

1. BACKGROUND: The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) provides authority for the EPA to respond to a release or threat of a release of any pollutant or contaminant which may pose a potential threat to human health and/or the environment. One provision within the CERCLA regulations requires generators/facility owners to notify the National Response Center (NRC) when certain quantities of "hazardous substances" are released into the environment.

2. DEFINITION OF HAZARDOUS SUBSTANCE: Under CERCLA, there are two categories of hazardous substances: listed and unlisted. All listed substances and their corresponding reportable quantities (RQ) are found in 40 CFR 302.4. Unlisted hazardous substances are those solid wastes that exhibit any of the characteristics identified in Subpart C of 40 CFR 261 (the RCRA "D" wastes). Ignitable (D001), corrosive (D002), and reactive wastes (D003) have a RQ of 100 pounds, while those wastes exhibiting the Toxicity Characteristic (D004-D043) have the RQ listed in 302.4 for the specific contaminant on which the characteristic was based.

3. APPLICABILITY: In order for a release to be considered "reportable" under CERCLA, there are three criteria that must be met. The release must: 1) be into the environment; 2) be equal to or exceed the RQ for a particular substance; and 3) occur within a 24-hour period. Under CERCLA, the term environment is defined broadly to include any surface water, groundwater, drinking water supply, land surface, subsurface strata, and ambient air.

4. EXCLUSIONS: Certain types of releases are exempt from CERCLA's reporting requirements, regardless of the quantity of contaminant released. Two exclusions that are most significant are federally permitted releases, and releases of petroleum products. a) Petroleum Exclusion: The petroleum exclusion includes gasoline and its hazardous constituents such as benzene, toluene, and xylene, even though these constituents are specifically listed as hazardous substances under CERCLA. It should be noted that the exclusion does not automatically extend to used substances; it is limited to products that are indigenous to the petroleum product.

Substances added to the petroleum as a result of contamination during use, such as chlorinated solvents or metals, are not within the scope of the exclusion and are potentially CERCLA hazardous substances. b) Federally Permitted Releases: CERCLA Section 101(10) defines this phrase in terms of releases permitted under a number of other environmental statutes, such as the Clean Water Act, the Clean Air Act, and the Resource Conservation & Recovery Act. Not only are these types of releases exempt from CERCLA's notification requirements, but they are also exempt from CERCLA liability altogether.

5. RELEASES OF MIXTURES/SOLUTIONS: The CERCLA regulations pertaining to releases of mixtures are contingent upon whether or not the generator has knowledge of the actual quantity of the hazardous constituents within the mixture. If this information is known, generators may perform calculations and determine the exact amount of a hazardous constituent released. However, if the contaminant concentration is unknown, the reportable quantity applies to the waste mixture itself, not merely to the toxic contaminant. The following example illustrates this point. A transformer containing 300 ppm PCBs has spilled 200 gallons of oil into the soil within a 4-hour period.

U.S. Army Public Health Command (Provisional) Hazardous and Medical Waste Aberdeen Proving Ground, MD 21010-5403 Commercial (410) 436-3651/DSN 584-3651 Since the exact quantity of PCBs is known, the following equation can be utilized to determine if the release exceeded the one pound PCB reportable quantity.

"Z" = ("X"mg) ("Q"gal) ("D"lbs) (1 kg)

kg gal 106 mg *

"X" = PCB concentration of fluid in mg/kg (ppm)
"Q" = Approximate quantity of fluid spilled in gallons
"D" = Density of fluid in pounds/gallon (if unknown, assume 10 lb/gal)
"Z" = pounds of PCBs in fluid spilled
* This number is a conversion factor that is used because ppm is mg/k

* This number is a conversion factor that is used because ppm is mg/kg, which is a metric unit and the required answer is in pounds, an English unit.

Using the numbers involved in the actual spill, we arrive at the following:

(300) (200) (10)

----- = 0.6 lbs of PCBs (Not a reportable quantity)

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6. NOTIFICATION: Generators or facility owner must notify the NRC at (800) 424-8802 as soon as they have knowledge of a CERCLA hazardous substance release that equals or exceeds its RQ. Failing to report such a release, or providing false information are criminal actions. There are generally no initial penalties associated with reporting, however, the information is maintained in a database and generators may be held liable for future clean up at the site. Reporting a release to the NRC automatically fulfills any related notification requirements under the Clean Water Act, the Department of Transportation, and the Resource Conservation & Recovery Act. However, generators must place separate calls to both the State Emergency Response Commission and to the Local Emergency Planning Commission to satisfy the reporting requirements under section 355.40 of the Emergency Planning and Community Right-To-Know Act (EPRCA).