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Federal Regulation of Shale Development
Professor Ross H. Pifer

Federal Regulation of Shale Oil and Gas Development: Current Issues

Agricultural and Food Law Consortium
Webinar Series

December 15, 2015

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Regulation of Shale Oil and Gas Overview of Presentation

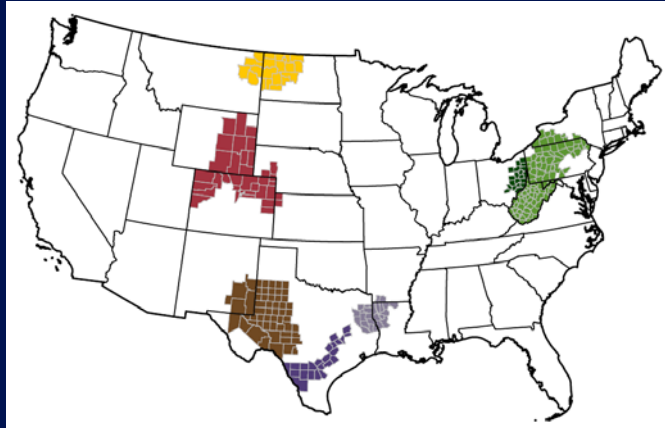
- EIA Productivity Report
- Who Should Regulate?
- EPA Hydraulic Fracturing Study
- BLM Final Rule
- DOT Crude Oil by Rail Final Rule
- EPA Air Quality Standards
- EPA / COE Clean Water Rule
- Other Issues

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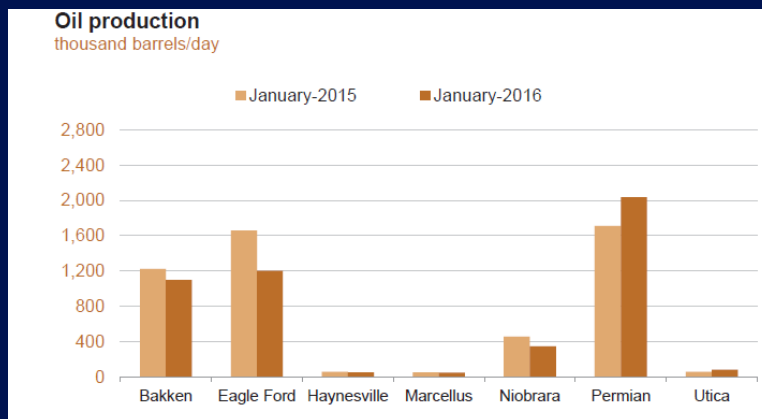
Key Drilling Regions

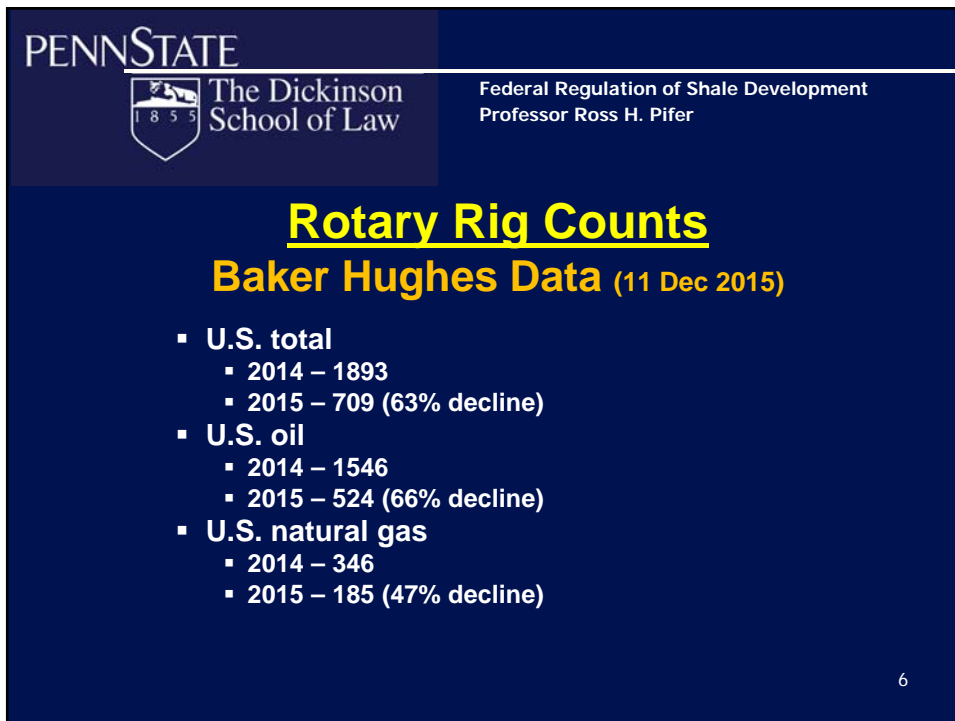
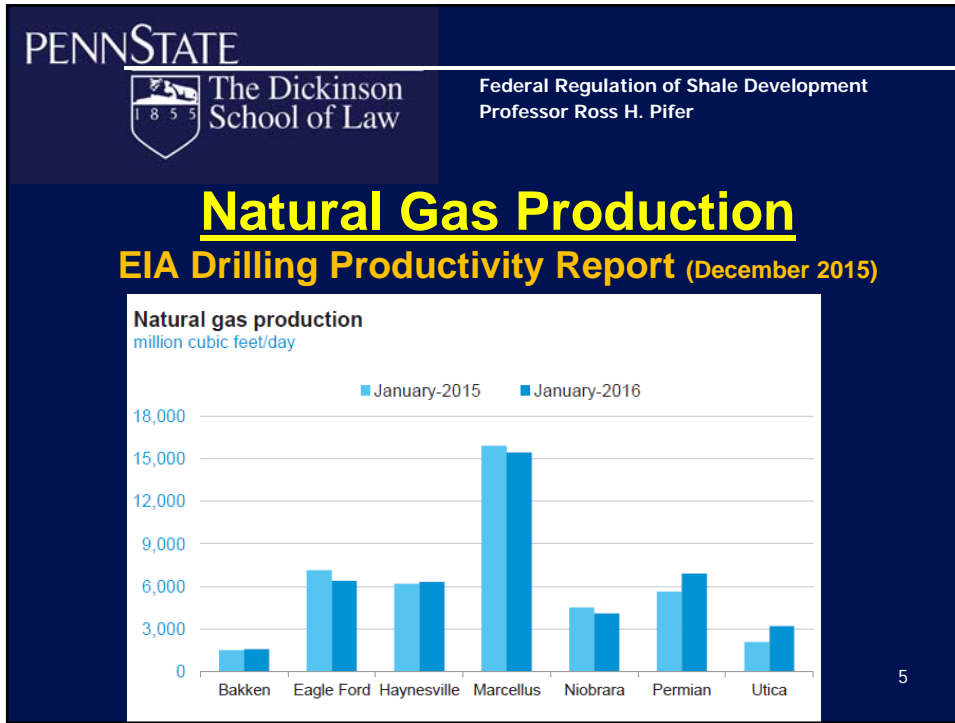
EIA Drilling Productivity Report (December 2015)



Oil Production

EIA Drilling Productivity Report (December 2015)







Foundational Question: Who Should Regulate Shale?

- Federal government
- State government
 - Provide dominant source of regulatory authority over oil and gas operations
- Local government

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Foundational Question: Who Should Regulate Shale?

- Interstate commissions
- Landowners (through leases)
- Private entities
 - Center for Sustainable Shale Development
 - Industry standards

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Regulation of Shale Development Federal vs. State

- All states have statutory / regulatory framework for regulation of oil and gas operations.
- Shale oil and gas development has raised questions as to whether existing statutory / regulatory framework is sufficient to regulate this “new” type of development.
- What is the extent of legal authority to regulate at federal level?

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Regulation of Shale Development Partial Federal Statutory Exemptions

- National Environmental Policy Act
 - “rebuttable presumption . . . of a categorical exclusion” – 42 U.S.C. § 309(a)
- Clean Water Act
 - Definition of pollutant – 33 USC § 1362(6)(b)
- CERCLA
 - Definition of federally permitted release – 42 USC § 9601(10)(I)
- Clean Air Act
 - No aggregation – 42 USC § 7412(n)(4)

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Regulation of Shale Development **Environmental Protection Agency**

- **Regulatory Oversight over Underground Injection Control Program**
- **Federal Safe Drinking Water Act**
 - **Exclusion for hydraulic fracturing operations related to natural gas activities – 42 U.S.C. § 300h(d)(1)(B)(ii)**

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Regulation of Shale Development **Bureau of Land Management**

- **Requirements on federal lands:**
 - **Lease offerings**
 - **Submission of drilling plan**
 - **Submission of surface use plan**
 - **Compliance with bonding requirements**

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Regulation of Shale Development **Federal Energy Regulatory Commission**

- **Regulates interstate transmission and sale of natural gas**
- **Regulates interstate pipeline transport of oil**
- **Approves the siting of natural gas storage facilities**
- **Oversees LNG terminals**

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Hydraulic Fracturing Study **Environmental Protection Agency**

- **Origins in FY 2010 EPA Appropriations bill**
 - **“The conferees urge the agency to carry out a study on the relationship between hydraulic fracturing and drinking water, using a credible approach that relies on the best available science, as well as independent sources of information.”**

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Hydraulic Fracturing Study **Environmental Protection Agency**

- **Hydraulic Fracturing Study timeline:**
 - **Summer 2010** – EPA conducted public meetings at four sites nationally.
 - Four meetings held in Binghamton, NY.
 - **7 Feb. 2011** – EPA published draft plan for study.
 - **23 June 2011** – EPA announced seven study sites:
 - Prospective case study
 - Retrospective case studies
 - **Nov. 2011** – EPA published final study plan.

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Hydraulic Fracturing Study **Environmental Protection Agency**

- **December 2012** – Progress report issued
 - Presented research progress through Sept. 2012
 - Described research approach
- **May/June 2015** – Draft report issued
 - Assessment of the Potential Impacts of Hydraulic Fracturing for Oil and Gas on Drinking Water Resources (June 2015)

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Hydraulic Fracturing Study Scope of Review

- Water Acquisition
- Chemical Mixing
- Well Injection
- Flowback and produced water
- Wastewater treatment and waste disposal

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Hydraulic Fracturing Study Major Findings

- “[H]ydraulic fracturing activities have the potential to impact drinking water resources.”
- “We did not find evidence that these mechanisms have led to widespread, systemic impacts on drinking water resources.”
- “The number of identified cases [of water contamination], however, was small compared to the number of hydraulically fractured wells.”

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Hydraulic Fracturing Study **Current Status**

- **Role of Science Advisory Board Hydraulic Fracturing Research Advisory Panel**
 - “provide independent scientific and technical advice”
 - Conducted a number of public meetings and teleconferences from Sept. through Dec. 2015.
- **Final EPA report issued in 2016?**

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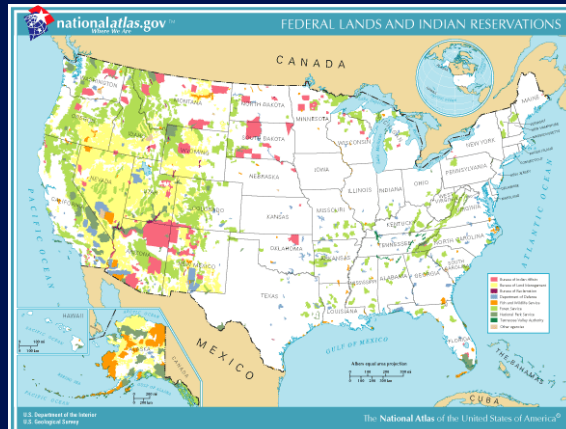
Hydraulic Fracturing Study **Why is this Important?**

- “understand and address any vulnerabilities of drinking water resources”
- “help facilitate and inform dialogue among interested stakeholders”
- “advances the scientific basis for decisions . . . on how best to protect drinking water resources”

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Hydraulic Fracturing on Federal Lands Bureau of Land Management



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BLM Rule Background

- **11 May 2012 Proposed Rule**
 - Public disclosure of hydraulic fracturing fluid contents
 - Increase well construction standards
 - Address management of wastewater
 - Always require pre-approval for hydraulic fracturing
 - Existing law exempted routine hydraulic fracturing
- **January 2013 – announced that proposed rule would be revised.**

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BLM Rule **Issuance of Final Rule**

- **24 May 2013 – revised Proposed Rule issued**
 - 23 Aug 2013 – comment period expired
 - Generated 1.5 million comments
- **20 March 2015 – Final Rule issued**
 - Was to become effective on 24 June 2015

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BLM Final Rule **General Requirements**

- **Validate well integrity and require strong cement barriers**
- **Disclose chemicals through FracFocus**
- **Comply with standards for interim storage of waste fluids**
- **Provide geologic and other information to minimize risk of cross contamination with other wells**

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BLM Final Rule **Potential Impacts**

- **Would establish a federal standard**
- **Could be used as a model elsewhere**
- **Increased cost**
 - **BLM estimate of \$11,400 per well**
 - **Industry estimate of \$97,000 per well**
- **Impact of royalty income to western states and landowners**

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BLM Final Rule **Litigation**

- **Argument: EPA lacked legal authority to regulate in light of existing federal law (Safe Drinking Water Act, Indian Mineral Leasing Act, etc.)**
- **24 June 2015 – U.S. District Court for the District of Wyoming temporarily enjoined application of final rule.**

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BLM Final Rule **Litigation**

- **30 Sept. 2015 – court granted all motions barring enforcement of final rule.**
 - **BLM did not have authority to regulate hydraulic fracturing.**
 - **Final rule is “a remedy in search of harm.”**

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BLM Final Rule **Current Status**

- **16 Nov. 2015 – Motion to Stay Case filed by environmental organizations.**
- **27 Nov. 2015 – Appeal filed by environmental organizations to 10th Circuit Court of Appeals.**
- **10 Dec. 2015 – Appeal filed by BLM.**

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Crude Oil by Rail

- Lac-Mégantic, Quebec
- 6 July 2013
- 47 fatalities

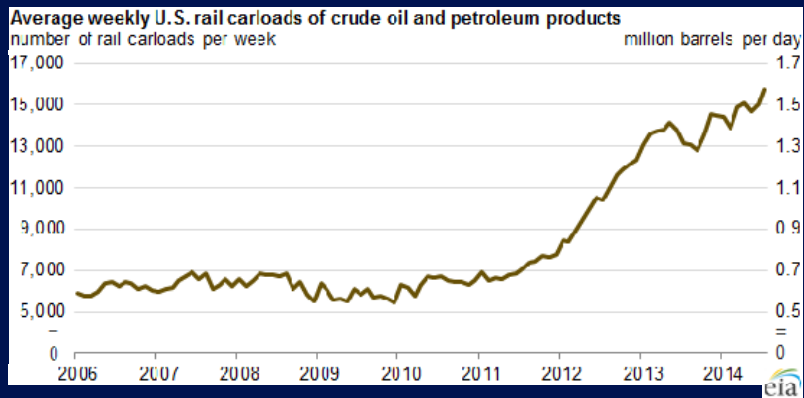


Photo credit: Transportation Safety Board of Canada

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Crude Oil by Rail Background





Crude Oil by Rail Background

- DOT has regulatory authority over transportation of hazardous materials.
- Authority has been delegated to Pipeline and Hazardous Materials Safety Administration (PHMSA).
- Collaborate with Federal Railroad Administration (FRA)

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Crude Oil by Rail DOT Rulemaking

- July 2014 – Notice of Proposed Rulemaking
 - Hazardous Materials: Enhanced Tank Standards and Operational Controls for High-Hazard Flammable Trains
- July 2014 – Advance Notice of Proposed Rulemaking
 - Hazardous Materials: Oil Spill Response Plans for High-Hazard Flammable Trains
- May 2015 – Final Rule
 - Hazardous Materials: Enhanced Tank Car Standards and Operational Controls for High-Hazard Flammable Trains

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Crude Oil by Rail Final Rule

- HHFT Definition – 20 or more continuous tank cars or 35 dispersed throughout train
- Enhanced Braking Controls
- New Tank Car Standards
- Maximum Speed Limits (50 / 40)
- Rail route safety assessment
- Notification to state and local emergency response officials

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Crude Oil by Rail Final Rule

- Effective Date – 7 July 2015
- New tank car standards required for those constructed after 1 Oct. 2015.

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Crude Oil by Rail Appeals

- Hazardous Materials Regulations provide for internal appeal of PHMSA action.
- Appeals to Final Rule filed by Dangerous Goods Advisory Council, American Chemistry Council, Association of American Railroads, American Fuel & Petrochemical Manufacturers, Columbia River Treaty Tribes, and Northwest Treaty Tribes
- 18 Nov. 2015 – PHMSA Response to Appeals
 - Appeals denied
 - “we reasonably determined how to apply new regulations and provided regulatory analysis to support those decisions.”

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EPA Air Quality Actions Suite of Proposed Rules – 18 Sept. 2015

- Source Determination for Certain Emission Units in the Oil and Natural Gas Sector
- Oil and Natural Gas Sector: Emission Standards for New and Modified Sources
- Review of New Sources and Modification in Indian Country: Federal Implementation Plan for Managing Air Emissions from True Minor Sources Engaged in Oil and Natural Gas Production in Indian Country
- Comment period on all of the above proposed rules closed on 4 Dec. 2015.

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EPA Air Quality Actions

Goals of Proposed Rules – 18 Sept. 2015

- Expand upon 2012 New Source Performance Standards
- Reduce VOC and methane emissions from oil wells
- Reduce downstream emissions
- Require leak detection and repairs
- Reduce VOC emissions in smog areas

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EPA Air Quality Actions

Request for Information – 27 Nov. 2015

- Oil and Natural Gas Sector: National Emission Standards for Hazardous Air Pollutants
 - Seeking data that was not available when EPA revised National Emission Standards in 2012.

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Clean Water Rule

“Waters of the United States” Definition

- Published in Federal Register on 29 June 2015
- Attempt to “clarify” coverage of Clean Water Act
- New / revised definitions:
 - Tributaries
 - Adjacent wetlands / waters
 - Isolated / “other” waters
 - Exclusions

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Clean Water Rule

“Waters of the United States” Definition

- Scheduled effective date – 28 Aug. 2015
- Several lawsuits filed throughout U.S.
- 29 July 2015 – Four cases consolidated in U.S. Court of Appeals for Sixth Circuit.
- 9 Oct. 2015 – Application of Rule stayed nationwide pending further order by Sixth Circuit.

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Clean Water Rule Current Status / What's Next?

- 8 Dec. 2015 – scheduled oral argument in Sixth Circuit on issue as to whether court has exclusive jurisdiction to review the rule
- Congressional action?
- CRS Report R43455 – EPA and the Army Corps' Rule to Define "Waters of the United States" (12/3/15)

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Federal Regulatory Developments Other Issues

- 11 Dec. 2015 – SEC, Proposed Rule, Disclosure of Payments by Resource Extraction Issuers
- 3 Aug. 2015 – EPA, Final Rule, Clean Power Plan
- 7 Apr. 2015 – EPA, Proposed Rule, Effluent Limitations Guidelines and Standards for the Oil and Gas Extraction Point Source Category
- PHMSA pipeline safety final and proposed rules

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Federal Regulatory Developments Other Issues

- 19 May 2014 – EPA, Advance Notice of Proposed Rulemaking, Hydraulic Fracturing Chemicals and Mixtures
- 30 Oct. 2013 – Coast Guard, Notice of Availability and Request for Comments, Carriage of Conditionally Permitted Shale Gas Extraction Waste Water in Bulk
- 12 Sept. 2013 – OSHA, Proposed Rule, Occupational Exposure to Respirable Crystalline Silica

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Professor Ross Pifer
Phone: (814) 865-3723
Email: rpifer@psu.edu

The Center for Agricultural and Shale Law
Web: www.pennstatelaw.psu.edu/casl
Blog: www.pennstateshalelaw.com

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