

# U.S. Environmental Law and Oil & Gas Operations

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Environmental Law in Oil & Gas

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# Overview

- Who owns it?
  - Onshore
  - Offshore
- Who controls and regulates it?
  - EPA
  - Corps of Engineers
  - States
- What laws apply?
- What liabilities can apply?
- Future issues and strategies to manage environmental risks and opportunities





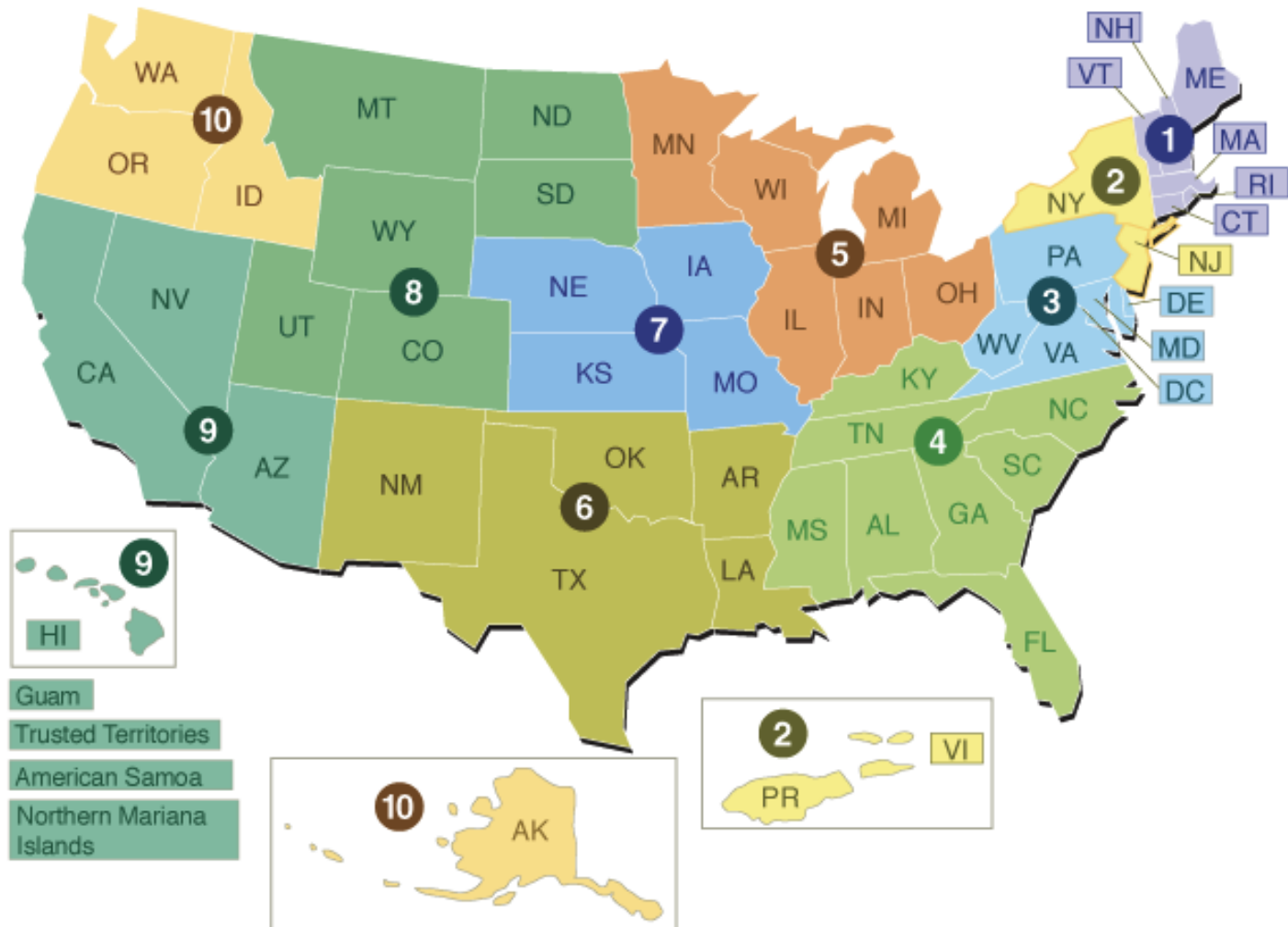
## Who owns it?

- Mineral and energy resources – onshore
  - Private ownership
  - Severable interest from surface estate
  - Separate legal framework for extracting and developing
- Offshore energy resources
  - State coastal resources and territorial waters
  - Federal exclusive economic zone and jurisdictional waters
- Waters
  - Private water rights – groundwater, surface water
  - Public interests and ownership



# Who Regulates it?

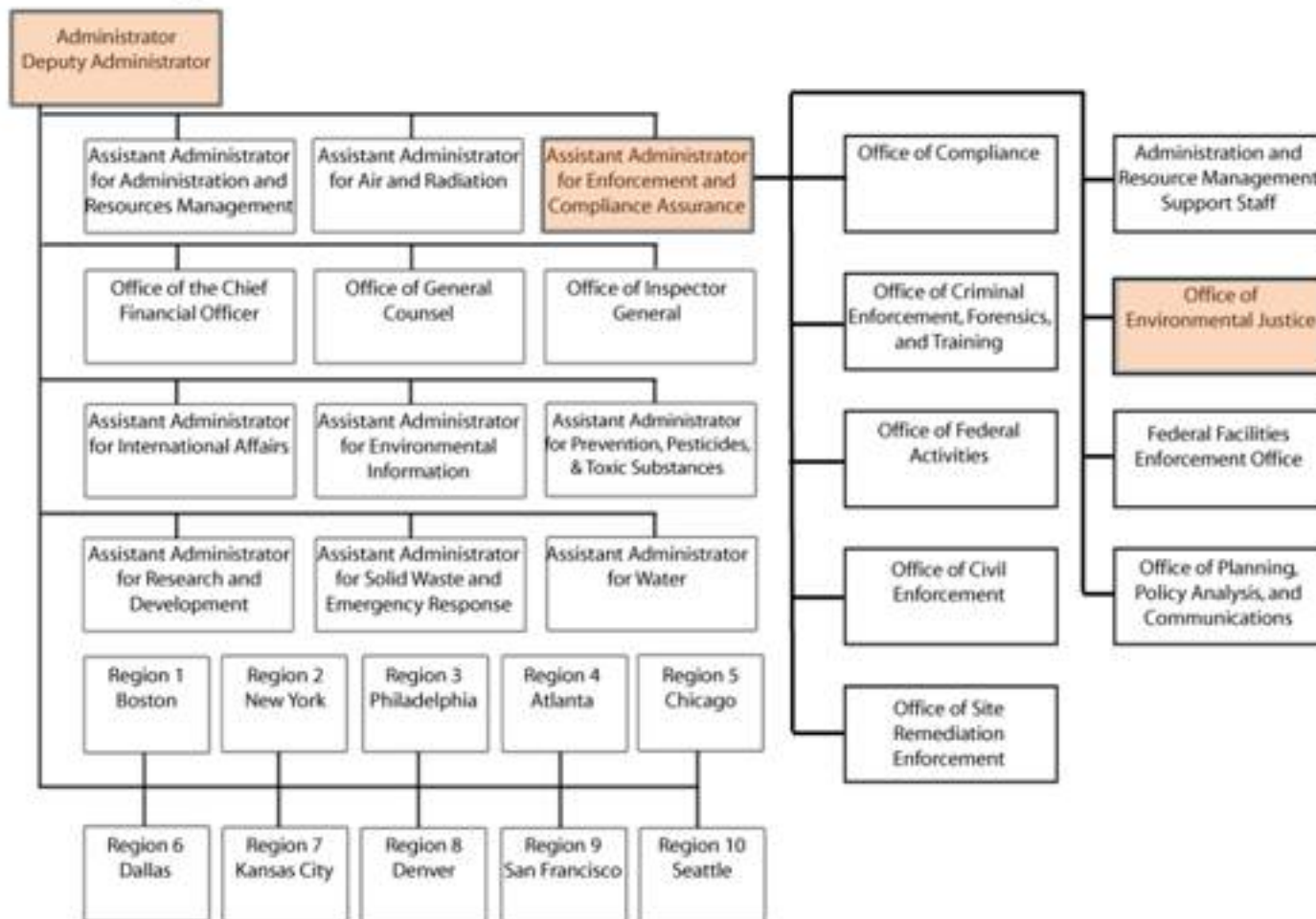
## EPA Regional Offices







## EPA Organizational Chart





# What Laws Apply?

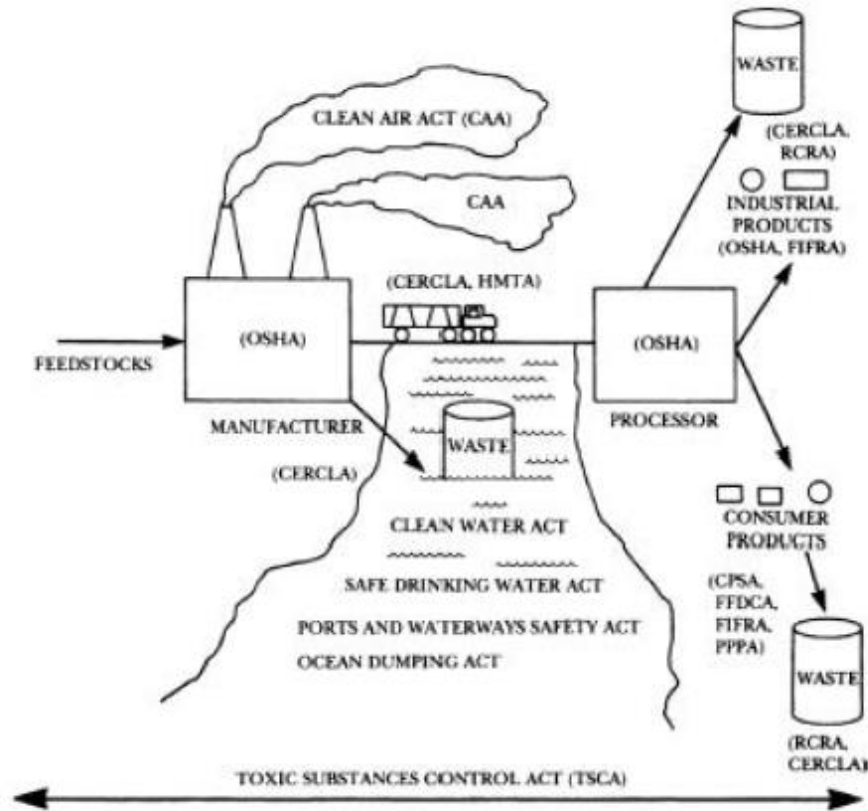
## U.S. Environmental Requirements for Onshore Exploration and Production



- As we've discussed, 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



# U.S. Environmental Laws and Industrial Processes



CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act  
FFDCA: Federal Food, Drug, and Cosmetic Act  
RCRA: Resource Conservation and Recovery Act  
FIFRA: Federal Insecticide, Fungicide, and Rodenticide Act  
CPSA: Consumer Product Safety Act  
OSHA: Occupational Safety and Health Act  
HMTA: Hazardous Materials Transportation Act  
PPPA: Poison Prevention Packaging Act



# Clean Water Act







# Clean Water Act

- 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
  - Key issue: Waters of the United States





# 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



# Clean Water Act - Offshore



- CWA Section 301 prohibits discharging pollutants into waters of the United States without a permit
- CWA regulates discharges through permits issued under the National Pollutant Discharge Elimination System (NPDES) permitting program
- OCS sources are regulated under a general NPDES permit issued by EPA Region 6 (Dallas Office)
  - General permit for Texas territorial waters, 2017
  - General permit for Western Gulf of Mexico



# Clean Water Act - Offshore



- General NPDES Permit Requirements
  - Facility must file a Notice of Intent to be covered by permit
  - Permit requires implementation of Best Management Practices at various waste streams and meet certain effluent/toxicity standards
  - Recordkeeping and reporting requirements



# Clean Water Act - Offshore



- Aggressive EPA rulemakings under Clean Water Act and oversight from EPA Headquarters
- Enforcement
  - BOEM inspectors perform most of the NPDES offshore platform compliance inspections for EPA
  - US Coast Guard Marine Safety Office also conducts inspections
  - EPA “Bold” performs research and develops enforcement actions







# 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 - Onshore

- 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), fracking NSPS/NESHAP



# Clean Air Act - Offshore



- In 1990, Congress gave EPA the authority to regulate air pollution “sources” on the OCS similar to sources onshore (Section 328).
- In the Gulf of Mexico, EPA has air permitting authority eastward of longitude 87 degrees and 30 minutes. Department of Interior has jurisdiction in other parts of GOM.
- Congress recently removed the Arctic from EPA jurisdiction to BOEM.



# Clean Air Act - Offshore



- 40 CFR 55 contains EPA's implementing rules including permit requirements for exploration projects on the OCS.
- EPA's air permits do not provide authorization to drill; EPA's permits ensure compliance with air quality regulations only if and when drilling occurs.
- Emissions are considered on a source-by-source basis at the railing of the vessel, unlike DOI, which considers air quality on the shore-line and on an area basis.



# Clean Air Act – Permits



- EPA uses the Prevention of Significant Deterioration (PSD) permit program to regulate OCS sources
  - Pre-drilling approval required (Permit to Construct)
  - Applies to major sources (generally >250 tpy of any one pollutant, except greenhouse gases)
- Source must demonstrate compliance with National Ambient Air Quality Standards, increments and visibility requirements through complex air modeling
- Source must install Best Available Control Technology (BACT) at all emission sources
- Source includes all support vessels



# Clean Air Act - Offshore



- Title V permit
  - Operating permit (federal and state on OCS)
  - Applies to major Title V sources (generally >100 tpy, except greenhouse gases and hazardous air pollutants)
  - Permit compiles all CAA applicable requirements
  - PSD and Title V permits can be joined as one permit
- New Source Performance Standards (NSPS)
- National Emissions Standards for Hazardous Air Pollutants (NESHAP)



# Clean Air Act



- Project opponents use Clean Air Act to stop major development projects
  - Complex permit appeal process delays start of construction – e.g., Shell in Alaska
  - To date, NGOs have not focused CAA permit challenges on the Eastern Gulf
- EPA enforcement is very aggressive and E&P is a national enforcement priority
  - Biggest threat is stop work orders
  - Also penalties, criminal sanctions, and citizen suits





# 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

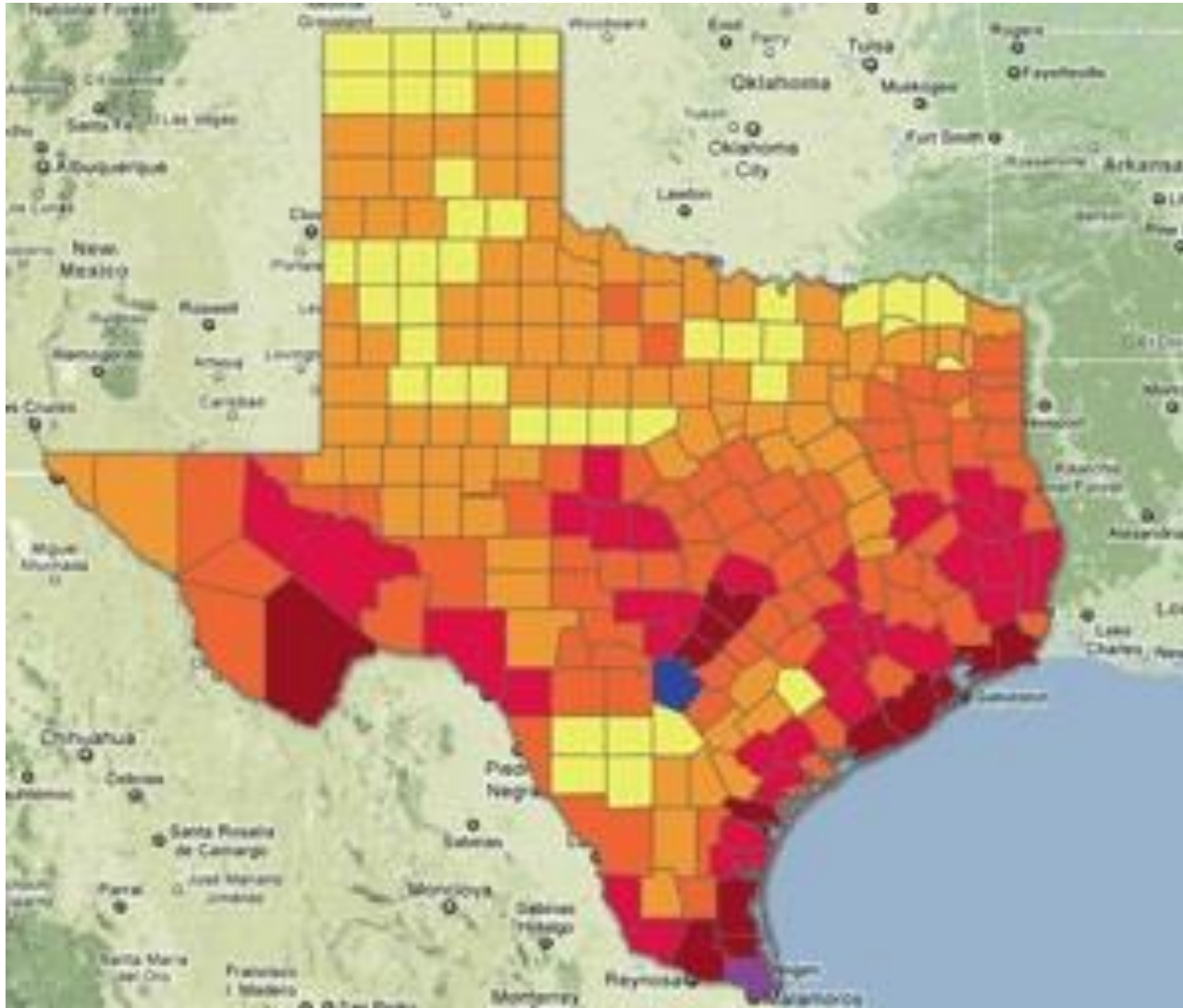


- One of the most powerful federal environmental laws
- Process:
  - Section 4 – listing of endangered species
  - Section 7 – consultation and "no jeopardy" requirement for federal action
  - Section 9 – prohibition on "taking" of protected species
- Application to oil and gas exploration













# What Liabilities Apply?

## Civil and criminal enforcement

- 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





# Emergency Response Authorities

- 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



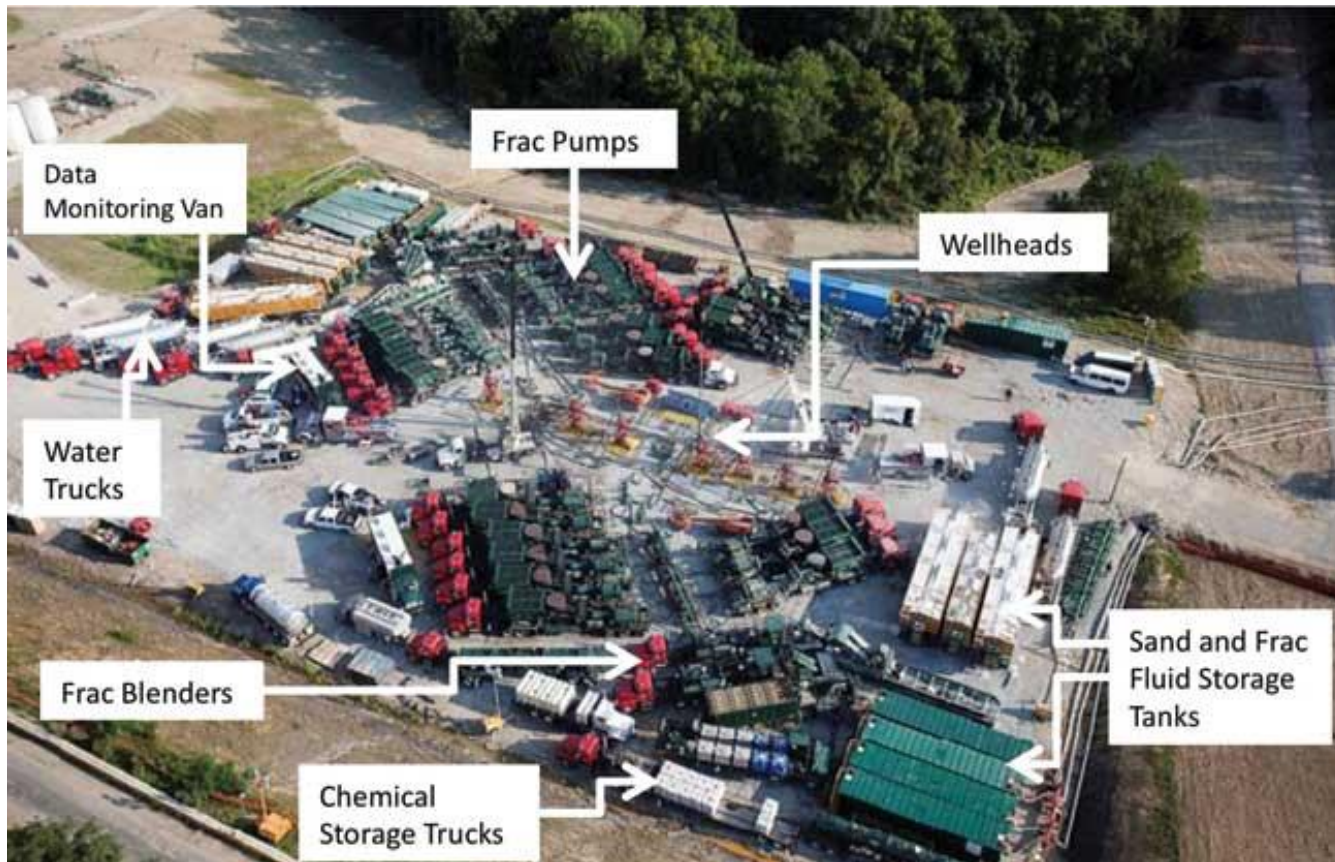
<u>Statute</u>	<u>Civil Liability</u>	<u>Criminal Liability</u>	<u>Liable Parties</u>	<u>Comments</u>
<b>Outer Continental Shelf Lands Act</b>  <b>43 U.S.C. § 1350(c), (d)</b>	<u>Threshold</u> Varies from strict to knowing  <u>Civil Fines</u> Up to \$40,000	<u>Threshold</u> Willful and knowing  <u>Criminal Sanctions</u> Up to \$100,000 and ten years	“persons” – includes companies and individuals	Virtually no case law on OCSLA criminal liability
<b>Oil Pollution Act</b>  <b>33 U.S.C. § 2702</b>	<u>Threshold</u> Joint, several, and strict liability  <u>Civil Liability</u> No fines or penalties  Response costs, plus compensatory damages up to \$75 million unless gross negligence	<u>No criminal liability</u>	“responsible parties” offshore: includes lessees and permittees, which are typically companies, not individuals	OPA only calls for compensation, not fines or penalties, and it has no criminal provisions.
<b>Clean Water Act</b>  <b>33 U.S.C. § § 1319(c), 1319(d), 1368</b>	<u>Threshold</u> Strict liability, negligence, and gross negligence  <u>Civil Liability</u> \$1,100 per barrel spilled, up to \$4,300 per barrel if gross negligence	<u>Thresholds</u> Negligence; knowing; knowing endangerment; false statement  <u>Criminal Liability</u> Significant fines and prison terms depending on threshold of liability	<u>Civil</u> Owner, operator or person in charge of an offshore facility  <u>Criminal</u> “any person” – includes companies, individual perpetrators, and ‘responsible corporate officers’	Allows criminal enforcement on the basis of mere negligence  Allows criminal enforcement against individuals other than the perpetrator



<u>Statute</u>	<u>Civil Liability</u>	<u>Criminal Liability</u>	<u>Liable Parties</u>	<u>Comments</u>
<b>Endangered Species Act</b>  <b>16 U.S.C. § 1540(b)</b>	<u>Threshold</u> Strict liability  <u>Civil Liability</u> \$25,000 per violation	<u>Threshold</u> Knowing  <u>Criminal Liability</u> \$50,000 per violation or one year prison, or both	<u>Civil and Criminal</u> any person – includes companies and individuals	
<b>Marine Mammal Protection Act</b>  <b>16 U.S.C. § 1375</b>	<u>Threshold</u> Strict liability  <u>Civil Liability</u> \$10,000 per violation	<u>Threshold</u> Knowing  <u>Criminal Liability</u> \$20,000 per violation or one year prison, or both	<u>Civil and Criminal</u> any person – includes companies and individuals	
<b>Migratory Bird Treaty Act</b>  <b>16 U.S.C. § § 703, 707</b>	<u>No civil liability</u>	<u>Threshold</u> Strict liability  <u>Criminal Liability</u> Up to \$15,000 per violation or up to six months prison, or both	<u>Criminal</u> any person – includes companies and individuals	MBTA only authorizes criminal sanctions  MBTA imposes strict liability – no negligence or intent is required
<b>Alternative Fines Act</b>  <b>18 U.S.C. § 3571</b>	Authorizes the federal government to impose any of several alternative fines instead of the criminal penalty that would otherwise apply. The alternative fine that most often comes into play is calculated as either (a) twice the gross gain to the company or (b) twice the gross loss to third parties, resulting from the violation. The AFA applies to “any person”; however, as a practical matter, individuals are unlikely to be targeted, since large third-party losses generally cannot be recovered from individuals and since individuals rarely realize a substantial monetary gain from a violation.			



# Test case: U.S. environmental laws and fracking sites





# Test case: U.S. environmental laws and fracking sites







## **Example: Fracking and Federal Environmental Enforcement**

- 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 and Federal 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





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## Questions?

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