



# From Response to Prevention

## Clean Air Act (CAA) Amendments of 1990

- General Duty Clause (Section 112(r)(1))
- EPA Risk Management Program (Section 112(r)(7))
- OSHA Process Safety Management (PSM)
- Established Chemical Safety Board (CSB) to investigate incidents



## CAA 112(r)(1) - General Duty Clause

Any stationary source with an extremely hazardous substance (listed or not listed), regardless of quantity on-site, has a general duty to:

- identify hazards which may result from a release
- design and maintain a safe facility
- take such steps as are necessary to prevent releases
- minimize the consequences of accidental releases that do occur

EPA guidance on GDC implementation

<https://www.epa.gov/rmp/general-duty-clause-under-clean-air-act-section-112r1>



# Key to Accident Prevention

Utilize industry standards or recognized and generally accepted good engineering practices (RAGAGEP)



**National Fire  
Protection Association**

The authority on fire, electrical, and building safety





# Potential General Duty Facilities

- Facilities that submit EPCRA 302 & 312 reports
- Refrigeration facilities that use less than 10,000 anhydrous ammonia
- Ethanol facilities that use NFPA 3 denaturant
- Farmers use of bulk anhydrous ammonia storage
- Facilities with chemical accidents
  - ✓ Especially where the public was impacted
- Any facility with chemicals on-site that adheres to industry guidance (like those listed on previous slide)



# Barton Solvents – 2007; Des Moines & Valley Center





## Barton Solvents – 2007; Des Moines & Valley Center

- Two accidents at different facilities on 7/17/2007 and 10/29/2007
- Nearby residents were evacuated for about a week
- Both involved transferring solvents
- Likely causes include static electricity, over-pressurization, and not following procedures
- Fined \$1.1M and required to conduct 3<sup>rd</sup>-party audits



# Chem Central – 2007; Kansas City, MO





## Chem Central – 2007; Kansas City, MO

- Chemical distributor of various solvents and chemicals
- Several explosions and fires on 2/7/2007
  - Tank of Indipol overheated due to poor equipment and procedures
  - Nearby railcars of mineral spirits were threatened during the fire
  - Evacuation of 500 residents and six schools for several days
- Case findings included
  - Failure to report storage of several chemicals to the state
  - Failed to identify hazards and operate a safe facility
- Paid a cash penalty of \$225,000 and paid \$150,000 in response costs





# Refrigeration Facility – 2016



**Less than 10,000 pounds anhydrous ammonia**



# Refrigeration Facility – 2016

**System vented at ground level toward nearby houses**





# Refrigeration Facility – 2016





# 40 CFR 68 Rule Modernization Time Line

- July 31, 2014 – EPA requested information from public / regulated community
- November 4, 2015 – Small business advocacy review panel
- March 14, 2016 – Proposed rule published
- January 13, 2017 - Final rule published
  - Original Effective Date: March 14, 2017
- January & March 2017 – Delay of effective date
  - Delayed in January due to Presidential directive entitled “Regulatory Freeze Pending Review”
  - Delayed in March in response to a petition for reconsideration and request to stay
  - **June 19<sup>th</sup>, 2017 - New effective date**
- April 2017
  - Proposed to delay the effective date until February 2019
  - A public meeting was held on April 19, 2017
  - **Public comment period open until May 19<sup>th</sup>, 2017**
  - If the effective date is altered that will be announced by June 19th



# Major Changes to 40 CFR 68 Include



- Conduct root cause analysis
- Perform third party audits after accidents
- Hold public meeting within 90 days of an accident
- Complete annual notification exercises
- Coordinate annually with local emergency response agencies
- Facility information is made available to public upon request
- Changes made to investigations
- Revisions to Risk Management Plans



# Important Notes About Risk Management Program Rule Change



- Compliance with emergency response coordination activities required by one year after the effective date
- Risk Management Plans to reflect new and revised data elements by five years after the effective date
- Final rule and background  
<https://www.epa.gov/rmp/final-amendments-risk-management-program-rmp-rule>
- Questions and answers:  
<https://emergencymanagement.zendesk.com/hc/en-us/sections/203878207-Final-Amendments-to-RMP-Rule>



# Resources

- EPA EPCRA website: <https://www.epa.gov/epcra>
- EPA Risk Management Program website: <https://www.epa.gov/rmp>
- EPA Emergency Response website: <https://www.epa.gov/emergency-response>
- The Right to Know Network website: <http://www.rtknet.org/db/rmp>

# Your Presenter

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