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

CLU-IN Internet Seminar
November 16, 2009

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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)

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Introductions

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

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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

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CERCLA section 103 – Notification Requirements

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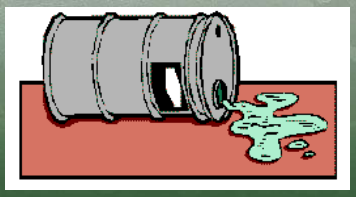
Statutory & Regulatory Background

- 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



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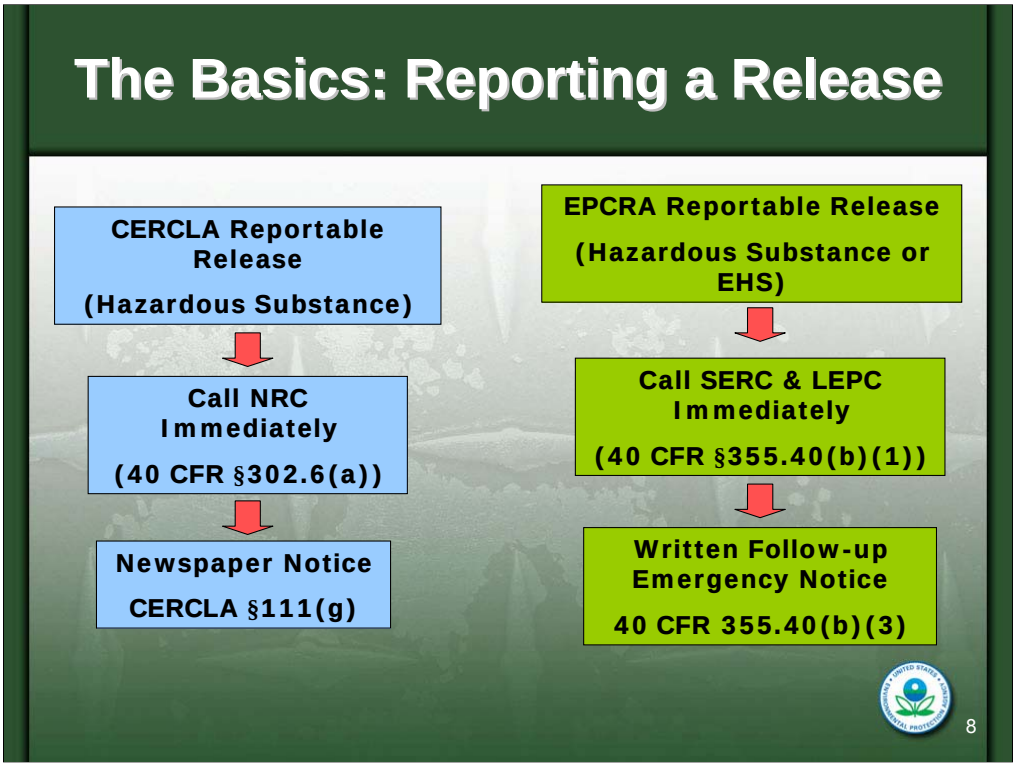
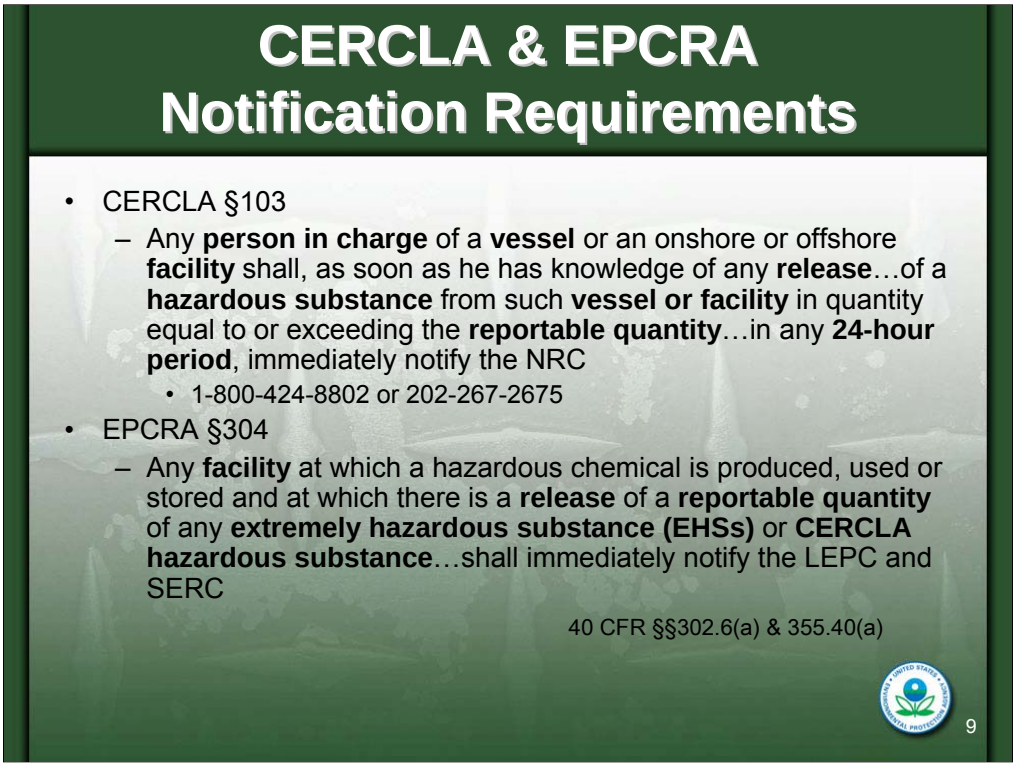


CERCLA has statutory requirement for newspaper notice to potentially injured parties – no regulations for this - MRQ (5/1/2006)



CERCLA 103, EPCRA 204

302.6 and 355.40 in CFR

What is a Facility?

40 CFR §§302.3 & 355.20

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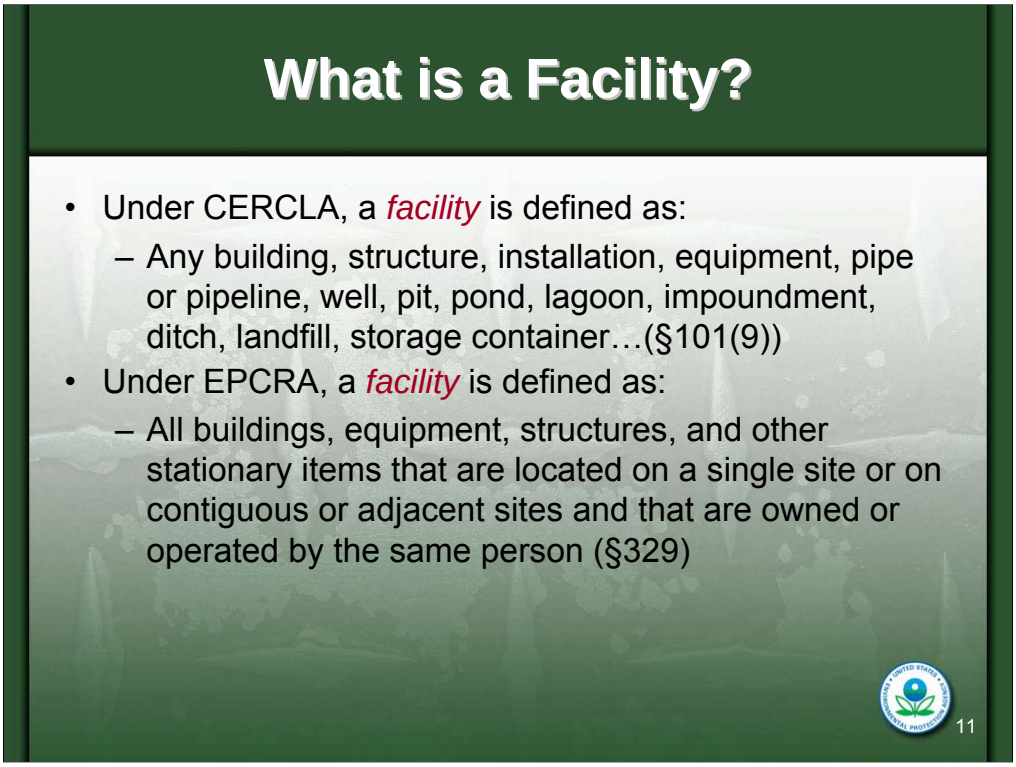

definition of facility.

CERCLA in **CFR – 302.3**

EPCRA in **CFR – 355.10(?)**

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

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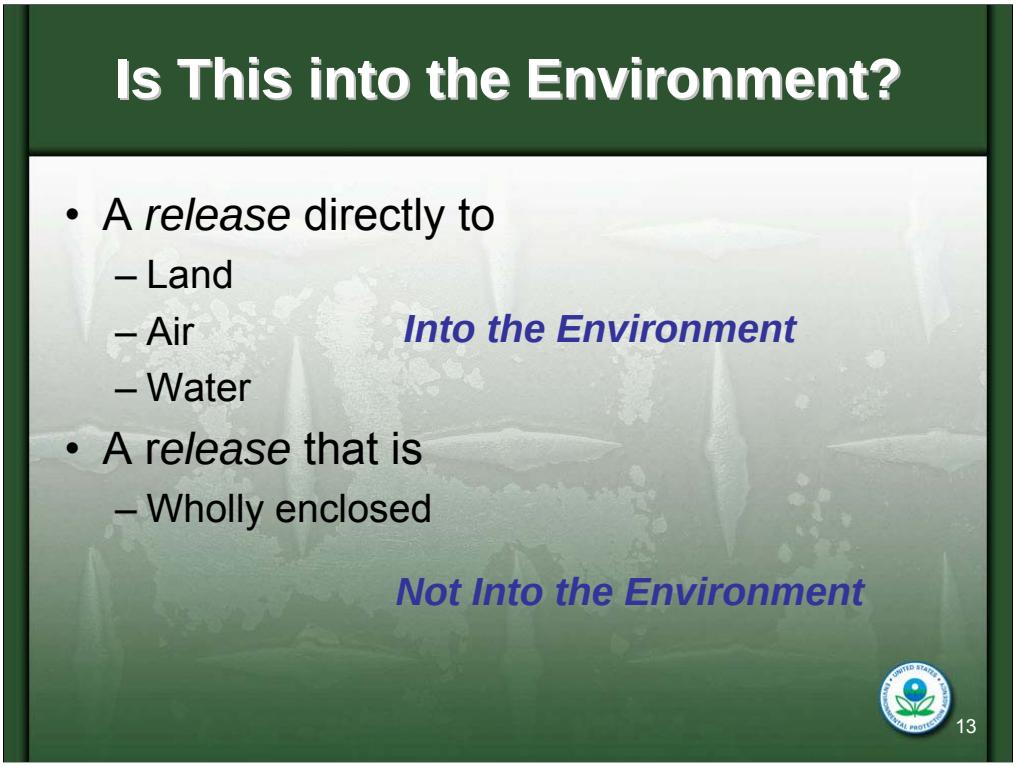
CERCLA §101(22), 40 CFR §302.3;
EPCRA §304, 40 CFR §355.20



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)

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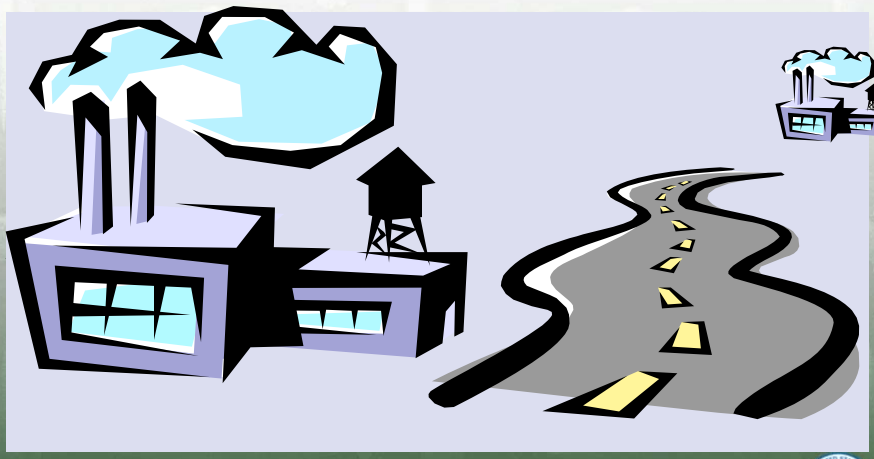
deliberate releases

Landfill- April 4, 1985, p. 13461-2.

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

Aggregating Releases



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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)

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

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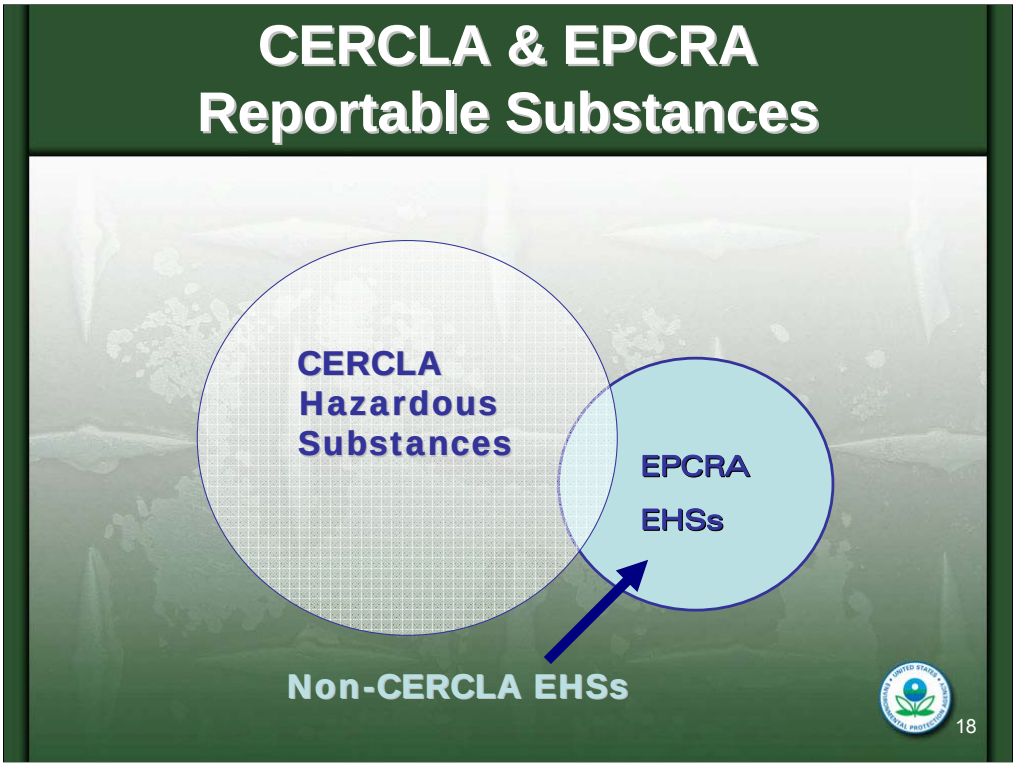
Aggregate releases of the same HS or EHS that occur within 24-hour period; in other words, it is a moving 24-hour window.

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)

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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

CERCLA 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

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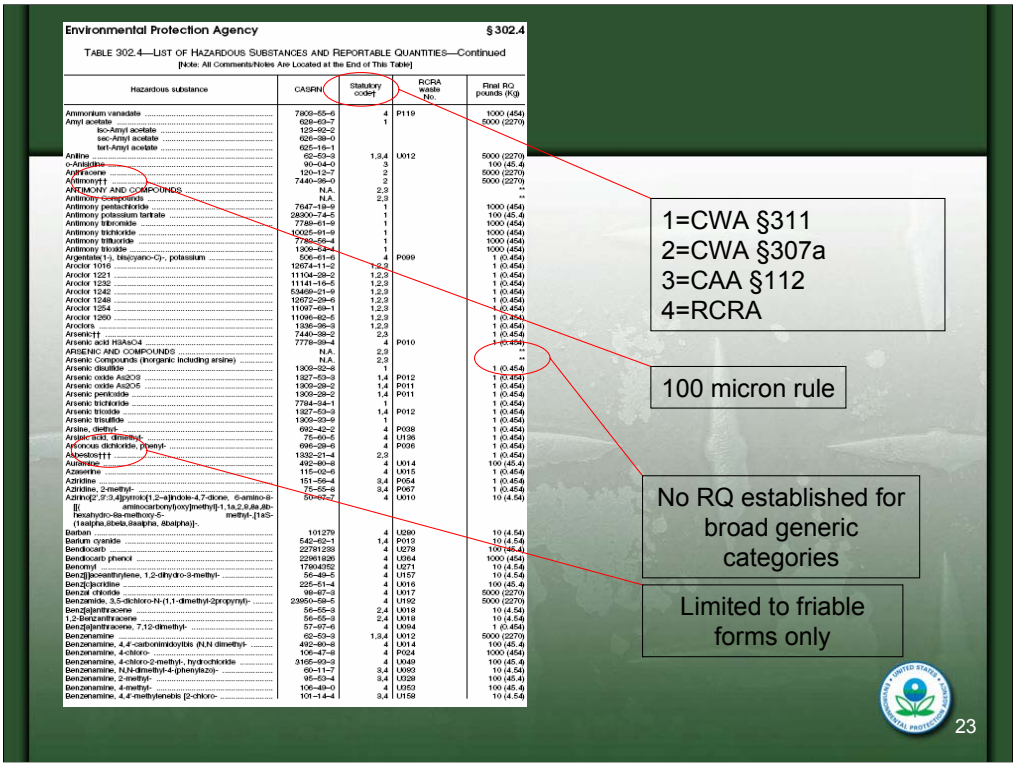
Environmental Protection Agency
§ 302.4
TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued
[Note: All Comments/Notes Are Located at the End of This Table]
Hazardous substance
CASRN
Statutory code†
RCRA waste No.
Final RQ pounds (Kg)
1=CWA §311
2=CWA §307a
3=CAA §112
4=RCRA
100 micron rule
No RQ established for broad generic categories
Limited to friable forms only
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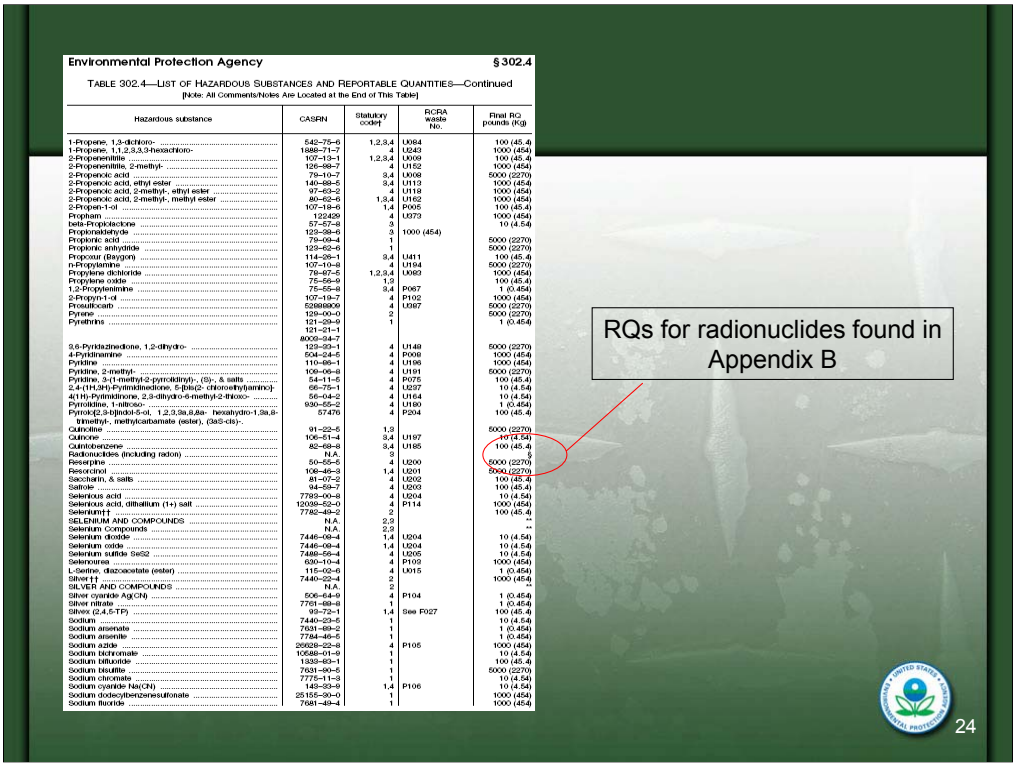

Environmental Protection Agency § 302.4

TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

[Note: All Comments/Notes Are Located at the End of This Table]

Hazardous substance	CASRN	Statutory code†	RCRA waste No.	Final RQ pounds (Kg)
1-Propene, 1,3-dichloro-	542–75–6	1,2,3,4	U084	100 (45.4)
1-Propene, 1,1,2,3,3,3-hexachloro-	1888–71–7	4	U243	1000 (454)
2-Propenenitrile	107–13–1	1,2,3,4	U009	100 (45.4)
2-Propenenitrile, 2-methyl-	126–98–7	4	U152	1000 (454)
2-Propenoic acid	79–10–7	3,4	U008	5000 (2270)
2-Propenoic acid, ethyl ester	140–88–5	3,4	U113	1000 (454)
2-Propenoic acid, 2-methyl-, ethyl ester	97–63–2	4	U118	1000 (454)
2-Propenoic acid, 2-methyl-, methyl ester	80–62–6	1,3,4	U162	1000 (454)
2-Propen-1-ol	107–18–6	1,4	P005	100 (45.4)
Propham	122429	4	U373	1000 (454)
beta-Propiolactone	57–57–8	3		10 (4.54)
Propionaldehyde	123–38–6	3	1000 (454)	
Propionic acid	79–09–4	1		5000 (2270)
Propionic anhydride	123–62–6	1		5000 (2270)
Propoxur (Baygon)	114–26–1	3,4	U411	100 (45.4)
n-Propylamine	107–10–8	4	U194	5000 (2270)
Propylene dichloride	78–87–5	1,2,3,4	U083	1000 (454)
Propylene oxide	75–56–9	1,3		100 (45.4)
1,2-Propylenimine	75–55–8	3,4	P067	1 (0.454)
2-Propyn-1-ol	107–19–7	4	P102	1000 (454)
Prosulfocarb	52888806	4	U387	5000 (2270)
Pyrene	129–00–0	2		5000 (2270)
Pyrethrins	121–29–9	1		1 (0.454)
	121–21–1			
	8003–34–7			
3,6-Pyridazinedione, 1,2-dihydro-	123–33–1	4	U148	5000 (2270)
4-Pyridinamine	504–24–5	4	P008	1000 (454)
Pyridine	110–86–1	4	U196	1000 (454)
Pyridine, 2-methyl-	109–06–8	4	U191	5000 (2270)
Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-, & salts	54–11–5	4	P075	100 (45.4)
2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2- chloroethyl)amino]-	66–75–1	4	U237	10 (4.54)
4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-	56–04–2	4	U164	10 (4.54)
Pyrrolidine, 1-nitroso-	930–55–2	4	U180	1 (0.454)
Pyrrolo[2,3-b]indol-5-ol, 1,2,3,3a,8,8a- hexahydro-1,3a,8-trimethyl-, methylcarbamate (ester), (3aS-cis)-	57476	4	P204	100 (45.4)
Quinoline	91–22–5	1,3		5000 (2270)
Quinone	106–51–4	3,4	U197	10 (4.54)
Quintobenzene	82–68–8	3,4	U185	100 (45.4)
Radionuclides (including radon)	N.A.	3		§
Reserpine	50–55–5	4	U200	5000 (2270)
Resorcinol	108–46–3	1,4	U201	5000 (2270)
Saccharin, & salts	81–07–2	4	U202	100 (45.4)
Safrole	94–59–7	4	U203	100 (45.4)
Selenious acid	7783–00–8	4	U204	10 (4.54)
Selenious acid, dithallium (1+) salt	12039–52–0	4	P114	1000 (454)
Selenium††	7782–49–2	2		100 (45.4)
SELENIUM AND COMPOUNDS	N.A.	2,3		**
Selenium Compounds	N.A.	2,3		**
Selenium dioxide	7446–08–4	1,4	U204	10 (4.54)
Selenium oxide	7446–08–4	1,4	U204	10 (4.54)
Selenium sulfide SeS2	7488–56–4	4	U205	10 (4.54)
Selenourea	630–10–4	4	P103	1000 (454)
L-Serine, diazoacetate (ester)	115–02–6	4	U015	1 (0.454)
Silver ††	7440–22–4	2		1000 (454)
SILVER AND COMPOUNDS	N.A.	2		**
Silver cyanide Ag(CN)	506–64–9	4	P104	1 (0.454)
Silver nitrate	7761–88–8	1		1 (0.454)
Silvex (2,4,5-TP)	93–72–1	1,4	See F027	100 (45.4)
Sodium	7440–23–5	1		10 (4.54)
Sodium arsenate	7631–89–2	1		1 (0.454)
Sodium arsenite	7784–46–5	1		1 (0.454)
Sodium azide	26628–22–8	4	P105	1000 (454)
Sodium bichromate	10588–01–9	1		10 (4.54)
Sodium bifluoride	1333–83–1	1		100 (45.4)
Sodium bisulfite	7631–90–5	1		5000 (2270)
Sodium chromate	7775–11–3	1		10 (4.54)
Sodium cyanide Na(CN)	143–33–9	1,4	P106	10 (4.54)
Sodium dodecylbenzenesulfonate	25155–30–0	1		1000 (454)
Sodium fluoride	7681–49–4	1		1000 (454)

RQs for radionuclides found in Appendix B

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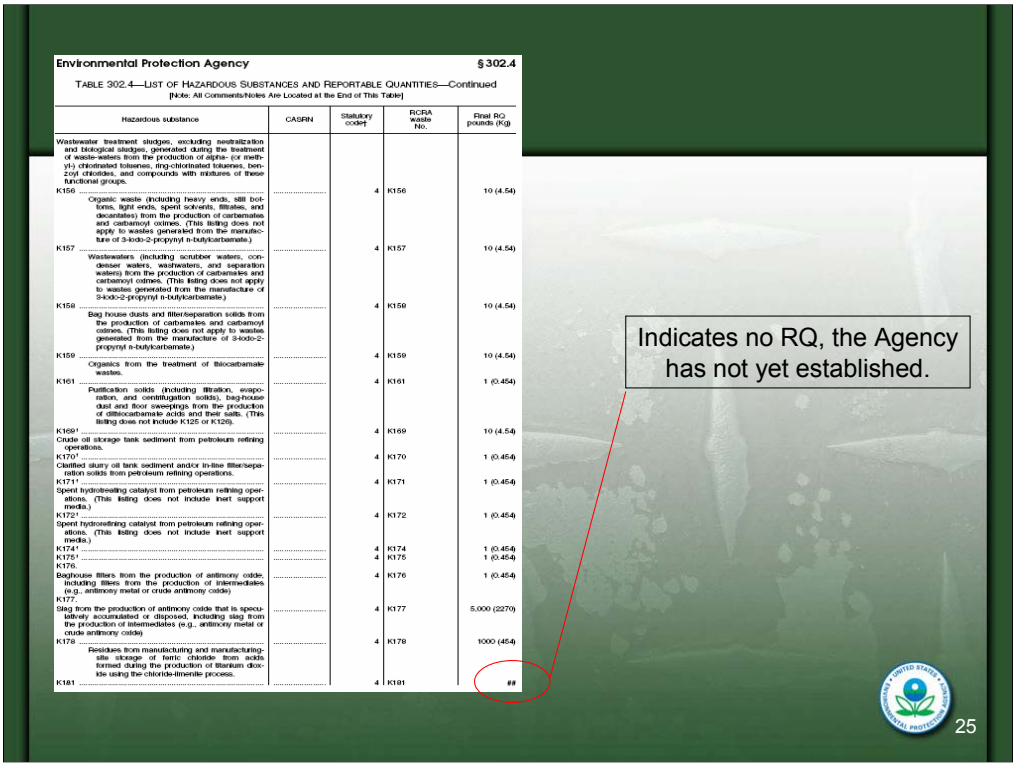


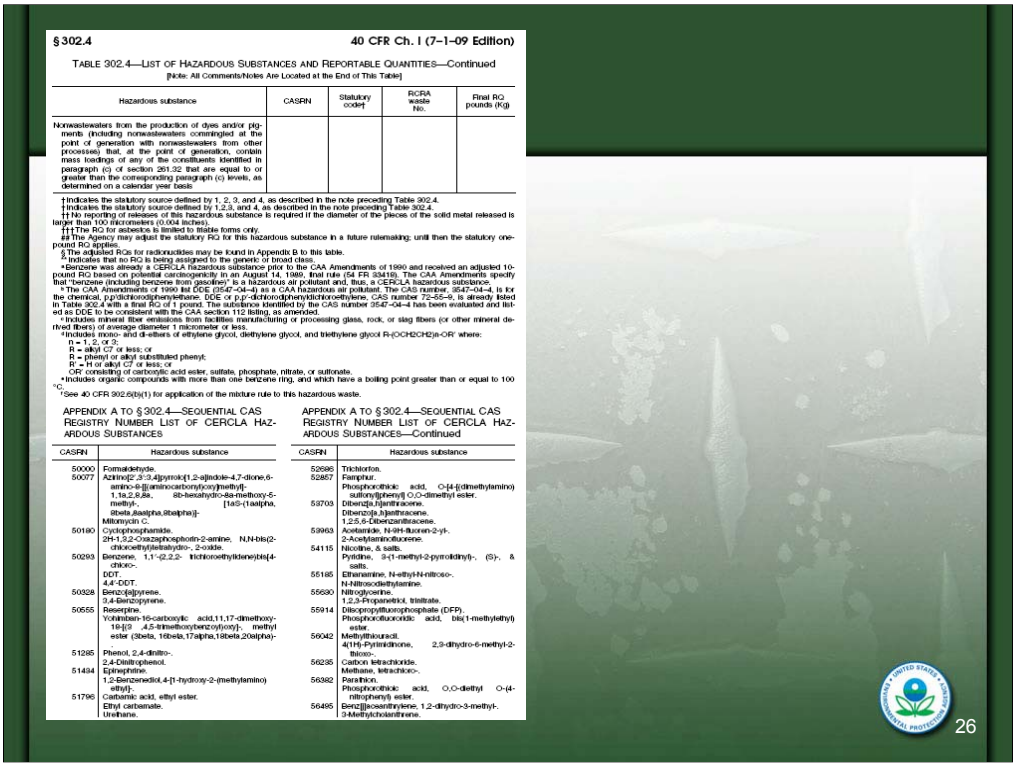
Environmental Protection Agency § 302.4

TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

[Note: All Comments/Notes Are Located at the End of This Table]

Hazardous substance	CASRN	Statutory code[4]	RCRA waste No.	Final RQ pounds (Kg)
Wastewater treatment sludges, excluding neutralization and biological sludges, generated during the treatment of waste-waters from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.				
K156		4	K156	10 (4.54)
Organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.)				
K157		4	K157	10 (4.54)
Wastewaters (including scrubber waters, condenser waters, washwaters, and separation waters) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.)				
K158		4	K158	10 (4.54)
Bag house dusts and filter/separation solids from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.)				
K159		4	K159	10 (4.54)
Organics from the treatment of thiocarbamate wastes.				
K161		4	K161	1 (0.454)
Purification solids (including filtration, evaporation, and centrifugation solids), bag-house dust and floor sweepings from the production of dithiocarbamate acids and their salts. (This listing does not include K125 or K126).				
K169[1]		4	K169	10 (4.54)
Crude oil storage tank sediment from petroleum refining operations.		4	K170	1 (0.454)
K170[1]				
Clarified slurry oil tank sediment and/or in-line filter/separation solids from petroleum refining operations.		4	K171	1 (0.454)
K171[1]				
Spent hydrotreating catalyst from petroleum refining operations. (This listing does not include inert support media.)		4	K172	1 (0.454)
K172[1]				
Spent hydrorefining catalyst from petroleum refining operations. (This listing does not include inert support media.)		4	K174	1 (0.454)
K174[1]		4	K175	1 (0.454)
K175[1]				
K176.				
Baghouse filters from the production of antimony oxide, including filters from the production of intermediates (e.g., antimony metal or crude antimony oxide)		4	K176	1 (0.454)
K177.				
Slag from the production of antimony oxide that is speculatively accumulated or disposed, including slag from the production of intermediates (e.g., antimony metal or crude antimony oxide)		4	K177	5,000 (2270)
K178		4	K178	1000 (454)
Residues from manufacturing and manufacturing-site storage of ferric chloride from acids formed during the production of titanium dioxide using the chloride-ilmenite process.				
K181		4	K181	##

Indicates no RQ, the Agency has not yet established.



§ 302.4 40 CFR Ch. I (7–1–09 Edition)

TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

[Note: All Comments/Notes Are Located at the End of This Table]

Hazardous substance	CASRN	Statutory code†	RCRA waste No.	Final RQ pounds (Kg)
Nonwastewaters from the production of dyes and/or pigments (including nonwastewaters commingled at the point of generation with nonwastewaters from other processes) that, at the point of generation, contain mass loadings of any of the constituents identified in paragraph (c) of section 261.32 that are equal to or greater than the corresponding paragraph (c) levels, as determined on a calendar year basis				

†Indicates the statutory source defined by 1, 2, 3, and 4, as described in the note preceding Table 302.4.
† Indicates the statutory source defined by 1,2,3, and 4, as described in the note preceding Table 302.4.
†† No reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is larger than 100 micrometers (0.004 inches).
†††The RQ for asbestos is limited to friable forms only.
The Agency may adjust the statutory RQ for this hazardous substance in a future rulemaking; until then the statutory one-pound RQ applies.
§ The adjusted RQs for radionuclides may be found in Appendix B to this table.
X Indicates that no RQ is being assigned to the generic or broad class.
+ Benzene was already a CERCLA hazardous substance prior to the CAA Amendments of 1990 and received an adjusted 10-pound RQ based on potential carcinogenicity in an August 14, 1989, final rule (54 FR 33418). The CAA Amendments specify that "benzene (including benzene from gasoline)" is a hazardous air pollutant and, thus, a CERCLA hazardous substance.
+ The CAA Amendments of 1990 list DDE (3547–04–4) as a CAA hazardous air pollutant. The CAS number, 3547–04–4, is for the chemical, p,p'dichlorodiphenyldichloroethylene. DDE or p,p'-dichlorodiphenyldichloroethylene, CAS number 72–55–9, is already listed in Table 302.4 with a final RQ of 1 pound. The substance identified by the CAS number 3547–04–4 has been evaluated and listed as DDE to be consistent with the CAA section 112 listing, as amended.
* Includes mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less.
* Includes mono- and di-ethers of ethylene glycol, diethylene glycol, and triethylene glycol R-(OCH2CH2)n-OR' where:
n = 1, 2, or 3;
R = alkyl C7 or less; or
R = phenyl or alkyl substituted phenyl;
R' = H or alkyl C7 or less; or
OR' consisting of carboxylic acid ester, sulfate, phosphate, nitrate, or sulfonate.
+ Includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100 °C.
† See 40 CFR 302.6(b)(1) for application of the mixture rule to this hazardous waste.

APPENDIX A TO § 302.4—SEQUENTIAL CAS REGISTRY NUMBER LIST OF CERCLA HAZARDOUS SUBSTANCES

CASRN	Hazardous substance
50000	Formaldehyde.
50077	Azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione,6-amino-8-[[(aminocarbonyl)oxy]methyl]-1,1a,2,8,8a, 8b-hexahydro-8a-methoxy-5-methyl-, [1aS-(1aalpha, 8beta,8aalpha,8balpha)]-
	Mitomycin C.
50180	Cyclophosphamide.
	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2-oxide.
50293	Benzene, 1,1'-(2,2,2- trichloroethylidene)bis[4-chloro-.
	DDT.
	4,4'-DDT.
50328	Benzo[a]pyrene.
	3,4-Benzopyrene.
50555	Reserpine.
	Yohimban-16-carboxylic acid,11,17-dimethoxy-18-[(3 ,4,5-trimethoxybenzoyl)oxy]-, methyl ester (3beta, 16beta,17alpha,18beta,20alpha)-
51285	Phenol, 2,4-dinitro-.
	2,4-Dinitrophenol.
51434	Epinephrine.
	1,2-Benzenediol,4-[1-hydroxy-2-(methylamino) ethyl]-.
51796	Carbamic acid, ethyl ester.
	Ethyl carbamate.
	Urethane.

APPENDIX A TO § 302.4—SEQUENTIAL CAS REGISTRY NUMBER LIST OF CERCLA HAZARDOUS SUBSTANCES—Continued

CASRN	Hazardous substance
52686	Trichlorfon.
52857	Famphur.
	Phosphorothioic acid, O-[4-[(dimethylamino) sulfonyl]phenyl] O,O-dimethyl ester.
53703	Dibenz[a,h]anthracene.
	Dibenzo[a,h]anthracene.
	1,2:5,6-Dibenzanthracene.
53963	Acetamide, N-(9H-fluoren-2-yl-.
	2-Acetylaminofluorene.
54115	Nicotine, & salts.
	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-, & salts.
55185	Ethanamine, N-ethyl-N-nitroso-.
	N-Nitrosodiethylamine.
55630	Nitroglycerine.
	1,2,3-Propanetriol, trinitrate.
55914	Diisopropylfluorophosphate (DFP).
	Phosphorofluoridic acid, bis(1-methylethyl) ester.
56042	Methylthiouracil.
	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-.
56235	Carbon tetrachloride.
	Methane, tetrachloro-.
56382	Parathion.
	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester.
56495	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-.
	3-Methylcholanthrene.

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

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Unlisted/Characteristic Wastes

Unlisted Hazardous Wastes Characteristic of Corrosivity	N.A.	4	D002	100 (45.4)
Unlisted Hazardous Wastes Characteristic of Ignitability	N.A.	4	D001	100 (45.4)
Unlisted Hazardous Wastes Characteristic of Reactivity	N.A.	4	D003	100 (45.4)
Unlisted Hazardous Wastes Characteristic of Toxicity: Arsenic (D004)	N.A.	4	D004	1 (0.454)

299

§ 302.4 40 CFR Ch. I (7–1–09 Edition)

TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

[Note: All Comments/Notes Are Located at the End of This Table]

Hazardous substance	CASRN	Statutory code†	RCRA waste No.	Final RQ pounds (Kg)
Barium (D005)	N.A.	4	D005	1000 (454)
Benzene (D018)	N.A.	1,2,3,4	D018	10 (4.54)
Cadmium (D006)	N.A.	4	D006	10 (4.54)
Carbon tetrachloride (D019)	N.A.	1,2,4	D019	10 (4.54)
Chlordane (D020)	N.A.	1,2,4	D020	1 (0.454)
Chlorobenzene (D021)	N.A.	1,2,4	D021	100 (45.4)
Chloroform (D022)	N.A.	1,2,4	D022	10 (4.54)
Chromium (D007)	N.A.	4	D007	10 (4.54)
o-Cresol (D023)	N.A.	4	D023	100 (45.4)
m-Cresol (D024)	N.A.	4	D024	100 (45.4)
p-Cresol (D025)	N.A.	4	D025	100 (45.4)
Cresol (D026)	N.A.	4	D026	100 (45.4)
2,4-D (D016)	N.A.	1,4	D016	100 (45.4)
1,4-Dichlorobenzene (D027)	N.A.	1,2,4	D027	100 (45.4)
1,2-Dichloroethane (D028)	N.A.	1,2,4	D028	100 (45.4)
1,1-Dichloroethylene (D029)	N.A.	1,2,4	D029	100 (45.4)
2,4-Dinitrotoluene (D030)	N.A.	1,2,4	D030	10 (4.54)
Endrin (D012)	N.A.	1,4	D012	1 (0.454)
Heptachlor (and epoxide) (D031)	N.A.	1,2,4	D031	1 (0.454)
Hexachlorobenzene (D032)	N.A.	2,4	D032	10 (4.54)
Hexachlorobutadiene (D033)	N.A.	2,4	D033	1 (0.454)
Hexachloroethane (D034)	N.A.	2,4	D034	100 (45.4)
Lead (D008)	N.A.	4	D008	10 (4.54)
Lindane (D013)	N.A.	1,4	D013	1 (0.454)
Mercury (D009)	N.A.	4	D009	1 (0.454)
Methoxychlor (D014)	N.A.	1,4	D014	1 (0.454)
Methyl ethyl ketone (D035)	N.A.	4	D035	5000 (2270)
Nitrobenzene (D036)	N.A.	1,2,4	D036	1000 (454)
Pentachlorophenol (D037)	N.A.	1,2,4	D037	10 (4.54)
Pyridine (D038)	N.A.	4	D038	1000 (454)
Selenium (D010)	N.A.	4	D010	10 (4.54)
Silver (D011)	N.A.	4	D011	1 (0.454)
Tetrachloroethylene (D039)	N.A.	2,4	D039	100 (45.4)
Toxaphene (D015)	N.A.	1,4	D015	1 (0.454)
Trichloroethylene (D040)	N.A.	1,2,4	D040	100 (45.4)
2,4,5-Trichlorophenol (D041)	N.A.	1,4	D041	10 (4.54)
2,4,6-Trichlorophenol (D042)	N.A.	1,2,4	D042	10 (4.54)
2,4,5-TP (D017)	N.A.	1,4	D017	100 (45.4)
Vinyl chloride (D043)	N.A.	2,3,4	D043	1 (0.454)

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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

29

CERCLA Hazardous Substances: Hazardous Wastes & the Mixture Rule

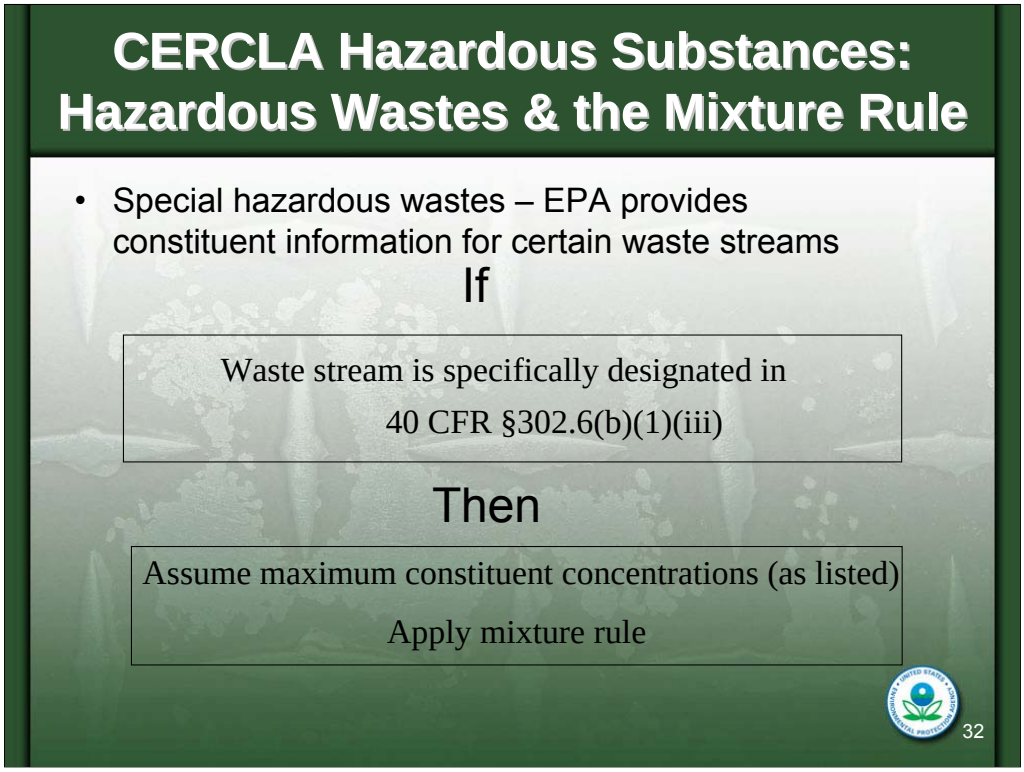
- Releases of mixtures or solutions (*including hazardous waste streams*) of hazardous substances are subject to notification requirements, if quantity of all hazardous constituents are known, where an RQ or more of any hazardous constituent is released (40 CFR §302.6(b))

30

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

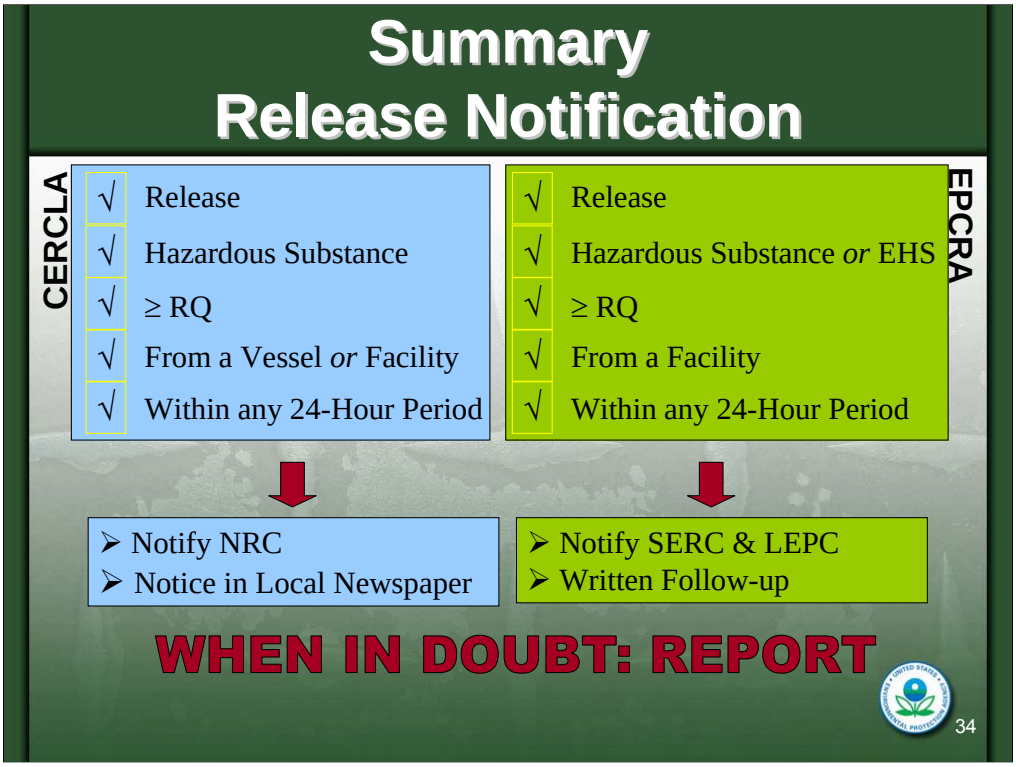
31



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

35

Not a Release: 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

36

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 & NO_X
  - 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

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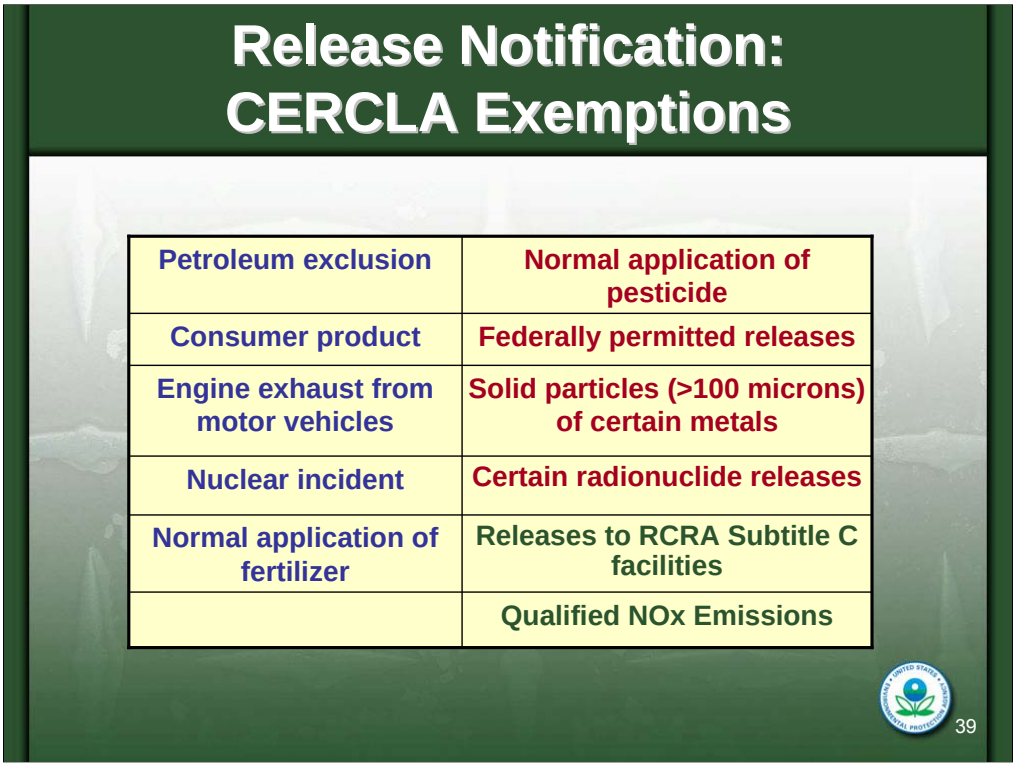
Not a Release

- 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

38



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 exemptiom - October 4, 2006,

Release Notification: EPCRA Exemptions

Household product	Normal application of pesticide
Engine exhaust from motor vehicles	Federally permitted releases
Nuclear incident	Certain radionuclide releases
Normal application of fertilizer	Qualified NOx Emissions
Release solely within facility boundaries	

40

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)

41

How DOT relates to CERCLA

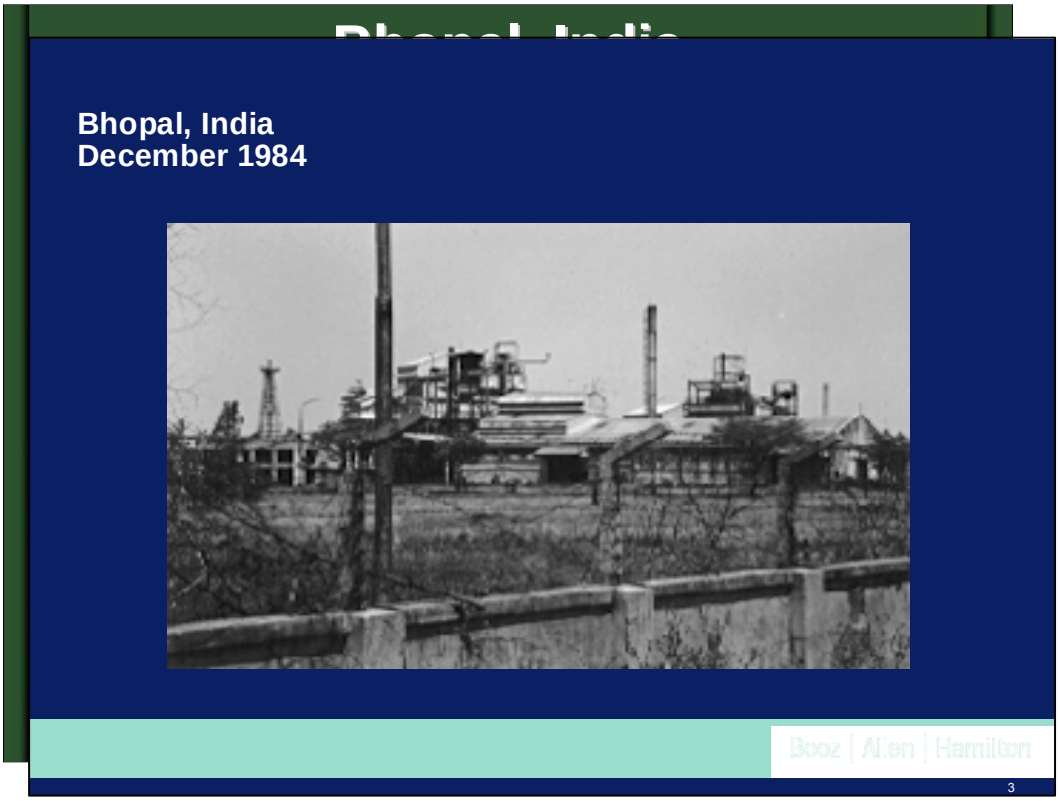
- CERCLA section 306(a) – Transportation of hazardous substances; listing as hazardous materials; liability for release
  - Department of Transportation (DOT) required to list & regulate as hazardous materials all CERCLA hazardous substances
    - All CERCLA hazardous substances covered by DOT's Hazardous 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

42

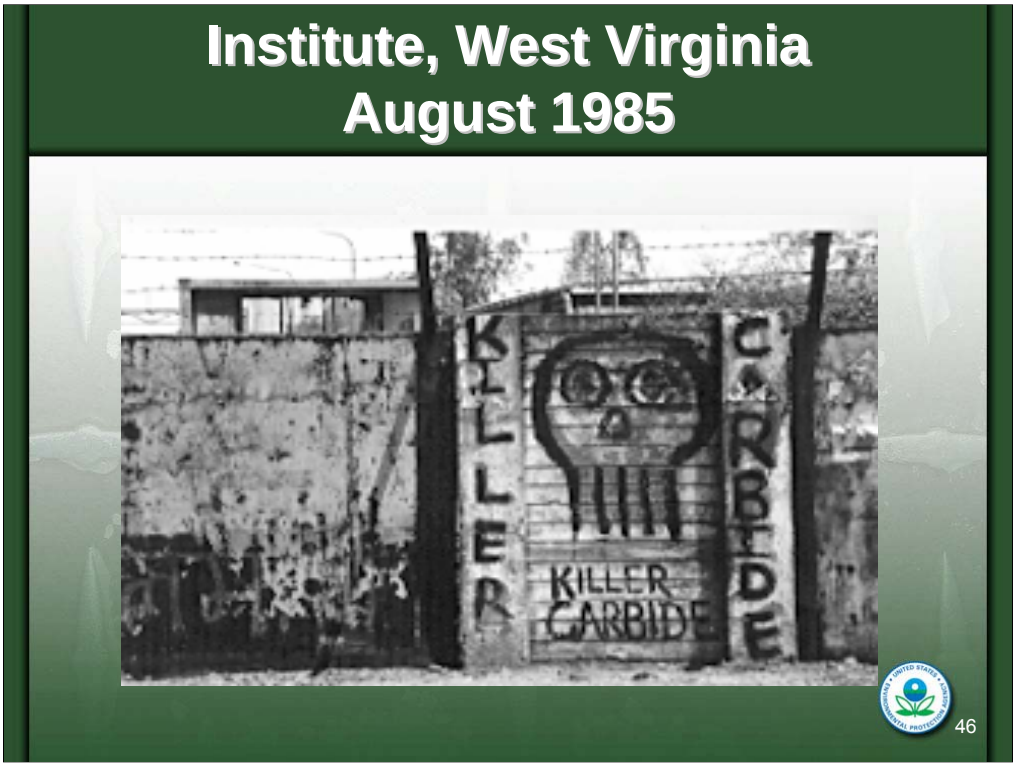
Questions?

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

44



history…



another Union Carbide Plant, Institute West Virginia,

EPCRA

- 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*)

47

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.

48

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

Emergency Planning Notification (section 302)

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

50

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

51

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**

52

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)

53

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

54

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)

55

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)

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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

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Thresholds (sections 311 & 312)

- 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

59

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

60

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

61

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

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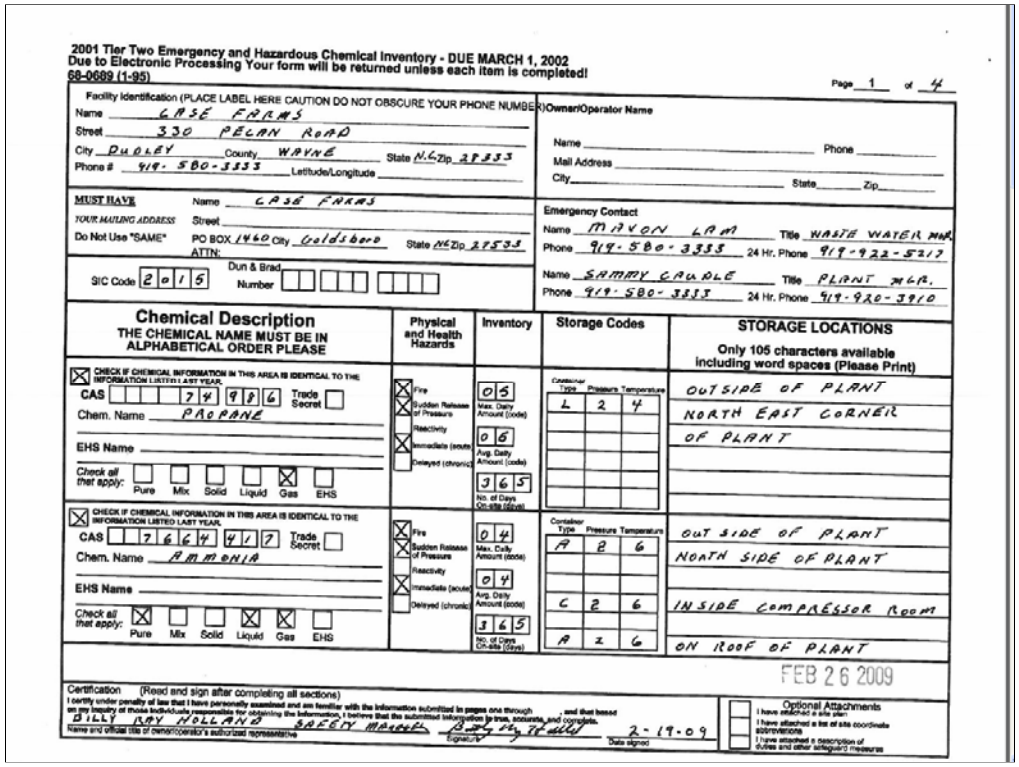


2001 Tier Two Emergency and Hazardous Chemical Inventory - DUE MARCH 1, 2002
Due to Electronic Processing Your form will be returned unless each item is completed!
68-0689 (1-95)

Page 1 of 4

Facility Identification (PLACE LABEL HERE CAUTION DO NOT OBSCURE YOUR PHONE NUMBER)
Name CASE FARMS
Street 330 PECAN ROAD
City DUDLEY County WAYNE State N.C. Zip 28333
Phone # 919-580-3333 Latitude/Longitude

MUST HAVE YOUR MAILING ADDRESS
Do Not Use "SAME"
Name CASE FARMS
Street
PO BOX 1460 City Goldsboro State NC Zip 27533
ATTN:

SIC Code 2015 Dun & Brad. Number

Owner/Operator Name
Name Phone
Mail Address
City State Zip

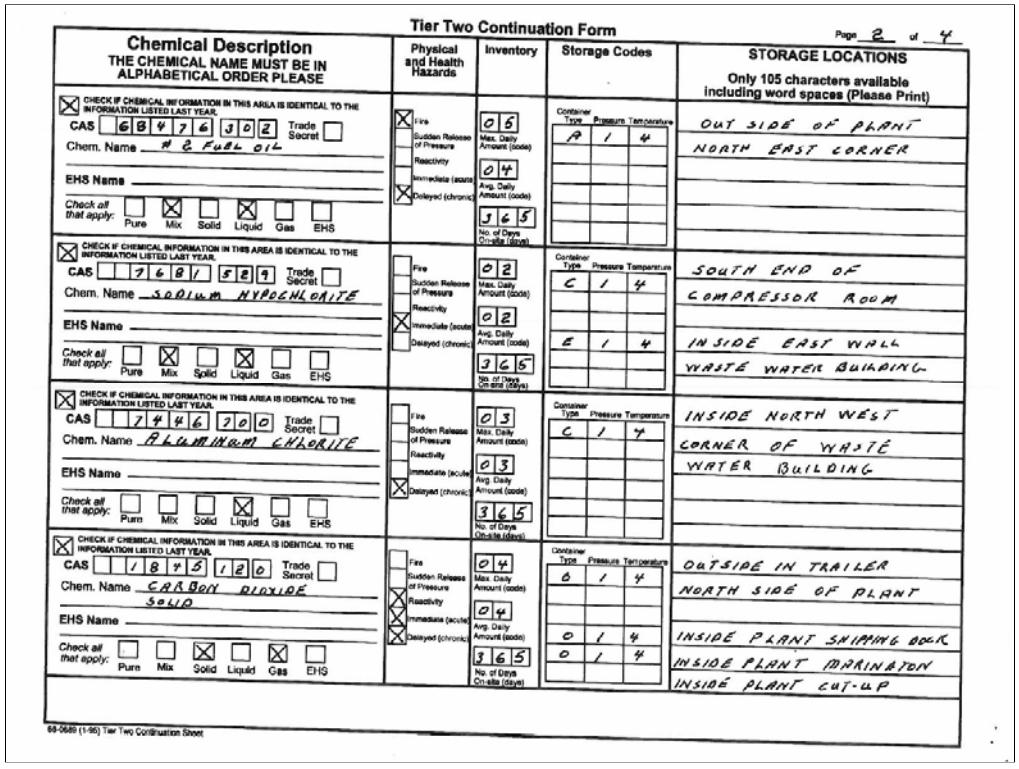
Emergency Contact
Name MAYON LAM Title WASTE WATER MGR.
Phone 919-580-3333 24 Hr. Phone 919-922-5217
Name SAMMY CAUDLE Title PLANT MGR.
Phone 919-580-3333 24 Hr. Phone 919-920-3910

Chemical Description (THE CHEMICAL NAME MUST BE IN ALPHABETICAL ORDER PLEASE)	Physical and Health Hazards	Inventory	Storage Codes	STORAGE LOCATIONS (Only 105 characters available including word spaces (Please Print))
☒ CHECK IF CHEMICAL INFORMATION IN THIS AREA IS IDENTICAL TO THE INFORMATION LISTED LAST YEAR. CAS 74986 Trade Secret ☐ Chem. Name PROPANE EHS Name Check all that apply: ☐ Pure ☐ Mix ☐ Solid ☐ Liquid ☒ Gas ☐ EHS	☒ Fire ☒ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☐ Delayed (chronic)	Max. Daily Amount (code): 05 Avg. Daily Amount (code): 06 No. of Days On-site (days): 365	Container Type / Pressure / Temperature L 2 4	OUTSIDE OF PLANT NORTH EAST CORNER OF PLANT
☒ CHECK IF CHEMICAL INFORMATION IN THIS AREA IS IDENTICAL TO THE INFORMATION LISTED LAST YEAR. CAS 7664417 Trade Secret ☐ Chem. Name AMMONIA EHS Name Check all that apply: ☒ Pure ☐ Mix ☐ Solid ☒ Liquid ☒ Gas ☐ EHS	☒ Fire ☒ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☐ Delayed (chronic)	Max. Daily Amount (code): 04 Avg. Daily Amount (code): 04 No. of Days On-site (days): 365	Container Type / Pressure / Temperature A 2 6 C 2 6 A 2 6	OUT SIDE OF PLANT NORTH SIDE OF PLANT INSIDE COMPRESSOR ROOM ON ROOF OF PLANT

FEB 26 2009

Certification (Read and sign after completing all sections)
I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages one through , and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.
BILLY RAY HOLLAND SAFETY MANAGER
Name and official title of owner/operator's authorized representative
Signature
2-19-09
Date signed

Optional Attachments
☐ I have attached a site plan
☐ I have attached a list of site coordinate abbreviations
☐ I have attached a description of duties and other safeguard measures



Tier Two Continuation Form

Page 2 of 4

Chemical Description (THE CHEMICAL NAME MUST BE IN ALPHABETICAL ORDER PLEASE)	Physical and Health Hazards	Inventory	Storage Codes	STORAGE LOCATIONS (Only 105 characters available including word spaces (Please Print))
☒ CHECK IF CHEMICAL INFORMATION IN THIS AREA IS IDENTICAL TO THE INFORMATION LISTED LAST YEAR. CAS 68476 3002 Trade Secret ☐ Chem. Name #2 FUEL OIL EHS Name Check all that apply: ☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas ☐ EHS	☒ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☐ Immediate (acute) ☒ Delayed (chronic)	Max. Daily Amount (code): 05 Avg. Daily Amount (code): 04 No. of Days On-site (days): 365	Container Type / Pressure / Temperature: A / 1 / 4	OUT SIDE OF PLANT NORTH EAST CORNER
☒ CHECK IF CHEMICAL INFORMATION IN THIS AREA IS IDENTICAL TO THE INFORMATION LISTED LAST YEAR. CAS 7681529 Trade Secret ☐ Chem. Name SODIUM HYPOCHLORITE EHS Name Check all that apply: ☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas ☐ EHS	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☐ Delayed (chronic)	Max. Daily Amount (code): 02 Avg. Daily Amount (code): 02 No. of Days On-site (days): 365	Container Type / Pressure / Temperature: C / 1 / 4 E / 1 / 4	SOUTH END OF COMPRESSOR ROOM INSIDE EAST WALL WASTE WATER BUILDING
☒ CHECK IF CHEMICAL INFORMATION IN THIS AREA IS IDENTICAL TO THE INFORMATION LISTED LAST YEAR. CAS 7446700 Trade Secret ☐ Chem. Name ALUMINUM CHLORITE EHS Name Check all that apply: ☐ Pure ☐ Mix ☐ Solid ☒ Liquid ☐ Gas ☐ EHS	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☐ Immediate (acute) ☒ Delayed (chronic)	Max. Daily Amount (code): 03 Avg. Daily Amount (code): 03 No. of Days On-site (days): 365	Container Type / Pressure / Temperature: C / 1 / 4	INSIDE NORTH WEST CORNER OF WASTE WATER BUILDING
☒ CHECK IF CHEMICAL INFORMATION IN THIS AREA IS IDENTICAL TO THE INFORMATION LISTED LAST YEAR. CAS 1845 1200 Trade Secret ☐ Chem. Name CARBON DIOXIDE SOLID EHS Name Check all that apply: ☐ Pure ☐ Mix ☒ Solid ☐ Liquid ☒ Gas ☐ EHS	☐ Fire ☐ Sudden Release of Pressure ☒ Reactivity ☒ Immediate (acute) ☒ Delayed (chronic)	Max. Daily Amount (code): 04 Avg. Daily Amount (code): 04 No. of Days On-site (days): 365	Container Type / Pressure / Temperature: B / 1 / 4 D / 1 / 4 D / 1 / 4	OUTSIDE IN TRAILER NORTH SIDE OF PLANT INSIDE PLANT SHIPPING DOCK INSIDE PLANT MARINATION INSIDE PLANT CUT-UP

68-0689 (1-95) Tier Two Continuation Sheet

Pennsylvania Tier II Emergency and Hazardous Chemical Inventory

Reporting Period From January 1, 2007 to December 31, 2007

☐ Initial 5 Day Report ☑ Annual ☐ Revision

Facility Identification

ID	4532				
Name	NEVILLE CHEMICAL COMPANY				
Corporate Name	Neville Chemical Company				
Street	2800 NEVILLE ROAD	City	:	PITTSBURGH	
Municipality	Neville Township	County	:	ALLEGHENY	
State	PA	Zip	:	152251496	
Phone	412-331-4200	Lat/Long	:	40.50027/80.09944	
Fax	412-771-0226	Email	:	ZOsiecki@nevchem.com	

Owner/Operator Details

Name	:	NEVILLE CHEMICAL COMPANY
Phone	:	412-331-4200
Mail Address	:	2800 NEVILLE ROAD
City	:	PITTSBURGH
State	:	PA
Zip	:	15225
Country	:	US

Mailing Address if different from Facility ID Address

Name	:				
Street	:				
City	:		State	:	
Zip	:		Phone	:	
Attn	:				

Emergency Contacts

Name	:	ZYGMUNT V. OSIECKI			
Title	:	DIRECTOR ENVIRONMENTAL			
Phone	:	412-777-4277	24 Hr.Phone	:	412-443-3227

SIC Code	:	2821	Dun & Brad No	:	4334157
NAICS	:		Mail ID	:	

Mixture Components are listed in the Appendix.

Certification: I certify under penalty of law that I have personally examined and am familiar with the information submitted, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Director - Environmental — Name and official title of owner/operator or authorized representative:

2/29/08 — Date

Signature

Optional Attachments

☐ Site Plan
☐ Site Coordinate Abbreviations
☐ Other Safeguard measures

MAR 04 200

Chemical Description	Physical & Health Hazards	Inventory	Storage Codes & Location
Chemical ID : 185818 Check if Chemical Information has changed from the last submission : ☑ CAS : 504609 Trade Secret : ☐ Chemical Name : ACYCLIC RESIN FEEDSTOCKS EHS : ☐ EHS Name : ☑ Pure ☑ Mix ☐ Solid ☑ Liquid ☐ Gas	☐ Fire ☐ Pressure ☒ Reactivity ☐ Immediate ☒ Delayed (Chronic)	4006266 Max Daily Amt(lbs) 06 Max Daily Amount Code 2366794 Ave. Daily Amount (lbs.) 06 Ave. Daily Amount Code 365 No of days in site	Container Type: A; Pressure: 1; Temperature: 4; Storage Location: (confidential)
Chemical ID : 478926 Check if Chemical Information has changed from the last submission : ☑ CAS : 0000000 Trade Secret : ☑ Chemical Name : ALKYLPHENOL EHS : ☐ EHS Name : ☐ Pure ☑ Mix ☐ Solid ☑ Liquid ☐ Gas	☐ Fire ☐ Pressure ☒ Reactivity ☐ Immediate ☐ Delayed (Chronic)	135160 Max Daily Amt(lbs) 05 Max Daily Amount Code 132435 Ave. Daily Amount (lbs.) 05 Ave. Daily Amount Code 356 No of days in site	Container Type: A; Pressure: 1; Temperature: 4; Storage Location: (confidential)
Chemical ID : 185828 Check if Chemical Information has changed from the last submission : ☑ CAS : 98839 Trade Secret : ☐ Chemical Name : ALPHA METHYL STYRENE EHS : ☐ EHS Name : ☑ Pure ☑ Mix ☐ Solid ☑ Liquid ☐ Gas	☐ Fire ☐ Pressure ☒ Reactivity ☐ Immediate ☐ Delayed (Chronic)	141783 Max Daily Amt(lbs) 05 Max Daily Amount Code 75097 Ave. Daily Amount (lbs.) 04 Ave. Daily Amount Code 365 No of days in site	Container Type: A; Pressure: 1; Temperature: 4; Storage Location: F
Chemical ID : 464219 Check if Chemical Information has changed from the last submission : ☑ CAS : 1120381 Trade Secret : ☐ Chemical Name : ALPHA OLEFINS EHS : ☐ EHS Name : ☑ Pure ☑ Mix ☑ Solid ☑ Liquid ☐ Gas	☐ Fire ☐ Pressure ☒ Reactivity ☐ Immediate ☐ Delayed (Chronic)	33857 Max Daily Amt(lbs) 04 Max Daily Amount Code 26039 Ave. Daily Amount (lbs.) 04 Ave. Daily Amount Code 365 No of days in site	Container Type: A; Pressure: 1; Temperature: 4; Storage Location: L

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)

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Questions?

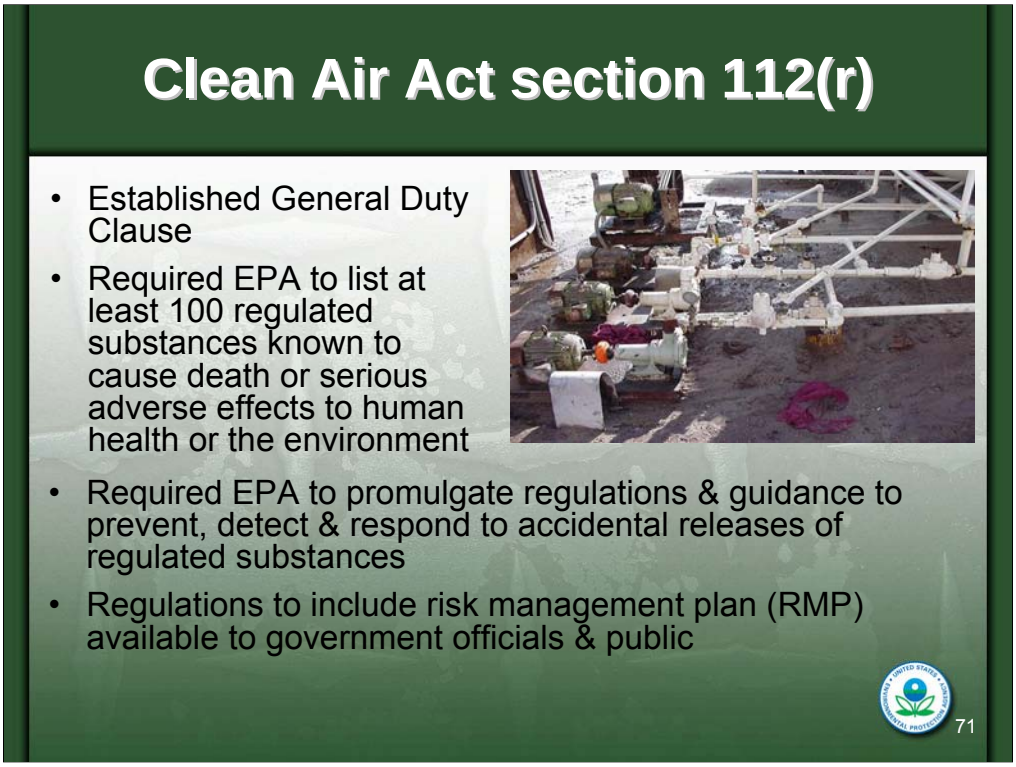
Clean Air Act (CAA)
section 112(r)
Risk Management Program

69

Legislative Background

- Clean Air Act Amendments (1990)
  - Process Safety Management Standard – PSM (1992)
  - Risk Management Program Regulation (1994-1996)
  - U.S. Chemical Safety and Hazard Investigation Board – CSB (1998)
  - Chemical Safety Information, Site Security, and Fuels Regulatory Relief Act – CSISSFRRA (1999)

70

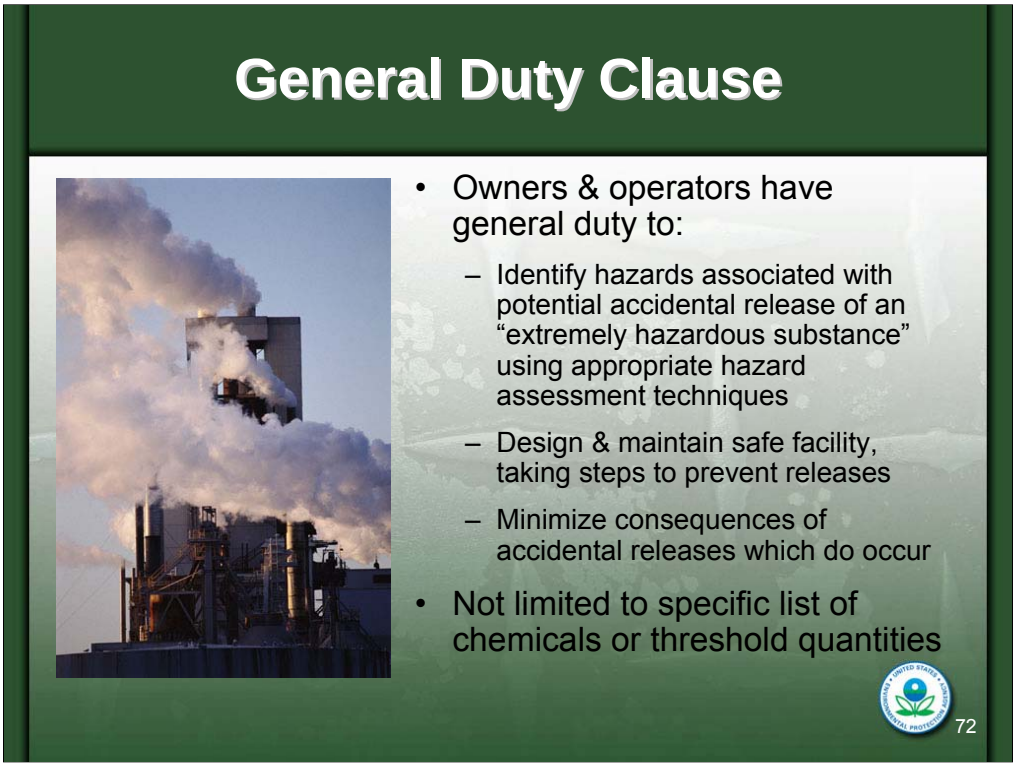


The Clean Air Action established a General Duty Clause.

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.



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%)

73

40 CFR Part 68
Risk Management Program

- 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

74

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

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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)

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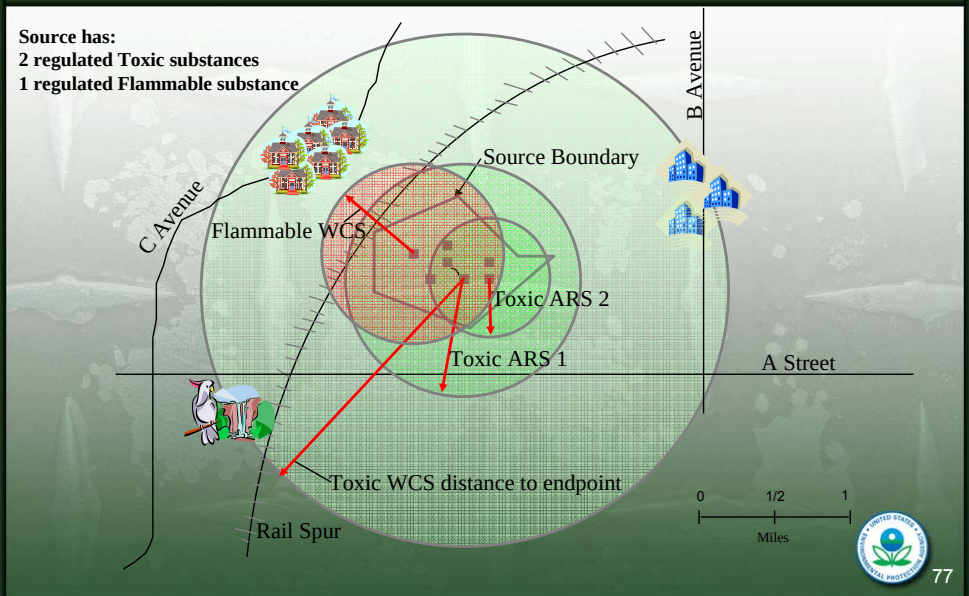
Simplified Illustration of Fictional Worst-Case and Alternative Release Scenarios on a Local Map



77

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

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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

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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

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ER Program: P2 & P3 Responding Facilities

- 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

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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

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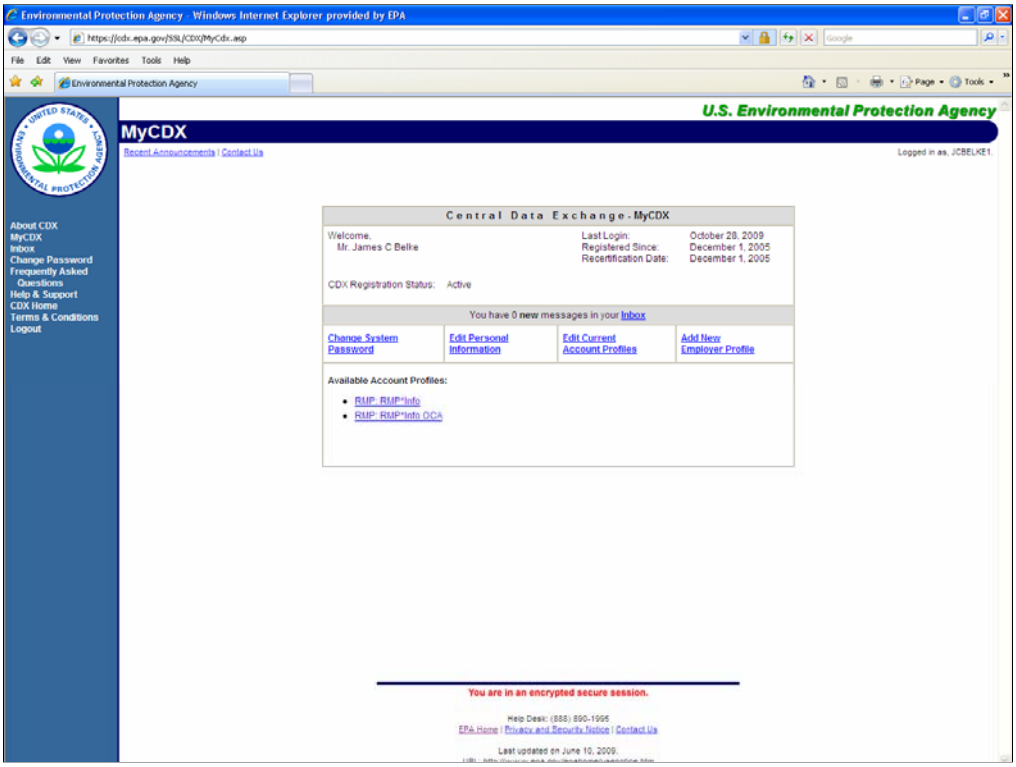
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U.S. Environmental Protection Agency
MyCDX
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Logged in as: JCBELKE1
About CDX
MyCDX
Inbox
Change Password
Frequently Asked Questions
Help & Support
CDX Home
Terms & Conditions
Logout
Central Data Exchange - MyCDX
Welcome,
Mr. James C Belke
Last Login: October 28, 2009
Registered Since: December 1, 2005
Recertification Date: December 1, 2005
CDX Registration Status: Active
You have 0 new messages in your Inbox
Change System Password
Edit Personal Information
Edit Current Account Profiles
Add New Employer Profile
Available Account Profiles:
RMP: RMPInfo
RMP: RMPInfo OCA
You are in an encrypted secure session.
Help Desk: (888) 890-1995
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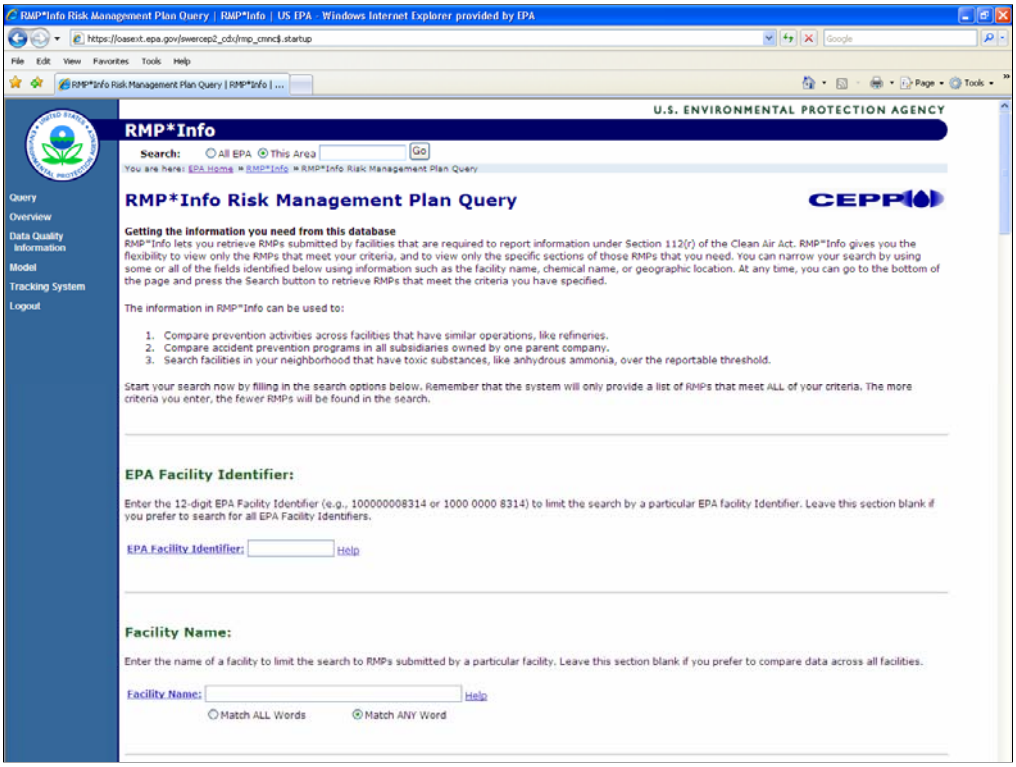
Last updated on June 10, 2009.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Query
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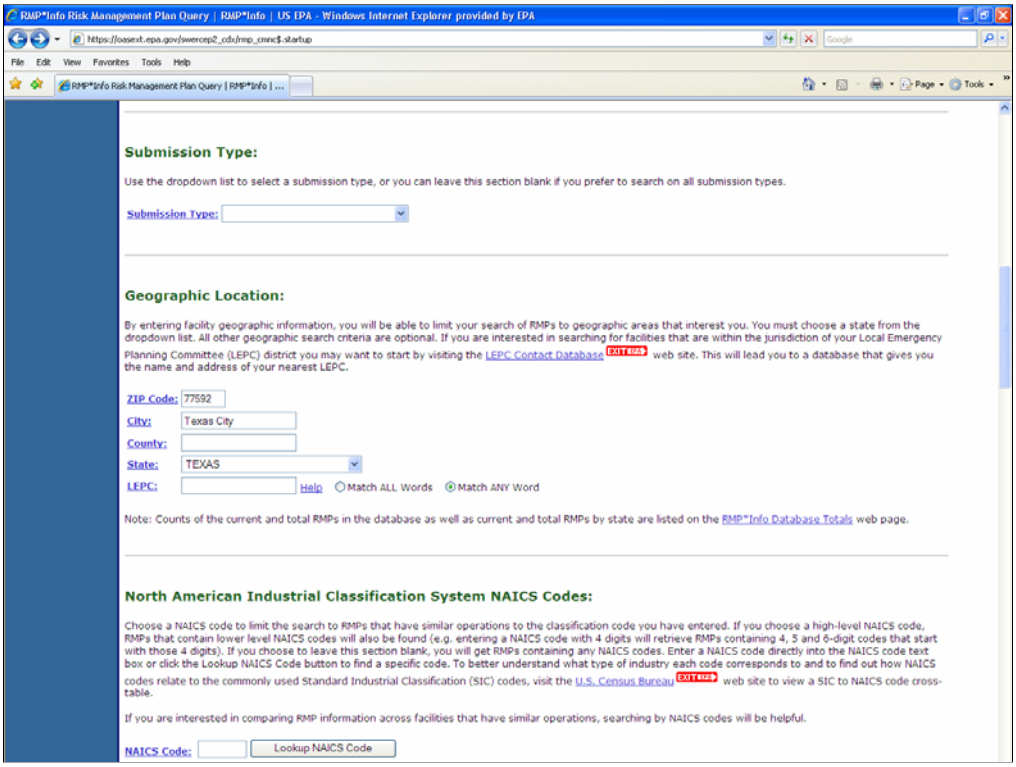
CEPPO
Getting the information you need from this database
RMP*Info lets you retrieve RMPs submitted by facilities that are required to report information under Section 112(r) of the Clean Air Act. RMP*Info gives you the flexibility to view only the RMPs that meet your criteria, and to view only the specific sections of those RMPs that you need. You can narrow your search by using some or all of the fields identified below using information such as the facility name, chemical name, or geographic location. At any time, you can go to the bottom of the page and press the Search button to retrieve RMPs that meet the criteria you have specified.
The information in RMP*Info can be used to:
1. Compare prevention activities across facilities that have similar operations, like refineries.
2. Compare accident prevention programs in all subsidiaries owned by one parent company.
3. Search facilities in your neighborhood that have toxic substances, like anhydrous ammonia, over the reportable threshold.
Start your search now by filling in the search options below. Remember that the system will only provide a list of RMPs that meet ALL of your criteria. The more criteria you enter, the fewer RMPs will be found in the search.
EPA Facility Identifier:
Enter the 12-digit EPA Facility Identifier (e.g., 100000008314 or 1000 0000 8314) to limit the search by a particular EPA facility Identifier. Leave this section blank if you prefer to search for all EPA Facility Identifiers.
EPA Facility Identifier: Help
Facility Name:
Enter the name of a facility to limit the search to RMPs submitted by a particular facility. Leave this section blank if you prefer to compare data across all facilities.
Facility Name: Help
Match ALL Words Match ANY Word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https://oasext.epa.gov/swercep2_cdx/rmp_cmnc$.startup
File Edit View Favorites Tools Help
RMP*Info Risk Management Plan Query | RMP*Info | ...
Page Tools
Submission Type:
Use the dropdown list to select a submission type, or you can leave this section blank if you prefer to search on all submission types.
Submission Type:
Geographic Location:
By entering facility geographic information, you will be able to limit your search of RMPs to geographic areas that interest you. You must choose a state from the dropdown list. All other geographic search criteria are optional. If you are interested in searching for facilities that are within the jurisdiction of your Local Emergency Planning Committee (LEPC) district you may want to start by visiting the LEPC Contact Database EXIT EPA web site. This will lead you to a database that gives you the name and address of your nearest LEPC.
ZIP Code: 77592
City: Texas City
County:
State: TEXAS
LEPC:
Help
Match ALL Words
Match ANY Word
Note: Counts of the current and total RMPs in the database as well as current and total RMPs by state are listed on the RMP*Info Database Totals web page.
North American Industrial Classification System NAICS Codes:
Choose a NAICS code to limit the search to RMPs that have similar operations to the classification code you have entered. If you choose a high-level NAICS code, RMPs that contain lower level NAICS codes will also be found (e.g. entering a NAICS code with 4 digits will retrieve RMPs containing 4, 5 and 6-digit codes that start with those 4 digits). If you choose to leave this section blank, you will get RMPs containing any NAICS codes. Enter a NAICS code directly into the NAICS code text box or click the Lookup NAICS Code button to find a specific code. To better understand what type of industry each code corresponds to and to find out how NAICS codes relate to the commonly used Standard Industrial Classification (SIC) codes, visit the U.S. Census Bureau EXIT EPA web site to view a SIC to NAICS code cross-table.
If you are interested in comparing RMP information across facilities that have similar operations, searching by NAICS codes will be helpful.
NAICS Code:
Lookup NAICS Code


Risk Management Plans | RMP*Info | US EPA - Windows Internet Explorer provided by EPA
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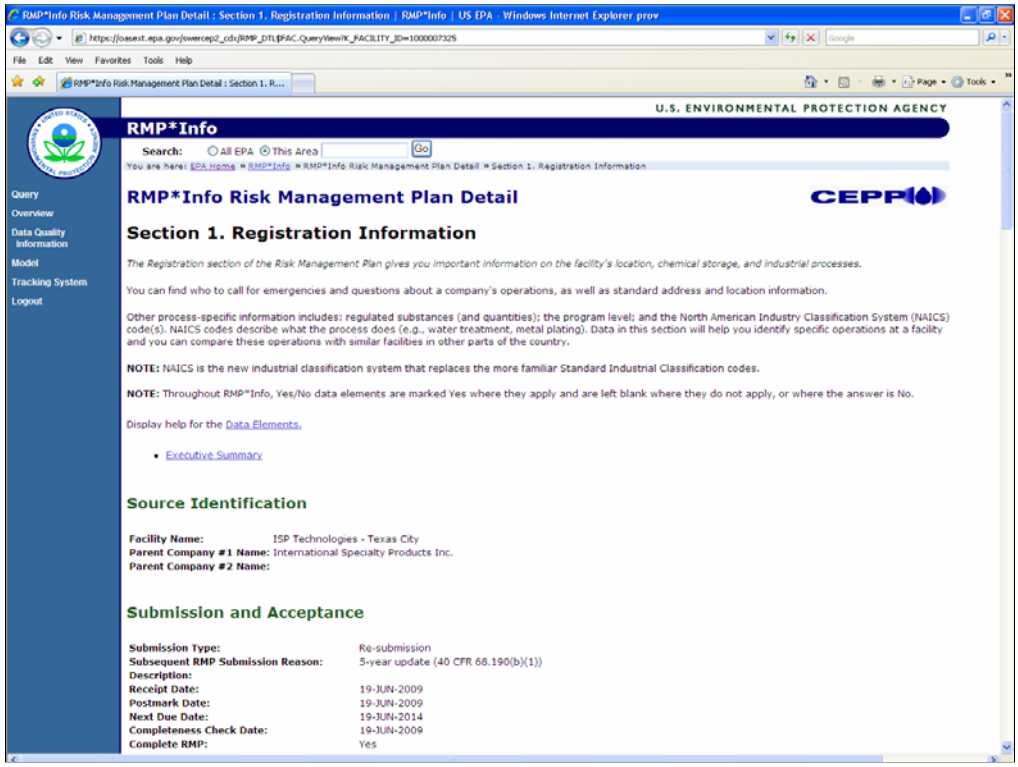
RMP*Info
Search: All EPA This Area Go
You are here: EPA Home » RMP*Info » Risk Management Plans
Query
Overview
Data Quality Information
Model
Tracking System
Logout
Risk Management Plans
CEPPO
Click on the underlined Plan Sequence Number to view the Risk Management Plan (RMP) for the facility. The plan 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.
Plan Sequence Number
EPA Facility Identifier
Facility Name
Facility City
Facility State
Receipt Date
1000007325
1000 0009 7496
ISP Technologies - Texas City
Texas City
TX
19-JUN-2009
51895
1000 0010 7886
Valero Refining - Texas, L.P.
Texas City
TX
10-JUN-2008
Record 1 to 2 of 2
Query
Your Search Criteria:
City, State ZIP: Texas City, TX 77592
EPA Home | Privacy and Security Notice
Last updated on Thursday, August 6, 2009
http://oasext.epa.gov/swercep2_cdx/rmp_proc_qry_p3.plans_page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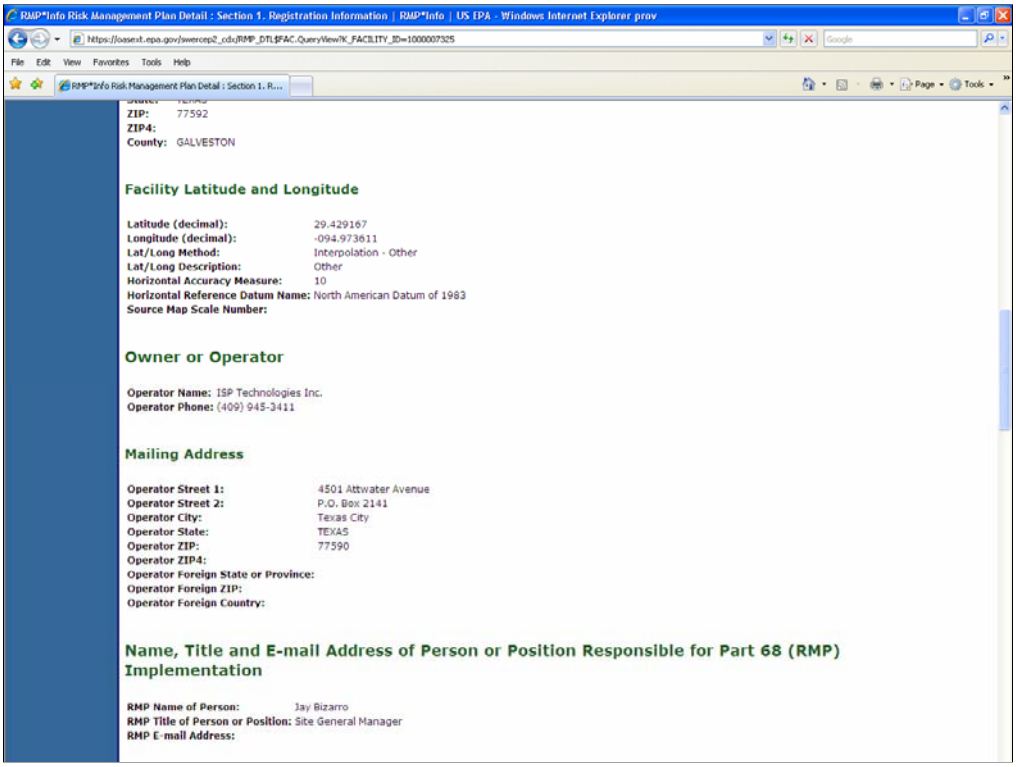
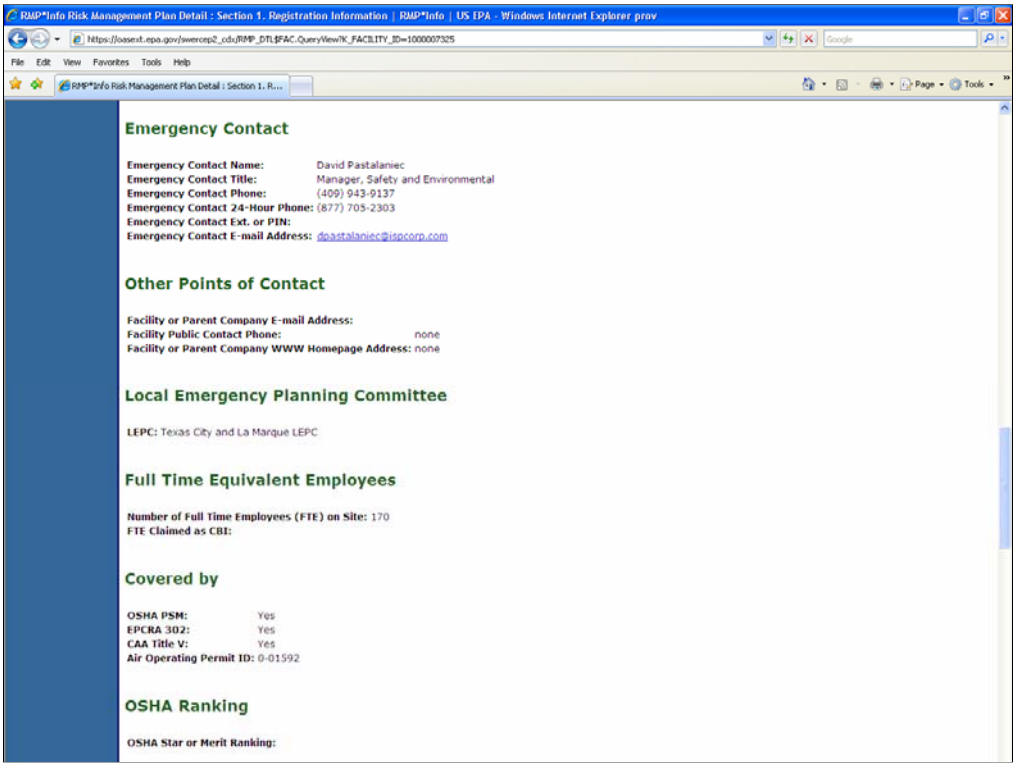
U.S. ENVIRONMENTAL PROTECTION AGENCY
RMP*Info
Search: All EPA This Area Go
You are here: EPA Home » RMP*Info » RMP*Info Risk Management Plan Detail » Section 1. Registration Information
Query
Overview
Data Quality Information
Model
Tracking System
Logout
RMP*Info Risk Management Plan Detail
CEPPO
Section 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) code(s). NAICS codes describe what the process does (e.g., water treatment, metal plating). Data in this section 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, Yes/No data elements are marked Yes where they apply and are left blank where they do not apply, or where the answer is No.
Display help for the Data Elements.
Executive Summary
Source Identification
Facility Name: ISP Technologies - Texas City
Parent Company #1 Name: International Specialty Products Inc.
Parent Company #2 Name:
Submission and Acceptance
Submission Type: Re-submission
Subsequent RMP Submission Reason: 5-year update (40 CFR 68.190(b)(1))
Description:
Receipt Date: 19-JUN-2009
Postmark Date: 19-JUN-2009
Next Due Date: 19-JUN-2014
Completeness Check Date: 19-JUN-2009
Complete RMP: Yes


RMP*Info Risk Management Plan Detail : Section 1. Registration Information | RMP*Info | US EPA - Windows Internet Explorer prov
File Edit View Favorites Tools Help
ZIP: 77592
ZIP4:
County: GALVESTON
Facility Latitude and Longitude
Latitude (decimal): 29.429167
Longitude (decimal): -094.973611
Lat/Long Method: Interpolation - Other
Lat/Long Description: Other
Horizontal Accuracy Measure: 10
Horizontal Reference Datum Name: North American Datum of 1983
Source Map Scale Number:
Owner or Operator
Operator Name: ISP Technologies Inc.
Operator Phone: (409) 945-3411
Mailing Address
Operator Street 1: 4501 Attwater Avenue
Operator Street 2: P.O. Box 2141
Operator City: Texas City
Operator State: TEXAS
Operator ZIP: 77590
Operator ZIP4:
Operator Foreign State or Province:
Operator Foreign ZIP:
Operator Foreign Country:
Name, Title and E-mail Address of Person or Position Responsible for Part 68 (RMP) Implementation
RMP Name of Person: Jay Bizarro
RMP Title of Person or Position: Site General Manager
RMP E-mail Address: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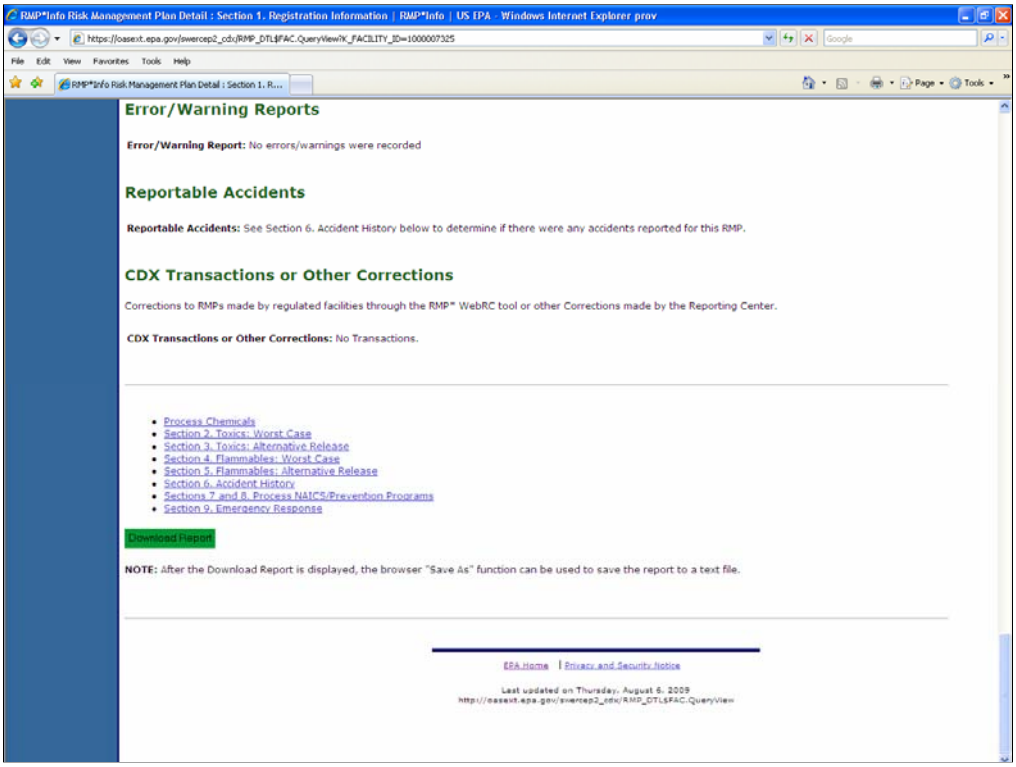
Page Tools
Emergency Contact
Emergency Contact Name: David Pastalaniec
Emergency Contact Title: Manager, Safety and Environmental
Emergency Contact Phone: (409) 943-9137
Emergency Contact 24-Hour Phone: (877) 705-2303
Emergency Contact Ext. or PIN:
Emergency Contact E-mail Address: dpastalaniec@ispcorp.com
Other Points of Contact
Facility or Parent Company E-mail Address:
Facility Public Contact Phone: none
Facility or Parent Company WWW Homepage Address: none
Local Emergency Planning Committee
LEPC: Texas City and La Marque LEPC
Full Time Equivalent Employees
Number of Full Time Employees (FTE) on Site: 170
FTE Claimed as CBI:
Covered by
OSHA PSM: Yes
EPCRA 302: Yes
CAA Title V: Yes
Air Operating Permit ID: 0-01592
OSHA Ranking
OSHA Star or Merit Ranking: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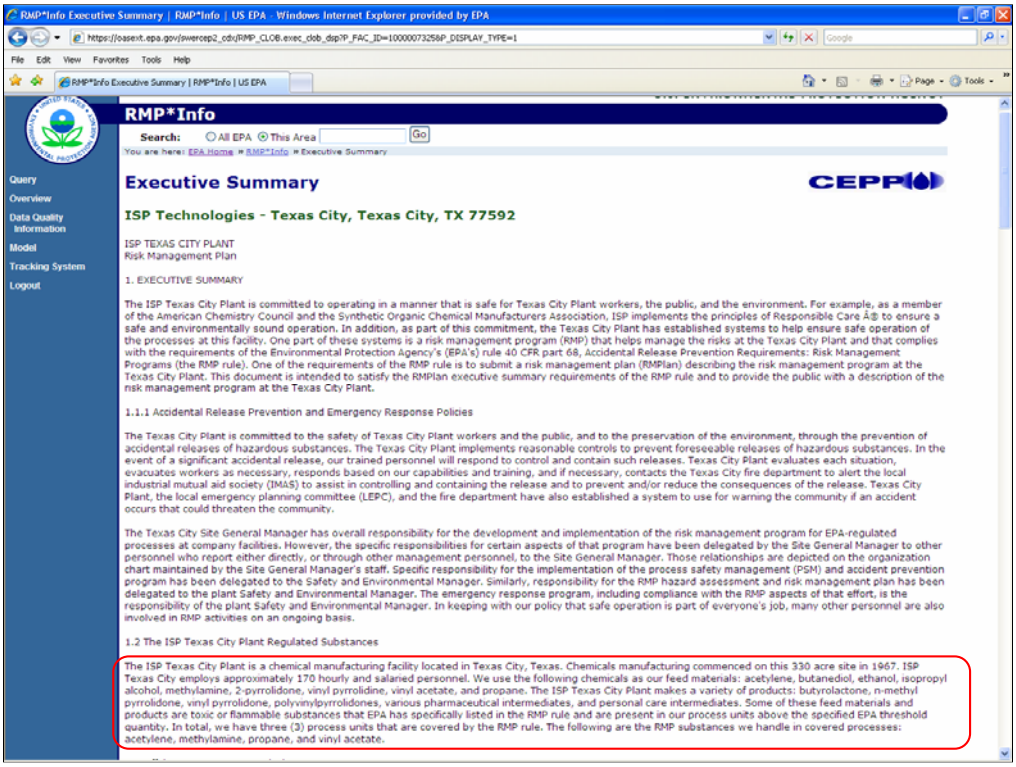
https://oasext.epa.gov/swercep2_cdx/RMP_DTL$FAC.QueryView?K_FACILITY_ID=1000007325
File Edit View Favorites Tools Help
RMP*Info Risk Management Plan Detail : Section 1. R...
Page Tools
Error/Warning Reports
Error/Warning Report: No errors/warnings were recorded
Reportable Accidents
Reportable Accidents: See Section 6. Accident History below to determine if there were any accidents reported for this RMP.
CDX Transactions or Other Corrections
Corrections to RMPs made by regulated facilities through the RMP* WebRC tool or other Corrections made by the Reporting Center.
CDX Transactions or Other Corrections: No Transactions.
Process Chemicals
Section 2. Toxics: Worst Case
Section 3. Toxics: Alternative Release
Section 4. Flammables: Worst Case
Section 5. Flammables: Alternative Release
Section 6. Accident History
Sections 7 and 8. Process NAICS/Prevention Programs
Section 9. Emergency Response
Download Report
NOTE: After the Download Report is displayed, the browser "Save As" function can be used to save the report to a text file.
EPA Home | Privacy and Security Notice
Last updated on Thursday, August 6, 2009
http://oasext.epa.gov/swercep2_cdx/RMP_DTL$FAC.QueryView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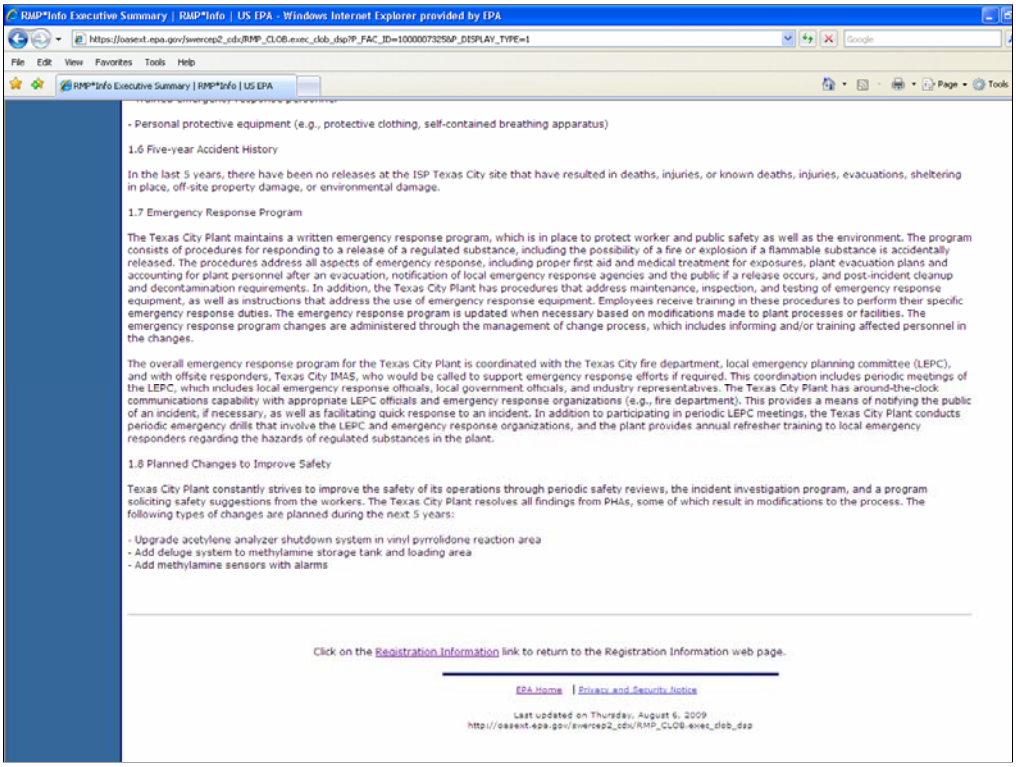
Query
Overview
Data Quality Information
Model
Tracking System
Logout
Executive Summary
CEPPO
ISP Technologies - Texas City, Texas City, TX 77592
ISP TEXAS CITY PLANT
Risk Management Plan
1. EXECUTIVE SUMMARY
The ISP Texas City Plant is committed to operating in a manner that is safe for Texas City Plant workers, the public, and the environment. For example, as a member of the American Chemistry Council and the Synthetic Organic Chemical Manufacturers Association, ISP implements the principles of Responsible Care Â® to ensure a safe and environmentally sound operation. In addition, as part of this commitment, the Texas City Plant has established systems to help ensure safe operation of the processes at this facility. One part of these systems is a risk management program (RMP) that helps manage the risks at the Texas City Plant and that complies with the requirements of the Environmental Protection Agency's (EPA's) rule 40 CFR part 68, Accidental Release Prevention Requirements: Risk Management Programs (the RMP rule). One of the requirements of the RMP rule is to submit a risk management plan (RMPlan) describing the risk management program at the Texas City Plant. This document is intended to satisfy the RMPlan executive summary requirements of the RMP rule and to provide the public with a description of the risk management program at the Texas City Plant.
1.1.1 Accidental Release Prevention and Emergency Response Policies
The Texas City Plant is committed to the safety of Texas City Plant workers and the public, and to the preservation of the environment, through the prevention of accidental releases of hazardous substances. The Texas City Plant implements reasonable controls to prevent foreseeable releases of hazardous substances. In the event of a significant accidental release, our trained personnel will respond to control and contain such releases. Texas City Plant evaluates each situation, evacuates workers as necessary, responds based on our capabilities and training, and if necessary, contacts the Texas City fire department to alert the local industrial mutual aid society (IMAS) to assist in controlling and containing the release and to prevent and/or reduce the consequences of the release. Texas City Plant, the local emergency planning committee (LEPC), and the fire department have also established a system to use for warning the community if an accident occurs that could threaten the community.
The Texas City Site General Manager has overall responsibility for the development and implementation of the risk management program for EPA-regulated processes at company facilities. However, the specific responsibilities for certain aspects of that program have been delegated by the Site General Manager to other personnel who report either directly, or through other management personnel, to the Site General Manager. Those relationships are depicted on the organization chart maintained by the Site General Manager's staff. Specific responsibility for the implementation of the process safety management (PSM) and accident prevention program has been delegated to the Safety and Environmental Manager. Similarly, responsibility for the RMP hazard assessment and risk management plan has been delegated to the plant Safety and Environmental Manager. The emergency response program, including compliance with the RMP aspects of that effort, is the responsibility of the plant Safety and Environmental Manager. In keeping with our policy that safe operation is part of everyone's job, many other personnel are also involved in RMP activities on an ongoing basis.
1.2 The ISP Texas City Plant Regulated Substances
The ISP Texas City Plant is a chemical manufacturing facility located in Texas City, Texas. Chemicals manufacturing commenced on this 330 acre site in 1967. ISP Texas City employs approximately 170 hourly and salaried personnel. We use the following chemicals as our feed materials: acetylene, butanediol, ethanol, isopropyl alcohol, methylamine, 2-pyrrolidone, vinyl pyrrolidine, vinyl acetate, and propane. The ISP Texas City Plant makes a variety of products: butyrolactone, n-methyl pyrrolidone, vinyl pyrrolidone, polyvinylpyrrolidones, various pharmaceutical intermediates, and personal care intermediates. Some of these feed materials and products are toxic or flammable substances that EPA has specifically listed in the RMP rule and are present in our process units above the specified EPA threshold quantity. In total, we have three (3) process units that are covered by the RMP rule. The following are the RMP substances we handle in covered processes: acetylene, methylamine, propane, and vinyl acetate.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- Personal protective equipment (e.g., protective clothing, self-contained breathing apparatus)
1.6 Five-year Accident History
In the last 5 years, there have been no releases at the ISP Texas City site that have resulted in deaths, injuries, or known deaths, injuries, evacuations, sheltering in place, off-site property damage, 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 consists of procedures for responding to a release of a regulated substance, including the possibility of a fire or explosion if a flammable substance is accidentally released. The procedures address all aspects of emergency response, including proper first aid and medical treatment for exposures, plant evacuation plans and accounting for plant personnel after an evacuation, notification of local emergency response agencies and the public if a release occurs, and post-incident cleanup 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 when necessary based on modifications made to plant processes or facilities. The 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 with offsite responders, Texas City IMAS, who would be called to support emergency response efforts if required. This coordination includes periodic meetings of the LEPC, which includes local emergency response officials, local government officials, and industry representatives. The Texas City Plant has around-the-clock communications capability with appropriate LEPC officials and emergency response organizations (e.g., fire department). This provides a means of notifying the public of an incident, if necessary, as well as facilitating quick response to an incident. In addition to participating in periodic LEPC meetings, the Texas City Plant conducts periodic emergency drills that involve the LEPC and emergency response organizations, and the plant provides annual refresher training to local emergency responders regarding the hazards of regulated substances in the plant.
1.8 Planned Changes to Improve Safety
Texas City Plant constantly strives to improve the safety of its operations through periodic safety reviews, the incident investigation program, and a program soliciting safety suggestions from the workers. The Texas City Plant resolves all findings from PHAs, some of which result in modifications to the process. The following types of changes are planned during the next 5 years:
- Upgrade acetylene analyzer shutdown system in vinyl pyrrolidone reaction area
- Add deluge system to methylamine storage tank and loading area
- Add methylamine sensors with alarms
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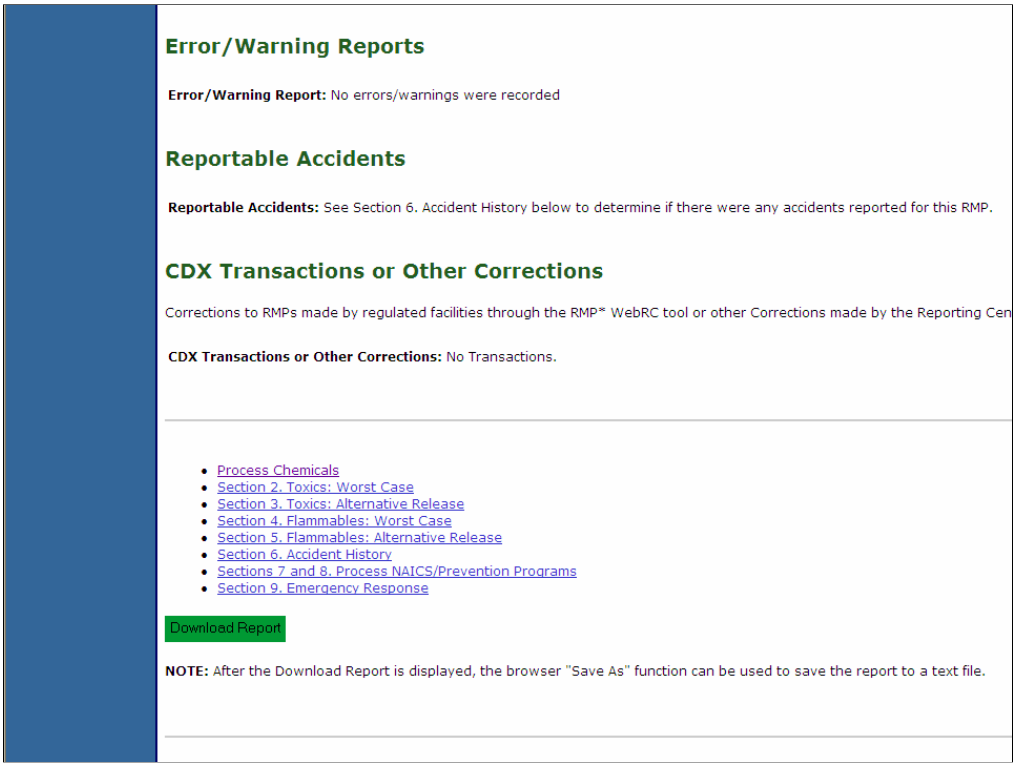


Error/Warning Reports

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

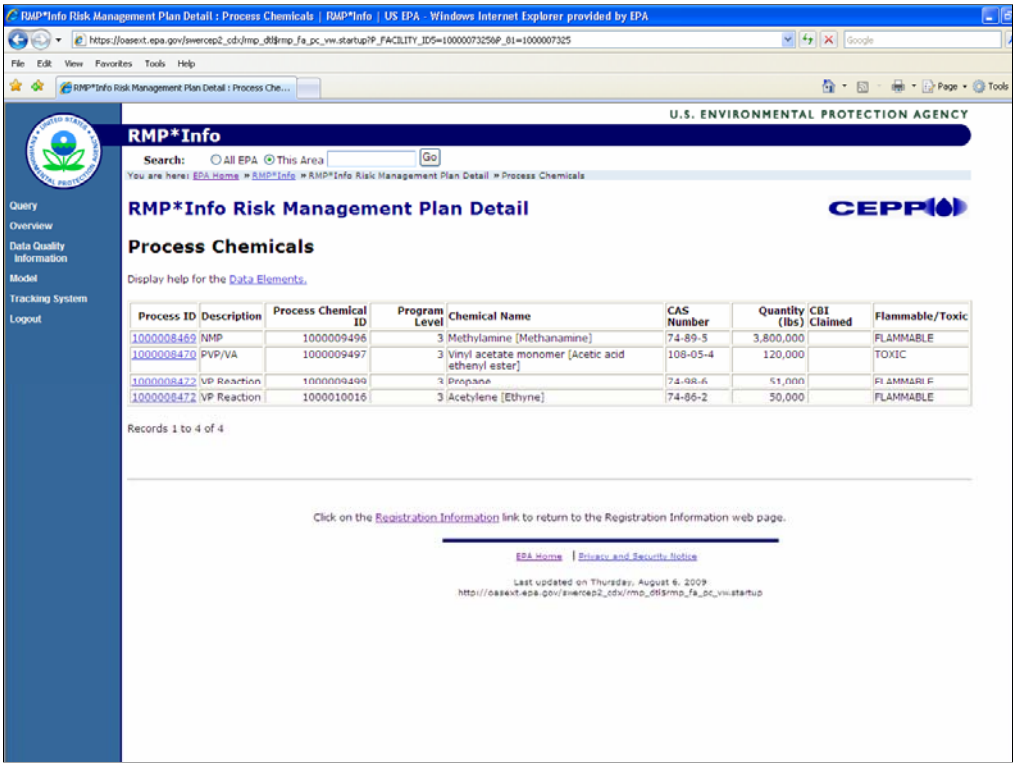
Corrections to RMPs made by regulated facilities through the RMP* WebRC tool or other Corrections made by the Reporting Cen

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 NAICS/Prevention Programs
- Section 9. Emergency Response

Download 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 | RMP*Info | US EPA - Windows Internet Explorer provided by EPA
U.S. ENVIRONMENTAL PROTECTION AGENCY
RMP*Info
Search: All EPA This Area Go
You are here: EPA Home » RMP*Info » RMP*Info Risk Management Plan Detail » Process Chemicals
Query
Overview
Data Quality Information
Model
Tracking System
Logout
RMP*Info Risk Management Plan Detail
CEPPO
Process Chemicals
Display help for the Data Elements.
Process ID | Description | Process Chemical ID | Program Level | Chemical Name | CAS Number | Quantity (lbs) | CBI Claimed | Flammable/Toxic
1000008469 | NMP | 1000009496 | 3 | Methylamine [Methanamine] | 74-89-5 | 3,800,000 | | FLAMMABLE
1000008470 | PVP/VA | 1000009497 | 3 | Vinyl acetate monomer [Acetic acid ethenyl ester] | 108-05-4 | 120,000 | | TOXIC
1000008472 | VP Reaction | 1000009499 | 3 | Propane | 74-98-6 | 51,000 | | FLAMMABLE
1000008472 | VP Reaction | 1000010016 | 3 | Acetylene [Ethyne] | 74-86-2 | 50,000 | | FLAMMABLE
Records 1 to 4 of 4
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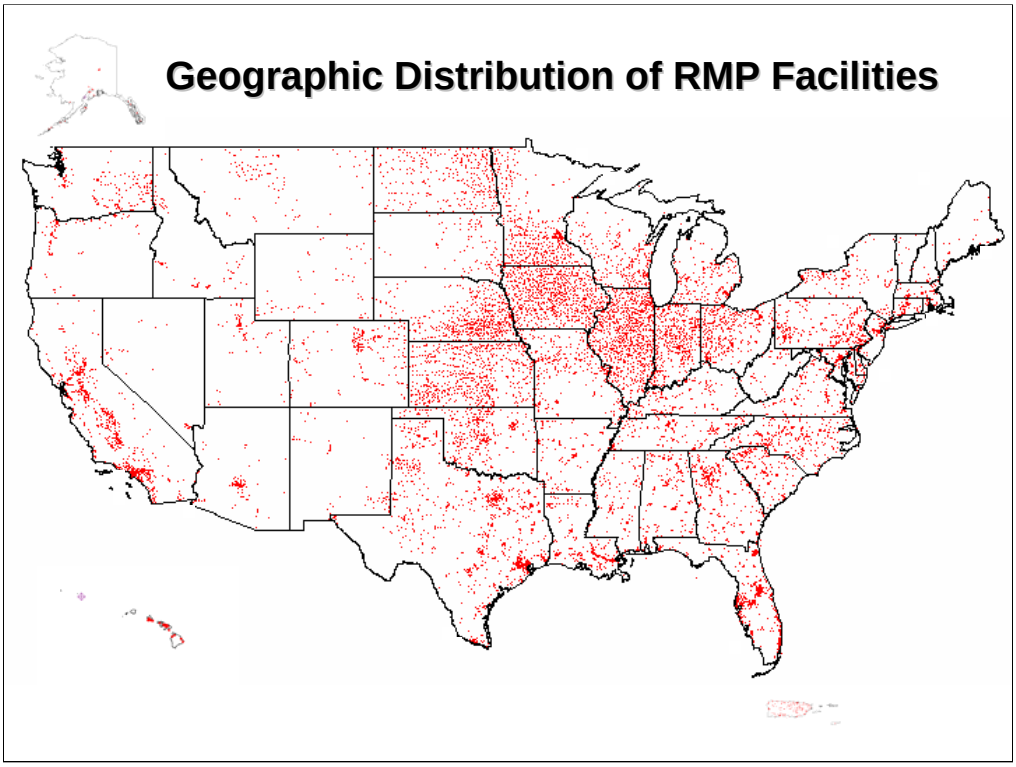
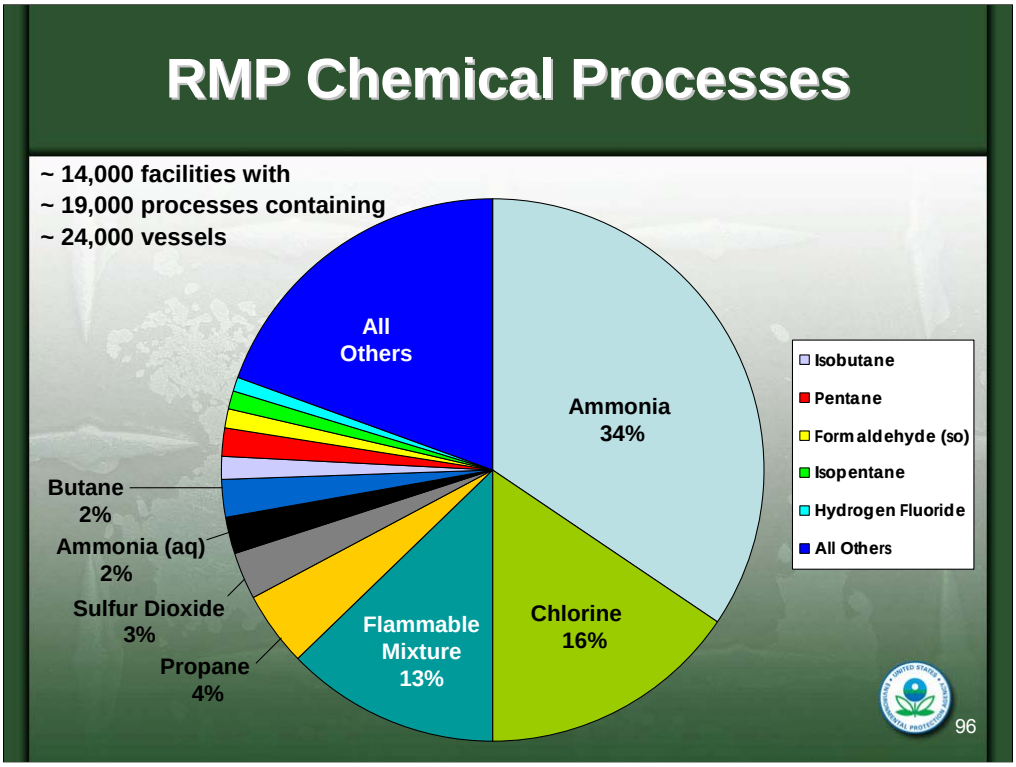
Geographic Distribution of RMP Facilities



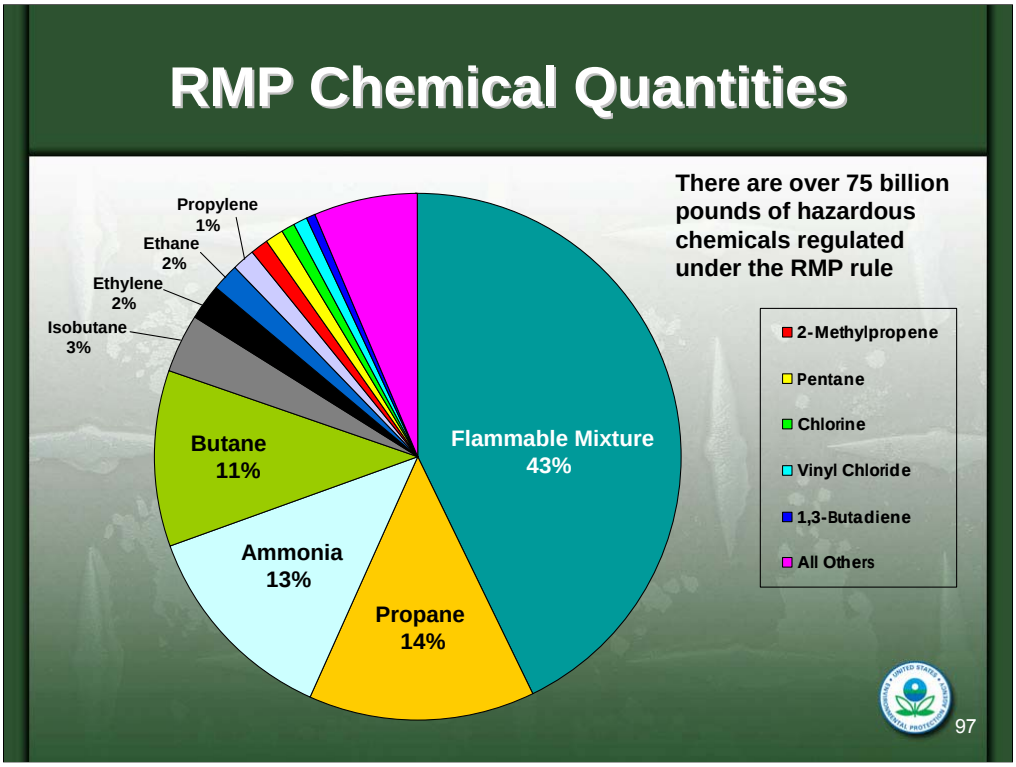


This slide represents the percentage of RMP processes that contain the various chemicals shown.

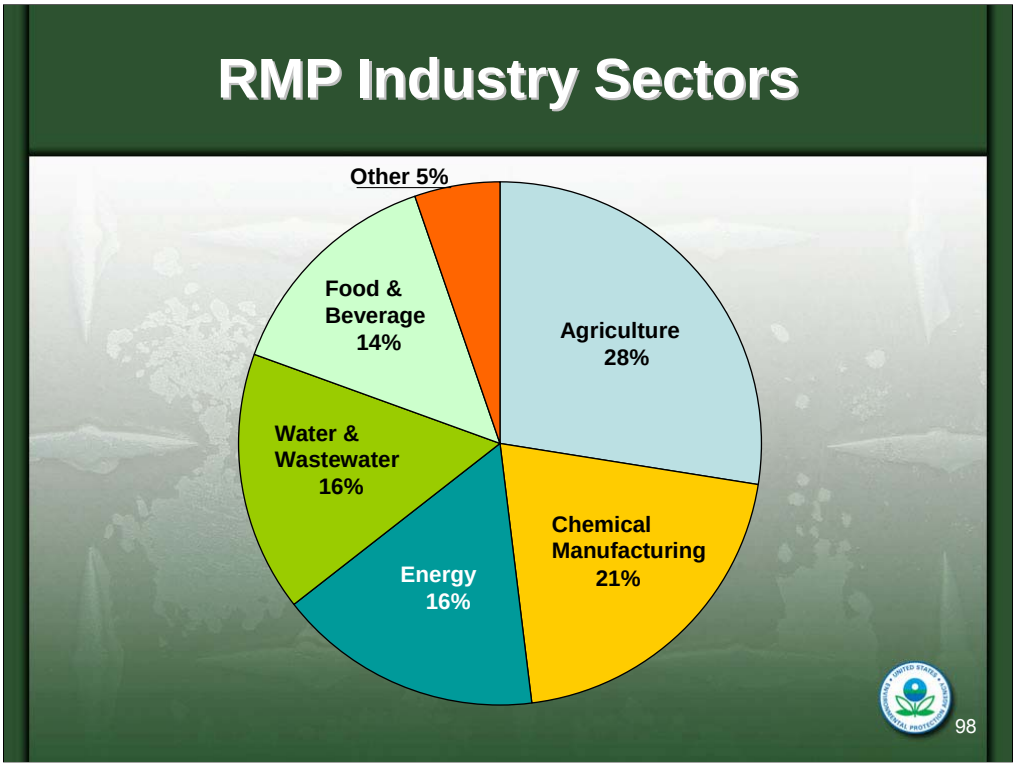
The United States has just under 15,000 RMP facilities containing 20,210 covered processes.

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.

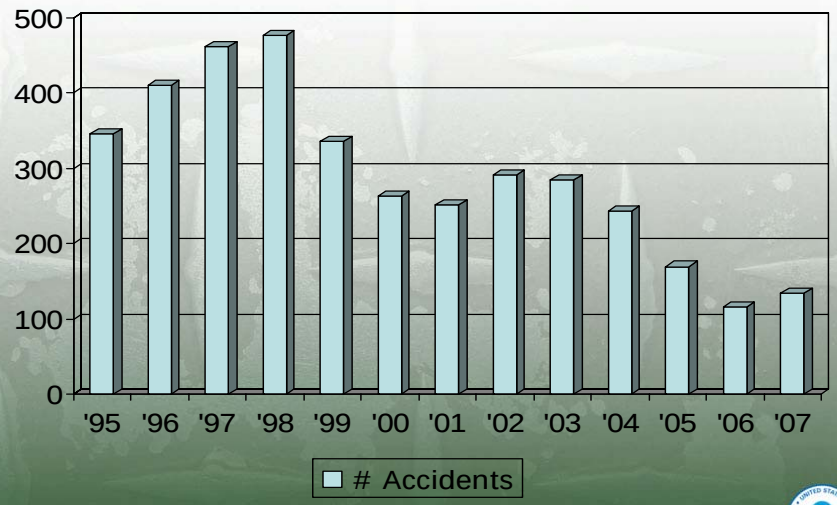


This slide shows percentage of chemicals by quantity, instead of by number of processes. The aggregate percentages represent the sum of all quantities of each chemical in all processes with that chemical.



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



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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

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