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RCRA, Superfund & EPCRA Hotline Training Module

Introduction to:

Other Laws that Interface with RCRA

Updated October 1999

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RCRA, Superfund & EPCRA Hotline Phone Numbers:

National toll-free (outside of DC area)	(800) 424-9346
Local number (within DC area)	(703) 412-9810
National toll-free for the hearing impaired (TDD)	(800) 553-7672

The Hotline is open from 9 am to 6 pm Eastern Time,
Monday through Friday, except for federal holidays.

OTHER LAWS THAT INTERFACE WITH RCRA

CONTENTS

1. INTRODUCTION

As a trainee near the end of the Hotline's Resource Conservation and Recovery Act (RCRA) training program, you are well on your way to becoming an expert in EPA's solid waste, hazardous waste, and underground storage tank regulations. You probably feel that you have a vast amount of information to master — and you are right. But imagine yourself as the environmental manager of a large manufacturing facility. In such a position, you would need to master much more than the hazardous and solid waste regulations. Most members of the regulated community need to ensure compliance with a variety of complex federal and state environmental requirements.

RCRA is just one piece of a larger network of environmental laws and their regulations that work together to protect our nation's natural resources and public health. Often callers on the RCRA Hotline do not pose their questions in terms of hazardous and solid waste regulations, but rather in terms of the larger context of environmental regulations. As an Information Specialist, you need to develop your ability to respond to these callers effectively by identifying and responding to the parts of the caller's inquiry that are RCRA issues and appropriately referring callers with questions that are outside the purview of the Hotline.

This training module provides a brief overview of some of the major environmental laws that interface with RCRA. As a RCRA Information Specialist, you should not answer in-depth questions about these other laws, but you should be able to use Hotline resources to refer callers to appropriate sources of information. You should also be fully conversant in the interactions between these laws and the RCRA program. This module focuses on seven laws implemented by EPA:

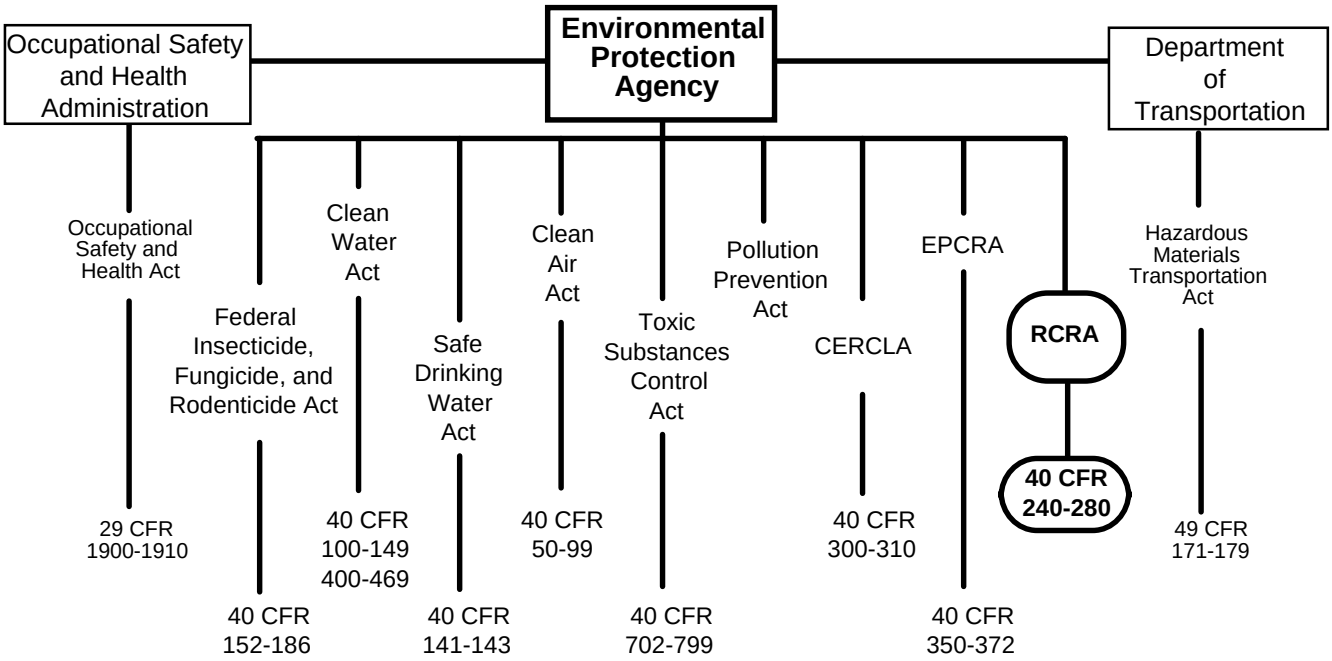
- Clean Air Act (CAA)
- Clean Water Act (CWA)
- Safe Drinking Water Act (SDWA)
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)
- Toxic Substances Control Act (TSCA)
- Emergency Planning and Community Right-to-Know Act (EPCRA)
- Pollution Prevention Act (PPA)
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, or Superfund).

These laws constitute only a portion of the entire regulatory scheme EPA administrates, but they are the environmental laws that most directly impact the RCRA program. Your training session will also cover regulations administered by other agencies that interface with RCRA, such as health and safety requirements under the Occupational Safety and Health Administration (OSHA), and the hazardous materials transportation

requirements administered by the Department of Transportation. Figure 1 depicts the federal regulatory programs that you are likely to hear mentioned by RCRA or document callers.

Figure 1

MAJOR FEDERAL ENVIRONMENTAL LAWS THAT INTERFACE WITH RCRA



2. PROGRAM SUMMARIES

Each section discussing an environmental law begins with a brief overview of the major provisions of the regulatory program, then covers interfaces with RCRA in detail.

2.1 CLEAN AIR ACT

The Clean Air Act's (CAA) goals are to protect and enhance the quality of the nation's air, and to promote the public health and welfare and the productive capacity of its population. The Act is divided into seven titles, or sections. Each title creates one or more programs that regulate various types of air emissions, including obvious air emission sources such as incinerators and automobiles, as well as less obvious sources such as air stripping and other waste treatment technologies.

This discussion of the CAA focuses on those programs that interface with RCRA, as well as those programs most frequently mentioned on the Hotline. The CAA programs that are likely to interface with RCRA include the National Ambient Air Quality Standards, the New Source Performance Standards, the National Emissions Standards for Hazardous Air Pollutants, and the Stratospheric Ozone Protection Standards. In addition, the Act also contains provisions concerning mobile sources of air pollution (e.g., automobile emissions) and acid deposition. Although these programs do not directly relate to RCRA, they affect many people and the Hotline may receive calls related to these programs. Consequently, Information Specialists should recognize these questions and refer callers to the appropriate EPA resources.

NATIONAL AMBIENT AIR QUALITY STANDARDS

Title I of the CAA requires EPA to promulgate national ambient air quality standards (NAAQS). These standards address the general air quality in a geographic area rather than at a specific emission point. NAAQS represent acceptable environmental levels for "criteria pollutants" that EPA determines pose a threat to public health or welfare. To carry out this mandate, EPA requires each state to identify areas that have attained NAAQS for these criteria pollutants (classified as "attainment areas") and those that have not (classified as "nonattainment areas"). EPA also requires each state to submit a State Implementation Plan (SIP) showing how NAAQS will eventually be achieved in nonattainment areas and will be maintained in attainment areas. To implement SIPs, states must regulate certain point source emission sites. These SIP point source standards must be consistent with federal, EPA-enforced point source emission requirements, known as new source performance standards (NSPS).

NAAQS are not enforceable in and of themselves. Any substantive standards contained within the SIP are, however, federally enforceable. Since new sources, such as hazardous or municipal solid waste incinerators or waste treatment operations, can raise emissions in an area above the NAAQS for particular pollutants, they may be affected by SIPs. In order to accommodate this type of change in emission levels, the CAA allows for existing sources to reduce their collective emissions to "make room" for the new source. New sources must also comply with other requirements, such as setting a state-approved lowest achievable emission rate.

In attainment areas, the CAA requires a prevention of significant deterioration program (PSD) to ensure the area does not slide backward into nonattainment. The program (called the primary control strategy) regulates the construction of new sources and major modifications to existing sources. PSD requirements will affect RCRA facilities that constitute major new sources of air emissions and RCRA facilities undergoing modifications in an attainment area.

NEW SOURCE PERFORMANCE STANDARDS

Under CAA §111, EPA is authorized to establish new source performance standards (NSPS) to impose federal technology-based requirements on emissions from new or modified major stationary sources of pollution. EPA has established NSPS for a number of industry categories including municipal waste combustors, Portland cement plants, asphalt concrete plants, incinerators, petroleum refineries, and municipal solid waste landfills (MSWLFs). The purpose of the NSPS for emissions is to ensure that certain EPA-identified sources are designed, built, and operated in a manner that reflects the best demonstrated technology and retains economic feasibility in a uniform manner across the country.

NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS

National Emission Standards for Hazardous Air Pollutants (NESHAPs) are point-source standards promulgated under CAA §112 for substances EPA identified as hazardous air pollutants (HAPs). Before 1990, the CAA directed EPA to establish HAPs and to regulate the air emission sources that emitted HAPs (e.g., inorganic arsenic emissions from glass manufacturing plants). The CAA Amendments of 1990 greatly expanded the role of NESHAPs, adding a list of 189 new HAPs and a schedule for EPA to designate 174 HAP source categories by the year 2000.

Under §112, EPA is required to identify major and area sources of HAPs and to promulgate regulations establishing emission standards for each category. The statute requires emission standards to reflect the maximum degree of reduction in emissions that EPA determines to be achievable, accounting for the cost of achieving such emission reduction and any non-air quality health and environmental impact and energy requirements.

STRATOSPHERIC OZONE PROTECTION

CAA Title VI (§608), added in 1990, directs EPA to promulgate regulations to reduce the rate of depletion of the ozone layer. The 1990 amendments phase out the production and consumption of ozone-depleting substances, such as chlorofluorocarbons (CFCs); authorize EPA to ban nonessential products containing those substances; require labeling of products manufactured with those products; and regulate the replacement of CFCs with substitutes. Questions regarding the specific requirements of this section are answered by the Stratospheric Ozone Information Line.

MOBILE SOURCES

In 1970, Congress established allowable levels of automobile emissions and authorized EPA to control pollutants from fuel and fuel additives. The 1990 CAA Amendments establish lower emission standards for automobiles and other vehicles. The amendments also contain new provisions for alternative fuels and for the use of "clean fuel" vehicles.

The CAA requirements related to mobile sources do not directly interface with RCRA requirements; however, the Hotline does receive frequent calls related to these program areas. Typical questions include, "Where is the requirement for EPA approval of my catalytic converter?" or "What additives are required to be in gasoline?" These questions, as well as any other question related to automobile pollution, can be referred to EPA's Office of Mobile Sources.

ACID DEPOSITION

Title IV of the Act, added in 1990, contains new requirements for electric utilities to address acid rain issues. The amendments include stringent sulfur dioxide controls on new and existing plants. These requirements also create a commodities market that allows facilities subject to these requirements to freely trade pollution allowances. The Hotline receives numerous inquiries related to acid rain and its environmental effects. Callers interested in obtaining information on this topic should contact the Acid Rain Hotline.

ACCIDENTAL RELEASE PREVENTION

As a result of amendments made in 1990, the CAA sets forth requirements for stationary sources (i.e., facilities) storing or handling more than a specified quantity of a regulated substance to develop and implement a facility-specific risk management program to prevent accidental releases of such substances into the atmosphere and reduce their potential impact on the public and the environment. The risk management program will include an analysis of the potential off-site consequences of an accidental

release, a 5-year accident history, a release prevention program, and an emergency response program.

The current list of regulated substances that triggers the RMP requirements consists of 140 chemicals. Many of these chemicals may also be RCRA hazardous wastes. Solid and hazardous waste facilities, therefore, may be subject to the RMP regulations.

INTERFACE WITH RCRA

RCRA and CAA are both voluminous and complex laws, creating a number of extensive regulatory programs. Because both laws deal with highly technical issues, Hotline calls that require an understanding of the ways RCRA interfaces with the CAA can be quite challenging.

Solid Waste Management

The 1990 CAA Amendments added §129, governing emissions from solid waste incineration units. The statute requires EPA to promulgate standards establishing numerical emission limitations for certain substances and categories of substances listed in the statute. These limitations must comply with the same standards as those established for HAPs in §112.

Gaseous emissions from solid waste landfills also poses a threat to air quality. EPA has proposed NSPS for landfill gas that will impose controls on these emissions.

RCRA/CAA Air Emission Standards for TSDFs

RCRA §3004(n) directs EPA to establish "...regulations for the monitoring and control of air emissions at hazardous waste treatment, storage, and disposal facilities...as necessary to protect human health and the environment." The selection of TSDF air emission sources for control by establishing air standards under RCRA is based on controlling those TSDF air emission sources determined by EPA to have significant toxic and ozone precursor emission potential, but for which emission control is not adequately addressed by other CAA standards such as NESHAP and NSPS.

Pursuant to this mandate, EPA developed a RCRA air emissions program focusing on the control and containment of organic emissions from hazardous waste management activities. The RCRA program establishes standards for process vents (Part 264/265, Subpart AA), equipment leaks (Part 264/265, Subpart BB), and cover requirements for certain hazardous waste management units (Part 264/265, Subpart CC).

CAA §112 requires EPA to identify major sources and area sources of hazardous air pollutant emissions and to develop NESHAPs for these sources. To date, EPA has either promulgated or proposed several NESHAP regulations that may apply to some

hazardous waste management activities at facilities already regulated by the RCRA air emission standards. Generally, the types of waste and material recovery operations that are affected by the NESHAP requirements are either not subject to, or exempt from, regulation under the RCRA air standards. In promulgating future NESHAP regulations, EPA will consider any existing air emissions requirements under RCRA. It is possible, however, to have some overlap between the two programs.

For example, on-site wastewater treatment operations at synthetic organic chemical manufacturing industry facilities are regulated under the hazardous organic NESHAP (HON). At many of these facilities, the hazardous wastewaters generated by the process units and resulting wastewater treatment sludges are managed in tank systems that are exempted from RCRA permitting requirements. Thus, the air emission control requirements under HON, in most cases, affect wastewater treatment tanks not subject to RCRA air standards. In cases where these regulations may overlap, EPA will seek comment on how best to integrate these rules.

Cement Kiln Dust

On February 7, 1995, EPA announced the final regulatory decision regarding cement kiln dust (CKD). EPA found that CKD warranted additional control to protect human health and prevent environmental damage resulting from the current disposal of CKD. EPA proposed a new approach for the management of CKD waste that is currently excluded from the definition of hazardous waste under §261.4(b)(8) (64 FR 45632; August 20, 1999). CKD would remain a nonhazardous waste provided that it is managed in landfills that meet proposed groundwater protection and fugitive dust control standards (proposed 40 CFR Part 259). EPA also proposed new RCRA Subtitle C regulatory standards for CKD that is not managed according to the conditions of the exclusion (proposed Part 266, Subpart I).

Hazardous Waste Combustion Units

One of the goals of EPA's Strategy for Hazardous Waste Minimization and Combustion is to strengthen the existing standards for hazardous waste incinerators, boilers, and industrial furnaces. Under §112, EPA has established NESHAPs for the hazardous waste burning incinerators, cement kilns, and lightweight aggregate kilns (64 FR 52828; September 30, 1999). The standards limit emissions of chlorinated dioxins/furans, other toxic organic compounds, toxic metals, hydrochloric acid, chlorine gas, and particulate matter. The compliance date for the promulgated standards is September 30, 2002. Emission standards for the remaining types of boilers and industrial furnaces will be proposed in 2001.

Chlorofluorocarbons (CFCs)

RCRA regulations at 40 CFR §261.4(b)(12) exclude used CFC refrigerants from totally enclosed heat transfer equipment that use the CFCs as the heat transfer fluid in a refrigeration cycle, provided the refrigerant is reclaimed for further use. The CAA requires the use of service practices that maximize the recycling of ozone-depleting compounds.

2.2 CLEAN WATER ACT

The Clean Water Act (CWA) sets the framework for a comprehensive program for water pollution control. These regulatory programs are well established. The goals of the Act are to eliminate the discharge of pollutants into surface waters, and to achieve a level of water quality which "provides for the protection and propagation of fish, shellfish and wildlife" and "for recreation in and on the water." The Act also establishes a national policy that prohibits the discharge of pollutants in toxic amounts. In order to achieve the goal of "swimmable, fishable" waters, the CWA contains a broad range of regulatory tools and mechanisms designed to attain the statutory objectives and goals. These tools include:

- A complementary system of pretreatment requirements applicable to facilities that discharge to publicly owned treatment works (POTWs)

- A system of technology-based effluent limits establishing treatment required for direct industrial discharges and POTWs

- A permit program which includes effluent limitations, notifications and reporting requirements, and enforcement provisions

- A set of specific provisions applicable to certain toxic and other pollutant discharges of particular concern or special character.

CWA §307(a) establishes the list of toxic pollutants (commonly referred to as "priority pollutants") subject to these CWA programs. Descriptions of these CWA programs follow.

PRETREATMENT STANDARDS

CWA §307(b) requires EPA to develop and promulgate pretreatment standards for the discharge of pollutants into municipal wastewater treatment plants, often referred to as POTWs. Under the CWA, all industrial dischargers to POTWs must comply with general pretreatment standards and may be required to comply with industry-by-

industry ("categorical") standards. The purpose of pretreatment standards is to avoid the introduction of pollutants into POTWs that pass through, interfere with, or are otherwise incompatible with such treatment works. Many industrial facilities that comply with the RCRA requirements are also subject to these pretreatment requirements.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

CWA §402 imposes limitations on pollutant discharges through the National Pollutant Discharge Elimination System (NPDES). Under the NPDES program, any person responsible for the discharge of a pollutant into any water of the United States from any point source must apply for and obtain a permit. NPDES permits set pollutant-specific discharge limits, require monitoring and reporting, and set schedules of compliance.

STORMWATER DISCHARGE REQUIREMENTS

The CWA regulates non-point source pollution through stormwater discharge requirements. Point source discharges are emitted from specific locations, such as pipes or drains. Non-point source discharges are releases without a single point of origin, or which are not introduced into a receiving stream from a specific outlet. Examples of non-point source discharges include stormwater run-off from a paved parking lot or agricultural residue from a field. Recently, EPA issued general permits for stormwater discharges associated with industrial activity. Hazardous waste treatment, storage, and disposal facilities; landfills and land application sites; and certain recycling facilities are covered under these requirements.

INTERFACE WITH RCRA

This section provides details about some CWA requirements that interface with RCRA. When you receive questions about the following CWA topics, you must ensure that you have answered the RCRA portion of the caller's questions before referring the caller to other sources of CWA information.

Domestic Sewage

Hazardous waste that mixes with sanitary waste in a sewer system leading to a POTW is excluded from the RCRA hazardous waste management requirements pursuant to the domestic sewage exclusion (§261.4(a)(1)(ii)). Although the waste is excluded under RCRA when it enters the sewer system, it must meet any applicable CWA pretreatment standards. These pretreatment standards will be dictated by the particular POTW that will ultimately handle the discharged waste.

Industrial Wastewater

The industrial wastewater discharge exclusion at §261.4(a)(2) applies to the point source discharge of a material covered under CWA §402 (NPDES). Therefore, an industrial facility may be able to take advantage of the industrial wastewater discharge exclusion if it possesses an NPDES permit and is in compliance with the permit requirements. Management of any hazardous waste prior to discharge must be in compliance with RCRA.

Wastewater Treatment Units

The RCRA Hotline receives many questions about the wastewater treatment unit exclusion. Wastewater treatment units are defined as tanks or tank systems that are part of a facility subject to the CWA (§260.10). Therefore, if a facility has an NPDES permit or discharges to a POTW and has a tank system that is used to store or treat hazardous wastewater, the unit is exempt from RCRA permitting requirements (§264.1(g)(6) and §265.1(c)(10)).

Permits-by-Rule

CWA terms may also arise from callers with questions pertaining to §270.60 permit- by-rule provisions for POTWs that accept hazardous waste for treatment. This provision allows POTWs that manage hazardous waste to be exempt from the RCRA permitting requirements, provided that the POTW complies with an NPDES permit and a minimal number of RCRA regulations, including use of the manifest system and the acquisition of an EPA identification number.

Land Disposal Restrictions

The dilution prohibition states prohibited hazardous wastes cannot be diluted to meet the treatment standards (§268.3). Until recently, however, prohibited characteristic wastes (that had not been assigned technology-based treatment standards) could be diluted in a CWA-regulated system because EPA reasoned that the CWA provided adequate treatment without dual regulation under RCRA.

A 1992 court decision required EPA to promulgate more stringent requirements for all characteristic wastes. EPA examined whether treatment in CWA systems was truly addressing all potential environmental pathways (i.e., not just water, but soil and air) to protect human health and the environment. In the Land Disposal Restrictions (LDR) Phase III Final Rule, EPA stated that LDR treatment standards apply to characteristic wastes that are sent to a CWA system, because the wastes are prohibited under LDR from the point of generation, even though the wastes are excluded subsequent to the point of generation. The Land Disposal Program Flexibility Act of 1996, however, amended RCRA to exempt from LDR non-listed characteristic hazardous waste if such

waste is decharacterized prior to treatment in a CWA system that subsequently discharges to waters of the United States pursuant to a CWA permit, undergoes pretreatment for purposes of compliance with effluent standards under the CWA, or is treated in a zero-discharge system engaged in CWA-equivalent treatment.

Requirements for Discharges of RCRA Wastes

On July 24, 1990, EPA promulgated regulations that revised the general pretreatment and NPDES regulations in 40 CFR Parts 122 and 403. These revisions were made pursuant to CWA §§307(b) and 402(b) and RCRA §3018(b). Effective August 23, 1990, specific discharges were prohibited unless the wastestreams were first treated. The prohibited wastestreams include RCRA ignitable and reactive wastes. In addition, §403.5(b) had already prohibited materials with a pH lower than 5.0 (a material with a pH less than or equal to 2.0 is considered a corrosive waste under §261.23(a)(1)). These provisions often require treatment at RCRA facilities. This treatment must occur in appropriate RCRA units or RCRA exempt units (e.g., an exempt elementary neutralization unit under §§264.1(g) or 265.1(c)).

In addition to these substantive requirements, industrial users of POTWs must provide written notification to the POTW, the EPA Regions, and the state hazardous waste authorities "of any discharge which, if otherwise disposed of, would be a hazardous waste under 40 CFR Part 261." Moreover, if the discharge is of more than 100 kilograms of hazardous waste, the industrial user must include information about the hazardous waste constituents, mass, and concentrations, and estimate these amounts for the following 12 months.

2.3 SAFE DRINKING WATER ACT

The objective of the Safe Drinking Water Act (SDWA) is straightforward — to protect human health from contaminants in drinking water. The SDWA term most frequently encountered by RCRA Information Specialists is "maximum contaminant levels" (MCLs). MCLs are contaminant-specific, enforceable standards set for contaminants that EPA has determined have an adverse effect on human health above certain levels. MCLs are often used as a basis for developing groundwater protection and cleanup standards at RCRA corrective action sites.

The SDWA's most direct impact on industry is through regulation of underground injection to protect usable aquifers from contamination. Underground injection involves the permanent disposal of waste, including RCRA hazardous waste, by depositing it into the subsurface of the earth a quarter of a mile below any aquifer that is an underground source of drinking water. Under the underground injection control (UIC) program, owners and operators of certain classes of underground injection wells

are required to obtain and adhere to the requirements of operating permits. The permit applicant must prove to the state or federal permitting authority that operation of the underground injection well will not endanger drinking water sources.

To avoid duplicative regulations, the RCRA program generally defers to the UIC program, and exempts permitted UIC wells from the RCRA permitting requirements (264.1(d)). RCRA allows these facilities' non-RCRA permit to serve in place of a RCRA permit provided that such facilities are in compliance with that permit and other RCRA administrative requirements. Additionally, these facilities may be subject to the RCRA waste minimization requirements and LDR treatment standards.

2.4 FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT

The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) regulates the registration and labeling of pesticides. A pesticide is defined as any substance intended for "preventing, destroying, repelling or mitigating any pest," and substances intended for "use as a plant regulator, defoliant, or desiccant." Before a pesticide can be manufactured, distributed, or imported, it must be registered with EPA. This involves the submittal of the pesticide formula, a proposed label, and a full description of the tests performed and their results.

RCRA defers to FIFRA-imposed labeling instructions in a number of situations. First, a farmer disposing of waste pesticides that are hazardous is not required to comply with the RCRA requirements, provided the farmer triple rinses each emptied pesticide container and disposes of the pesticide residues on his or her own farm in a manner consistent with the disposal instructions on the pesticide label (§262.70). Second, commercial chemical products, such as pesticides, are excluded from the definition of solid waste if they are applied to the land and that is their original manner of use (§261.2(c)(1)(ii)). Third, the universal waste rule creates special management standards in 40 CFR Part 273 for the management of hazardous waste pesticides that are either recalled or collected in waste pesticide collection programs.

2.5 TOXIC SUBSTANCES CONTROL ACT

Congress enacted the Toxic Substances Control Act (TSCA) to control the manufacture, distribution, use, and disposal of harmful chemicals. Through TSCA Congress established a number of requirements and authorities for identifying and controlling toxic chemical hazards posing risks to human health and the environment. TSCA gives EPA the authority to gather certain kinds of basic information on chemical risks from those who manufacture and process chemicals. The law also enables EPA to require

companies to test selected existing chemicals for toxic effects and requires the Agency to review most chemicals before they are manufactured. Because TSCA deals with toxic chemicals, there are several overlaps with the RCRA regulations and misdirected callers frequently call our Hotline with TSCA questions.

PREMANUFACTURE AND SIGNIFICANT NEW USE NOTIFICATIONS

TSCA requires manufacturers or importers of new chemicals to notify EPA 90 days before manufacturing or importing a new chemical. Any chemical that is not listed on the inventory of existing chemicals is considered "new" for purposes of the premanufacture notice.

In addition, EPA may designate a use of a chemical as a significant new use, based on consideration of several factors, including the anticipated extent and type of exposure to human beings or the environment. Anyone who intends to manufacture, import, or process a chemical for such a significant new use, even if the chemical is on the inventory and/or went through premanufacture notification review, must notify EPA 90 days prior to manufacturing, importing, or processing the chemical for that use.

CONTROL OF HAZARDOUS CHEMICALS

Under TSCA, EPA has the authority to prohibit or limit the manufacture, import, processing, distribution in commerce, use, or disposal of a chemical when these activities are found to pose an unreasonable risk of injury to human health or the environment. A number of possible control options are available, ranging from total prohibition to labeling.

RECORDKEEPING AND REPORTING

TSCA provides EPA with the authority to compile an inventory of existing chemical substances. The first inventory was published in 1979, based on information reported to EPA by chemical manufacturers, importers, and processors. Currently, the inventory consists of over five million chemical substances, but most are research and development chemicals that are not commercially used. Out of the millions of chemicals on the inventory, only about 58,000 are used commercially.

TSCA also requires any person who manufactures, processes, or distributes in commerce any chemical substance or mixture to keep records of significant adverse reactions to health or the environment that allegedly were caused by the chemical. If the chemical industry has information that indicates the presence of a substantial risk of injury to human health and the environment, EPA must be notified.

INTERFACE WITH RCRA

It is important to clarify the distinction between the RCRA and TSCA authorities and their purpose. TSCA provides the authority to regulate the disposal stage of a chemical's life cycle on a chemical-by-chemical basis, once a particular chemical is determined to be an unreasonable risk to human health and the environment. RCRA provides the authority to establish regulations and programs to ensure safe waste treatment and disposal of any number of chemicals and generally deals with wastestreams rather than individual chemicals.

Polychlorinated Biphenyls (PCBs)

In TSCA, Congress singled out PCBs for immediate regulation and phased withdrawal from the market. EPA may authorize certain uses of PCBs and may exempt, pursuant to certain TSCA criteria, specific activities involving the manufacturing, processing, or distribution in commerce of PCBs. TSCA governs many aspects of PCB management, including the cleanup of spills, storage, and disposal.

TSCA's PCB disposal regulations vary according to the physical form of the contaminated material (i.e., liquid vs. non-liquid) and whether the material is defined as "PCB-contaminated equipment," for concentrations between 50 and 500 parts per million (ppm), or simply PCBs, for concentrations above 500 ppm. PCB contamination below 50 ppm is not regulated by TSCA, except under special circumstances. To ensure safe disposal practices for regulated PCBs and PCB-contaminated equipment, TSCA may require treatment by incineration or another approved method, or placement in a TSCA-approved chemical waste landfill.

Discarded PCBs alone are not RCRA hazardous wastes. PCBs are not listed among the F, K, P, or U-lists of hazardous waste, nor are they among the toxic characteristics that could cause a waste to exhibit the characteristic of toxicity under §261.24. PCBs may be subject to RCRA regulations in addition to TSCA regulations, however, when present in wastes which are themselves RCRA listed or characteristic hazardous wastes.

RCRA hazardous wastes that contain PCBs are subject to all applicable Subtitle C regulations, including manifesting, treatment, storage, disposal, and recordkeeping requirements. PCB-containing RCRA hazardous wastes are also subject to certain LDRs. For example, PCBs are considered underlying hazardous constituents and must be treated to meet the universal treatment standard when present in characteristic hazardous waste.

Certain PCB-containing wastes are exempt from the RCRA requirements. PCB-containing dielectric fluid and the electronic equipment which holds the fluid are exempt from RCRA regulations under §261.8 when regulated by TSCA standards under Part 761. The fluid and equipment meet the exemption if they contain PCBs and are

hazardous under RCRA only because they exhibit the toxicity characteristic for an organic toxic constituent (waste codes D018 - D043).

2.6 EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT (EPCRA)

The primary purpose of the Emergency Planning and Community Right-to-Know Act (EPCRA) is to inform citizens about the chemical hazards present in their communities. Sections 311 and 312 of EPCRA require certain facilities to report, by March 1 of each year, the locations and quantities of chemicals stored on-site to state and local authorities. This helps communities prepare to respond to chemical spills and similar emergencies. Thus, reducing the risk for communities as a whole.

EPCRA §313 requires certain facilities, including RCRA TSDFs and solvent recovery facilities, to report releases of more than 600 designated toxic chemicals to the environment. The reports must be submitted to EPA and the designated state agency by July 1 of each year. The reported data is then compiled in an on-line, publicly accessible national computerized system, known as the Toxics Release Inventory (TRI).

In addition to the inventory reporting requirements, EPCRA also requires facilities to report accidental chemical releases to state and local authorities. As RCRA Information Specialists, you should not try to assist generators and TSDFs with questions about EPCRA, but should transfer them to an EPCRA Information Specialist.

2.7 POLLUTION PREVENTION ACT

The Pollution Prevention Act of 1990 (PPA) established pollution prevention as a national objective, and required EPA to develop and implement a strategy to promote source reduction. The PPA defined pollution prevention as source reduction and other practices that reduce or eliminate the creation of pollutants through increased efficiency in the use of raw materials, energy, water or other resources, or protection of natural resources by conservation. In the PPA, Congress declared that pollution prevention is the highest tier in a hierarchy of acceptable industrial management practices. The pollution that cannot be prevented should be recycled. If it is not feasible to prevent or recycle, pollution should be treated. Disposal or release into the environment should be used only as a last resort.

EPA's Office of Solid Waste incorporated this scheme into their strategy for hazardous waste minimization and combustion. Although the PPA may affect many RCRA-regulated facilities, the PPA did not actually amend RCRA in any way. The PPA did, however, add to the reporting requirements of the Emergency Planning and

Community Right-to-Know Act (EPCRA). Under the PPA, facilities required to file an annual EPCRA Toxic Chemical Release Form for any toxic chemical are also required to provide information on the pollution prevention and recycling activities associated with the reported toxic chemical. Callers inquiring about the PPA may wish to be transferred to EPCRA Information Specialists for more information.

In February 1991, EPA published its Pollution Prevention Strategy to incorporate pollution prevention objectives into every aspect of its already existing programs. Although not an official rulemaking, the Pollution Prevention Strategy set forth a national pollution prevention model and established a voluntary program for companies to reduce environmental releases of 17 priority chemicals by at least 50 percent by the end of 1995. EPA will use the data from the EPCRA Toxics Release Inventory to track the progress of these pollution prevention efforts.

COMMON SENSE INITIATIVE

A major new development that will likely have a greater impact on pollution prevention is the Common Sense Initiative. On July 20, 1992, EPA announced a new approach toward protecting human health and the environment. The goal of this program, called the "Common Sense Initiative," is to focus on changing the current pollutant-by-pollutant regulatory scheme to an industry-by-industry approach. EPA has found that the current regulatory framework — which addresses separate environmental media (air, water, land) — has often had the effect of shifting pollution from one place to another and precluding the use of innovative environmental controls. The Common Sense Initiative will focus on looking for alternatives to the current system of environmental regulation in six pilot industries to establish a comprehensive blueprint for achieving environmental protection. These industries are auto manufacturing, computers and electronics, iron and steel, metal plating and finishing, oil refining, and printing. EPA has established teams consisting of government officials, leaders in environmental interest groups, labor representatives, and industry executives to examine the full range of environmental requirements impacting the pilot industries. Each team will develop recommendations for achieving better, more efficient environmental protection in their industry.

2.8 COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT

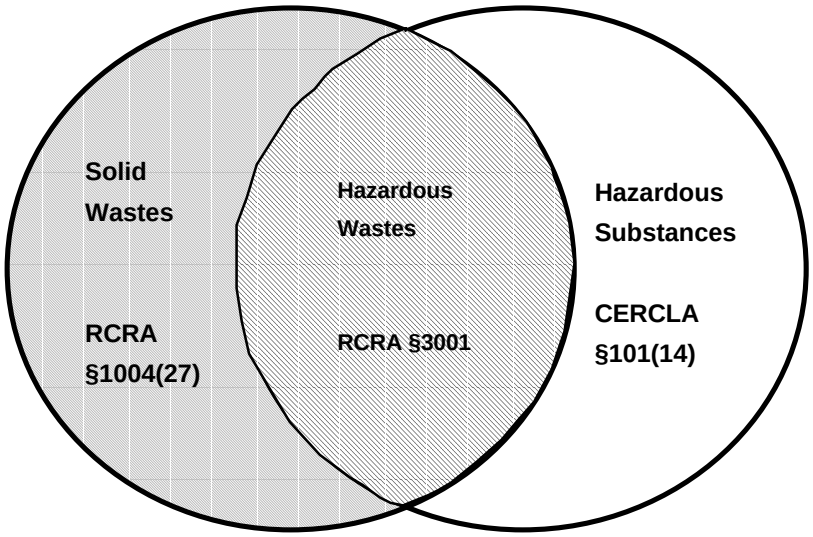
The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), enacted in 1980, provides comprehensive federal response authority to address the problem of uncontrolled hazardous waste. In general, CERCLA is designed to:

- Give the federal government the authority to take action to respond to releases or threats of releases of hazardous substances, pollutants, and contaminants
- Develop a comprehensive program to prioritize hazardous waste sites nationwide
- Identify and compel potentially responsible parties (PRPs) to conduct and/or pay for those cleanups whenever possible
- Advance scientific and technological capabilities in all aspects of hazardous waste management, treatment, and disposal.

CERCLA established a Hazardous Substances Response Trust Fund, known as the Superfund. The Trust Fund is supported by appropriations from Congress, interest earned, and money recovered from responsible parties. The Superfund program was founded on the premise that the polluter pays for the problems created. CERCLA was specifically designed to ensure that cleanup costs are assumed by PRPs up front when possible, and that Trust Fund money is available to fund cleanup when EPA cannot identify the responsible parties, when the responsible parties are bankrupt, or negotiations with responsible parties are not successful. In the latter case, EPA will use Trust Fund money to finance the cleanup, and then pursue the costs from PRPs through legal action.

CERCLA, which was subsequently amended by the Superfund Amendment and Reauthorization Act (SARA) in 1986, applies to releases or threats of releases of hazardous substances, pollutants, or contaminants. CERCLA hazardous substances include all RCRA hazardous wastes as well as substances listed by other statutes, such as TSCA, the CWA, and the CAA. The CERCLA hazardous substances are listed in §302.4. Since the list of CERCLA hazardous substances includes all RCRA hazardous wastes, EPA has the authority to respond to releases of hazardous wastes and to clean up hazardous wastes present at Superfund sites. Figure 2 depicts the relationship between CERCLA hazardous substances and RCRA hazardous wastes.

Figure 2:
RELATIONSHIP BETWEEN CERCLA HAZARDOUS SUBSTANCES AND RCRA HAZARDOUS WASTES



CERCLA requires persons that release any hazardous substances into the environment in certain amounts to report those releases to the National Response Center. This Center will dispatch an emergency response team if the release poses a threat to human health or the environment. Reports made to the National Response Center are one way that EPA learns about potential Superfund sites. Other ways in which EPA learns about sites include reports from citizens and investigations conducted by state, local, and federal agencies. EPA enters data about all potential sites into the CERCLA Information System (CERCLIS).

EPA conducts site investigations at all sites in CERCLIS. EPA or state contractors gather data about the site and rate the threat the site poses to human health and the environment using a mathematical model known as the Hazard Ranking System (HRS). Sites that receive an HRS score of 28.5 or greater are proposed for the National Priorities List (NPL), the list of sites that require federal action. The NPL listing process is conducted as a rulemaking, and public comment is solicited and evaluated before sites are actually put on the NPL. Currently, the NPL contains over 1200 sites that are at some stage in the cleanup process.

The procedures for evaluating, listing, and selecting the appropriate cleanup action for Superfund sites are embodied in a set of regulations known as the National Contingency Plan (NCP), which is codified in 40 CFR Part 300. The NCP sets forth stringent criteria for selecting an appropriate remedy to implement at a Superfund site. In part, EPA borrows the requirements of other environmental laws to determine what cleanup will be appropriate and govern how the cleanup should be conducted. These

borrowed standards are called applicable or relevant and appropriate requirements (ARARs). ARARs are used in conjunction with risk-based goals to govern Superfund response activities and to establish cleanup goals. For instance, if it is appropriate to treat certain hazardous waste and then place the residues in a landfill on the site, RCRA LDR treatment standards dictate the technology used or the standard achieved. As you can imagine, the Superfund remedy selection and implementation process often prompts Hotline calls that contain both RCRA and CERCLA elements.

INTERFACE WITH RCRA

RCRA and CERCLA are built on the common goal of protecting human health and the environment from the dangers of improperly managed wastes and hazardous substances. The statutes employ two fundamentally different approaches to attain this goal. RCRA primarily employs a regulatory, preventative approach, which mandates stringent management of waste from generation to final disposal. CERCLA takes a response approach, which authorizes reporting and cleanup when there has been a breakdown in the hazardous substance and waste management system. CERCLA also reaches back in time to address sites that were contaminated prior to the passage of RCRA. The RCRA corrective action and CERCLA cleanup programs overlap, in that:

- RCRA standards often apply as ARARs to remedies selected under CERCLA. For instance, CERCLA cleanup actions must comply with all RCRA requirements when hazardous waste is transported off the CERCLA site, and with the substantive requirements of the RCRA program when hazardous waste is on the site

- RCRA authorizes a corrective action program that applies when the preventive management standards have failed at a RCRA facility. RCRA corrective action and CERCLA actions may be evoked under similar circumstances.

Under CERCLA §106, EPA has the authority to abate an imminent or substantial danger to public health or the environment that results from a hazardous substance release. The authority under RCRA §7003 is essentially the same, except that RCRA's imminent hazard provision addresses nonhazardous as well as hazardous waste releases. In an enforcement action, the CERCLA and RCRA imminent hazard provisions may be used in tandem to strengthen the government's case.

The RCRA and Superfund cleanup programs follow roughly parallel procedures in responding to releases, although different labels are applied to the procedures. Both programs have procedures for the following:

- Discovery of a release

- Examination of available data to determine if an emergency action is warranted
- Short-term measures to abate the immediate adverse effects of a release
- Investigation and formal study of long-term cleanup options
- Formal selection of a remedy.

Overall, the CERCLA response authority has a far broader reach than RCRA corrective action. The RCRA provisions apply only to RCRA-regulated facilities. CERCLA, on the other hand, can be used to require response work by any PRP at any place where there is a release or potential release of a hazardous substance. Moreover, CERCLA authorizes the use of EPA money or that of third parties for site cleanup, and EPA or the third party can then seek reimbursement from PRPs. The RCRA program can only compel the responsible parties to engage in a cleanup and has no funds to expend on direct cleanup.

USE OF RCRA VERSUS CERCLA CLEANUP AUTHORITY

To conserve Superfund resources, EPA has maintained a policy of only undertaking CERCLA responses at sites that cannot or will not be adequately addressed by another remediation authority. Consequently, instead of listing a site on the NPL, the Agency often defers a site that otherwise meets the NPL criteria to another cleanup authority, particularly the RCRA Subtitle C corrective action authorities. EPA may also decide to delete a site already listed on the NPL if it meets the following criteria:

- EPA deems deferral of the site is appropriate upon evaluation using EPA's current RCRA / NPL deferral policy
- The CERCLA site is currently being addressed under RCRA corrective action authorities under an existing enforceable order or permit containing corrective action provision
- Response under RCRA is progressing adequately
- Deletion would not disrupt an ongoing CERCLA response action.

On the other hand, the Agency will not automatically defer all sites eligible for cleanup under another authority. For example, the Agency will continue to include RCRA sites not subject to Subtitle C corrective action authorities, such as generator and transporter sites, on the NPL. There are also circumstances in which it may be appropriate to use CERCLA authorities to address facilities that are subject to RCRA corrective action but at which necessary corrective actions under RCRA are unlikely to be performed. In

these cases, the Superfund program can provide more immediate protection of human health and the environment, and CERCLA's strong enforcement and liability provisions can be invoked to pursue the responsible parties. The Agency has identified three types of facilities that meet these criteria:

- Facilities owned by persons who are bankrupt
- Facilities that have lost interim status and for which there are additional indications that the owner/operator will be unwilling to undertake corrective action
- Sites, analyzed on a case-by-case basis, whose owners/operators have shown an unwillingness to undertake corrective action.

In 1988, EPA clarified the deferral policy and added the following four categories of RCRA facilities to those types of sites at which it will use CERCLA authority rather than RCRA corrective action:

- Non- or late-filers — treatment, storage, or disposal facilities that managed hazardous waste after November 19, 1980, but did not file Part A RCRA permit applications by that date and have little or no history of compliance with RCRA
- Converters — facilities that previously treated or stored hazardous waste, but have since converted to activities that do not require interim status and have therefore formally withdrawn their Part A applications
- Protective filers — facilities that filed RCRA Part A permit applications as a precautionary measure for treatment, storage, or disposal operations that do not require interim status and are not subject to RCRA Subtitle C corrective action authorities
- Pre-HSWA permittees — sites holding permits issued before the enactment of the Hazardous and Solid Waste Amendments (HSWA).

These types of sites are either not subject to RCRA Subtitle C corrective action authorities or are not high priorities under RCRA and would not be addressed promptly by the RCRA corrective action program. The Agency has therefore decided to place these sites on the NPL if they meet the listing criteria so that, if necessary, CERCLA authorities are fully available.

OFF-SITE RULE

It is important that CERCLA site cleanups always progress in an environmentally sound manner. CERCLA's "off-site rule" states that no hazardous substance may be transferred to a RCRA facility if the RCRA facility has significant violations of environmental laws that may affect its operation. This policy aims to ensure that there are no future environmental threats posed by the management of CERCLA wastes.

APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

Determining exactly which laws and regulations will affect a Superfund response is somewhat different from determining the impact of laws and regulations on activities that take place outside the boundaries of a Superfund site. For instance, for on-site activities, CERCLA requires compliance with both directly applicable requirements (i.e., those that would apply to a given circumstance at any site or facility) and those that EPA deems to be relevant and appropriate (even though they do not apply directly), based on the unique conditions at Superfund sites.

RCRA hazardous waste regulations have the greatest likelihood of being applicable or relevant and appropriate to CERCLA response actions. RCRA ARARs come into play when materials meeting the regulatory definition of a hazardous waste, either because they are listed or exhibit a characteristic, or materials that are similar to hazardous wastes are encountered at Superfund sites.

Applicable RCRA Requirements

In order for a RCRA requirement to be applicable to a Superfund response activity, the materials managed must either be listed in the RCRA regulations or exhibit a hazardous waste characteristic. RCRA requirements are only applicable to wastes defined as hazardous. It is not always readily apparent whether a waste is hazardous, since it is often necessary to know the origin of a waste to determine if it is listed, and detailed information about a waste's origin is not always available at CERCLA sites. Under such circumstances, the lead agency will use available site information, storage records, and other records to make a hazardous waste determination.

For wastes that are hazardous, a variety of substantive and administrative requirements may be applicable if CERCLA site-specific activities coincide with the treatment, storage, and disposal activities regulated under subtitle C. Potentially applicable RCRA standards include design and operating standards for units that treat, store, or dispose of hazardous wastes; treatment standards for wastes that will be placed on the land; groundwater monitoring requirements; and closure standards for treatment, storage, and disposal units. RCRA administrative standards are also potentially applicable when hazardous wastes are sent off-site for further management. Administrative RCRA standards include the obligation to obtain permits at the off-site destination

facility; to keep various records at all hazardous waste treatment, storage, and disposal facilities (TSDFs); and to include a hazardous waste manifest when sending hazardous wastes off-site. No RCRA permits are required for actions that take place on a Superfund site.

Relevant and Appropriate RCRA Requirements

Management of wastes that do not meet the definition of RCRA hazardous wastes may trigger relevant and appropriate RCRA requirements, if the wastes are sufficiently similar to hazardous wastes to warrant such standards. For example, it could be relevant and appropriate, prior to land placement, to subject wastes containing significant concentrations of RCRA hazardous constituents (i.e., chemical constituents found in listed or characteristic hazardous waste) to LDR treatment standards. The mere presence of RCRA hazardous constituents in a CERCLA waste does not, however, necessarily mean that the waste is sufficiently similar to a hazardous waste to trigger relevant and appropriate RCRA standards. These types of questions cannot be answered definitively by the Hotline. The EPA officials overseeing the cleanup must make the final decision regarding the implementation of relevant and appropriate requirements.