Greater than 2,200 lbs (1,000 kg)	Large Quantity Generator

Once you have identified the classification in which your company falls, your company must follow the requirements set forth below with respect to that classification. As you can see, the requirements become more onerous as more hazardous wastes are generated. Therefore, it is good operating policy to limit your company’s use, handling, storage and disposal of hazardous wastes. Note that universal wastes (as defined in Section 1.2 on page 4) do not need to be included within your company’s calculation of hazardous wastes if universal wastes are handled as universal wastes and not as hazardous wastes.

CLASSIFICATION 1: Requirements for Conditionally Exempt Small Quantity Generators (“Conditional Generators”):

- >> Identify all hazardous wastes generated at the facility;
- >> Accumulate no more than 2,200 pounds (1,000 kg) of hazardous waste at a company site at any time; and
- >> Arrange for the disposal of hazardous wastes only at RCRA-permitted facilities. RCRA-permitted facilities include, but are not limited to, federally- or state-permitted hazardous waste facilities and municipal waste facilities that may receive general non-hazardous wastes (e.g., local municipal landfill). Because certain states have enacted stricter regulations that prohibit disposal of hazardous waste at municipal landfills and because disposal at hazardous waste facilities is more environmentally-sound, EMCOR companies should dispose of all hazardous wastes only at hazardous waste facilities.



CLASSIFICATION 2: Requirements for Small Quantity Generators:

- >> Obtain a generator identification number from the United States Environmental Protection Agency (“USEPA”). The form to obtain a generator identification number (RCRA Subtitle C Site Identification Form, EPA Form 8700-12) is available at www.epa.gov/waste/inforesources/data/form8700/forms.htm. Certain states require submission of such form (or alternate state form) to the state, while other states require submission to the USEPA. Check with your state;
- >> Accumulate no more than 13,000 pounds (6,000 kg) of hazardous waste at a company site at any one time;
- >> Accumulate hazardous waste at a company site for no more than 180 days (270 days if the hazardous wastes are to be transported more than 200 miles for disposal);
- >> Require the hazardous waste transport company that handles your company’s hazardous waste to prepare the federal Uniform Hazardous Waste Manifest (or other state-issued hazardous waste manifest) for all hazardous waste shipments, maintaining copies at your company for at least seven years;
- >> Properly package, label, and store hazardous wastes (e.g., in closed containers that do not leak, are in good condition, and are affixed with labels that identify the contents and accumulation start date);
- >> Establish programs such as preparedness and prevention, contingency plans and emergency procedures related to hazardous wastes generated, handled, or stored by your company;
- >> Provide limited employee training related to hazardous wastes generated, handled, or stored by your company;
- >> Arrange for the disposal of hazardous wastes only at RCRA-permitted facilities that are approved to treat such wastes; and
- >> Conduct weekly (documented) inspections of hazardous waste storage areas.

CLASSIFICATION 3: Requirements for Large Quantity Generators:

- >> Obtain a generator identification number from the USEPA. The form to obtain a generator identification number (RCRA Subtitle C Site Identification Form, EPA Form 8700-12) can be obtained at www.epa.gov/waste/inforesources/data/form8700/forms.htm. Certain states require submission of such form (or alternate state form) to the state, while other states require submission to the USEPA. Check with your state;
- >> Accumulate hazardous waste at a company site for no more than 90 days;
- >> Require the hazardous waste transport company that handles your company’s hazardous waste to prepare the federal Uniform Hazardous Waste Manifest (or other state-issued hazardous waste manifest) for all hazardous waste shipments, maintaining copies on site for at least seven years;
- >> Properly package, label, and store hazardous wastes (e.g., in closed containers that do not leak, are in good condition, and are affixed with labels that identify the contents and accumulation start date);
- >> Conduct weekly (documented) inspections of hazardous waste storage areas;

- >> Establish programs such as preparedness and prevention, contingency plans, and emergency procedures related to hazardous wastes generated, handled, or stored by your company;
- >> Conduct personnel training related to hazardous wastes generated, handled, or stored by your company;
- >> Arrange for the disposal of hazardous wastes only at RCRA-permitted facilities that are approved to treat such hazardous wastes; and
- >> Prepare and submit a hazardous waste report each odd-numbered year, describing both waste generated and waste disposed of in each even-numbered year. Forms can be obtained at www.epa.gov/osw/inforesources/data/biennialreport/index.htm and must be submitted to, the appropriate state or regional USEPA office (some states require annual reporting).

In addition to the regulatory requirements set forth above for hazardous wastes, the following Best Management Practices should be followed by your company in connection with the handling of hazardous wastes regardless of what category your company falls in:

- >> Store hazardous wastes in closed containers that are in good condition and are labeled with the words "hazardous waste" and the type of hazardous waste (e.g., aerosol cans, waste solvent).
- >> Store hazardous waste containers inside a building, in a designated area, with spill containment (e.g., a spill pad) or, at a minimum, on a concrete floor away from floor drains.
- >> Conduct weekly inspections of hazardous waste storage areas and containers for leaks and spills and address any spills promptly. A form of checklist is attached hereto as Addendum 1.
- >> Consider alternative products and services to eliminate, reduce, or better manage hazardous wastes.
- >> ALTERNATE STATE REQUIREMENTS: Certain states have more stringent requirements for waste management. Key notable differences and additional requirements are outlined in Addendum 2. Companies in those states should review and comply with these additional requirements.

If you have any questions or require assistance in complying with the requirements set forth above, please contact the EMCOR Safety Group. In addition, as indicated previously, to the extent possible, hazardous wastes generation should be limited so that your company can obtain and retain the lowest generator classification feasible. Please also keep the foregoing requirements in mind if you deal with hazardous wastes at a customer site or in the course of providing services to a customer. However, note that your company should make reasonable efforts to refrain from agreeing to dispose of a customer's hazardous waste. If this is not feasible, please retain a qualified third party vendor (with adequate insurance per the requirements of EMCOR's Risk Department) to dispose of such wastes and be sure such third party vendor follows these guidelines in disposing of the waste for the customer and be sure that your company's name does not appear on the manifest for such disposal.



What is Hazardous Waste?

Hazardous waste is a waste with properties that make it dangerous or potentially harmful to human health or the environment. Hazardous wastes can be liquids, solids, contained gases, or sludges. Pursuant to the RCRA, hazardous wastes include:

- » Ignitable wastes (e.g., a waste that is spontaneously combustible or has a flash point less than 140°F, such as certain waste solvents or certain solvent-based paints);
- » Corrosive wastes (e.g., acids or bases with a pH lower less than or equal to 2 or greater than or equal to 12.5, such as waste nitric acid or battery acid);
- » Reactive wastes (e.g., wastes that are unstable under normal conditions, such as certain explosives);
- » Toxic wastes (e.g., wastes that can leach harmful concentrations of contaminants, such as metals, as determined by the federal Toxicity Characteristic Leaching Procedure); and
- » Various wastes that are extremely hazardous and listed by the USEPA as such (e.g., wastes generated by certain manufacturing or industrial processes, wastes from specific industries, and certain commercial products in their unused form, such as certain still bottoms, certain plating bath solutions, or certain wastes from chemical manufacturing processes).

Hazardous wastes also include, but are not limited to, waste solvents, waste parts washer solvent, waste paints, waste aerosol cans, and electronic wastes.

Certain other potentially hazardous wastes such as fluorescent lamps, mercury wastes, batteries and pesticides, as discussed below, can be handled as hazardous wastes or as universal wastes (which have less stringent requirements).

Please contact EMCOR's Safety Group if you need assistance in determining if a waste is considered a hazardous waste under federal, state or local law.

1.2 Universal Waste

Certain hazardous wastes, such as batteries, pesticides, mercury-containing equipment, and fluorescent lamps (including fluorescent bulbs), are routinely generated by a wide range of businesses and facilities. In order to ease the regulatory obligations for such routinely generated hazardous wastes, the federal government has reclassified certain hazardous wastes to be “universal wastes”. These universal wastes are less strictly regulated than hazardous wastes, yet still must be handled in accordance with certain federal and state regulations.

Your company may handle its universal wastes as either universal wastes or as hazardous wastes (in which case, it would count toward the threshold for determining generator classification as discussed in Section 1.1). Handling wastes as universal waste (if allowed in your state), rather than hazardous waste, is generally preferable, as universal wastes are less stringently regulated.

If universal wastes are handled as universal wastes rather than hazardous wastes, you must comply with the following:

- » Store universal wastes in segregated containers or boxes compatible with the particular type of waste;
- » Label the containers or boxes as containing “universal waste _____,” or “waste _____,” or “used _____” with the type of waste (e.g. battery, lamp, pesticide) filled in;
- » Accumulate universal wastes at a company site for no longer than one year;
- » Document how long wastes have been accumulated at a company site by dating the container with the date the first waste was placed in the container or box or keeping a log book; and
- » Train employees on the proper handling and emergency procedures appropriate for the type of universal waste at your company.

If, in the course of providing services to a customer, you are disposing of or handling a customer’s universal wastes (e.g. changing fluorescent bulbs), you must comply with applicable federal and state regulations.

Although certain federal and state regulations allow certain Category 1-Conditional Generators (those generating less than 220 pounds of hazardous waste per month ²) to dispose of universal wastes along with general plant trash, this disposal method is not preferred, environmentally friendly, or advocated by EMCOR. Preferred methods of universal waste disposal include:

- 1) Swapping out batteries with a servicing company (e.g. to change a fork lift battery);
- 2) Using a service provider that will provide appropriate collection and shipping containers for fluorescent lamps;
- 3) Disposing of universal wastes via a local hazardous waste or universal waste disposal company; and/or
- 4) Taking universal wastes to municipal or county recycling centers.

Many state environmental protection websites maintain lists of recyclers who accept universal wastes. Please contact the EMCOR Safety Group for assistance in identifying appropriate disposal companies. If your company is required to dispose of a customer’s universal waste (or hazardous waste) in the course of providing services (e.g. changing fluorescent lamps), the customer should arrange for disposal of that waste. If this is not feasible and your company arranges for disposal, please follow the regulations set forth above and be sure that the customer’s name (and not the name of EMCOR or your company) is on the manifest.

² If universal wastes (e.g., fluorescent lamps) are being disposed with general plant trash, the universal wastes must be counted towards the hazardous wastes aggregate total used to determine generator status (i.e., Conditional Generator, Small Quantity Generator or Large Quantity Generator). If the total including the universal wastes causes the facility to move up to a Small Quantity Generator (or Large Quantity Generator), then disposal of any of the universal or hazardous wastes with the general plant trash would be prohibited under federal regulations. Additionally, it is always preferable to handle universal wastes at universal waste facilities (as described above) and to avoid disposal of any universal waste with general plant trash.



What is Universal Waste?

Under federal regulations, universal wastes include batteries, pesticides, mercury-containing equipment, and lamps (fluorescent bulbs). In addition, some states have enacted regulations to classify other typically hazardous wastes as universal wastes, as outlined in Table 1:

Table 1: Summary of Universal Wastes

These Materials Should Be Treated As “Universal Waste” In All States	
>> Batteries	
>> Pesticides	
>> Mercury-containing Equipment	
>> Fluorescent Bulbs / Lamps	
These Materials Should Be Treated As “Hazardous Waste”	But May Be Treated As “Universal Waste” In These States
>> Aerosol Cans (if containing hazardous chemicals)	California, Colorado
>> Antifreeze	Louisiana, New Hampshire
>> Ballasts	Maine, Maryland, Vermont
>> Barometers	New Hampshire, Rhode Island
>> Cathode Ray Tubes (CRTs)	Maine, New Hampshire, Rhode Island
>> Electronics	Arkansas, California, Colorado, Connecticut, Louisiana, Michigan, Nebraska, New Jersey
>> Oil-Based Finishes	New Jersey
>> Paint and Paint-Related Wastes	Texas
>> Hazardous Waste Pharmaceuticals	Michigan

If you generate a waste that is listed in the table above, but it is not a universal waste in your state, it should be handled as a hazardous waste. For example, antifreeze may be treated as universal waste in Louisiana and New Hampshire (see Table 1), but must be treated as hazardous waste in all other states.

Please contact the EMCOR Safety Group for additional assistance in classifying these wastes and in complying with the requirements set forth above regarding universal waste.

The District of Columbia has more stringent requirements for universal (and hazardous waste) management, as outlined in Addenda 2 & 3.

1.3 Electronic Waste (E-waste)

EMCOR has an approved E-waste disposal provider for the disposal of E-waste. No other vendor may be used for disposing of E-waste. For information on disposing of E-waste, please go to emcor.net; click on Purchasing Programs; click on E-waste disposal. E-waste should not be disposed with the general trash because E-waste may contain materials that render it hazardous. In addition, E-waste must be disposed of properly to avoid the inadvertent disclosure of confidential information of EMCOR or an EMCOR client or employee.

What is “E-Waste”?

The term “E-waste” is loosely applied to consumer and business electronic equipment such as computers, monitors, keyboards, telephones, copy machines, fax machines, televisions, cellular phones, personal digital assistants (“PDAs”), notebooks, handhelds and other items that can contain circuit boards.

Special Requirements for CRTs.

The USEPA has established additional requirements specifically for the accumulation and handling of E-waste that contains cathode ray tubes (“CRTs”), such as monitors, televisions and laptops. Specifically:

- » At least annually, EMCOR companies must send CRTs that are to be disposed off-site for recycling through EMCOR’s approved E-waste vendor.
- » If the CRTs are broken, they must be stored in a building with a roof, floor, and walls or placed in a container that is constructed, filled, and closed to minimize releases to the environment of CRT glass, including any fine particulates.
- » Containers in which broken CRT glass is stored must contain the following label: “Used cathode ray tubes – contains leaded glass,” or “leaded glass from televisions or computers.” The label must also read, “Do not mix with other glass materials.”

For information on disposing of CRTs (including laptops), please go to emcor.net; click on Purchasing Programs; click on E-waste disposal.

1.4 Used Oil and Used Oil Filters

Federal regulations contain requirements governing the management of used oils. Specifically:

- » Used oil must be stored in containers or tanks compatible with oil;
- » Used oil containers must be labeled with the words “used oil” (except in Pennsylvania, which uses the term “waste oil”, rather than “used oil”);
- » Companies that self-transport used oil in shipments of less than 55 gallons do not need a federal identification number (i.e., a hazardous waste generator number), but state or local permits may be required; companies that self-transport oil in 55-gallon drums or larger drums are required to obtain a federal identification number;



- >> Do not mix used oil with hazardous waste, as doing so would render the used oil mixture to be a hazardous waste that would be subject to the more onerous hazardous waste regulations and, in turn, may affect your company's generator classification (as discussed in Section 1.1); and
- >> EMCOR requires that used oils be stored in closed containers that are in good condition.

Used oil and used oil filters should not be disposed with general trash. Rather, used oils and oil filters should be collected for offsite recycling by a qualified recycler. Proper recycling of used oil filters consists of hot draining the used oil, crushing or dismantling the filters, recycling the removed oil and recycling the steel and other filter components.

Certain states (MA, CA) have more stringent requirements for used oil, as outlined in Addendum 2.

Please see Section 3 for information on oil spills.

1.5 Aerosol Canisters

Aerosol cans (e.g. containing paint or adhesives) are considered hazardous wastes if the contents of the cans are hazardous wastes. However, in California and Colorado all aerosol cans that contain or contained a hazardous substance are considered universal waste. Aerosol cans containing or formerly containing hazardous wastes should therefore be handled as hazardous waste in all states except California and Colorado, where they should be handled as universal waste. There is no definitive guidance from the federal government on the disposal requirements for aerosol canisters. However, it is EMCOR's preference to dispose of aerosol cans containing hazardous substances through an approved hazardous waste disposal vendor except in California and Colorado where they may be disposed of through an approved universal waste disposal vendor.

1.6 Parts Washer Solvent

Parts washer solvent can be either hazardous waste or non-hazardous waste, depending on the type of solvent used. Whenever possible, your company should purchase and use non-hazardous solvents that do not require special handling or disposal as a hazardous waste. If you do not know whether a parts washer solvent is hazardous, it is EMCOR's policy to assume it is hazardous. If hazardous, the solvent must be disposed of as hazardous waste. Your company should contract with a qualified vendor to service the parts washer unit, provide new solvent and properly dispose of the old solvent.

2 Storage Tanks and Chemical Storage

2.1 Aboveground Storage Tanks (“ASTs”)

ASTs (including small ASTs with capacities less than 250 gallons) can be subject to state registration or permitting requirements, depending on the state. Certain ASTs may also be subject to other requirements such as integrity testing, containment, and inspections. If your company has ASTs at a company site, these regulations should be reviewed. EMCOR’s Safety Group can provide assistance in complying with state regulations. In general:

- >> ASTs should be inspected monthly for leaks and other integrity issues;
- >> ASTs should be located inside the building or within a containment structure and over a paved surface; and
- >> ASTs should be properly labeled with their contents.

2.2 Underground Storage Tanks (“USTs”)

Federal regulations require that most chemical storage USTs be registered and comply with various containment, leak detection, cathodic protection, and/or integrity testing requirements. Such regulations apply to USTs that store gasoline, diesel fuel, and liquid chemicals. Certain states or municipalities have expanded these regulations to include heating oils. The EMCOR Safety Group can assist you in complying with state regulations, if your company has USTs at a company site.

2.3 Chemical Storage

In order to minimize the potential for leaks, spills, and adverse impact to the environment, EMCOR requires that the following Best Management Practices be met for chemical storage:

- >> Store all chemicals in closed containers that are in good condition and designed for such purpose;
- >> Properly label all containers with their contents;
- >> Store all chemicals inside a building. To the extent practicable, drums and other portable containers should be stored on spill pallets or, at a minimum, in designated areas where spillage will not run into drains; and
- >> Inspect chemical storage areas for evidence of leaks or spills on a monthly basis.



3 Spill Prevention, Control and Countermeasure Plans

Federal regulations require that a Spill Prevention, Control and Countermeasure (“SPCC”) Plan be prepared if a facility has the capacity to store petroleum products or oil (including animal- or vegetable-based oils) in above ground containers with a combined volume exceeding 1,320 gallons (i.e. the equivalent of twenty-four 55-gallon drums), or in underground containers with a combined volume exceeding 42,000 gallons. Only containers that have capacities of at least 55 gallons should be counted when calculating oil storage capacity (e.g., 5-gallon containers need not be included in your calculations). Oil-filled transformers and oils within reservoirs in process equipment would also count toward this threshold of 1,320 gallons, provided that such transformers or reservoirs have capacities of 55 gallons or more. Storage tanks on vehicles (e.g., fork trucks or yard hogs) would not be included in such calculation.

Contact the EMCOR Safety Group if your company is subject to SPCC requirements (if your company’s total oil storage in containers that are 55 gallons or larger exceeds 1,320 gallons). If your company is subject to SPCC requirements, a SPCC Plan will need to be developed and implemented (and possibly certified by a professional engineer), periodic inspections of oil storage areas will need to be conducted, and various other requirements will apply.

4 Water and Wastewater

4.1 Water

States require water withdrawal permits for water withdrawn from on-site wells or directly from surface water bodies (e.g. rivers or streams). Additionally, if water withdrawn from a well is used for drinking water purposes, and such well serves more than 25 people, the well must be registered as a drinking water system and periodic water testing will be required to comply with the Safe Drinking Water Act. Water sampling frequency and requirements vary depending on the state and system design. Please contact the EMCOR Safety Group for additional assistance if you are subject to the Safe Drinking Water Act requirements and have questions regarding your obligations.

4.2 Process Wastewater

Process wastewaters can contain contaminants from manufacturing operations and therefore should not be discharged to the ground surface or to a nearby surface water body such as a stream or river. Process wastewaters can include washwaters, cooling tower blowdown, and air compressor condensate. To the extent possible, these wastewaters should be discharged to your local municipal sanitary sewer system. Depending on the types of process wastewater generated, your municipality may require that a permit be obtained for process wastewater discharges to a municipal sanitary sewer system.

Air compressor condensate can contain small amounts of oils and therefore never should be discharged to the ground surface. Depending on the amount generated, air compressor condensate can be 1) passed through an oil/water separator, with the water discharged to your municipal sewer system and the oil recycled offsite; 2) collected in a small container and disposed with used oil; or 3) allowed to discharge to an interior paved ground surface (e.g., floor of the building with no potential to leave the building) and evaporate.

4.3 Septic Systems

Only sanitary wastewaters (e.g., water from bathrooms and kitchen areas) should be allowed to discharge to septic systems. No chemical wastes should be allowed to be discharged to a septic system. Slop sinks in janitorial areas or maintenance areas pose a particular concern for the potential release of contaminants if located at a site with a septic system. If a septic system is used at your company's site, please contact the EMCOR Safety Group for assistance in evaluating potential contamination risks.

4.4 Storm Water

Federal regulations require that facilities with certain Standard Industrial Classification ("SIC") codes obtain storm water discharge permits if industrial activities at the site are exposed to storm water. Of the typical SIC codes used by EMCOR companies (1623, 1629, 1711, 1731, 3443, 8711), only SIC code 3443 is subject to storm water permitting. Facilities with SIC code 3443 are required to obtain a storm water permit if industrial activities are exposed to storm water. If industrial activities are not exposed to storm water, such companies with SIC code 3443 must submit a No Exposure Certification to the USEPA or state (as appropriate) to obtain exclusion from storm water permitting. Contact EMCOR's Safety Group for assistance if your EMCOR company has an SIC code of 3443 or if your company has an SIC code not listed above.

If a permit is issued for storm water discharges, additional requirements could apply, such as requirements to conduct sampling, conduct periodic inspections, and prepare and implement a Storm Water Pollution Prevention Plan. Please contact EMCOR's Safety Group if you have any questions about such requirements.

5 Hazardous Materials Inventory Reporting

5.1 Tier Two Reporting

Federal law requires submission of Material Safety Data Sheets ("MSDSs"), or a list of chemicals requiring an MSDS, and Tier Two chemical inventory forms¹ to emergency response agencies for all hazardous materials present at each company site in quantities of 10,000 pounds or greater, and for all "extremely hazardous substances" ("EHS") in quantities greater than or equal to 500 pounds or the limit specified by the USEPA, whichever is less. (Note: it is not likely that any EMCOR company uses EHS, other than sulphuric acid present in fork lift batteries.) For purposes of annual Tier Two reporting, a hazardous material is defined as any material for which the Occupational Safety and Health Administration ("OSHA") requires a MSDS. In most states, Tier Two reports are due annually on July 1st.

Chemicals stored at EMCOR facilities in amounts that may trigger the reporting threshold of 10,000 pounds include, but are not limited to, diesel fuel, gasoline, argon, nitrogen, oxygen, propane, and lead (i.e. present in forklift batteries). Additionally, sulfuric acid, which is present in lead-acid batteries, is an EHS and has a federal reporting threshold of 500 pounds. Therefore depending on the weight of the forklift batteries or other industrial vehicle batteries, it is possible that reporting for sulfuric acid could be required if as few as three industrial batteries are present at your company's site.

If chemicals storage amounts suggest that Tier Two reporting may be required, please contact EMCOR's Safety Group for assistance in conducting a comprehensive evaluation.

Certain states/municipalities have reporting requirements that are more stringent than Federal requirements. Notable differences are summarized in Addendum 2.

¹ In many cases, a Tier One report can be submitted in place of a Tier Two report; however, Tier Two reports are more commonly used.



5.2 Toxic Release Inventory (“TRI”)

Federal law provides that facilities that manufacture or process listed toxic chemicals (“TRI chemicals”) in excess of 25,000 pounds per year, or “otherwise use” TRI chemicals² in excess of 10,000 pounds per year are required to submit a TRI report (also referred to as a Form A or Form R report) for each subject chemical. There are lower reporting requirements for persistent, bioaccumulative, and toxic chemicals (“PBTs”). PBTs include compounds such as lead, mercury, dioxins, polycyclic aromatic carbons (“PACs”), as well as other toxic chemical compounds. Facilities that manufacture, process, or otherwise use quantities of PBTs above annual thresholds (which range from 0.1 grams of dioxins to 100 pounds of lead, PACs, and other compounds) are also subject to TRI reporting requirements. TRI reports are due annually on July 1st.

The only EMCOR SIC code subject to the above-referenced TRI reporting is SIC Code 3443. Those companies with SIC code 3443 who employ more than 10 full time employee equivalents (i.e. a total of 20,000 hours or greater) and who manufacture or process more than 25,000 pounds per year, or use in excess of 10,000 pounds per year, of listed TRI chemicals must submit a TRI report annually to the state in which the facility is located. Note that the reporting threshold is lower for PBTs. EMCOR’s Safety Group can provide assistance in determining if TRI reports are required and, if so, complying with and completing TRI reports.

6 Air

6.1 General Permits

Certain equipment at your company’s site may be subject to state-level air permitting or registration, depending on the type and amounts of pollutants emitted. Combustion units, such as boilers or emergency generators, may require permitting depending on the fuel burned and the rating of the units. Other sources of air emissions that may require a permit include paint booths, process vents and fume hoods. EMCOR’s Safety Group can provide assistance in determining whether any air permits are required and in complying with other potential requirements, such as recordkeeping and reporting.

² “TRI Chemicals” and the reporting thresholds are specified by the USEPA. A list is available at www.epa.gov/tri/trichemicals/index.htm.

6.2 Ozone Depleting Substances (“ODSs”)

ODSs, such as R-22 and other Freons, are regulated under the Clean Air Act (“CAA”). Regulations under the CAA require that companies use certified technicians for servicing and repairs of equipment containing Freon or other ODSs, maintain records adequate to determine whether or not such equipment has leaked 35 percent or more of its charge over a 12-month period, repair such leaks within 30 days after discovery, and conduct verification testing to confirm that such leaks have been repaired. Similar requirements apply to comfort cooling systems (e.g., air conditioners and air conditioning systems), except that the leak threshold requiring repair is 15 percent rather than 35 percent.

Refrigeration equipment containing less than 50 pounds of an ODS must be serviced by a certified technician, but is not subject to other requirements listed above.

As a Best Management Practice, your company should:

- >> Develop a list of all cooling equipment and the type and amount of refrigerant in each unit;
- >> Have all cooling equipment (e.g., air conditioners, freezers, refrigerators) serviced by certified refrigeration contractors; and
- >> Maintain records of all maintenance events.

If your company has any equipment with more than 50 pounds of an ODS at a company site, contact EMCOR’s Safety Group for assistance in complying with additional requirements.



ADDENDUM 1

Hazardous Waste/Universal Waste Storage Weekly Inspection Checklist

Name:	Date:	Time:
Location of Inspection:	Total Number of Containers:	

Hazardous Waste Storage	Yes	No	N/A
1. Is the area free of debris and other materials?			
2. Is the ground clean and dry?			
3. Are container tops free of spillage?			
4. Is the area free of spills or leaks?			
5. Are all of the containers in good condition? (Free of dents and corrosion, not bulging, or otherwise deteriorating?)			
6. Are all containers properly closed?			
7. Are containers labeled with hazardous waste labels?			
8. Is the following information on the labels filled out?			
Generator name and address			
Accumulation start date			
Contents			
Physical state			
Hazardous properties			
9. Is the information on the labels legible?			
10. Are the containers compatible with their contents?			
11. Are incompatible wastes stored separately?			
12. Have hazardous wastes been stored on-site for less than 90 days (large quantity generators) or 180 days (small quantity generators). Note: There is no federal accumulation time limit for CESQG, however must be disposed at least annually.			

Universal Waste Storage

Are universal waste containers dated and labeled with the contents (“universal waste – [type of waste]”, “waste [type of waste]”; or “used [type of waste]”)?			
Have all universal wastes (e.g., lamps, batteries) been stored on-site for less than one year?			
Describe any observations for items checked ‘NO’:			
Corrective actions required (please use separate sheet if required and attach):			

ADDENDUM 2

Major State/Municipal Differences

Many states have promulgated regulations that may be more stringent or have additional requirements beyond the federal requirements outlined above. Notable differences are provided below. EMCOR companies located in these states should review state requirements and, if necessary, coordinate with the EMCOR Safety Group to ensure compliance.

California (waste): Many chemical wastes that are considered non-hazardous under federal regulations are considered to be hazardous wastes pursuant to California regulations. Most notably, used oil and used antifreeze are considered to be hazardous wastes in California, and must be counted towards the total amount of hazardous waste generated monthly, to determine generator status. These state-regulated hazardous wastes must also be managed in accordance with federal hazardous waste requirements (e.g., containers labeled and dated, stored in designated areas). Other more stringent management and recordkeeping requirements may also apply, such as time limits on satellite accumulation of hazardous wastes. EMCOR facilities that are located in California should review the California waste regulations and comply with applicable requirements.

California (EPCRA): In California, facilities comply with EPCRA Tier Two requirement via preparation and submission of Hazardous Material Business Plans (HMBPs) to the local Certified Unified Program Authority (CUPA). Facilities are required to prepare a HMBP if hazardous materials or wastes are present at the site in amounts at or above 55 gallons (liquid), 500 pounds (solid), or 200 cubic feet (compressed gas).

Kansas (waste): Kansas has different waste generator classifications (e.g., CESQG, SQG, LQG) than are established by the federal RCRA regulations. In general, a Kansas Small Quantity Generator (K-SQG) generates less than 25 kilograms (55 pounds) of hazardous waste per month, a Kansas Generator (K-G) generates between 25 and 1,000 kilograms (55 and 2,200 pounds) of hazardous waste per month, and a Kansas EPA Generator (K-EPA-G) generates more than 1,000 kilograms (2,200 pounds) or more of hazardous waste per month. A K-EPA-G is similar to a federal LQG. All hazardous waste generators in Kansas are subject to more stringent requirements than are established by federal regulations. In particular, even K-SQGs are required to comply with requirements regarding labeling and dating of hazardous waste containers, to store hazardous wastes in closed containers, and to conduct and document weekly inspections of hazardous waste storage areas. Additional requirements apply to K-G and K-EPA-G generators.

Louisiana (EPCRA): The State of Louisiana has enacted Tier Two reporting requirements that are more stringent than federal requirements. In particular, the reporting threshold is 500 pounds for all hazardous chemicals (rather than the federal reporting threshold of 10,000 pounds).

Massachusetts (waste): Used oils are referred to as “waste oil” in Massachusetts. Generators of waste oil are required to register with the Massachusetts Department of Environmental Protection (“MADEP”) and manage the waste oil in compliance with many of the storage and recordkeeping requirements that apply to federal hazardous wastes. There may also be certain waste oil accumulation time limits and volume limits that apply, based on generator status. Massachusetts Small Quantity Generators and Large Quantity Generators (“M-SQG”, “M-LQG”) are similar to the federal SQG and LQG classifications. However, Massachusetts does not use the federal CESQG designation, but rather identifies a Massachusetts Very Small Quantity Generator (“M-VSQG”) as a facility that generates less than 100 kilograms (220 pounds) of hazardous waste or waste oil per month; this classification is similar to a federal CESQG classification. Facilities must determine their generator status for both waste oil generation and hazardous waste generation, such that a Massachusetts facility will have a generator status for both waste oil and hazardous waste (e.g., a facility may be a M-SQG of waste oil and a M-VSQG of hazardous waste). The Massachusetts requirements for M-VSQGs (of waste oil or hazardous waste) are more strict



than those for a federal CESQG of hazardous waste and include requirements to secure waste storage areas, label containers, maintain generation and disposal records, and provide secondary containment or other appropriate spill prevention measures.

New Hampshire (waste): New Hampshire regulations establish only two hazardous waste generator classifications: (1) New Hampshire Small Quantity Generators, which generate less than 100 kilograms/month of hazardous waste (a conditionally exempt small quantity generator under federal regulations); and (2) New Hampshire Full Quantity Generators, which generate 100 kilograms or more of hazardous waste per month (a small or large quantity generator under federal regulations). New Hampshire Small Quantity Generators are required to notify the New Hampshire Department of Environmental Services (NHDES) of hazardous waste generation, obtain a USEPA generator number, store hazardous wastes in compliance with certain requirements, comply with storage and accumulation limits, and submit a self-certification to the NHDES every three years. Thus, if any hazardous waste is generated at an EMCOR company facility in New Hampshire, that facility must, at a minimum, comply with these requirements. New Hampshire also has additional requirements for New Hampshire Full Quantity Generators (federal small and large quantity generators).

New Jersey (EPCRA): New Jersey has enacted Tier Two reporting requirements that are more stringent than federal requirements. New Jersey has identified more than 800 chemicals (New Jersey Environmental Hazardous Substances [NJ-EHS]) that have reporting thresholds of 500 pounds, rather than the federal threshold of 10,000 pounds. EMCOR companies with facilities in New Jersey should review the NJ-EHS list to determine whether any of these lower reporting thresholds apply. The reporting threshold for petroleum products remains 10,000 pounds, in line with the federal reporting threshold.

New York City (EPCRA): New York City has enacted Tier Two reporting requirements that are more stringent than federal requirements. In particular, the reporting thresholds for many hazardous chemicals and extremely hazardous substances are much lower than federal thresholds, in some cases as low as a few pounds. EMCOR companies with facilities within the New York City limits should review the list of reportable chemicals and reporting thresholds.

Oregon (EPCRA): The State of Oregon has enacted Tier Two reporting requirements that are more stringent than federal requirements. In particular, the reporting thresholds are 500 gallons (for a liquid), 500 pounds (for a solid), and 500 cubic feet (for a gas). Additionally, while the federal reporting deadline is March 1st, the deadline for submission of an Oregon Hazardous Substance Inventory Survey (submitted in lieu of the Tier Two report) is variable and dependent on the county in which the facility is located.

Pennsylvania (waste): Non-hazardous wastes that are generated at non-residential facilities are considered residual wastes, with the exception of certain recyclable wastes (e.g., scrap metal) and municipal-like wastes generated at administrative areas (e.g., paper, lunchroom wastes). Facilities that generate an average of 2,200 pounds of residual waste per month are subject to additional reporting and chemical analysis requirements. Additionally, used oils are referred to as “waste oil” in Pennsylvania.

Texas (waste): Texas has additional requirements for nonhazardous industrial wastes, which are defined as non-hazardous wastes that are generated by the operations of industry, manufacturing, mining, or agriculture. These non-hazardous industrial wastes are further classified according to a state-specific scheme as Class 1, Class 2, or Class 3. Class 1 non-hazardous wastes are wastes that are potentially threatening to human health and the environment if not properly managed, and are typically defined by certain analytical testing procedures. Class 3 wastes are wastes that are insoluble, inert, non-reactive, and will not decompose, such as brick demolition debris. Non-hazardous wastes that do not fall into either of these categories are Class 2 wastes. Many chemical nonhazardous wastes, such as used oil, nonhazardous paint wastes, and nonhazardous spent solvent, are considered

Class 1 wastes. Industrial wastes generated in Texas must be registered with the state, depending on the quantities generated and how they are managed (e.g., Class 1 non-hazardous wastes such as used oil that are recycled are not counted for determining registration requirements). Other requirements, such as annual reporting of hazardous and Class 1 non-hazardous waste generation and disposal activities, may also apply. EMCOR facilities that are located in Texas and generate non-hazardous industrial waste must comply with these state requirements.

Washington, District of Columbia (waste): As outlined in Addendum 3, the District of Columbia Department of the Environment (DCDOE) has more stringent requirements for generators of universal and hazardous wastes. In particular, all generators are required to obtain a USEPA generator number if any hazardous or universal wastes are generated. Additionally, generators must pay initiation and annual generator fees and submit annual compliance certification reports by March 1st if hazardous wastes are generated (excludes large quantity generators / Category 3 generators). Any waste-related documents submitted to the USEPA must also be submitted to the DCDOE. Refer to Addendum 3 for additional information and guidance.

Washington, District of Columbia (oil management): As outlined in Addendum 3, the District of Columbia has enacted oil management regulations that are more stringent than federal requirements. In particular, used oil containers must be closed and have physical secondary containment. These are best management practices in most areas, but a regulatory requirement in the District of Columbia. Used oil may not be burned.

ADDENDUM 3

Regulations of the District of Columbia

The regulations of the District of Columbia Department of the Environment (the “DCDOE”) for hazardous and universal wastes are provided below:

1) Obtain a generator identification number (Applies to All Generators)

The DCDOE requires all generators of hazardous wastes and universal wastes to obtain a United States Environmental Protection Agency (“USEPA”) generator identification number. EMCOR companies with facilities or operations in DC will be subject to this requirement if it meets the conditions set forth in clause (a) or (b) below in the section entitled Calculating the Amount of Waste Generated. If the conditions set forth in clause (a) or (b) are met by an EMCOR company, then such EMCOR company must obtain a hazardous waste generator number from the USEPA. The amount of hazardous wastes or universal wastes is not relevant — any amount of hazardous or universal wastes meeting the conditions set forth in clause (a) or (b) would require an EMCOR company to obtain a USEPA generator identification number.

A USEPA generator identification number (RCRA Subtitle C Site Identification Form, Form EPA Form 8700-12) may be obtained by completing the form located at www.epa.gov/waste/inforesources/data/form8700/forms.htm. The completed form should be submitted to the following address:

District of Columbia Department of Health
Environmental Health Administration
Bureau of Hazardous Materials and Toxic Substances
Hazardous Waste Division, 3rd floor
51 N Street, NE (Room 3005)
Washington, D.C. 20002



Calculating the Amount of Waste Generated

Each EMCOR company with facilities or operations in DC should include in its calculation of hazardous wastes and universal wastes (a) any waste that is directly generated in DC by the EMCOR company and (b) any customer waste generated in DC:

- that the EMCOR company takes possession of;
- that the EMCOR company disposes of on behalf of its customer; and
- that has a disposal manifest that contains the name of the EMCOR company, and not the customer.

NOTE: EMCOR policy requires any manifest for disposal of customer generated waste to be in the name of the EMCOR customer; however, we understand that for certain maintenance contracts this may not be possible.

EMCOR companies with facilities or operations in DC will continue to be obligated to comply with federal regulations regarding hazardous and universal wastes as outlined in the EMCOR Environmental Overview Handbook (the “Handbook”).

2) Pay an initial and annual fee (Applies to All Generators)

The DCDOE also requires that each company required to obtain a generator identification number, pay an initiation fee, and thereafter an annual fee. Checks for the initial fee should be payable to the “District of Columbia Treasurer” and mailed to the address above, along with the RCRA Subtitle C Site Identification Form. The DCDOE will send annual fee payment forms in subsequent years. The fees are based on the waste category applicable to the company, as follows³:

- \$200 – Hazardous Waste Category 1 and Small Quantity Handlers of Universal Waste (accumulate on-site no more than 11,000 pounds of all universal wastes at any one time)
- \$500 – Hazardous Waste Category 2
- \$1,000 – Hazardous Waste Category 3 and Large Quantity Handlers of Universal Waste (accumulate on-site 11,000 pounds or more of all universal waste at any one time)

A company must pay the highest fee applicable to it (e.g., if a company is a Category 2 generator of hazardous waste and a Small Quantity Handler of Universal Waste, such company must pay a \$500 annual fee).

3) Submit an Annual Compliance Certification by March 1st (Applies to Hazardous Waste Category 1 and 2 Generators ONLY as set out in the Handbook)

Every year, hazardous waste generators in Categories 1 and 2 must submit an Annual Compliance Certification to the DCDOE. Each year, the Annual Compliance Certification form will be sent by the DCDOE to EMCOR companies in the DC area that have registered with the DCDOE. The completed form must be returned to the DCDOE on or before March 1st of each year. Forms may also be obtained by calling the DCDOE at 202-535-2600.

NOTE: If an EMCOR company generates only universal wastes (i.e. no hazardous wastes) and handles only universal wastes (i.e. no hazardous wastes) for its customers, such EMCOR company is not required to complete the Annual Compliance Certification of the DCDOE. However this exemption applies ONLY if all such universal wastes are sent to an approved universal waste facility for disposal (e.g., no fluorescent bulbs are disposed with general trash).

³ See the Handbook for the hazardous waste generator categories under the RCRA.

OTHER REQUIREMENTS SPECIFIC TO THE DISTRICT OF COLUMBIA

The DCDOE also has other environmental regulations that are applicable to facilities and operations in DC. Requirements with a reasonable potential to be applicable to EMCOR companies are provided below:

- Used oil containers (e.g., drum, 5-gallon pail) and aboveground storage tanks containing used oil must have physical secondary containment (e.g., spill pallet, dike, berm, double-wall);
- Used oil containers must be kept closed except when necessary to add or remove waste;
- Used oil may not be burned (e.g., in a heater); and
- Any waste-related documents submitted to the USEPA must also be submitted to the DCDOE.

Please contact the EMCOR Safety Group for assistance in completing the RCRA Subtitle C Site Identification Form (to obtain a generator identification number) and the Annual Compliance Certification (if a Category 1 or 2 hazardous waste generator). Instructions for completing the RCRA Subtitle C Site Identification Form can also be found at <http://www.epa.gov/waste/inforesources/data/form8700/8700-12.pdf>. Instructions for completing the Annual Compliance Certification will be provided each year by the DCDOE, along with the form.



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