Introduction to CERCLA 103, EPCRA & CAA 112(r)

CLU-IN Internet Seminar
November 16, 2009
Course Overview

- 2-hour seminar
- Focused on regulatory & legislative requirements related to:
  - Notification for hazardous chemical releases
  - Community emergency planning
  - Chemical accident prevention
- Provides an overview of requirements of:
  - Section 103 of the Comprehensive Environmental Response, Compensation, and Liabilities Act (CERCLA)
  - Emergency Planning and Community Right-to-Know Act (EPCRA)
  - CAA section 112(r) (the EPA Risk Management Program)
Introductions

• Instructors
  – Steve Mason – EPA Region 6
  – Lynn Beasley – EPA HQ / OEM
  – Sicy Jacob – EPA HQ / OEM
  – Jim Belke – EPA HQ / OEM
Course Objectives

• Overview of CERCLA section 103, EPCRA & RMP
• Understand chemical lists & TQs triggering applicability & common exemptions
• Learn actions that facilities must take to comply
• In-depth focus on release reporting & emergency response requirements
• Understand relationship to other agency’s hazardous chemical regulations
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

- CERLCA
  - 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
CERCLA has statutory requirement for newspaper notice to potentially injured parties – no regulations for this - MRQ (5/1/2006)
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 or 202-267-2675

- **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)

CERCLA 103, EPCRA 204
302.6 and 355.40 in CFR
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)

CERCLA in CFR – 302.3
EPCRA in CFR – 355.10(?)

definition of facility.
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

CERCLA §101(22), 40 CFR §302.3;
EPCRA §304, 40 CFR §355.20
Is This into the Environment?

- A *release* directly to
  - Land
  - Air *Into the Environment*
  - Water
- A *release* that is
  - Wholly enclosed *Not Into the Environment*

April 4, 1985 FR
Starting on page 13462, Column 1, Paragraph 3…
- Enclosed
- Unenclosed
- Facility
- Facility response/public access
- Ambient air
Controlled Releases

- Disposal in landfills
  – RCRA Subtitle C
  – RCRA Subtitle D
  – TSCA
- Discharge to a publicly owned treatment works (POTWs)

deliberate releases


POTW- 2/1986 MRQ & Q&As on Web site
Aggregating Releases

48 FR 23552, 23553; May 25, 1983 and 4/4/85 p. 13459
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)
Aggregate releases of the same HS or EHS that occur within 24-hour period; in other words, it is a moving 24-hour window.

24 hour period does not mean facility O/Os have 24 hours to report a release that exceeds an RQ, it must be immediate

Find this right in CERCLA applicability. Not so with EPCRA.

EPCRA Statute 304(a): facility shall immediately provide notice if the release “occurs in a manner which would require notification under section 103(a) of CERCLA” (63 FR 31268, 31283; June 8, 1998 proposed rule);
The lists of HSs and EHSs are two separate but overlapping lists of substances. The HS list is bigger, but not all EHSs are HSs.

you can have a release of an EHS that is reportable under EPCRA but not reportable under CERCLA. Examples would include bromine and ozone.
Extremely Hazardous Substances (EHSs)

- EPCRA §302 – originally chemicals in Chemical Emergency Preparedness Program (CEPP) Interim Guidance
- EPA has statutory authority to add to or revise list EPCRA §302(a)(2)
- 40 CFR 355 (Appendices A & B)
CERCLA Hazardous Substances

• CERCLA establishes list of “hazardous substances”
  – Approximately 800 specific substances & 1,500 radionuclides
  – Identified under other statutes
    • Clean Water Act (CWA)
    • Clean Air Act (CAA)
    • Toxic Substances Control Act (TSCA)
    • Resource Conservation and Recovery Act (RCRA)
  – Authority to designate (add to list) – CERCLA section 102
    • Substances which, when released into environment may present substantial danger to public health or welfare or environment

• 40 CFR 302.4 – List of Hazardous Substances and Reportable Quantities
CERCLA Hazardous Substances

• CWA hazardous substances & CERCLA hazardous substances
  – All CWA hazardous substances are CERCLA hazardous substances
    • CWA section 311(b)(4)
    • CWA section 307(a)
  – Some CERCLA hazardous substances are CWA hazardous substances
How does EPA choose chemical name(s) to list for each substance on List of Hazardous Substances (40 CFR 302.4)?

- Use name from environmental statutes & implementing regulations
- If more than one name, each chemical name will appear as separate entry (with same CAS Registry Number)

- Column of regulatory synonyms removed in 2002
<table>
<thead>
<tr>
<th>Hybrid Code</th>
<th>Purity %</th>
<th>Purity</th>
<th>Molar</th>
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<td></td>
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<td>3</td>
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</tbody>
</table>

1=CWA §311  
2=CWA §307a  
3=CAA §112  
4=RCRA

100 micron rule  
No RQ established for broad generic categories  
Limited to friable forms only
RQs for radionuclides found in Appendix B
Indicates no RQ, the Agency has not yet established.
<table>
<thead>
<tr>
<th>Index Number</th>
<th>Description of Substance</th>
<th>CASRN</th>
<th>Number of CASRN</th>
<th>List I Categories</th>
<th>List II Categories</th>
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<tbody>
<tr>
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APPENDIX A TO PART 350—IDENTIFICATION OF SUBSTANCES AND REPORTABLE QUANTITIES—CONTINUED

<table>
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<tr>
<th>Index Number</th>
<th>Description of Substance</th>
<th>CASRN</th>
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<td>1065</td>
<td>1</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>
CERCLA Hazardous Substances: Hazardous Wastes

- Listed wastes
  - Dangerous Waste Discarded Chemical Products – P & U (40 CFR §261.33)
    - Specific commercial chemical products in unused form
    - Some pesticides & pharmaceutical products become hazardous waste when discarded
  - Nonspecific Source Wastes – F (40 CFR §261.31)
    - Wastes from common manufacturing & industrial processes (e.g., solvents used in cleaning or degreasing operations)
    - Known as wastes from non-specific sources because processes producing these wastes can occur in different sectors of industry
  - Source Specific Wastes – K (40 CFR §261.32)
    - Wastes from specific industries (e.g., petroleum refining or pesticide manufacturing)
    - Certain sludges & wastewaters from treatment & production processes in these industries

- Unlisted/characteristic wastes – 100 pound RQ
  - Ignitability (D001)
  - Corrosivity (D002)
  - Reactivity (D003)
  - Toxicity (D004 – D043) – See Table 302.4
### Table 302.4—List of Promiscuous Substances and Reportable Quantities—Continued

<table>
<thead>
<tr>
<th>Hazardous Substance</th>
<th>CASRN</th>
<th>UNnumber</th>
<th>Reportable Quantity</th>
<th>Page No.</th>
<th>Promiscous Flag</th>
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</thead>
<tbody>
<tr>
<td>Uranium (U)</td>
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<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Molybdenum (Mo)</td>
<td>12025-81-6</td>
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<td>2000</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Cadmium (Cd)</td>
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<tr>
<td>Chromium (Cr)</td>
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<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Copper (Cu)</td>
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<tr>
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<tr>
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<tr>
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</table>

(continued on next page)
CERCLA Hazardous Substances: Hazardous Wastes

- Releases of wastes that are not individually listed as CERCLA hazardous substances
- CERCLA reporting requirements apply to wastes or waste streams exhibiting characteristics of ignitability, corrosivity, reactivity or toxicity under RCRA
- Release of a non-designated substance exhibiting any of these four RCRA characteristics is release of a hazardous substance if substance is a waste prior to release or becomes a waste after release
- Under RCRA regulations, substance becomes waste after release if it is not cleaned up or if it is cleaned up only for eventual disposal
• Releases of mixtures or solutions *(including hazardous waste streams)* of hazardous substances are subject to notification requirements, if quantity of all hazardous constituents are known, where an RQ or more of any hazardous constituent is released (40 CFR §302.6(b))
CERCLA Hazardous Substances: Hazardous Wastes & the Mixture Rule

- Mixture rule versus RQ for waste listing
  - If exact composition of waste stream is known, report when constituent is released in excess of its RQ
  - If exact composition of waste stream is unknown, report when total quantity released exceeds RQ for waste stream listing
There is one exception. These are haz wastes from the petroleum refining process. **SEE §302.6**
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
Reporting when in doubt is not only a good idea, but EPA has actually said in FR from 3/18/90 (8666) and in the Ehrhart memo (11/15/2000)
Not a Facility

- Household Exclusion
  - CERCLA definition of facility specifically excludes consumer products in consumer use
- EPCRA applicability requires facility to produce, use or store hazardous chemical
  - Hazardous chemical definition excludes household products

40 CFR §§302.3, 355.20 & 370.2
Federally Permitted Release

- Federally permitted releases are not subject to release notification
- Includes discharges in compliance with following permits
  - CWA NPDES
  - CWA dredged or fill material
  - RCRA
  - CWA ocean dumping
  - SDWA UIC
  - CAA
  - State injection
  - State NPDES
  - AEA
Not a Release:
Federally Permitted Releases

- Clean Air Act (CAA) Permits
  - Emission limitations
  - Technology requirements
  - Operational requirements
- Guidance on federally permitted releases for certain air releases (67 FR 18899; April 17, 2002)
  - VOC, PM & NOx
  - Minor sources
  - Waivers, accidents & malfunctions
  - Start-up & shut-down
- Discharges in excess of federally permitted limits
  - Do not qualify as federally permitted releases
  - RQ calculations begin at the point at which release exceeds permit
Not a Release

- Any release which results in exposure to persons solely within workplace
- Emissions from engine exhaust of motor vehicle, rolling stock, aircraft, vessel or pipeline pumping station engine
- Certain releases of source, byproduct or special nuclear material from nuclear incident
- Normal application of fertilizers
Release Notification: CERCLA Exemptions

<table>
<thead>
<tr>
<th>Petroleum exclusion</th>
<th>Normal application of pesticide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer product</td>
<td>Federally permitted releases</td>
</tr>
<tr>
<td>Engine exhaust from motor vehicles</td>
<td>Solid particles (&gt;100 microns) of certain metals</td>
</tr>
<tr>
<td>Nuclear incident</td>
<td>Certain radionuclide releases</td>
</tr>
<tr>
<td>Normal application of fertilizer</td>
<td>Releases to RCRA Subtitle C facilities</td>
</tr>
<tr>
<td></td>
<td>Qualified NOx Emissions</td>
</tr>
</tbody>
</table>

The first five listed are exemptions based on exclusions from definitions:
- petroleum – def HS
- Consumer product – def facility
- Engine exhaust – def release
- nuclear incident – def release
- application of fertilizer – def release

The next four are reporting exemptions from the statute and or regulations:
- pesticide – statute and regs applicability
- fed perm release – statute and reg applic
- solid particle (massive forms of metals) – regulatory (4/4/85)

There are also two administrative exemptions: One for releases to RCRA Subtitle C facilities (50 FR 13456, 13461; April 4, 1985)...
- ...and NOx exemption - October 4, 2006,
## Release Notification: EPCRA Exemptions

<table>
<thead>
<tr>
<th>Household product</th>
<th>Normal application of pesticide</th>
</tr>
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<tr>
<td>Engine exhaust from motor vehicles</td>
<td>Federally permitted releases</td>
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<tr>
<td>Nuclear incident</td>
<td>Certain radionuclide releases</td>
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<td>Normal application of fertilizer</td>
<td>Qualified NOx Emissions</td>
</tr>
<tr>
<td>Release solely within facility boundaries</td>
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</tr>
</tbody>
</table>


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 & 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)
How DOT relates to CERCLA

- CERCLA section 306(a) – Transportation of hazardous substances; listing as hazardous materials; liability for release
  - Department of Transportation (DOT) required to list & regulate as hazardous materials all CERCLA hazardous substances
  - All CERCLA hazardous substances covered by DOT’s Hazardous Materials Regulations
    - Materials shipped in quantities equal to or greater than their RQs
    - Present in single package, above certain concentration thresholds
    - Must be identified as such on shipping papers & by package markings
Questions?
Emergency Planning and Community Right-to-Know Act (EPCRA)
Bhopal, India
December 1984

history...
another Union Carbide Plant, Institute West Virginia,
• Emergency Planning Framework & Emergency Response Planning  
  – Sections 301 & 303
• Emergency Planning Notification  
  – Section 302
• Emergency Release Notification  
  – Section 304
• Hazardous Chemical Inventory Reporting  
  – Sections 311 & 312
• Toxic Chemical Inventory Reporting  
  – Section 313 (managed by OEI/TRI)
Establishment of State Commissions, Planning Districts & Local Committees (section 301)

- State Emergency Response Commissions (SERCs)
- Local Emergency Planning Committees (LEPCs) for each planning district
- Members of LEPCs include representatives from local government, law enforcement, civil defense, fire fighting, first aid, health, media, community groups, facilities, etc.
Emergency Planning Notification (section 302)

- Applicable to any facility that has an Extremely Hazardous Substance (EHS) present at any time at or above its Threshold Planning Quantity (TPQ)
- EHSs & their TPQs are codified in 40 CFR part 355
Facility Requirements:

• One-time notification to SERC & LEPC if any EHS is present in an amount ≥TPQ
  – 60 days after facility becomes subject to requirements

• Designate facility emergency coordinator

• Provide any information necessary for developing & implementing local emergency plan
Emergency Response Plans
(section 303)

• LEPC required to develop an emergency response plan for their community
• Plan should be reviewed annually or more frequently if changes occur
• LEPCs have authority to request any information from facility necessary for developing & implementing emergency response plan
Emergency Release Notification (section 304)

• Applicable if both of these conditions are met:
  – Facility at which hazardous chemical is produced, used or stored; and
  – which there is 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 & 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 (SERC or LEPC phone numbers are not available)
EPCRA section 304 Exemptions

• What is different from CERCLA?
  – **No Petroleum exclusion** (if any EHSs are present in any petroleum product, notification under EPCRA section 304 will apply)
  – **Do not** need to report releases solely within facility boundaries

• All other CERCLA exemptions apply to EPCRA section 304
Hazardous Chemical Reporting (sections 311 & 312) 40 CFR part 370

Applicability:

- Hazardous Chemicals (chemicals that require an MSDS) defined under OSHA Hazard Communication Standard (HCS), which include EHSs
- Exemptions under OSHA HCS
- Exemptions under section 311(e)
- Transportation Exemption (section 327)
Exemptions under OSHA HCS

- **Examples of few exemptions under OSHA HCS:**
  - **Hazardous Waste:** Hazardous waste is exempted from the standard when subject to RCRA regulations.
  - **Consumer Products:** Windshield wiper fluid for cars (however, an employee using windshield wiper fluid on a daily basis is not exempt).
  - **Articles:** Stainless steel table, tires, adhesive tape, etc.

For more details on these & other exemptions, see 29 CFR part 1910.120 (www.osha.gov)
EPCRA section 311(e) Exemptions

- Although OSHA HCS MSDS requirements may apply to these substances, these are excluded from EPCRA sections 311 & 312:
  - Substances regulated by the Food and Drug Administration (e.g., chlorine to bleach flour)
  - Solids in any manufactured item where no exposure occurs under normal conditions of use (e.g., sheets of metal in storage)
  - Personal or household products (e.g., heating fuel at homes but not in business buildings)
  - Substances used in research laboratories, hospitals or other medical facilities under direct supervision of technically qualified individual (e.g., chemicals in school lab under supervision of science teacher)
  - Substances used in routine agricultural operations or fertilizer held for sale by retailer (e.g., ammonia used as fertilizer by farmer)
Hazardous Chemical Reporting
(sections 311 & 312)

Thresholds:
• EHSs – 500 lbs or TPQ whichever is less
• Gasoline – 75,000 gallons (at retail gas station, stored entirely underground, in compliance at all times in previous calendar year with UST requirements)
• Gasohol (90% gasoline & 10% ethanol) – 75,000 gallons (at retail gas station, stored entirely underground, in compliance at all times in previous calendar year with UST requirements)
• Diesel – 100,000 gallons (at retail gas station, stored entirely underground, in compliance at all times in previous calendar year with UST requirements)
• All other hazardous chemicals – 10,000 lbs
• Alternative Fuels (Ethanol & Methanol mixtures...E85, E95, M85), aviation fuel, heating fuel, kerosene:
  – Threshold for these substances (non-EHS hazardous chemicals) is 10,000 pounds
Hazardous Chemical Reporting

- Two parts to hazardous chemical reporting:
  - Material safety data sheet (MSDS) reporting
    - One-time reporting requirement
  - Hazardous chemical inventory reporting
    - Annual hazardous chemical inventory due by March 1
Hazardous Chemical Reporting (section 311)

Requirements:

• Submit MSDS 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 & 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
**Chemical Description**

**Physical and Health Hazard**

**Inventory**

**Storage Codes**

**STORAGE LOCATIONS**

Only 166 characters available including word spaces (Please Print)

<table>
<thead>
<tr>
<th>Storage Code</th>
<th>Storage Location</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>North East Corridor of Plant</td>
</tr>
<tr>
<td></td>
<td>North Side of Plant</td>
</tr>
<tr>
<td></td>
<td>Inside Compressor Room</td>
</tr>
</tbody>
</table>

FEB 26 2009

Certification (Read and sign after completing all entries):

I certify that the information is true, complete and accurate as to the best of my knowledge and belief. However, I am not an expert in the field of this form and cannot verify the accuracy of the information submitted. The information submitted is to the best of my knowledge and belief.

Signature: ____________________________

Date: 2-19-09

Additional Information:

[Optional section for additional comments or information]

[Signature and date]
<table>
<thead>
<tr>
<th>Chemical Description</th>
<th>Physical Properties</th>
<th>Inventory</th>
<th>Storage Codes</th>
<th>STORAGE LOCATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>GAS: 71% TH/3% N2/26% O2</td>
<td>Liquid</td>
<td>3</td>
<td>C</td>
<td>OUTSIDE OF PLANT</td>
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<tr>
<td>Type: Inert Gas</td>
<td></td>
<td></td>
<td></td>
<td>NORTH EAT CORNER</td>
</tr>
<tr>
<td>EHS Name: TH/3% N2/26% O2</td>
<td></td>
<td></td>
<td></td>
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<td>Check All: R/F/9/23</td>
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<tr>
<td>CHEMICAL INFORMATION IN THE LAST PAGE</td>
<td></td>
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<td></td>
</tr>
<tr>
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<td>SOUTH END OF</td>
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<td>COMPRESSOR ROOM</td>
</tr>
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<tr>
<td>Check All: R/F/9/23</td>
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<td></td>
<td>WASTE WATHER DRAIN</td>
</tr>
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<td></td>
<td></td>
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<tr>
<td>Check All: R/F/9/23</td>
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<tr>
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<td>INSIDE NORTH WEST</td>
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<td>CORNER OF WASTE</td>
</tr>
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<td></td>
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</tr>
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<td>CHEMICAL INFORMATION IN THE LAST PAGE</td>
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<tr>
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<td>Liquid</td>
<td>7</td>
<td>C</td>
<td>OUTSIDE IN TRAILER</td>
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<tr>
<td>Type: Inert Gas</td>
<td></td>
<td></td>
<td></td>
<td>NORTH SIDE OF</td>
</tr>
<tr>
<td>EHS Name: TH/3% N2/26% O2</td>
<td></td>
<td></td>
<td></td>
<td>PLANT</td>
</tr>
<tr>
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</tr>
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<tr>
<td>CHEMICAL INFORMATION IN THE LAST PAGE</td>
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</tr>
<tr>
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<td>INSIDE PLANT SHUTDOWN</td>
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<td>WATER</td>
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<td>EHS Name: TH/3% N2/26% O2</td>
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<tr>
<td>Check All: R/F/9/23</td>
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</tr>
</tbody>
</table>
Pennsylvania Tier II Emergency and Hazardous Chemical Inventory

Reporting Period from: January 1, 2007 to December 31, 2007

<table>
<thead>
<tr>
<th>Facility Name/Address</th>
<th>Owner/Operator Name</th>
<th>Chemicals of Concern</th>
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</thead>
<tbody>
<tr>
<td>NEWMAN CHEMICAL COMPANY</td>
<td>NEWMAN CHEMICAL COMPANY</td>
<td></td>
</tr>
<tr>
<td>2800 NEVILLE ROAD</td>
<td>2800 NEVILLE ROAD</td>
<td></td>
</tr>
<tr>
<td>PITTSBURGH</td>
<td>PITTSBURGH</td>
<td></td>
</tr>
<tr>
<td>PA</td>
<td>PA</td>
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</table>

Emergency Contacts

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>

Record Components are listed in the Appendix.

Director: 

Date: 2/29/08

State Commissioner

Signature

65
<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Precaution &amp; Hazard</th>
<th>Inventory</th>
<th>Storage Details &amp; Location</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Chemical D</strong></td>
<td>Fire Pressure, Reaction, Chemical</td>
<td>112.5L</td>
<td>A: 1, 4</td>
</tr>
<tr>
<td><strong>Chemical E</strong></td>
<td>Fire Pressure, Reaction, Chemical</td>
<td>112.5L</td>
<td>A: 1, 4</td>
</tr>
<tr>
<td><strong>Chemical F</strong></td>
<td>Fire Pressure, Reaction, Chemical</td>
<td>112.5L</td>
<td>A: 1, 4</td>
</tr>
<tr>
<td><strong>Chemical G</strong></td>
<td>Fire Pressure, Reaction, Chemical</td>
<td>112.5L</td>
<td>A: 1, 4</td>
</tr>
</tbody>
</table>
Public Availability (section 324)

- Each emergency response plan, material safety data sheet, list described in section 311(a)(2), inventory form & follow-up emergency notice shall be made available to general public shall be consistent with section 322 (Trade Secrets)
Questions?
Clean Air Act (CAA)
section 112(r)
Risk Management Program
Legislative Background

- Clean Air Act Amendments (1990)
  - Chemical Safety Information, Site Security, and Fuels Regulatory Relief Act – CSISSFRRA (1999)
The Clean Air Act established a General Duty Clause.

The CAA required EPA to list at least 100 regulated substances known to cause death or serious adverse effects to human health or the environment (Regulated Substances and Thresholds).

The CAA also required EPA to promulgate regulations and guidance to prevent, detect, and respond to accidental releases of regulated substances. These regulations also include a Risk Management Plan available to government officials and the public (persons except employees or contractors at the stationary source).

The following slides will discuss each of these provisions in more detail.
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

The general duty provisions apply to owners and operators of all stationary sources which have any "extremely hazardous substances". Extremely hazardous substances are not limited to the list of regulated substances listed under section 112(r), nor the extremely hazardous substances under EPCRA §302 (40 CFR Part 355, Appendices A and B).

Although there is no definition for extremely hazardous, the Senate Report on the Clean Air Act provides criteria EPA may use to determine if a substance is extremely hazardous. The report expressed the intent that the term "extremely hazardous substance" would include any agent "which may or may not be listed or otherwise identified by any Government agency which may as the result of short-term exposures associated with releases to the air cause death, injury or property damage due to its toxicity, reactivity, flammability, volatility, or corrosivity" (Senate Committee on Environment and Public Works, Clean Air Act Amendments of 1989, Senate Report No. 228, 101st Congress, 1st Session 211 (1989) "Senate Report").
Final List of Regulated Substances

• 77 toxic & 63 flammable substances
• Toxic mixtures w/ >1% listed toxic substance and partial pressure > 10 mm Hg
• Flammable mixtures w/ >1% listed flammable substance in mixture exceeding NFPA 4 flammability criteria
• Substances with specified concentrations:
  – Nitric Acid (≥80%)
  – Hydrofluoric Acid (≥50%)
  – Hydrochloric Acid (≥37%)
  – Aqueous Ammonia (≥20%)
The Risk Management Program is designed to:

- Prevent accidental chemical releases to air
- Minimize the consequences of releases that do occur
- Provide information about chemical hazards to public & government officials

The release of these types of chemicals could result in toxic conditions, fires, or create explosive hazards.

Goals of the Risk Management Program:

- Prevent Accidental Release of Regulated Substances (Toxics and Flammables)
- Reduce Regulated Substances (Toxics and Flammables) at the local level
- Effective management of chemical processes
- Communicate dangers with local responders and the community
Applicability Criteria

• Facilities meeting all of following criteria are subject to 40 CFR Part 68:
  – Stationary source
  – With one or more regulated substances
  – Contained in a process
  – Above a threshold quantity

Definition of “Stationary Source”: “…any buildings, structures, equipment, installations or substance emitting stationary activities”
(i) which belong to the same industrial group,
(ii) which are located on one or more contiguous properties,
(iii) which are under the control of the same person (or persons under common control), and
(iv) from which an accidental release may occur.” (CAA section 112(r)(2))

Definition of “process”:
Any activity involving a regulated substance, including any use, storage, manufacturing, handling, or on-site movement of such substances, or combination of these activities.
Any group of vessels that are interconnected, or separate vessels that are located such that a regulated substance could be involved in a potential release, are considered a single process.

More information can be found in the List of Lists.
RMP Regulation – Requirements

- Offsite consequence analysis
- Five-year accident history
- Accident prevention program (most facilities)
- Emergency response program or plan
- Risk Management Plan (RMP)
Simplified Illustration of Fictional Worst-Case and Alternative Release Scenarios on a Local Map

Source has:
2 regulated Toxic substances
1 regulated Flammable substance

Toxic WCS distance to endpoint

Toxic ARS 1
Toxic ARS 2
Flammable WCS

Rail Spur

Source Boundary
Prevention Program Levels

• Covered processes placed into one of 3 “Program Levels”
  – Program 1 – processes with no public receptors in worst case scenario zone & no significant accidents in last five years
  – Program 3 – processes not eligible for P1 that are already covered by OSHA PSM or that are within any of 10 specified NAICS codes
  – Program 2 – processes not eligible for P1 & not covered by P3
Emergency Response Program

- Program 1 processes: Owner/operator must ensure that response actions have been coordinated with local emergency planning and response agencies.
- Program 2 & 3 processes: Requirements depend on whether facility uses its own employees to respond to accidental releases.
ER Program: P2 & P3 Non-Responding Facilities

• Facilities that rely on public responders must:
  – Have appropriate notification mechanisms in place
  – Coordinate response actions with community ER plan or local fire department
Facilities that use their own employees to respond to accidental releases must have:

- Written ER plan addressing response procedures, medical treatment, public & local authority notification
- ER equipment inspection, testing & maintenance
- Training for all employees in relevant procedures
Risk Management Plans

- Executive summary
- Registration info: Facility ID, location, lat/long, chemical process info (e.g., NAICS, chemical name, CAS #, quantity), etc.
- 5-year accident history
- Accident prevention program info: hazard analysis methods, mitigation measures, etc.
- Emergency response planning information
- Offsite consequence analysis: Worst-case & alternative release scenarios
Submission Type:

Use the drop-down list to select a submission type, or you can leave this section blank if you prefer to search on all submission types.

Geographic Location:

By entering facility geographic information, you will be able to link your search of RFPs to geographic areas that interest you. You must choose a state from the drop-down list, all other geographic search criteria are optional. If you are interested in searching RFPs that are within the jurisdiction of your Local Emergency Planning Committee (LEPC), you may want to start by visiting the LEPC Contact Database web site. This will lead you to a database that gives you the name and address of your nearest LEPC.

City Code:

State:

County:

ZIP Code:

Note: Counts of the current and total RFPs in the database as well as current and total RFPs by state are listed on the RFPInfoDatabase Totals web page.

North American Industrial Classification System (NAICS) Codes:

Choose a NAICS code to limit the search to RFPs that have similar operations to the classification codes you have entered. If you choose a high-level NAICS code, RFPs that contain lower level NAICS codes will also be found. For example, entering a NAICS code with 4 digits will return RFPs containing 4, 5, and 6-digit codes that start with those digits. If you choose to leave this section blank, you will get RFPs containing any NAICS codes. Enter a NAICS code here or click the NAICS Code button to find a specific code. To better understand what each code means, click the NAICS Code button and find the description of the code.

If you are interested in comparing RFP information across facilities that have similar operations, searching by NAICS codes will be helpful.
### Risk Management Plans

Click on the undefined Plan Sequence number to view the Risk Management Plan (RMP) for the facility. The plan sequence number is a number that uniquely identifies each Risk Management Plan in RMP Info. This record list is sorted by state, facility name, receipt date, and plan sequence number.

<table>
<thead>
<tr>
<th>Plan Sequence</th>
<th>EPA Facility Identifier</th>
<th>Facility Name</th>
<th>Facility City</th>
<th>Facility Acres</th>
<th>Receipt Date</th>
<th>State</th>
<th>Date</th>
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</thead>
<tbody>
<tr>
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<td>TX</td>
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</tr>
<tr>
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<td>19-JUL-2009</td>
<td>19-JUL-2009</td>
<td>TX</td>
<td></td>
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Record 1 to 2 of 2

Your Search Criteria:

City, State EPP: Texas City, TX; 71392
RMP*Info Risk Management Plan Detail

Section 1. Registration Information

The Registration section of the Risk Management Plan gives you important information on the facility's location, chemical storage, and industrial processes.

You can find who to call for emergencies and questions about a company's operations, as well as standard address and location information.

Other process-specific information includes: regulated substances (and quantities), the program level, and the North American Industry Classification System (NAICS) codes. NAICS codes describe what the process does (e.g., water treatment, welding). Both of these sections will help you identify specific operations at a facility and you can compare these operations with similar facilities in other parts of the country.

NOTE: NAICS is the new industrial classification system that replaces the more familiar Standard Industrial Classification codes.

NOTE: Throughout RMP*Info, required data elements are marked 'x' where they apply and are left blank where they do not apply, or where the answer is no.

Source Identification

Facility Name: IDP Technologies - Texas City
Parent Company #1 Name: International Specialty Products Inc.
Parent Company #2 Name:

Submission and Acceptance

Submission Date: No submission
Submission Reason: No submission
Description: Slightly updated 48 CFR 68.195(c)(3)
Receipt Date: 19-June-2016
Postmark Date: 19-June-2016
Next Due Date: 19-June-2016
Completeness Check Date: 19-June-2016
Complete RMP: Yes
Emergency Contact

Emergency Contact Name: David Radiance
Emergency Contact Title: Manager, Safety and Environmental
Emergency Contact Phone: (508) 949-9237
Emergency Contact E-mail Address: dradiance@apenate.com

Other Points of Contact

Facility or Plant Cacausa E-mail Address: n/a
Facility Public Contact Phone: n/a
Facility or Parent Company Website: n/a

Local Emergency Planning Committee

LEPC: Texas City, and La Marque LEPC

Full Time Equivalent Employees

Number of Full Time Equivalents (FTE) on Site: 370
FTE Claimed as CBT:

Covered by

OSHA: Yes
CPHS: Yes
CEA TDU: V
Air Operating Permit SW-8-05102

OSHA Ranking

OSHA Year or Rank Ranking:
The ISP Texas City Plant is a chemical manufacturing facility located in Texas City, Texas. Chemicals manufacturing commenced on the 550-acre site in 1987. ISP Texas City employs approximately 170 house and salaried personnel. We use the following chemicals as our feed stock: adiponitrile, butadiene, ethylene, propylene, toluene, naphthalene, water. The chemicals are used to produce a variety of intermediates and final products, including but not limited to adiponitrile, adipic acid, acrylonitrile, butadiene rubber, carbon black, nylon, propylene, and aromatic chemicals. ISP Texas City is committed to the safety and environmental management of its operations, adhering to applicable federal, state, and local regulations. The facility is registered with the Environmental Protection Agency (EPA) and complies with all applicable regulations. The company also operates an emergency response plan in accordance with the National Response Plan (NRP) to ensure prompt and effective response to emergencies, whether on- or off-site. ISP Texas City is dedicated to the safe and environmentally sound operation of its facilities.
1.6 Fire- and Accident History

In the last 5 years, there have been no releases at the TIP Texas City site that have resulted in deaths, injuries, or known deaths, injuries, evacuations, sheltering in place, offsite property evacuations, or environmental damage.

1.7 Emergency Response Program

The Texas City Plant maintains a written emergency response program, which is in place to protect worker and public safety as well as the environment. The program covers procedures for responding to a release of a regulated substance including the possibility of a fire or explosion. It specifies adequate personnel and procedures for identifying the source of the release and for rapid response to protect people and the environment. The emergency response program is also designed for minimizing releases presenting for plant personnel after an evaluation, notification of local emergency response agencies and the public if a release occurs, and post-incident startup and decontamination requirements. In addition, the Texas City Plant has procedures that address maintenance, inspection, and testing of emergency response equipment, as well as instructions that address the use of emergency response equipment. Employees receive training in these procedures to perform their specific emergency response duties. The emergency response program is updated whenever necessary, based on modifications made to plant processes or hardware. This emergency response program changes are administered through the management of change process, which includes informing and/or training affected personnel in the changes.

The overall emergency response program for the Texas City Plant is coordinated with the Texas City fire department, local emergency planning committee (LEPC), and other federal agencies. Texas City Plant, in cooperation with appropriate LEPC officials and emergency response organizations, will ensure the availability of appropriate equipment to respond to emergencies. This includes providing local emergency response organizations with the necessary equipment to respond to emergency situations.

1.8 Planned Changes to Improve Safety

Texas City Plant consistently strives to improve the safety of its operations through periodic safety audits, the incident investigation program, and a program soliciting safety suggestions from the workers. The Texas City Plant receives all findings from these audits, which result in modifications to the process. The following changes are planned during the next 5 years:

- Upgrade additional analysis shutdown system in final purifying reactor area
- Add additional system to bellhouse to storage tank and loading area
- Add additional sensors with air monitoring systems

Click on the registration information link to return to the registration information web page.

Link: [registration information]

Last updated on: [date]

http://example.com/registration_info#TIP_CLP4601_dsk_dsk
Error/Warning Reports

Error/Warning Report: No errors/warnings were recorded

Reportable Accidents

Reportable Accidents: See Section 6. Accident History below to determine if there were any accidents reported for this RMP.

CDX Transactions or Other Corrections

Corrections to RMPs made by regulated facilities through the RMP™ WebRC tool or other Corrections made by the Reporting Center

CDX Transactions or Other Corrections: No Transactions.

- Process Chemicals
- Section 2. Toxics: Worst Case
- Section 3. Toxics: Alternative Release
- Section 4. Flammables: Worst Case
- Section 5. Flammables: Alternative Release
- Section 6. Accident History
- Sections 7 and 8. Process HAZ/Prevention Programs
- Section 9. Emergency Response

Exported Report

NOTE: After the Download Report is displayed, the browser "Save As" function can be used to save the report to a text file.
## RMP*Info Risk Management Plan Detail

**Process Chemicals**

<table>
<thead>
<tr>
<th>Process ID/Description</th>
<th>Process Chemical ID</th>
<th>Program Level</th>
<th>Chemical of Name</th>
<th>CAS Number</th>
<th>Quantity/Unit</th>
<th>Flamable/Toxic</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMP</td>
<td>1300000005</td>
<td>3</td>
<td>Methoxamine [Methanol]</td>
<td>71-48-9</td>
<td>3,390,000,000</td>
<td>FLAMABLE</td>
</tr>
<tr>
<td>Polymers</td>
<td>1300000009</td>
<td>3</td>
<td>Styrene monomer [styril and adhered salt]</td>
<td>100-42-5</td>
<td>120,000,000</td>
<td>TOXIC</td>
</tr>
<tr>
<td>Polyethylene</td>
<td>1300000002</td>
<td>3</td>
<td>Ethylene</td>
<td>144-62-8</td>
<td>35,000,000</td>
<td></td>
</tr>
<tr>
<td>Polypropylene</td>
<td>1300000010</td>
<td>3</td>
<td>Propylene</td>
<td>74-88-5</td>
<td>30,000,000</td>
<td></td>
</tr>
</tbody>
</table>

Click on the [Registration Information](http://www.epa.gov/opa/rmp) link to return to the Registration Information web page.

**Notes:**

- Last updated on: August 6, 2009
- [http://www.epa.gov/opa/rmp](http://www.epa.gov/opa/rmp)

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Geographic Distribution of RMP Facilities
This slide represents the percentage of RMP processes that contain the various chemicals shown.

The United States has just under 15,000 RMP facilities containing 20,210 covered processes.

There are more processes than facilities, since some facilities have more than one process. Likewise, a single process may contain more than one RMP chemical. In calculating the percentages on this slide, a process was counted once for each chemical it contains. Therefore, while the total number of RMP processes in the United States is just over 20,000, the total number of different “chemical streams” in those processes is actually over 25,000.

Top six chemicals, as measured by the number of processes they occur in are Ammonia (Anhydrous), Chlorine, Flammable Mixture, Propane, Sulfur Dioxide, and Aqueous Ammonia. They account for 75% of all RMP processes.
This slide shows percentage of chemicals by quantity, instead of by number of processes. The aggregate percentages represent the sum of all quantities of each chemical in all processes with that chemical.
This slide shows percentage of chemicals by quantity, instead of by number of processes. The aggregate percentages represent the sum of all quantities of each chemical in all processes with that chemical.
RMP Reported Accidents

[Bar chart showing the number of accidents reported by year from 1995 to 2007.]
Questions?

• For more information, visit: 
  www.epa.gov/emergencies
Thank You

After viewing the links to additional resources, please complete our online feedback form.

Thank You

Links to Additional Resources

Feedback Form