



PDHonline Course C124 (3 PDH)

**An Introduction to Environmental
Regulations for Manufacturers and
Industry**

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An Introduction to Environmental Regulations For Manufacturers and Industry

Course Content

Understanding environmental regulations that can apply to a facility is often a full-time job. There are numerous terms and acronyms used in these programs; therefore a list is included at the end of this course material. The approach to introduce environmental regulations in this course is to begin with the required knowledge about the facility. The course then presents regulations that apply for the handling of materials at a facility, followed by regulations that affect air, water, and solid wastes.

This course does not include details on the regulations; rather these discussions focus on the underlying regulatory concepts and the terms used with the various programs.

This course focuses on Federal environmental regulations. Many states have primary jurisdiction and enforcement responsibility for many of these environmental regulations. The state regulations must be at least equivalent to the Federal regulations (and in many cases they are essentially equivalent to the Federal regulations). State rules on the environment are typically included in the state Code of Laws under a title such as Environmental Protection. However, there often are environmental requirements inserted into other laws, such as public safety.

1.0 What You Need to Know About the Facility

The environmental regulations that apply to a manufacturing facility or an industrial plant will depend on the activities at the facility. In particular, knowledge of the facility should include:

- What are normal operations?
- What are non-standard conditions and operations during those conditions?
- What have been the changes at the facility (equipment, processes, and structures)?
- What are planned changes to the facility (equipment, processes, and structures)?

Included below are useful questions to ask in evaluating what regulations may apply to a specific facility.

- General Requirements Affecting Chemical and Materials Management
 - What do you handle at your facility (raw materials, intermediate products, byproducts, co-products, and final materials)?
 - How do you handle these materials (especially chemicals)?
 - What are your written plans for materials handling and management?
 - What are your written plans to handle mistakes from materials handling and management (e.g., spills)?

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- How do you keep records?
- How do you report routine and non-routine events?
- Regulations that affect these general requirements include:
 - EPCRA (reporting, plans, records)
 - CERCLA (reporting)
 - TSCA (management, reporting)
 - CWA (planning, reporting)
 - CAA (planning, reporting)

- Requirements Affecting Air Emissions
 - What are your manufacturing operations and processes?
 - What are your fuel burning activities?
 - Are you located in an “Attainment” area?
 - What do you expect to emit?
 - What are control technologies used by others for similar operations and processes?
 - Regulation that affects this environmental media includes:
 - CAA

- Requirements Affecting Water Use
 - How do you furnish potable (drinking) water at the facility?
 - What water using operations and processes do you have at your facility?
 - What is the fate of water used at the facility?
 - What activities at the facility are exposed to precipitation and stormwater?
 - Regulations of major note
 - CWA
 - SDWA

- Requirements Affecting Solid and Hazardous Waste
 - What potential solid waste streams are generated at the facility? (This includes everything except air emissions and wastewater discharges, and specifically includes sludge and solids from control devices on these streams.)
 - What are the operations and sources that generate these wastes?
 - What are the chemicals used in the operations and sources that generate these wastes?
 - What are the characteristics of solid waste streams?
 - How are these solid waste streams handled at the facility?
 - Are any of these solid waste streams not transported off-site for disposal?
 - Regulations of major note
 - RCRA
 - HSWA
 - CERCLA

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2.0 Requirements Affecting Chemical and Materials Management

Chemical and material management at a facility is regulated under environmental rules. Designations for chemicals or materials that trigger some of these regulations include the following (and are described further in later discussions):

- Hazardous Substances (HS)
- Extremely Hazardous Substance (EHS)
- Toxic or Flammable Gas
- Oil

Activities that are regulated and the associated regulations include (and are discussed further following this list):

- **Use** of Banned Chemicals and Other Regulated Materials (TSCA)
- **Reporting** on Hazardous Substance and Extremely Hazardous Substance Storage (EPCRA)
- Emergency Response **Planning** (EPCRA)
- **Reporting** on Hazardous Substance Releases (EPCRA, CERCLA)
- Risk Management Program **Reporting** for Toxic and Flammable Gases (CAA)
- Spill Prevention, Control, and Countermeasures (SPCC) **Plans** for Oil (CWA)

These regulatory program requirements (noted in **bold**) can apply even if there is no routine air, water, or solid waste discharge from a facility. The following information describes these regulations and discusses how they could apply.

TSCA – Toxic Substances Control Act

This includes regulations issued by EPA to evaluate, assess, mitigate, and control risks which may be posed by the manufacture, processing and use of chemicals. Currently this inventory includes over 60,000 chemical substances. EPA requires information from the manufacturer on health and environmental effects of all chemicals (but “grandfathers in” chemicals that were in commercial use when the act was passed in 1975). EPA can ban manufacture or distribution in commerce, limit the use, require labeling, or place other restrictions on chemicals that pose unreasonable risks. Some of the chemicals and materials regulated under this act include asbestos, chlorofluorocarbons (CFCs), and polychlorinated biphenyls (PCBs).

EPCRA – Emergency Planning and Community Right-To-Know Act

This includes regulations issued by EPA to improve community access to information about chemical hazards and to facilitate the development of chemical emergency response plans by State and local governments. EPA requires the establishment of a State Emergency Response Commission (SERC) and Local Emergency Planning Committee (LEPC) to receive information and to manage response and planning for emergencies. Four separate requirements are included in this act and the regulations. All

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information submitted to these agencies is publicly accessible unless protected by a trade secret claim:

Section 302 requires facilities to notify SERC and LEPC of the presence of any “Extremely Hazardous Substance” (40 CFR Part 355, Appendices A and B) that exceeds the substance planning threshold. The act also directs the facility to appoint an emergency response coordinator.

Section 304 requires notice to the SERC and the LEPC if there is a release exceeding the reportable quantity of a CERCLA hazardous substance or an EPCRA extremely hazardous substance. (Note that CERCLA also has a reporting requirement for such a release to the National Response Center, as discussed later).

Sections 311 and 312 require submittal to the SERC, LEPC, and local Fire Department, information on “hazardous chemicals” (as defined by Occupational Safety and Health Act). The submittal is due annually and includes Material Safety Data Sheets (MSDS) or lists of MSDS and hazardous chemical inventory forms (also known as Tier I and Tier II forms).

Section 313 requires manufacturing facilities included in SIC codes 20 through 39, with ten or more employees, and which manufacture, process, or use specified chemicals in amounts greater than threshold quantities, to submit an annual toxic chemical release report (commonly known as the Form R report; data are compiled by EPA as the Toxic Release Inventory, or TRI, report). This also is often called the SARA 313 reporting requirement.

CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act

This is commonly known as Superfund. Regulations address EPA response to releases or threatened releases of hazardous substances that may endanger public health, welfare, or the environment. Hazardous substance responses are implemented according to procedures outlined in the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (40 CFR Part 300). The NCP includes provisions for permanent cleanups (remedial actions). EPA generally takes remedial actions only at National Priority List sites (NPL sites) but the process can be used at any reported site. These regulations also include hazardous substance release reporting (40 CFR Part 302) by the person in charge of a facility to the National Response Center (NRC). This includes information on any environmental release of a hazardous substance which exceeds a reportable quantity (RQ) (Hazardous Substances and their RQ are listed in 40 CFR Part 302.4). A release report may trigger a government response (EPA, State or other Federal emergency response authorities).

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CAA – Clean Air Act including the Clean Air Act Amendments

Included in the CAA law (Section 112(r)) is the Risk Management Program (RMP) regulation. This is intended to prevent and minimize emergency releases of Toxic and Flammable Gases to the atmosphere in quantities that could potentially affect the public beyond the facility's boundaries. The rule applies to any facility that handles more than the designated Threshold Quantity (TQ) of a regulated chemical on site (this includes 77 toxic chemicals and 63 flammable substances, including, for example, the common chemicals chlorine, ammonia and propane; these are listed in 40 CFR Part 68.130). If the TQ is exceeded, the facility is required to meet requirements on employee training, equipment operation, maintenance, and inspection, and evaluate worst-case release scenarios.

CWA – Clean Water Act

The CWA regulations require planning and controls to prevent release of oil to navigable waters from facilities with major oil storage. This includes facilities that store oil (including petroleum oil, mineral oil, vegetable oil, and hydraulic oil) with greater than 42,000 gallons in an underground storage tank, 660 gallons in any one above ground storage tank, or a total of 1,320 gallons in all above ground storage tanks (which drums and other storage devices such as hydraulic reservoirs). Requirements include a written Spill Prevention, Control, and Countermeasures (SPCC) Plan, certain physical controls, and operating procedures.

Chemical and Material Handling Questions to Consider for a Specific Facility
What chemicals are used? Are there Material Safety Data Sheets (MSDS) for these chemicals?
Are there Hazardous Substances or Extremely Hazardous Substances used/stored at the site? Are there procedures for reporting HS and EHS? Are there Toxic and Flammable Gases handled above the Threshold Quantity?
Are there procedures for controlling “new chemicals” entry onto the site?
Are there procedures for recognizing, evaluating, and reporting “releases”?

3.0 Requirements Affecting Air Emissions

The regulation that addresses air pollutants is the Clean Air Act and Amendments. This regulates air pollutants potentially emitted from activities at a facility. The regulations that apply to a specific facility depend on the designation of a specific air pollutant:

- Criteria Pollutants (carbon monoxide, lead, nitrogen dioxide, particulate matter, ozone, and sulfur dioxide)
- Hazardous Air Pollutants (HAP) (a list of over 180 chemicals and chemical categories).

The types of activities that are regulated include:

- Air Quality Standards (CAA – Title I)
- New Source Performance Standards (CAA – Title I)
- Hazardous Air Pollutants and Control (CAA – Title I, Title III)
- Mobile Sources (CAA – Title II)
- Permits for Operating Facilities to Emit Air Pollutants (CAA – Title V)
- Phase Out of Certain Chemicals (CAA – Title VI)

The following information describes this regulation and discusses how the several Titles in the law could apply.

CAA – Clean Air Act

Regulations issued by EPA are designed to “protect and enhance the nation’s air resources so as to promote the public health and welfare and the productive capacity of the population.” There are six sections (Titles) for the Federal law. This includes major amendments to the CAA in 1990, which added, for example, Title III requirements for expanded control of Hazardous Air Pollutants (HAP) and Title V requirement for a permit to address all air emissions during operations.

Title I addresses National Ambient Air Quality Standards (NAAQS) to limit levels of Criteria Pollutants. “Attainment Areas” are geographical areas where the NAAQS are being met; “Non-Attainment Areas” are geographical areas where one or more NAAQS are not being met. The State is required to develop a State Implementation Plan (SIP) to identify sources of air pollution (e.g., stationary sources such as manufacturing facilities and power plants; mobile sources such as cars and trucks) and to determine what reductions are needed to meet NAAQS (e.g., complex air quality modeling considering the interaction of emissions and atmospheric conditions).

Title I includes the requirement for review and approval before construction of any major new air emission source to determine that air quality will not be

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significantly degraded. This is called the New Source Review (NSR) process and the Prevention of Significant Degradation (PSD) program.

Title I also includes establishing New Source Performance Standards (NSPS) which are nationally uniform emission standards for new stationary sources in specific industrial categories.

Title I also includes establishing and enforcing National Emission Standards for Hazardous Air Pollutants (NESHAPS) which address selected hazardous air pollutants.

Title II pertains to mobile sources; regulation of fuels and vapor recovery nozzles on gas pumps are examples of controls authorized under this Title.

Title III is an expansion of the Title I regulations on HAP. This directs EPA to develop a list of sources that emit any of 180 HAP; so far, EPA has identified over 170 categories (e.g., industrial processes) for HAP controls, and there is an ongoing schedule to develop regulations for these categories. Emissions standards developed under this Title are based on Maximum Achievable Control Technology (MACT), which is the control technology achieving the maximum degree of reduction in the emission of the HAP, taking into account cost and other factors.

Title IV regulates sulfur dioxide emissions in order to reduce the formation of acid rain.

Title V requires a permit program for operation of all “major sources” regulated under the CAA. A construction permit application and approval is required before any new or modified emissions emitting equipment or process can be installed at a facility. The approved construction permit requirements are then incorporated into the facility operating permit. Before the requirement for an operating permit was added in 1990, emissions were regulated in many states only through the individual construction permits on each piece of equipment or process

Title VI is intended to protect stratospheric ozone by phasing out manufacture of ozone-depleting chemicals and restricting their use and distribution. For example, chlorofluorocarbons (CFCs) were phased out by 2000 and hydro chlorofluorocarbons (HCFC) are to be phased out by 2030.

Evaluation of a Specific Facility for Air Regulations

What manufacturing operations are used at the facility? What operations are being considered? How does the facility evaluate potential air emissions due to changes in the operations at the facility?

What chemicals are used at the facility? What is the composition of the materials, especially regarding volatile organic compounds? What is the total use? How does this compare to the regulatory threshold? Are the ingredients of chemicals used at the facility identified as Hazardous Air Pollutants? What is the level of use? What is the fate of these substances?

What fuel burning equipment is used at the site? Are there any stacks from process equipment? What is emitted from these stacks? What is the design of these stacks?

What chemicals are stored at the facility? Do these exceed threshold requirements for chemical accident prevention planning?

What is the policy for open burning? What are the potential areas of fugitive particulate matter?

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4.0 Requirements Affecting Water Use

The regulations included in this section address water management at a facility. The important designations are Drinking Water (Potable Water), Process Wastewater, and Stormwater. The types of activities that are regulated include:

- Drinking Water Requirements (SDWA)
- Permits and Management for Wastewater Discharges (CWA – NPDES)
- Permits and Management for Stormwater Discharges (CWA – NPDES)

The following information describes these regulations and discusses how they could apply.

SDWA – Safe Drinking Water Act

The regulations under this law are intended to protect human health from contaminants in drinking water, including national drinking water standards and programs to ensure compliance with these standards. Primary drinking water standards consist of enforceable Maximum Contaminant Levels (MCL) and Maximum Contaminant Level Goals (MCLG). MCLG are health-based “goals” and MCL are set as close as practicable to these goals, considering cost and feasibility of attainment. Public drinking water supplies are regulated under the SDWA. Designation as a Public Supply (as opposed to a Private Supply) is determined by the number of customers. For example, a privately owned facility that furnishes potable water to employees can be a public water supply if they serve at least 25 people or 15 service connections for at least 60 days per year. Regulations under this law also protect water supplies including Underground Injection Control rules and Sole Source Aquifer rules.

CWA – Clean Water Act

The regulations under this law are intended to restore and maintain the chemical, physical, and biological integrity of the nation’s surface waters. US EPA is required to establish Water Quality Standards and to evaluate the condition of all surface waters relative to Water Quality Standards. Planning is required to determine the necessary control on the discharge of pollutants into these waters in order to meet the established Water Quality Standards. Regulated pollutants include:

- Conventional pollutants - biochemical oxygen demand, total suspended solids, fecal coliform, oil and grease, and pH
- Priority pollutants – a specific list of about 129 toxic chemicals
- Non-conventional pollutants - any thing else that should be regulated, such as dissolved solids and temperature

The CWA regulations for industrial activities address process water discharges to include direct and indirect discharges:

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Direct discharges to waters of the United States (e.g., to a stream or lake) - This requires a permit (National Pollutant Discharge Elimination System - NPDES) and includes a substantial body of rules for existing sources, new sources, and treatment requirements for specific industrial categories. The rules also address Publicly Owned Treatment Works (POTW) and their handling of industrial wastewaters.

Indirect discharges to waters of the United States (e.g., to a POTW) - For many industries, there are specific pretreatment requirements for an indirect discharge (including rules for existing and new sources). The POTW is required to have “use ordinances” that specifically consider compliance of industrial sources discharging into the sewer system. This can require a permit or some other form of permission from the POTW for an industrial discharge of process wastewater. There also are rules on the discharge of non-process wastewaters from any commercial or private customer (e.g., prohibitions on gasoline and fuels discharged into the sewer system).

The CWA regulations for industrial activities also address storm water discharges as follows:

Storm water discharges associated with industrial activity – An NPDES discharge permit is required for the discharge of storm water from any conveyance which is used for collecting and conveying storm water and which is directly related to manufacturing, processing or raw materials storage areas at an industrial plant (40 CFR 122.26(b)(14)). Industrial activities include eleven categories:

- (1) Facilities with effluent limitations
- (2) Manufacturing
- (3) Mineral, metal, oil and gas
- (4) Hazardous waste treatment or disposal facilities
- (5) Landfills
- (6) Recycling facilities
- (7) Steam electric plants
- (8) Transportation facilities
- (9) Treatment works
- (10) Construction activity
- (11) Light industrial activity

A facility can be exempt from storm water permitting if it can certify that there is no exposure of stormwater to industrial activity. However, this exemption is not available for construction activities. The facility must submit a No Exposure Certification to the regulatory agency with authority for NPDES permitting in their jurisdiction (either the State agency or US EPA) to obtain this exemption.

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As mentioned in Section 2, certain facilities are required to implement SPCC Plans. Any water generated by spill controls and countermeasures is regulated and must meet discharge requirements for wastewater or storm water as discussed above.

Evaluation of a Specific Facility for Water Regulations
<p>What is the source of drinking water and process water for the facility? Is this a public water supply?</p> <p>What process water uses are there? What process wastewater is generated? How is it disposed? What operations and processes generate this wastewater?</p> <p>What other water uses are there for the facility? How is this water disposed?</p> <p>What industrial activities occur that can come into contact with stormwater?</p> <p>Are there any oils stored on-site? How is water disposed that is generated by controls and countermeasures?</p>

5.0 Requirements Affecting Solid and Hazardous Waste

The regulations included in this section address solid and hazardous waste management at a facility. The important designations are:

- Hazardous Waste (HW) – this is a rigid designation for a material that is
 - A solid waste, and
 - Exhibits the Characteristic of a Hazardous Waste, or
 - Is listed as a Hazardous Waste because of the operation or process that generated the solid waste
- Generator Status – this is based on how much Hazardous Waste is generated any one month and can include
 - Conditionally Exempt Small Quantity Generator (CESQG)
 - Small Quantity Generator (SQG)
 - Large Quantity Generator (LQG)
- Transporter – a licensed hauler of Hazardous Wastes
- Treatment, Storage, or Disposal (TSD) – this is an activity that requires a RCRA permit
- Universal Waste – this includes waste lamps (fluorescent), waste batteries (lead-acid and NiCad), and thermostats with mercury
- Underground Storage Tanks (UST)

The types of activities at a manufacturing facility that are regulated under the solid and hazardous waste regulations include:

- Determining if a Solid Waste is a Hazardous Waste
- Responsibility for Cradle-to-Grave Management for any Hazardous Waste
- Conditions and Requirements as a Generator (these vary depending on status)
- Managing Used Oil
- Design and Operation Requirements for Tanks and Containers Storing Volatile Hazardous Wastes
- Design and Operation Requirements for Underground Storage Tanks
- Design and Operation Requirements for Boiler and Industrial Fuels
- Management of Universal Wastes

This course does not specifically address transporter, or treatment, storage, and disposal (TSD) facility requirements. The generator does need to understand that the transporter and TSD facilities require permits for their activities, and that the generator remains ultimately responsible for the waste. The following information describes this regulation and discusses how several parts could apply to a Hazardous Waste Generator.

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RCRA – Resource Conservation and Recovery Act ***HSWA – Hazardous and Solid Waste Amendments***

Regulations issued by EPA establish a “cradle-to-grave” system governing hazardous waste from the point of generation through disposal. RCRA was promulgated in 1976 to amend the Solid Waste Disposal Act and was substantially strengthened with the Hazardous and Solid Waste Amendments (HSWA) in 1984. Some of the important RCRA regulatory requirements include:

Identification of solid and hazardous wastes (40 CFR Part 261) - This identifies the procedure every generator must follow to determine whether a material is considered a hazardous waste, solid waste, or is exempted from regulation. This defines the characteristics exhibited by a solid waste that makes it a hazardous waste under this regulation. This also lists certain wastes that are always considered a hazardous waste under this regulation, unless and until the generator has obtained approval from EPA to delist the waste.

Standards for generators of hazardous waste (40 CFR Part 262) - This defines the responsibilities of hazardous waste generators including obtaining a generator identification number, preparing a manifest for each waste shipment, ensuring proper packaging and labeling, meeting standards for waste accumulation units, and recordkeeping and reporting requirements. Generator categories are established based on the quantity and rate of hazardous waste generation (Conditionally Exempt Small Quantity Generator; Small Quantity Generator; Large Quantity Generator). Procedures and management requirements are prescribed for each category.

Land disposal restrictions (LDR) (40 CFR Part 268) - These prohibit the disposal of hazardous waste on land without prior treatment. The generator of the hazardous waste is responsible for notifying the designated Treatment, Storage, or Disposal (TSD) firm of the specific LDR requirement for the waste. Typical wastes subject to LDR requirements include solvents, acids, electroplating wastes, and heavy metals.

Used oil management (40 CFR Part 279) - This imposes management requirements for the storage, transportation, burning, processing, and re-refining of used oil. This specifies storage standards for generators of used oil. There also are requirements that must be met by used oil marketers (i.e., one who generates and sells used oil directly to a used oil burner).

Tanks and containers used to store hazardous waste with a high volatile organic concentration (40 CFR Part 264-265) - This requires testing the waste to determine volatile concentration, specific container and tank technical requirements, and inspection and monitoring of the regulated units. This applies to all facilities who store such waste including generators operating under the 90-day accumulation rule.

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Underground storage tanks (UST) (40 CFR Part 280) - This establishes design and release detection requirements, financial responsibility, and corrective action standards for UST.

Boilers and industrial furnaces (BIF) (40 CFR Part 266, subpart H) - This identifies standards for furnaces that use or burn hazardous waste.

Universal waste management (40 CFR Part 273) - This identifies management standards for the handling and disposal of common wastes that are considered hazardous when disposed: batteries, unused pesticides, mercury thermostats, lamps (fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps).

Evaluation of a Specific Facility for Solid and Hazardous Waste Regulations

What are the waste materials generated by the facility? What wastes would be considered a solid waste? Do these wastes indicate the characteristic of a hazardous waste? Have they been tested for this? Are there any processes which have been listed by the regulations as generating hazardous waste?

If hazardous wastes are generated, does the facility have a generator identification number? What is the quantity generated each month? What is the generator status of the facility (e.g., Conditionally Exempt Small Quantity Generator? Small Quantity Generator? Large Quantity Generator?) What are the hazardous waste management procedures (e.g., accumulation, storage, recordkeeping, inspections, manifesting)? Are hazardous wastes evaluated to determine Land Disposal Restrictions?

Does the facility generate and manage used oil? Does the facility generate and store hazardous waste with a high volatile organic compound content? Does the facility burn hazardous waste in a boiler or furnace?

Does the facility generate any Universal Wastes (e.g., batteries, unused pesticides, mercury thermostats, lamps)?

6.0 Other Useful Information

6.1 Definitions

Battery means a device consisting of one or more electrically connected electrochemical cells which is designed to receive, store, and deliver electric energy. An electrochemical cell is a system consisting of an anode, cathode, and an electrolyte, plus such connections (electrical and mechanical) as may be needed to allow the cell to deliver or receive electrical energy. The term battery also includes an intact, unbroken battery from which the electrolyte has been removed.

Best management practices (BMP) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State. BMP also include treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Direct discharge means the discharge of a pollutant, which is any addition of any pollutant or combination of pollutants to waters of the State from any point source.

Fugitive emissions are air contaminants which escape to the air not through an exhaust system but through other means such as windows, vents, doors, and ill fitting closures or poorly maintained equipment.

Generator means any person, by site, whose act or process produces hazardous waste identified or listed in part 261 of this chapter or whose act first causes a hazardous waste to become subject to regulation.

Hazardous Air Pollutant (HAP) is a pollutant subject to regulation by the National Emissions Standard for Air Pollutants.

Indirect discharger means a non-domestic discharge introducing pollutants to a publicly owned treatment works.

Lamp, also referred to as "universal waste lamp" is defined as the bulb or tube portion of an electric lighting device. A lamp is specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infra-red regions of the electromagnetic spectrum. Examples of common universal waste electric lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps.

Pesticide means any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant, or desiccant, with exceptions for new animal drugs or animal feed.

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Process wastewater means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product

Small Quantity Handler of Universal Waste means a universal waste handler (as defined in this section) who does not accumulate 5,000 kilograms or more total of universal waste (batteries, pesticides, thermostats, or lamps, calculated collectively) at any time.

Thermostat means a temperature control device that contains metallic mercury in an ampule attached to a bimetal sensing element, and mercury-containing ampules that have been removed from these temperature control devices in compliance with the requirements.

Underground storage tank (UST) means any one or combination of tanks (including underground pipes connected thereto) that is used to contain an accumulation of regulated substances, and the volume of which (including the volume of underground pipes connected thereto) is 10 percent or more beneath the surface of the ground. This term does not include certain specified units, such as: farm or residential tank of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes; tanks used for storing heating oil for consumptive use on the premises where stored; septic tank; storm-water or wastewater collection system; flow-through process tank; or storage tank situated in an underground area (such as a basement or cellar) if the storage tank is situated upon or above the surface of the floor.

Used oil is any oil refined from crude or synthetic oil and as a result of use, storage, or handling, has become unsuitable for its original purpose due to impurities or loss of properties, but which may be suitable for further use and is economically recyclable. This also includes absorbent material contaminated with used oil such as oily rags or adsorbent blankets. There are further definitions for “spec oil” and “non-spec oil”.

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6.2 Acronyms

BMP – Best Management Practice

CAA – Clean Air Act

CFC – Chlorofluorocarbons

CFR – Code of Federal Regulations

CWA – Clean Water Act

CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act

EHS – Extremely Hazardous Substance

EMS – Environmental Management System

EPCRA – Emergency Planning and Community Right-To-Know Act

HAP – Hazardous Air Pollutant

HCFC – Hydro chlorofluorocarbons

HS – Hazardous Substance

HSWA - Hazardous and Solid Waste Amendments of 1984

ISO – International Standards Organization

LDR – Land Disposal Restriction

LEPC – Local Emergency Planning Committee

MACT – Maximum Achievable Control Technology

MCL – Maximum Contaminant Level

MCLG – Maximum Contaminant Level Goal

MSDS – Material Safety Data Sheet

NAAQS – National Ambient Air Quality Standard

NCP – National Contingency Plan

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NESHAPS – National Emission Standards for Hazardous Air Pollutants

NPDES – National Pollutant Discharge Elimination System

NRC – National Response Center

NSPS – New Source Performance Standard

OPCA – Oil Pollution Control Act

OSHA – Occupational Safety and Health Administration

POTW – Publicly Owned Treatment Works

RCRA – Resource Conservation and Recovery Act

RMP – Risk Management Program

RQ – Reportable Quantity

SDWA – Safe Drinking Water Act

SERC – State Emergency Response Commission

SPCC – Spill Prevention, Control, and Countermeasure

SIP – State Implementation Plan

TSD – Treatment, Storage, or Disposal

TRI – Toxic Release Inventory

TQ – Threshold Quantity

TSCA – Toxic Substances Control Act

US EPA – United States Environmental Protection Agency

UST – Underground Storage Tank

VOC – Volatile Organic Compound