

Project Planning, Thinking beyond 40 CFR

PRESENTED TO:

Southern Section Air and Waste Management Association

PRESENTED BY:



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Overview

- Why look beyond 40 CFR
- Key Environmental Regulations under 40 CFR
- Occupational Safety and Health Act (OSHA) 29 CFR 1910
- Toxic Substances Control Act (TSCA) Aspects
- National Fire Protection Association (NFPA) Aspects
- DOT and Homeland Security
- Ordinances and other regulatory governance
- Summary and Review

Project Planning beyond 40 CFR

- As an EHS professional why look beyond 40 CFR?
 - Design and building aspects that could run contrary to regulatory requirements
 - Safer design and building requirements
 - Avoiding costly mis-steps from the project management / development team
 - Pre-planning for what actions and preparations are needed to address regulatory drivers
 - Recognizing early in the planning stages where constraints may result in significant project limitations

Key Environmental Regulations under 40 CFR

- Clean Air Act
 - Air Emission Source Permitting
 - Risk Management Planning
- RCRA
 - Characterization and management of both solid and hazardous waste
- Clean Water Act
 - NPDES Permits
 - Spill Prevention Control and Countermeasures
- EPCRA



Key RCRA Provisions

- Identification of Wastes
- Exemptions / Exclusions
 - Hazardous Secondary Materials
- Hazardous Wastes that are not Subject to Hazardous Waste Regulation when Recycled
 - Precious Metals (i.e., gold, silver, platinum, palladium, iridium, osmium, rhodium, and ruthenium)
 - Scrap Metals
 - Universal Waste Batteries
 - Lead-Acid Batteries



OSHA Aspects

- Emergency Action Plan (29 CFR 1910.38(a))
- Emergency Response Plan (29 CFR 1910.120)
- Hazard Communications (28 CFR 1910.1200)
 - Communicating hazards of new chemicals
- Process Safety Management (29 CFR 1910.119)
 - HAZOP reviews
- Chemical Handling Safety
- Other specific OSHA standards



Toxic Substances Control Act (TSCA) Aspects

- Section 5, pre-manufacture notification for "new chemical substances" before manufacture or import
- Section 4, testing of chemicals by manufacturers, importers, and processors where risks or exposures of concern are found
- Sections 12(b) and 13, comply with certification reporting and/or other requirements
- Will there be any imported chemicals?
 - LVE
 - R&D Purposes
- Are any of these new?
- Will any of the chemicals contain restricted substances?



NFPA Aspects

- Hazardous materials and processes may be subject to certain NFPA codes
- Common NFPA Citations
 - NFPA 30 Flammable and Combustible Liquids Code
 - NFPA 70 National Electrical Code
 - NFPA 33 Standard for Spray Application Using Flammable or Combustible Materials
 - NFPA 34 Standard for Dipping, Coating, and Printing Processes Using Flammable or Combustible Liquids
 - NFPA 86 Standard for Ovens and Furnaces



Homeland Security

- 6 CFR Part 27: The Chemical Facility Anti-Terrorism Standards (CFATS) Chemicals of Interest (COI) list.
- CFATS identifies and regulates high-risk facilities to ensure security measures are implemented to reduce risk of certain hazardous chemicals not being weaponized.
 - Are new chemicals subject to reporting requirements?
 - How much will be on-site at any given time?
 - Will a security plan need to be prepared and implemented?

Federal Hazardous Materials Transportation Act

Requirements of the Hazardous Materials Transportation Act (HMTA);

- Hazardous Material Incident Reporting (49 CFR 171.6),
- Emergency Response Information (49 CFR 172.600), and
- Hazmat Training (49 CFR 172.700-.704)



Federal Hazardous Materials Regulations

- Department of Transportation (DOT) authorized to regulate transportation of hazardous materials (Federal Motor Carrier Safety Administration)
- Pipeline and Hazardous Materials Safety Administration (PHMSA) delegated responsibility to write the hazardous materials regulations, which are contained in 49 CFR Parts 100 - 180
 - What types of hazardous materials may be transported?
 - How much will be transported?
 - How will it be transported?

Ordinances and Local Regulatory Governance

- Local jurisdictional code requirements
 - County or City Code of Ordinances
 - Varies across the country but there are under arching similarities
 - Permits, plans, notifications may be required
 - Post Construction Ordinances
 - Focusing on non-point sources of pollutants
 - Building Code
 - International Building Code
 - Plumbing Code

Ordinances and other regulatory governance

- Common areas to be mindful of include
 - Sanitary Sewer (Permits/Limits)
 - Stormwater
 - Noise Ordinances
 - Traffic Management
- Industrial or Business Park requirements
 - Construction limitations
 - Stormwater system integration
 - Infrastructure
 - Shared ponds
 - Common areas

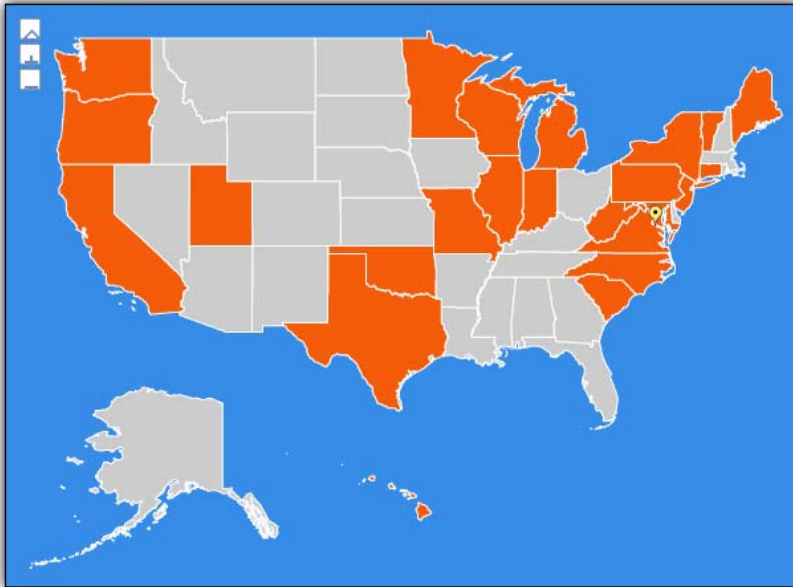


Due Diligence

- Many regulatory drivers that are known, however always research applicable codes and requirements
- No one has a crystal ball, working with project team will allow more awareness of current requirements and forecast future drivers
- Stay abreast and current on federal and local requirements
- Internet searches, Code of Ordinances reviews, agency news updates, and other tools are available to identify applicable requirements

Due Diligence – Electronic Waste

Map of States With Legislation



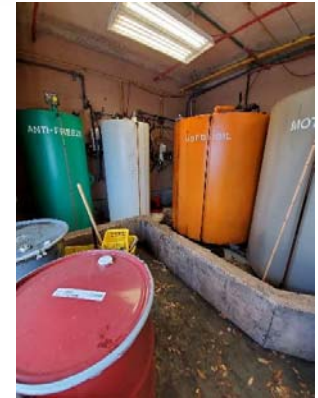
There are currently 25 states with e-waste laws (plus the District of Columbia). States highlighted in **orange** have passed some type of e-waste legislation. Click each individual state for state-specific information. Or see below for a comprehensive list.



Common Misses

➤ NFPA 30 and Fire Code

- Insufficient capacity for storage of flammable materials
- Improper spacing between bulk flammable storage
- Incorrectly specified materials for conveyance of flammable materials



➤ Post Construction

- Management of stormwater infrastructure
- Reporting and assessments not being completed
- Modifications and expansions that impact adjacent properties



Common Misses

- Transport of hazardous materials
 - Self transport of hazardous materials
 - Licensed carrier not properly placarding materials based on manifest
- Code and deed restrictions
 - Exhaust stacks not properly positioned
 - Heights of structures exceeding established limitations
 - Proposed discharges not screened against allowable limits

Summary and Review

- Expanded knowledge and awareness on a variety of regulatory drivers will always be beneficial
- Utilize internal and external resources and teams to help review projects during pre-planning and through out implementation
- Focus additional efforts on the higher risk concerns and consider using enhanced review tools and techniques (e.g. MOC, PSSR, HAZOP, etc.)
- Regulatory update databases and notification tools can be very useful at helping to understand significant impacts and aspects
- Do not forget to think locally!

Questions?

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