# Environmental Regulation and Compliance in USA

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## Overview

- Understanding US environmental law requires knowledge of many Federal and State programs
- Penalties and cost of defending against lawsuits and correcting noncompliances are high and increasing
- Companies operating in the US must report environmental liabilities
- Independent external audits and liability/risk assessments are essential tools

## Key concepts

- History of US environmental legislation is reactive and related to disastrous events
- Formulation of regulations is influenced by special-interest lobbying and litigious concerns
- Regulatory requirements tend to be prescriptive and detailed

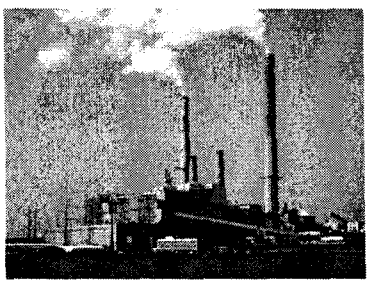
## Regulatory Structure

- USA regulatory system is multi-tiered
- Federal Laws (Acts) require regulatory agencies to develop and implement regulations
- Most environmental regulations incorporated into Title 40 of the Code of Federal Regulations (40 CFR) and administered by the Environmental Protection Agency (EPA)
- All fifty US States have the power to develop and administer their own environmental regulatory programs

## Clean Air Act (CAA)

- In effect since 1970
- Amended in 1977 and again in 1990 to relax target dates and address "new" issues such as acid rain, ground-level ozone and ozone depletion.
- Regulation of emissions from:
  - Power generation
  - Transportation
  - Solvent use (including painting and coating)
  - Bulk storage of volatile products
  - Use and handling of CFC refrigerants
  - Combustion of wastes for energy recovery and disposal

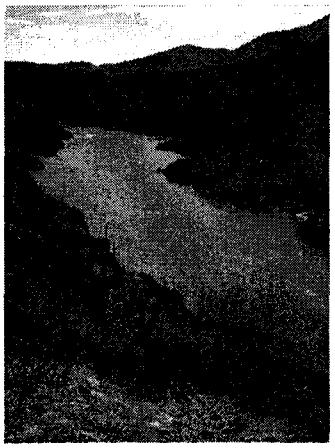
## Common Clean Air Act Concerns for Industrial Facilities



- Allowable air emissions can vary depending upon ambient air quality
- Bulk storage of petroleum products and solvents
- Emissions from furnaces and boilers
- Manufacturing and use of chemical products
- Maintenance of refrigeration systems

## Clean Water Act (CWA)

- In effect since 1972
- The Cuyahoga river fire of 1969 is credited with catalyzing the CWA
- Focused on the prevention of pollution to rivers, lakes and shorelines
- Does not deal directly with the protection of underground water sources



## Clean Water Act concerns for Industry

- Treatment of industrial wastewater prior to direct discharge to the environment;
- Pretreatment of industrial wastewater before discharge to public treatment systems;
- Control of storm water runoff from construction activities; and
- Management of polluting materials stored or used where they are exposed to rainfall.

## Oil Pollution Act (OPA)

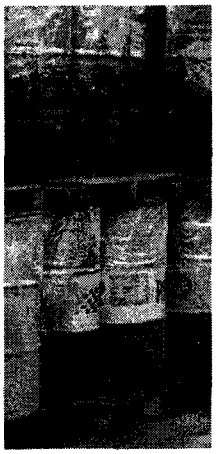
- Enacted in 1990 following the Exxon Valdez Oil Spill
- Enhancing CWA, OPA focuses on the response to catastrophic oil spills
- Concerns for industry center upon spill response preparedness for facilities that:
  - Store more than one million gallons of oil; or
  - Transfer oil over water (e.g. oil terminals)

## Resource Conservation and Recovery Act (RCRA)

- In Effect Since 1976
- Reaction to Love Canal and Valley of Drums hazardous waste dumps
- Regulations based upon RCRA deal primarily with hazardous waste
- "Cradle-to-grave"
- Underground Storage Tank regulations derived from 1986 amendments to RCRA

## Common RCRA concerns for Industry

- Management of hazardous wastes resulting from manufacturing, maintenance, chemical processing, and coating
- Typical waste streams include:
  - Used solvents
  - Used oil
  - Spent/unused chemicals
  - Waste water treatment sludge
- Container control
- Management of Underground Storage Tanks



## Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

- "Superfund"
- Enacted in 1980 to deal with problems identified by RCRA
- "Polluter Pays" principle makes responsible parties liable for releases of hazardous waste at closed and abandoned hazardous waste sites
- Established a trust fund (Superfund) to provide for cleanup when no responsible party can be identified

## CERCLA Concerns for Industry

- Mis-management of hazardous wastes by third party transporters/ treaters/disposers
- Under CERCLA, you can become financially liable for a problem you did not create
- Potentially Responsible Parties (PRP's) are typically those with the deepest pockets

## Emergency Planning and Community Right-to-know Act (EPCRA)

- Passed in1986, two years after the Bhopal incident
- Helps local communities protect public health, and the environment from chemical hazards
- Requires the reporting of chemical inventories and releases
- May require interaction with numerous State and local agencies

## Other Environmental Laws

- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), 1972
- Endangered Species Act (ESA), 1973
  - Administered by US Fish & Wildlife Service
- Safe Drinking Water Act (SDWA), 1974
- Toxic Substances Control Act (TSCA) of 1976
- Pollution Prevention Act (PPA), 1990
- Wetlands/Dredging laws
  - Administered by US Army Corps of Engineers

## Sarbanes-Oxley

- Requires disclosure of environmental information related to:
  - Financial liabilities;
  - Legal proceedings; and
  - Description of corporate activities
- Imposes fines and prison terms for company officers
- There are proposals to adopt more rigorous environmental liability reporting requirements

## States

- States can enact their own legislation and administer their own environmental compliance programs
- State standards may not be less strict than Federal
- All fifty States have unique environmental regulations
- Most States specifically prohibit the pollution of soil, surface-water and ground-water

## Enforcement

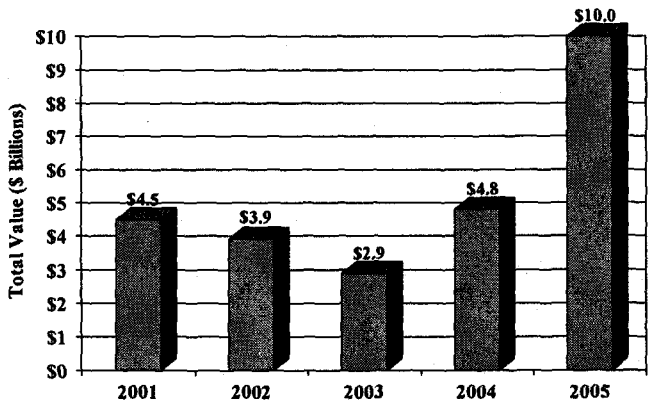
- State and Federal officials have the right to enter and inspect any facility at any time
- Regulatory agencies can take enforcement actions independent of one-another
- Third-parties can bring civil actions and receive favorable judgements, independent of regulatory enforcement outcome
- Legal fees often exceed dollar value of fines

# Economics of Compliance

2005:

- Enforcement actions projected to reduce pollution by 1.1 Billion Pounds (500 Million Kg)
- Defendants will spend a record $10 Billion to reduce pollution and achieve compliance
- Defendants will pay $100 Million in Criminal Fines and Restitution and were sentenced to 186 years in jail

## Dollar Values of EPA Enforcement Actions



## Effective Compliance Assurance

Compliance can not be achieved without:

- Knowledge of regulatory requirements
- Willingness/motivation to comply (Management commitment)
- Measurement (audit) of compliance status
- Compliance management program (part of an overall EHS management strategy)

## Environmental Management System

- Required for effective compliance assurance
- Best systems consist of organizational procedures and structure that do not require key "personalities" to function
- May be internal business practices or application of external EMS models, e.g.:
  - ISO 14000 Standards
  - Responsible Care Management System (RCMS)
- Must include Assessment, Correction and Measurement processes

## Compliance Measurement/Assessment

Layered approach to evaluating compliance :

1. Self-assessment
2. Internal audit
3. Independent external audit

## Liability Assessment

- Phase-I Environmental Site Assessment/Due Diligence is inadequate for assessing real environmental liabilities
- Environmental Liability Assessment provides more information about important issues
- Risk Assessment will provide details of current and future actual and **potential** liabilities

# Case Study

Environmental Compliance Audit
and Risk Assessment

## Background

- Facility constructed in 1970's
- Manufacturing automotive parts
- ISO 14000 certified
- Routine self-assessments conducted
- No environmental liabilities listed for facility – Actual liability unknown

## Regulatory Compliance Findings

- Boiler fuel transfers taking place over an open drain in the street, that discharged directly to the adjacent river
- Underground storage tank was not monitored for leaks
- Hazardous waste manifest records did not include copy from final disposal facility
- Old transformers had not been tested for PCBs. Soil staining indicated that leaks had occurred

## Environmental Risks

- Fuel oil spill could contaminate river
- Old underground storage tank could have leaked into soil/groundwater
- Company could become liable for remediation costs if hazardous wastes not sent to a properly managed disposal contractor (Company personnel had not visited disposal facility)
- Leaks from transformers could contaminate soil, storm-water drains and river

## Corrective Actions

- Facility improved fuel transfer procedures and provided cover for drain
- UST determined to be leaking (Remediation cost approximately $80,000)
- Facility improved waste manifest tracking and visited disposal contractors
- Transformer oil tests indicated no PCBs
  - Impacted soil removed

## Benefits of Audit Process

- Several noncompliances corrected without enforcement action
- Risk of a damaging and costly oil release reduced
- UST remediated before release migrated off-site
  - No penalties due to self-disclosure and prompt action
  - $80,000 spent on remediation, and company booked an additional $50,000 for future liability
- Potential problems with waste disposal averted
- Facility personnel made aware of regulatory requirements
- EMS improved and audit obligation met

## Summary

- US environmental regulations are complex
- Compliance assessment should be part of an effective environmental management system
- Companies must assess and report a dollar value for environmental liabilities
- Comprehensive assessment of environmental liability and risk should be conducted for all property transfers and aquisitions
- Independent external audits provide the highest level of compliance oversight and can assist in assessment of environmental liabilities

## Questions?