U.S. Environmental Requirements for Exploration and Production

• Background for liability – tort laws (nuisance, trespass) still important

• Federal statutes
  – Clean Water Act
  – Oil Pollution Act
  – Clean Air Act
  – Resource Conservation and Recovery Act
  – Comprehensive Environmental Response, Compensation & Liability Act
  – National Environmental Policy Act
  – Endangered Species Act
  – Civil and Criminal Enforcement

• Most states have parallel laws
Clean Water Act
Clean Water Act

- Earlier version – Rivers & Harbors Act of 1899

- Clean Water Act first passed in 1972; last major amendments in 1977
  - Extremely ambitious

- Covers direct discharges, indirect discharges, storm water, large sewer systems. **Does not regulate non-point sources.**

- Also protects wetlands
• Katy Prairie
• 1,000 sq miles
• Major migratory bird flyway
• “Prairie Potholes”
Federal Clean Water Act - implementation

- State delegation for implementation and enforcement, with EPA oversight
- Citizen suits (section 505)
- Nonpoint source pollution planning requirements
Federal Clean Water Act - results

- Much cleaner waterways in the United States
  - Discharge of organic wastes from POTWs reduced by almost half
  - Industry discharges of organic wastes down 98 percent
  - Rate of wetlands loss declined by 90 percent since 1970s
- But many water quality issues remain
Oil Pollution Act

- Response to Exxon Valdez spill in 1989
- Establishes few operational requirements, primarily for shipping and Alaskan pipeline
- Key impact: damages and penalties for spills
  - Removal costs
  - Damages
  - Tort recoveries
  - Civil and criminal penalties
- Liability caps
Resource Conservation & Recovery Act

- National law for hazardous waste management
- Complex definition of "solid waste" and "hazardous waste"
- Strong regulation of facilities that treat, store or dispose of hazardous waste
  - More lenient with generators and transporters
  - Key requirements – corrective action, land ban, financial assurance
- Key factor for RCRA and oil and gas: exempts exploration and production wastes from definition of "hazardous waste"
Comprehensive Environmental Response, Compensation & Liability Act (CERCLA)

- Also known as "Superfund" – designed to deal with abandoned hazardous dump sites, but has evolved into broader program

- Relies on liability to change behavior

- Primary engine: if a release of a hazardous substance has caused someone to incur response costs at a facility, that person can recover their costs from:
  - The owner or operator
  - A past owner or operator
  - A person who arranged for treatment or disposal of the hazardous substance
CERCLA

- EPA can undertake cleanup, or force responsible parties to conduct response actions.

- For oil and gas operations, CERCLA has a vital provision: the petroleum exclusion.
  - Applies to petroleum and petroleum-based fuel products.
  - But not to chemical products refined from petroleum (e.g., benzene).

- Solely federal program, but states have their own versions.
Clean Air Act

- Extremely complex – actually several different acts under one label
- Ones that matter most to oil & gas exploration and production:
  - Ambient air quality standards (NAAQS)
  - Air toxics
  - Greenhouse gas regulations
  - Title V permits
- Key battles – aggregation of sources, designation of hazardous air pollutants (for example, hydrogen sulfide)
National Environmental Policy Act

- One of the first modern federal environmental statutes
- No substantive requirement – simply requires a "close look"

- Process:
  - Major federal action significantly affecting quality of human environment
  - Environmental assessment
    - Categorical exclusions
    - Finding of No Significant Impact
  - Environmental Impact Statement

- Judicial review – remedy is to force agency to reconsider
Endangered Species Act

• One of the most powerful federal environmental laws

• Process:
  – Section 4 – listing of endangered species
  – Section 7 – consultation and "no jeopardy" requirement for federal action
  – Section 9 – prohibition on "taking" of protected species

• Application to oil and gas exploration?
Environmental Enforcement -- Civil and Criminal

• Civil penalties –
  – Usually $37,500 per day per violation
  – Liability frequently strict
  – Enforcement actions can rely on self-reporting required by federal law (monthly discharge reports, Title V permits)
  – Citizen suits – enormously important tool

• Criminal liability
  – All federal statutes include criminal liability provisions
  – Standard of mental intent can be lower
    • Strict criminal liability possible (MBTA)
    • Simple negligence can trigger criminal liability
    • "Knowing" defined broadly and not limited to specific intent
• Numerous federal statutes allow the government to issue emergency administrative orders or seek injunctive relief
  – CERCLA 106
    • Treble damages + daily penalties
    • No judicial review
    • Can only refuse to obey if "sufficient cause"
  – RCRA 7003
  – Clean Water Act/Oil Pollution Act 311
Example: Fracking

- Sources of pollution: air, water, noise, solid waste

- Primary issue for public concern: water pollution and disposal
  - Return waters
  - Contamination of aquifers

- Unexpected risks – seismic disturbances

- High profile for federal civil and criminal environmental enforcement. But how?
Fracking Environmental Enforcement

- Federal statutory exemption specifically for fracking materials injected into the ground (but diesel not protected)

- Safe Drinking Water Act – potential contamination of drinking water sources

- Clean Water Act – discharge of produced water into publicly owned treatment works (or to nearby intakes)

- *Range Resources* enforcement action - dismissed