



# EPCRA & CERCLA 103 Reporting Requirements

E-Plan Users' Conference  
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# Overview

- Focus on regulatory & legislative requirements related to:
  - Notification for hazardous chemical releases
  - Community emergency planning
- Provide an overview of requirements of:
  - Emergency Planning and Community Right-to-Know Act (EPCRA)
  - Section 103 of the Comprehensive Environmental Response, Compensation, and Liabilities Act (CERCLA)



# Introduction

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# Objectives

- Overview of EPCRA & CERCLA Section 103
- Learn actions that facilities must take to comply
- In-depth focus on release reporting and emergency response requirements



# **CERCLA Section 103 – Notification Requirements**



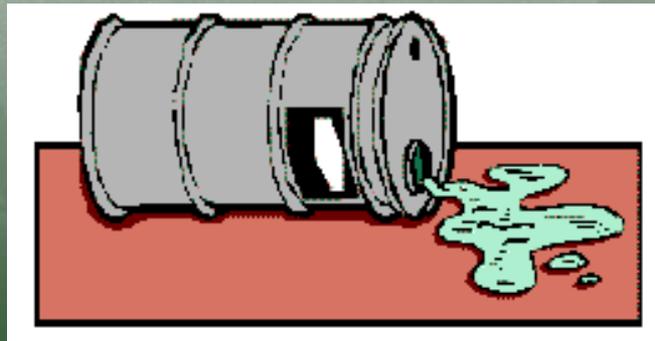
# Statutory & Regulatory Background

- CERCLA (1980)
  - Reportable Quantity (RQ) Adjustments (1985)
  - Reporting Continuous Releases of Hazardous Substances (1990)
- Superfund Amendments and Reauthorization Act (SARA) (1986)
  - Emergency and Hazardous Chemical Inventory Forms and Community Right-to-Know Reporting Requirements (1987)



# The Big Picture

- CERCLA
  - Identifies sites that may warrant Superfund response action
  - Mandates notification to federal authorities in case of accidents or emergencies
- EPCRA
  - Mandates notification to state & local authorities in case of accidents or emergencies



# List of SERCs

State	SERC
Alabama	Alabama Emergency Management Agency
Florida	Florida Division of Emergency Management State Emergency Response Commission
Georgia	Georgia Environmental Protection Division
Kentucky	Kentucky Emergency Response Commission
Mississippi	Mississippi Emergency Management Agency State Emergency Response Commission
North Carolina	North Carolina Department of Public Safety Division of Emergency Management
South Carolina	SC Dept. of Health and Environmental Control Emergency Response Section under EO 2001-41 not to SC Emergency Management Division State Emergency Response Commission
Tennessee	Tennessee Emergency Response Agency



# The Basics: Reporting a Release

**CERCLA Reportable Release  
(Hazardous Substance)**



**Call NRC  
Immediately  
(40 CFR §302.6(a))**

**EPCRA Reportable Release  
(Hazardous Substance or  
EHS)**



**Call SERC & LEPC  
Immediately  
(40 CFR §355.40(b)(1))**



**Written Follow-up  
Emergency Notice  
40 CFR 355.40(b)(3)**



# CERCLA & EPCRA Notification Requirements

- CERCLA §103
  - Any **person in charge** of a **vessel** or an onshore or offshore **facility** shall, as soon as he has knowledge of any **release**...of a **hazardous substance** from such **vessel or facility** in quantity equal to or exceeding the **reportable quantity**...in any **24-hour period**, immediately notify the NRC
    - 1-800-424-8802
- EPCRA §304
  - Any **facility** at which a hazardous chemical is produced, used or stored and at which there is a **release** of a **reportable quantity** of any **extremely hazardous substance (EHSs)** or **CERCLA hazardous substance**...shall immediately notify the LEPC and SERC

40 CFR §§302.6(a) & 355.40(a)



# What is a Facility?



40 CFR §§302.3 & 355.20



# What is a Facility?

- Under CERCLA, a *facility* is defined as:
  - Any building, structure, installation, equipment, pipe or pipeline, well, pit, pond, lagoon, impoundment, ditch, landfill, storage container... (§101(9))
- Under EPCRA, a *facility* is defined as:
  - All buildings, equipment, structures, and other stationary items that are located on a single site or on contiguous or adjacent sites and that are owned or operated by the same person (§329)



# What is a Release?

- *Release* means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing *into the environment...*



CERCLA §101(22), 40 CFR §302.3; EPCRA §304, 40 CFR §355.20



# Is This into the Environment?

- *A release directly to*

- Land

- Air

- Water

***Into the Environment***

- *A release that is*

- Wholly enclosed

***Not Into the Environment***



# Aggregating Releases



# Aggregating Releases

- All releases of same substance from single facility in any 24 hour period must be aggregated to determine whether an RQ has been released from facility into the environment (50 FR 13456, 13459; April 4, 1985)



# Time Period of Release

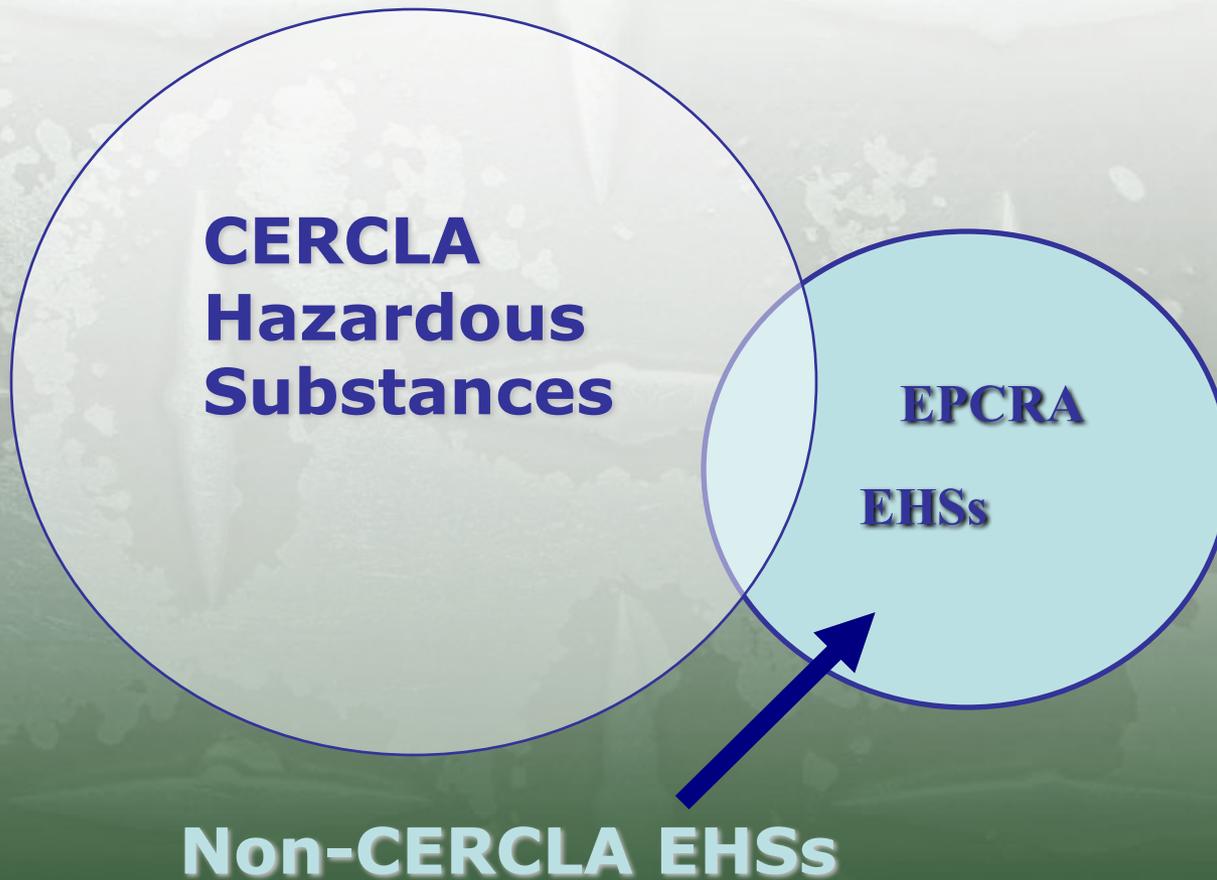
- The total amount of hazardous substance released within any twenty-four hour period must be aggregated & compared with its RQ
- *Immediate notification* required once RQ is equaled or exceeded



50 FR 13456, 13463; April 4, 1985  
63 FR 31268, 31283; June 8, 1998



# CERCLA & EPCRA Reportable Substances



# Continuous Release Reporting

- CERCLA Section 103(f)(2)
  - Reduced reporting for continuous releases of hazardous substances that exceed RQ
    - Continuous
      - Occurs without interruption or abatement, or is
      - Routine, anticipated & intermittent during normal operations or treatment processes
    - Stable in quantity & rate
      - Predictable & regular in amount & rate of emission
  - Notification given once
    - Unless change in source or composition of release, change in normal range of release or change in other reported information
  - Follow-up report on first anniversary of initial report
  - Report statistically significant increases



# Summary

## Release Notification

CERCLA

- ✓ Release
- ✓ Hazardous Substance
- ✓  $\geq$  RQ
- ✓ From a Vessel *or* Facility
- ✓ Within any 24-Hour Period



➤ Notify NRC

EPCRA

- ✓ Release
- ✓ Hazardous Substance *or* EHS
- ✓  $\geq$  RQ
- ✓ From a Facility
- ✓ Within any 24-Hour Period



- Notify SERC & LEPC
- Written Follow-up

**WHEN IN DOUBT: REPORT**



# Relationship Between CERCLA Liability & Reporting

- Failure to comply with CERCLA Section 103 notification requirements may result in fines, per offense, of up to \$37,500 and prison sentences of up to three years (or up to five years for second and subsequent convictions)
- Proper and timely reporting of release in accordance with CERCLA Section 103 does not preclude liability for cleanup costs, natural resource damages & costs of any necessary health studies conducted under CERCLA section 104(i)
- A release of CERCLA hazardous substance *below* its RQ does not preclude liability from any damages that may result (including cleanup costs or natural resource damages)



# Questions?



# **Emergency Planning and Community Right-to-Know Act (EPCRA)**



# Bhopal, India

## December 1984



# Bhopal: The World's Worst Industrial Disaster

- On the night of December 2, 1984, an accident at the Union Carbide pesticide plant in Bhopal, India, released at least 30 tons of a highly toxic gas called Methyl Isocyanate, as well as a number of other poisonous gases. The pesticide plant was surrounded by shanty towns, leading to more than 600,000 people being exposed to the deadly gas cloud that night. The gases stayed low to the ground, causing victims throats and eyes to burn, inducing nausea, and many deaths. Estimates of the death toll vary from as few as 3,800 to as many as 16,000, but government figures now refer to an estimate of 15,000 killed over the years. Toxic material remains, and 30 years later, many of those who were exposed to the gas have given birth to physically and mentally disabled children.



# Bhopal (Continued)

- For decades, survivors have been fighting to have the site cleaned up, but they say the efforts were slowed when Michigan-based Dow Chemical took over Union Carbide in 2001. Human rights groups say that thousands of tons of hazardous waste remain buried underground, and the government has conceded the area is contaminated. There has, however, been no long-term epidemiological research which conclusively proves that birth defects are directly related to the drinking of the contaminated water.



# Institute, West Virginia August 1985



# Institute WV Gas Leak

- In August 1985, another Union Carbide plant experienced a [toxic gas leak](#), this time in Institute, WV. More than 100 residents living near the facility were injured.
- In response to the accidents, in 1986, Congress passed the [Emergency Planning and Community Right to Know Act](#) (EPCRA), a major advance in the right-to-know movement. As its name suggests, the law focuses on two main areas: emergency planning for chemical releases and public disclosure of threats from toxic chemicals.



# Emergency Release Notification (Section 304)

- Applicable if both of these conditions are met:
  - Facility at which hazardous chemical is produced, used or stored; and
  - There is a **release** of a **reportable quantity** (RQ) of any **extremely hazardous substance** (EHS) or **CERCLA hazardous substance**



# Emergency Release Notification (Section 304)

- EPCRA notification is in addition to CERCLA release notification requirements:
  - SERC and LEPC (State or area likely to be affected by release)
  - Written follow-up of the notification (as soon as practicable after release)
  - Notify 911 or operator for transportation related-releases



# Hazardous Chemical Reporting

- Two parts to hazardous chemical reporting:
  - Safety Data Sheet (SDS) reporting
    - One-time reporting requirement
  - Hazardous chemical inventory reporting
    - Annual hazardous chemical inventory due by March 1



# Hazardous Chemical Reporting (section 311)

## Requirements:

- Submit SDS or list of hazardous chemicals grouped by hazard category that meet or exceed applicable thresholds to following three entities:
  - State Emergency Response Commission (SERC)
  - Local Emergency Planning Committee (LEPC)
  - Local Fire Department with jurisdiction over facility
- One-time submission
- Supplemental Reporting – Information on new chemicals and significant new information on already submitted chemicals – must be provided within 3 months.



# Hazardous Chemical Reporting (section 312)

- Section 312 – Submit Inventory Form (Tier I/Tier II or State form – paper form) for all hazardous chemicals present at facility at any time during previous calendar year in an amount equal to or in excess of applicable thresholds. Report is due March 1 annually.
  - SERC
  - LEPC
  - Local fire department with jurisdiction over facility
- Tier2 Submit or State Electronic format



# General Duty Clause



- Owners & operators have general duty to:
  - Identify hazards associated with potential accidental release of an “extremely hazardous substance” using appropriate hazard assessment techniques
  - Design & maintain safe facility, taking steps to prevent releases
  - Minimize consequences of accidental releases which do occur
- Not limited to specific list of chemicals or threshold quantities



# Questions?

- For more information, visit:  
[www.epa.gov/emergencies](http://www.epa.gov/emergencies)



# Chemical Release Cases

- Firemen injured
- Release to creek
- Fish kill
- Employee injuries



# Firemen injured

- Material: Aluminum Phosphide used in pesticide
- Characteristics: Toxic, flammable, reacts with water
- Lateness of reporting: 1 hr., 54 mins.
- Location: Southeast Georgia

Description: Rainwater entered the 35 gallon drums stored in the facility and caused the material inside the drums to react and ignite. Firefighters doused water and foam on the fire not knowing what the material is. This action accelerated the fumigants. Seven firefighters were taken to the hospital for inhalation and exposure.



# Release to Creek

- Material: Carburetor cleaner with Ammonium Hydroxide, Naphthalene and Glycol Ether substances
- Characteristics: Toxic ingredients
- Location: Northeast Georgia
- Lateness of reporting: 1 day, 4 hrs., 29 mins.

Description: Firefighters and hazmat teams worked to clean up a spill that sent about 2,300 gallons of carburetor cleaner into a creek near homes in Georgia. The creek turned white and residents nearby notified news media.



# Release to Creek



# Fish Kill

- Material: Sulfuric Acid from poultry processing plant
- Characteristics: Corrosive, harmful to aquatic life
- Lateness of reporting: 16 hrs.
- Location: Northern Alabama

Description: Spill in a Sulfuric Acid tank caused by open valve leaked 900 gallons of Sulfuric Acid into the nearby river. Large numbers of dead fish were found in the river after the spill. The river contains largemouth bass, spotted bass, crappie, bluegill, and long ear sunfish.



# Fish Kill



# Employee injuries

- Material: Sodium Hypochlorite
- Characteristics: Corrosive
- Location: North Carolina
- Lateness of reporting: 3 hrs.

Description: Contracted sanitation workers intended to transfer Sodium Hypochlorite solution to a storage tank. They mistakenly connected fill lines to a tank containing an acid solution. Seven people were admitted to hospital for observation. Several persons were experiencing vomiting and were monitored.



# Questions?

- For more information, visit:  
[www.epa.gov/emergencies](http://www.epa.gov/emergencies)

