



Environmental Accidents

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American Bar Association Environment, Energy, and Resources ANNUAL FALL MEETING

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Region 2

Overview



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- West, Texas; *and* Lac-Mégantic, Quebec
- President's Executive Order (EO) 13650
- Federal Region 2 EO Pilot – The Effective Chemical Risk Management Project (ECRM2)
- EPA Authorities
- Other Federal Agency Authorities
- Enforcement Activities
- Inherently Safer Technologies
- Emerging Threats



West, Texas

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- April 17, 2013
- Ammonium nitrate explosion
- 15 deaths, including 11 firefighters
- >200 injured



- 150 buildings damaged or destroyed

Lac-Mégantic, Quebec



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- July 6, 2013
- Train carrying Bakken crude derails & explodes
- 47 killed, many more injured
- 30 buildings, 115 businesses destroyed

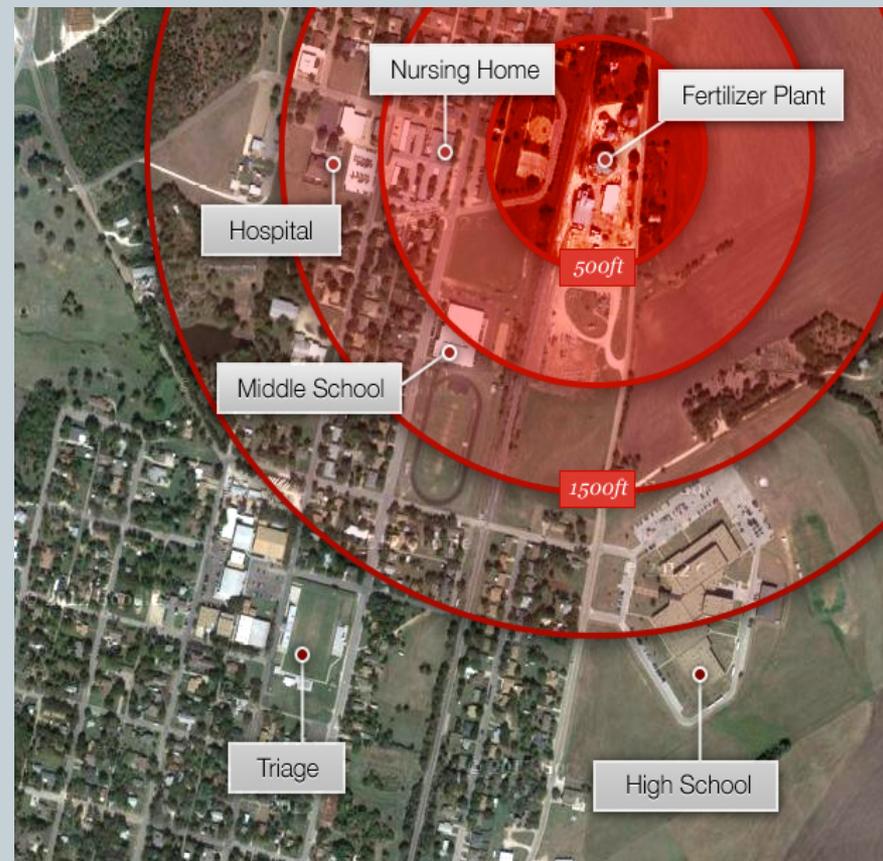


Executive Order 13650: Chemical Facility Safety & Security



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- Signed August 1, 2013
- Objectives:
 - Enhance federal coordination
 - Improve operational coordination with State, Local, and Tribal partners
 - Enhance information collection and sharing
 - Modernize regulations, guidance, policy, standards
 - Identify best practices



Effective Chemical Risk Management Project



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- EO created Interagency Working Group
 - Co-chaired by DHS, EPA and OSHA
 - DOJ, DOT, DOA are member agencies
 - Other federal agencies consulted as necessary
- EO called for “pilot” project involving federal, state and local agencies and emergency responders:
 - “Effective Chemical Risk Management Project” for Federal Region 2 (ECRM2)
 - Identified best ways to improve management of chemical risk, and where to target resources.
 - Concentrated on operational environment, risk management criteria, and resource constraints
 - Results nationally applicable



- ECRM2 Objectives:
 - Develop/deploy best practices
 - Innovate/test new methods for interagency collaboration
 - Integrate (regional) federal & state assets where appropriate
 - Develop integrated Standard Operating Procedures
 - Develop innovative approaches to collecting, storing and using facility information
 - Include stakeholder engagement, inspection planning, and coordinated inspections of facilities

ECRM2 Structure - “Alphabet Soup”



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- Formed as sub-committee under Region 2 Regional Response Team
- Co-chaired by EPA, OSHA, and DHS
- Includes representatives from --
 - DHS - US Coast Guard
 - DHS - TSA
 - DOJ - ATF
 - DOL – OSHA
 - DOT – PHMSA
 - FEMA
 - New Jersey: NJDEP; OHSP (Office of Homeland Security and Preparedness); DCA (Department of Community Affairs) Division of Fire Safety
 - New York: NYSDEC; DOH; DHSES (Division of Homeland Security and Emergency Services); Department of Agriculture and Markets
 - New York City: OEM; NYCDEP; FDNY

ECRM2 Objectives



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- **Objective 1** - Develop a common understanding among agencies regarding chemical risks, location of chemicals, and chemical risk management
- **Objective 2** - Draft operating plan for federal, state, local & tribal collaboration to develop a common understanding at regional level
- **Objective 3** - Determine challenges, potential solutions, and value added in conducting joint inspections of high risk facilities and infrastructures

ECRM2 Work Focus



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- Focused on 3 “Disciplines” – Prevention; Preparedness/Planning; and Response
- Focus on the following groups/issues:
 - First Responders
 - State Emergency Response Commissions (SERCs) and Local Emergency Planning Committees (LEPCs)
 - EPCRA Tier 2 Information – Chemical Inventory
 - High Risk Facilities/Chemicals of Interest – Risk Management
 - Data and Information Sharing



ECRM2 Standard Operating Procedures (SOPs)



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- Created 16 SOPs in the following general categories:
 - Administration, Assessment, and Training
 - Sharing Federal, State, Tribal, and Local Program Descriptions
 - Data Sharing/Increasing Inspector & Responder Access to High Risk Facility Information
 - Coordinating Facility Inspections
 - Identifying Facility and Subject Matter Experts for Planners/Responders
 - Local Emergency Planning Committee (LEPC) Support.
- SOPs have been shared with other 9 Federal Regions



EPA Authorities – CLEAN AIR ACT



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- **Section 112(r) – “General Duty Clause”**

- Added to CAA in 1990 Amendments
- Response to 1984 Bhopal disaster
- Owners/operators of facilities with regulated and “Extremely Hazardous Substances” are responsible for safe chemical management



- **CAA Risk Management Program**

- Facility that manufactures/uses/stores/handles listed flammable & toxic substances must develop risk management program and submit Risk Management Plan, including:
 - ✦ Hazard Assessment (w/ evaluation of worst-case and alternative accidental release scenarios)
 - ✦ Prevention mechanisms
 - ✦ Emergency response measures





Emergency Planning & Community Right to Know Act

- Promotes emergency planning & preparedness at state, local, and tribal levels
- Facilities must report hazardous chemicals present over defined thresholds ... helps ensure local communities & responders have information on potential chemical hazards; assists communities in developing emergency response plans
- Facilities with “Extremely Hazardous Substances” must notify SERC and LEPC; and must participate in local emergency planning activities.
- LEPCs responsible for developing emergency response plans



EPA Authorities – CERCLA (“Superfund”)



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- **National Response System (NRS)**

- Multi-layered system of local, state, and federal agencies, industry, and other organizations that share expertise and resources to ensure that threats to human health and the environment from oil and hazardous materials spills are minimized.

- **National Oil and Hazardous Substances Pollution Contingency Plan (“National Contingency Plan” or NCP)**

- Ensures that federal resources & expertise are available immediately for oil or hazardous substance releases that are beyond the capabilities of local and state responders.
- Provides framework for the NRS and governs federal response actions

- **National & Regional Response Teams**

- NRT: 15 member agencies; EPA Chairs; sets national policy & guidance
- 13 RRTs: 15 members; EPA & USCG co-chair; prepare Regional Contingency Plans, develop procedures for coordinated response





- **Clean Water Act §311**
 - Oil Pollution Prevention regulation governs prevention, preparedness and response to oil spills at specified non-transportation facilities
 - Spill Prevention, Control & Countermeasure (SPCC) Plans
- **Oil Pollution Act**
 - Facility Response Plans



Other Federal Agency Authorities



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- Department of Labor –
Occupational Safety and Health Administration
- Department of Homeland Security –
National Protection and Programs Directorate
- U.S. Coast Guard
- Federal Emergency Management Agency
- Department of Justice –
Bureau of Alcohol, Tobacco, Firearms, and Explosives
- Department of Transportation –
Pipeline and Hazardous Materials Safety Administration
- Federal Railroad Administration



Enforcement



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- EPA GDC inspections of Ammonium Nitrate and toll manufacturing facilities
- Inspections of facilities that may be potential non-filers under CFATS and EPCRA Title III.
- OSHA inspections of High Risk RMP facilities
- Coordinated inspections in New York and New Jersey
- Cross training of inspectors





EPA GDC Enforcement Examples

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- Suiza Dairy, Rio Piedras, PR
 - Large ammonia refrigeration facility
 - Heavily populated area
 - Release that affected local residents
 - Inspection revealed significant RMP violations
 - Enforcement settlement: \$275K penalty; \$3.7M in facility improvements; RMP compliance; drills with responders





EPA GDC Enforcement Examples

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- Slack Chemical Co, Saratoga & Carthage, NY
 - Large quantities of hazardous chemicals, w/ incompatibles
 - Essentially no RMP program
 - Enforcement settlement: \$90K penalty; compliance with RMP; storage reorganized based on chemical compatibility



Inherently Safer Technologies



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- Reduce or eliminate hazard through process changes
 - Safety built into process, not added on
 - Hazards reduced or eliminated, not simply controlled
- *E.g.:* Kuehne Company (Kearny, NJ) – makes bleach from Cl
 - Voluntary IST upgrade: converting to brine-to-bleach process; dramatically reduces chlorine transport & storage



- **IST not (yet) federally required...**
- **... but note New Jersey Risk Management Program:**
 - More stringent than federal RMP
 - Requires *consideration* of IST and reporting of findings (N.J.A.C. 7:31-3.6 and 4.12)

Emerging Threats



● Crude Oil Transport

- Dramatic increase in volume shipped by rail ... 40X increase from 2008
- Bakken crude 3X more volatile than Louisiana ... higher explosive risk
- West-East transportation corridor ... >15% to Port of Albany
- Increased planning efforts, enhanced government coordination (all levels)
- DOT Rulemaking – improved tank car design, other rail safety improvements.



● Hydraulic Fracking

- Increased transport of fracking wastes
- First responders need to be aware of contents of waste shipments
- Disposal of wastes





Questions?