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Panelists

Panel 1
Federalism Theory: Arguments for Enhancing State and Local Environmental Action

Professor Robert Percival
Professor Amy Stein
Professor Robert Glicksman
Professor William Buzbee
Mr. Roger Martella

*Moderator:* Professor Jill Fraley

Panel 2
Electric Utility Regulation: Environmental Benefits, Costs, and the Public Interest

Mr. Will Reisinger
Ms. Rose McKinney-James
Mr. Tyson Slocum
Professor James Van Nostrand
Mr. Jeffrey Mayes

*Commentator:* Ms. Carla Urquhart
*Moderator:* Professor Al Carr

Panel 3
Production & Underground Injection of Gases

Mr. Barry Lay
Mr. Phillip Reale

*Moderator:* Professor Ronald Rosenberg
Journal of Energy, Climate, and the Environment
2011-2012 Masthead

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Faculty Advisor
Professor Jill Fraley
First Panel

**Federalism Theory: Arguments for Enhancing State & Local Environmental Action**

*Moderator: Professor Jill Fraley*
Washington & Lee University School of Law

**Biography**

A graduate of Yale University, completing dual programs in History and Religious Studies (1999), with her J.D. from Duke University School of Law (2002), her LL.M. from Yale Law School (2008), and J.S.D. from Yale Law School (2011), Dr. Fraley is a legal historian who focuses her research on property and environmental issues. She practiced law for more than six years, working primarily in toxic torts and premises liability.

Professor Fraley has taught at the University of Kentucky, the University of Kentucky Law School and Yale Law School. She currently teaches property, environmental law, law & geography and legal history. Her recent writings focus on the legal history of Appalachia, property, cartography and the development of territorial jurisdiction.

Professor Fraley often represents abused and neglected children in Appalachia. In her spare time, she is a multi-media artist who creates textiles and publishes photographs of Appalachian landscapes.
Professor Amy L. Stein  
*Tulane University School of Law*

**Biography**

Professor Stein joined the faculty of the Tulane University Law School in 2010. Previously, she taught at The George Washington University as an adjunct professor in the environmental studies program and as Visiting Associate Professor of Legal Research and Writing, Acting Associate Director of the Legal Research and Writing Program, and Co-Director of the Scholarly Writing Program at The George Washington University Law School.

After graduation from law school, Professor Stein worked for a number of years as an associate for Latham & Watkins LLP in Washington, DC and in the firm’s Silicon Valley office. Professor Stein practiced in Latham’s environmental and litigation departments. She is a member of the District of Columbia, Illinois, and California state bars. She has published and given presentations on environmental and energy law topics, including recent publications in the University of Colorado Law Review and the Duke Environmental Law and Policy Forum.

Professor Stein’s primary teaching and research interests are in the areas of environmental law, energy law, and administrative law.

**Professor Amy L. Stein**  
*Abstract*

**The Tipping Points of Federalism**

“[I]t is difficult to conceive of a more basic element of interstate commerce than electric energy, a product that is used in virtually every home and every commercial or manufacturing facility. No state relies solely on its own resources in this respect.”¹ And yet the power to make many decisions fundamental to the source of electricity generated within its borders is left solely to the states.² This means that each state or locality has sole authority to determine whether its power needs are met through coal, natural gas, solar, wind, energy efficiency, or any other method. State or local control over generation siting functioned adequately, more or less, for over 70 years. But as the nation finds itself faced with important decisions that directly implicate the source of our electricity, the proper functioning of this power allocation for electricity siting is increasingly strained.

Although it is tempting to focus on the “traditionally local” nature of electricity generation siting decisions, a variety of other siting regimes, including railroads, wireless telecommunications, natural gas, and electricity transmission have all tipped from state control to enhanced federal control. Other possible explanations, including adherence to federalism virtues and public choice theory, provide similarly unsatisfying explanations. Upon closer examination, any overarching account of the

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² Electricity can be broken down in its simplest form into three categories: (1) generation; (2) transmission; and (3) distribution. Control over the siting of all three types of facilities falls within the sole control of the states.
power allocation breaks down and becomes nuanced and contingent on the specifics of a dynamic and complicated balance.

This Article explores the disparity between state control over electricity generation siting and enhanced federal control in the other siting regimes. In lieu of abstract theories, it identifies underappreciated variables that affect a tip from state to federal control. These variables can provide insights into the broader federalism literature surrounding the proper allocation of state and federal power. And with a better understanding of these variables, both those resistant to federal control and those advocating for federal control will have a more tangible framework to assess the likelihood of actual tips when existing theories prove inconclusive.
Professors Robert Glicksman
The George Washington University School of Law

Biography

Professor Glicksman is the J.B & Maurice C. Shapiro Professor of Environmental Law at The George Washington University Law School. A graduate of the Cornell Law School, his areas of expertise include environmental, natural resources, administrative, and property law. Before joining the GW Law School faculty in 2009, Professor Glicksman taught at the University of Kansas School of Law, beginning in 1982, and was named the Robert W. Wagstaff Distinguished Professor of Law in 1995. Professor Glicksman practiced with law firms in D.C. and New Jersey before joining and while on leave from academia, focusing on environmental, energy, and administrative law issues. He has served as a consultant on various environmental and natural resources law issues, including work for the Secretariat of the Commission for Environmental Cooperation in Montreal, Canada.

Professor Glicksman has extensive publications in his areas of expertise. He is a co-author of two law school casebooks, Environmental Protection: Law and Policy (6th ed. Aspen Publishers) and Administrative Law: Agency Action in Legal Context (Foundation Press); the four-volume treatise, Public Natural Resources Law (2d ed. Thomson/West); two monographs, Risk Regulation at Risk: A Pragmatic Approach, and Pollution Limits and Polluters’ Efforts to Comply: The Role of Government Monitoring and Enforcement, (both published by Stanford University Press); and Modern Public Land Law in a Nutshell (3d ed. West). He has written numerous book chapters and articles on a variety of environmental and natural resources law topics, concentrating recently on topics such as climate change, federalism issues in environmental law, the challenges facing the federal land management agencies, and environmental enforcement. His articles have been published in law reviews and journals that include the Texas Law Review, the Pennsylvania Law Review, the Northwestern University Law Review, the Duke Law Journal, the Vanderbilt Law Review, the Wake Forest Law Review, the Indiana Law Journal, the Stanford Environmental Law Journal, the Virginia Environmental Law Journal, and the Administrative Law Review.

Professor Glicksman has been a Member Scholar for the Center for Progressive Reform since 2002 and a member of the Center's Board of Directors since 2008.

Professor Robert Glicksman
Abstract

Global climate change poses perhaps the most complex, far-reaching, and profound set of environmental challenges the world has ever faced. The effects of climate change will create stresses not only for the physical environment, but also for government institutions and programs that deal with myriad aspects of human existence. It has been clear for some time that policymakers need to begin preparing measures to adapt to climate change. In the wake of the persistent failure of the world’s largest greenhouse gas emitting nations to cut emissions and the growth in emissions
from emerging powers such as China and India, the importance of effective adaptation has increased. So has the difficulty of accomplishing it.

This presentation will focus on the appropriate role of federal, state, and local governments in climate change adaptation. One set of questions concerns how much authority each level of government should have and what the relationships among those levels should be. But assessments of the best ways to design an effective adaptation regime should not stop with traditional federalism questions. Instead, several dimensions of the allocation of regulatory authority are of primary importance, and none should be considered in isolation from the others. These include the extent that regulatory jurisdiction over climate change adaptation efforts is centralized or decentralized, overlapping or distinct, and collaborative or independent.

Even expanding the analysis of regulatory design to cover all three of these dimensions in determining how to allocate substantive jurisdiction among policymakers is not sufficient, however. Analysis of particular governmental functions — what might be called functional jurisdiction — provides additional insights on how authority is and should be allocated. It may be appropriate, for example, to assign information-gathering and distribution functions to one level of government, but to vest jurisdiction over standard-setting, planning, implementation, or enforcement in different groups of regulators.

Many scholars have discussed aspects of the three dimensions in some form in different environmental law and policy contexts, but they often conflate the dimensions in analyzing the advantages or disadvantages of a particular allocation or re-allocation of regulatory authority. Some, but less attention has been paid to the question of functional jurisdiction. This presentation will address the three dimensions of regulatory authority and various configurations for functional jurisdiction in an effort to assess which governmental structures and relationships are best suited to achieving successful climate change adaptation. The resulting insights should be relevant in other environmental protection and natural resource management contexts that extend beyond climate change adaptation.
**Professor Robert V. Percival**  
*University of Maryland Francis King Carey School of Law*

**Biography**

Professor Percival joined the University of Maryland law faculty in 1987 after serving as senior attorney for the Environmental Defense Fund. While in law school, he served as managing editor of the Stanford Law Review and was named the Nathan Abbott Scholar for graduating first in his class. Percival served as a law clerk for Judge Shirley M. Hufstedler of the U.S. Court of Appeals for the Ninth Circuit and for U.S. Supreme Court Justice Byron R. White. Percival also served as a special assistant to the first U.S. Secretary of Education.

Percival is internationally recognized as a leading scholar in environmental law. For nearly two decades he has been the principal author of the country’s most widely used casebook in environmental law, *Environmental Regulation: Law, Science & Policy*, now in its sixth edition (http://www.erlsp.com). He is the author of more than 90 publications that primarily focus on environmental law, as well as federalism, presidential powers, regulatory policy and legal history. Percival has taught as a visiting professor of law at Harvard Law School in 2000 and 2009 and at Georgetown University Law Center in 2005 and 2011. He currently teaches Environmental Law, a Global Environmental Law Seminar, Constitutional Law, and Administrative Law. In 2007 he was named the University’s “Teacher of the Year.”

During the spring semester 2008 Percival taught as a J. William Fulbright Distinguished Lecturer at the China University of Political Science and Law in Beijing. In 1994 taught as a Fulbright scholar at Comenius University Law School in Slovakia. Percival is a highly popular guest lecturer, presenting hundreds of lectures, paper presentations, and workshops in 25 countries on six continents. In 2009 he represented the U.S. Department of State on a lecture tour of China. He has delivered guest lectures at more than three-dozen U.S. academic institutions, at 20 Chinese universities and before several professional associations and government agencies. Percival has served as the Natural Resource Law Institute Distinguished Visitor at Lewis & Clark College of Law and as a visiting professor of law at the University of Chile where he helped establish South America’s first environmental law clinic. He also has taught summer courses at the University of British Columbia and at the University of Aberdeen in Scotland.

Percival has played a leading role in conceptualizing the new field of global environmental law. He maintains a website and weekly blog on this subject which appears at http://www.globalenvironmentallaw.com and at http://globalenvironmentallaw.blogspot.com. Percival is a member of the IUCN Commission on Environmental Law and one of the founding members of the IUCN Academy of Environmental Law, which will hold its 10th Annual Colloquium at the University of Maryland in July 2012. In April 2009 he delivered Pace Law School's Lloyd K. Garrison Lecture on “The Globalization of Environmental Law.”

Percival has served on the Board of Directors of the Environmental Law Institute and as co-chair of the steering committee of the D.C. Bar’s Section on Environmental, Energy and Natural Resources Law. He is an elected member of the American Law Institute. Percival has served as the contributing editor for Environment and Natural Resources for the Federal Circuit Bar Journal, as a special master for the U.S. District Court of Maryland, and as a member of the state of Maryland’s Environmental Restoration and Development Task Force.
During the 1970s U.S. environmental law was transformed into a system dominated by comprehensive federal regulatory programs. Problems that long had been considered primarily the responsibility of state or local governments now became national concerns. The need to control transboundary pollution was a major justification offered by Congress for the federalization of environmental law. Yet federal regulatory authorities were slow to make interstate pollution problems a major priority.

For more than a century states have used the common law of nuisance to seek redress for transboundary pollution problems. Initially these disputes were heard by the U.S. Supreme Court exercising its original jurisdiction over disputes between states. Eventually the Court wearied of using its original jurisdiction and relegated the cases to the lower federal courts. Later the Court embraced the federal Clean Water Act’s comprehensive regulatory programs to displace federal, but not state, common law. Most recently, when states sought to use nuisance law to redress climate change, the Court held in *American Electric Power v. Connecticut* that the Clean Air Act displaced federal nuisance law in the context of climate change, while reserving the question of its impact on state common law.

The Court’s decision in *American Electric Power* and other interstate nuisance cases recently decided by the U.S. Circuit Courts of Appeal make this a propitious time to reconsider the use of public nuisance law to redress transboundary environmental problems. This presentation will review the history of the common law of interstate nuisance from the early twentieth century through the rise of the modern regulatory state. It then will focus on three contemporary interstate nuisance disputes – North Carolina’s effort to reduce transboundary pollution from power plants operated by the Tennessee Valley Authority, an effort by Connecticut and other states to reduce greenhouse gas emissions from utilities operating Midwestern coal-fired power plants, and efforts by Great Lakes states to stop invasive species of Asian carp from invading their ecosystems. It will conclude by reevaluating the vitality of the common law of interstate nuisance in light of these developments.
**Professor William W. Buzbee**  
*Emory Law School*

**Biography**

William W. Buzbee is a professor of law, director of the Emory Environmental and Natural Resources Law Program and a director of Emory's Center on Federalism and Intersystemic Governance. He was a visiting professor of law at Columbia Law School (2003) and Cornell Law School (2006), and he taught in 2003, 2005 and 2007 for the Leiden-Amsterdam-Columbia Law School Summer Program in American Law. Professor Buzbee helped design and launch the Turner Environmental Law Clinic at Emory Law and chairs its advisory board. Professor Buzbee also is a founding Member Scholar of the Center for Progressive Reform, a Washington D.C.-based regulatory think tank. Professor Buzbee was awarded the 2007-2008 Emory Williams Teaching Award for excellence in teaching.


Professor Buzbee received his JD, Columbia Law School, 1986, and his BA, Amherst College, magna cum laude, 1983. Prior to joining Emory’s faculty, Professor Buzbee clerked for United States Judge Jose A. Cabranes, was an attorney-fellow at the Natural Resources Defense Council and did environmental, land use and litigation work for the New York City law firm, Patterson Belknap Webb and Tyler. Since becoming a professor, he has provided pro bono assistance to several not-for-profits and was co-counsel for a bipartisan group of former U.S. EPA administrators in an amicus brief in the Supreme Court’s *Rapanos* case. He has also testified about environmental and federalism issues before committees of Congress.
Professor William W. Buzbee

Abstract

Environmental Federalism as Interbranch Conflict: Choice, Values, Facts, and Error Correction in an Era of Federalism Ferment

Introduction

Traditional view: environmental federalism as about vertical (federal-state) conflict
But last decade reveals federalism battles as more often interbranch dispute, especially in environmental and risk regulations arenas
Prevalent legislative choice: overlap and intertwined authority
But executive branch and courts often resist
What are the competing values and rationales for this interbranch conflict?
Which regulatory designs and federalism frames will maximize federalism’s benefits?
In future climate and energy legislation, what federalism choices are ideal?

I. Dualism’s Death and Revival in Congress and the Courts
– Dual federalism’s mandate of separate, mutually exclusive federal and state turfs
– Supreme Court’s abandonment
– Legislative embrace of overlap and intertwined authority
  – Environmental law’s use of delegated programs, federal oversight and overlap, regulatory redundancy, and (rarely) preemption
  – Similar norm in most product and risk regulation
– Late 1990s to present reveal push against overlap and intertwined authority
  – Judicial doctrinal shifts
  – Executive branch shift to embrace less federal regulation, or preemption of additional state protections

II. Means to Resolve Federalism Interbranch Conflict
– Legislative supremacy
  – respect the legislative choice
– Constitutional value scale-tippers
  – federalism norms and moves that shape executive and judicial reception of federalism choices
    – dualist values revival
    – anti-preemption presumption
    – pragmatic analysis of design choice
    – accountability claims
  – the problem of factual and quasi-historical claims

III. Federalism as Antidote and Catalyst for Innovation
– Pervasive risks of regulatory failure, especially in climate change arena
– How federalism as facilitator of polyphony and overlap provides benefits; the anti-dualist rationales
– Federalism as a checking structure
– Federalism as means to discover and benchmark the best
  – vertical and horizontal experimentalism and learning
– Federalism as means to create web of market stability for clean energy
– Federalism as means to experiment
– Federalism as means to avoid unitary regulatory authority that fails or
  precludes change

Conclusion: The Sound Roots of Anti-Preemption Presumptions and for Judicial
Deference to Political Embrace of Federalism Overlap
Roger Martella  
*Sidley Austin*

**Biography**

Mr. Martella is a partner in the Environmental Practice Group at Sidley Austin LLP. He recently rejoined Sidley Austin LLP after serving as the General Counsel of the United States Environmental Protection Agency, concluding 10 years of litigating and handling complex environmental and natural resource matters at the Department of Justice and EPA.

Mr. Martella’s practice focuses on three primary areas. First, Mr. Martella advises companies on developing strategic approaches to achieve their goals in light of rapidly developing demands to address climate change, promote sustainability, and utilize clean energy. Second, Mr. Martella handles a broad range of environmental and natural resource litigation and mediation. Third, Mr. Martella advises multinational companies on compliance with environmental laws in the United States, China, the European Union, and other nations.

Mr. Martella was unanimously confirmed by the United States Senate as EPA General Counsel. In that role, Mr. Martella served as EPA’s chief legal advisor supervising an office of 350 attorneys and staff in Washington and 10 regional offices. At EPA, Mr. Martella served as Agency counsel on six Supreme Court decisions, including *Massachusetts v. EPA* (climate change); *Defenders of Wildlife v. EPA* (finding no Endangered Species Act duty to consult when approving state water program); *EPA v. Rapanos* and *Maine v. S.D. Warren* (landmark decisions addressing federal jurisdiction over waters of the United States); *Environmental Defense v. Duke Energy* (addressing Clean Air Act enforcement against powerplants); and *U.S. v. Atlantic Research Corp.* (the Court’s most recent decision regarding CERCLA).

In particular, Mr. Martella led the team responsible for developing for the first time under the Clean Air Act the federal government’s climate change legal framework and options in response to the landmark Supreme Court decision *Massachusetts v. EPA*, which held greenhouse gases to be air pollutants under the Clean Air Act. His efforts included developing a full range of legal options for decision makers related to greenhouse gas regulation, alternative and renewable fuels, the development of regulatory carbon sequestration controls, and the intersection of climate change and natural resource issues including the National Environmental Policy Act and the Endangered Species Act. Recognized for his knowledge on legal approaches to addressing climate change, Mr. Martella focuses specifically on dissecting the extraordinarily complex and interrelated ramifications of climate change on numerous provisions of the Clean Air Act relating to mobile and stationary sources, as well as other laws, such as the ESA and NEPA. Mr. Martella’s experience in this area enables him to work to forecast for clients the likelihood of upcoming regulations and controls in the area of climate change, clean energy, and sustainability, and to develop strategic approaches to be best prepared for such controls. Mr. Martella also focuses on international climate issues, working with Chinese institutes on climate and clean energy issues and advocating for conformity between United States climate rules with the European Union. Since the April 2007 *Massachusetts* decision, Mr. Martella has been invited to address climate change regulation more than twenty-five times in the United States and abroad.

In addition to climate change responsibilities, Mr. Martella focuses on the challenges in adapting existing and frequently outdated environmental law tools toward new and complex environmental challenges of national and international sustainability, including the increasing demands on industry to promote environmentally sustainable development protecting air, water, land, and human health.
Recognizing deficiencies in the China environmental law framework and the challenges for multinational organizations in understanding the laws on the books, Mr. Martella created the China Environmental Law Initiative in 2007. As part of the initiative, Mr. Martella created the only known website devoted to China environmental laws and organized with the State Environmental Protection Agency (now the Ministry of Environmental Protection) two separate symposia in China. Mr. Martella has served as a visiting professor at the Environmental Law Institute of Wuhan University and the State Environmental Protection Agency, and at Tsinghua University, working with academics, officials and students on developing environmental law frameworks for China. Mr. Martella has testified as an expert on this issue before the United States Congress, worked with numerous government officials at the national and provincial level in China, and has lectured with academics and students at leading universities and think tanks in both nations.

Prior to joining EPA, Mr. Martella most recently served as the Principal Counsel for Complex Litigation at the Justice Department’s Natural Resources Section, where he focused on defending federal decisions relating to public lands, national forests, minerals, federal and tribal water rights and allocations, endangered species, NEPA, and Native American property and reservations. During nearly eight years at the Department of Justice, Mr. Martella maintained an unbroken record of successfully litigating every case he brought to court. His first chair trial responsibility included a 12 week jury trial that returned a $36.9 million verdict, a seven week bench trial that resulted in a $247.9 million judgment, an unbroken record of successfully defending against numerous emergency injunctions brought against timber and mining projects, and successfully defending the Secretary of Interior from a contempt motion at trial. Mr. Martella’s responsibilities in the Natural Resources and the Indian Resources Sections related to federal land use decisions and policy; defense of federal statutes, regulations, and agency action under the APA, ESA, NEPA, and other statutes; competing assertions of jurisdiction and land use control among various government entities; federal programs relating to natural, cultural, wildlife, and marine resources; pollution control issues under Clean Air Act, Clean Water Act, CERCLA, RCRA, TSCA, FIFRA, and EPCRA; and issues related to water, hunting, fishing, and treaty rights. Mr. Martella received among the highest honors at the Department of Justice including the John Marshall Award and the Assistant Attorney General’s Excellence Award.

Mr. Martella graduated from Vanderbilt Law School, where he was Editor in Chief of the Vanderbilt Law Review, and Cornell University, where he studied environmental science. Following law school, he clerked for the Hon. David M. Ebel of the Tenth Circuit Court of Appeals.

Mr. Martella, elected at large to the Warrenton, VA, Town Council, devotes significant effort to public service in his community and was recognized in 2006 as Citizen of the Year by the Fauquier County Board of Supervisors for his public service and volunteerism efforts.
Second Panel

Electric Utility Regulation: Environmental Benefits, Costs, & the Public Interest

**Moderator:** Professor Al Carr
Washington & Lee University School of Law

**Biography**

Al Carr has spent his career in the field of energy law, beginning in 1971 as a Trial Attorney in the Office of General Counsel of the Federal Power Commission, the predecessor agency to the Federal Energy Regulatory Commission (the “FERC”). While there his primary focus was on environmental, natural gas and electric regulatory matters. He then took a position as a Trial Attorney in the regulatory division of the Office of General Counsel of the U. S. Atomic Energy Commission, the predecessor agency to the U. S. Nuclear Regulatory Commission (the “NRC”). His primary duty was the trial of cases for the licensing of nuclear power plants. In 1976 he left government service and entered private practice in Washington D. C., where he represented clients before the FERC and the NRC in matters involving the regulation of natural gas, electric and nuclear energy. In 1981 Mr. Carr joined the Legal Department of Duke Power Company in Charlotte N.C. While at Duke he represented Duke Power and its subsidiaries in a variety of matters related to Federal regulation of the electric utility industry.

From 1981 to 1993 he was responsible for, among other things, regulatory matters for Duke’s seven nuclear units, including contested licensing proceedings for Duke’s Catawba Nuclear Station that lasted more than four years. He also was Duke’s lead counsel for FERC matters, including its hydroelectric plants, for a number of years. Mr. Carr was responsible for obtaining the FERC regulatory approvals necessary to implement Duke’s joint trading and development business with Louis Dreyfus, including the drafting and filing of a Duke-specific Open Access Transmission tariff, as well as FERC and other approvals for Duke’s acquisition of and merger with the PanEnergy Corporation. Mr. Carr also was directly involved with the corporate, regulatory and legislative issues associated with restructuring the electric utility industry. These activities included extensive work on Federal legislative matters. After retiring from full-time employment in 1998, Mr. Carr continued for several years to represent Duke and other clients in energy regulatory and legislative matters. He has recently participated in several national studies and analyses of, and given presentations on, the potential revival of the domestic nuclear power industry. In the Fall of 2000, Mr. Carr, as an Adjunct Professor of Law at the Washington & Lee University School of Law, began teaching a course in Federal Energy Regulation. The course has been incorporated into the Law School’s Third Year Program; his title is now Professor of Practice. Most recently Mr. Carr has become Of Counsel with the international law firm Duane Morris LLP, working with the firm’s Energy and Construction departments in developing a nuclear licensing practice.

Mr. Carr received his BA in English from the Virginia Military Institute in 1966 and his JD from Washington & Lee in 1971. A veteran of the United States Marine Corps, Mr. Carr is a member of the Virginia, North Carolina and District of Columbia Bars. Mr. Carr and his wife Gail have two grown children and live in Lexington, Virginia.

**Commentator:** Carla Urquhart
Managing Attorney, Office of General Counsel
Federal Energy Regulatory Commission
**Professor James Van Nostrand**  
*West Virginia University School of Law*

**Biography**

Associate Professor James M. (Jamie) Van Nostrand joined the faculty at the West Virginia University College of Law in July of 2011 to serve as the Director of the Center for Energy and Sustainable Development. Prof. Van Nostrand came to the WVU College of Law from the Pace Law School in White Plains, NY, where he served as Executive Director of the Pace Energy and Climate Center.

Prior to the spring of 2008, Prof. Van Nostrand had a successful career in private law practice as a partner in the Environmental and Natural Resources practice group of a large law firm based in the Pacific Northwest. In his 22-year career in private practice, Prof. Van Nostrand represented energy clients in state regulatory proceedings in eight western states, as well as proceedings before the Federal Energy Regulatory Commission. Prof. Van Nostrand was recognized by the Energy Bar Association as the 2007 State Regulatory Practitioner of the Year.

Before going into private practice, he spent five years with the New York Public Service Commission as an Assistant to the Commission for Opinions and Review and as Assistant to the Chairman. While at Pace, Prof. Van Nostrand has become involved in numerous energy and environmental initiatives, including memberships on the Advisory Board providing guidance to the New York State Energy Research and Development Authority (NYSERDA) on the use of auction proceeds from the Northeast Regional Greenhouse Gas Initiative (RGGI), the NYSERDA Residential Green Building Program Advisory Group, the Combined Heat & Power (CHP) Working Group of the Governor’s Renewable Energy Task Force, the New York City Energy Policy Task Force, the NYC Bar Association Energy Committee, and the NYS Bar Association Global Warming Task Force.

In addition to his years in private practice, Prof. Van Nostrand has taught courses in energy and regulated industries, administrative law and business associations in various capacities at Lewis & Clark Law School, the University of Tennessee College of Law, and the University of Iowa College of Law. He has published and lectured widely on emissions trading and strategies for reducing greenhouse gas (GHG) emissions, energy policy, renewable energy, utility rates and electric restructuring plans, and utility mergers and acquisitions. Prof. Van Nostrand teaches Energy Law and Eco Markets & Trading as a member of the Adjunct Faculty at Pace Law School. He received his law degree from the University of Iowa College of Law, his master’s degree in economics from SUNY at Albany, and an undergraduate degree in economics from the University of Northern Iowa. Prof. Van Nostrand recently completed his studies in the Climate Change track of Pace’s Environmental LL.M program, and received his LL.M. in Environmental Law from Pace Law School in early May 2011.
Abstract

Integration of Environmental Issues in Electric Utility Regulatory Proceedings

Electric utility regulatory proceedings provide an opportunity for integration of environmental issues, and advancing a “clean energy” agenda focused on energy efficiency and reduction in greenhouse gases (GHGs). More important, these issues can generally be pursued under a public utility commission’s existing statutory authority, without need of specific enabling legislation. My presentation will focus on four particular issues that advance a “clean energy” agenda: (1) integrated resource planning, (2) energy efficiency and demand response, (3) renewable and “clean” energy resources, and (4) distributed generation.

State public utility commissions (PUCs) have very broad ratemaking authority, and the enabling statutes generally charge the PUCs with regulating “in the public interest.” This provides an opportunity for public interest advocates, environmental organizations, consumer advocates, and enlightened PUC staff members to advance a “clean energy” agenda without a need for express statutory authorization to do so. Existing regulatory regimes accommodate the integration of most elements of a “clean energy” program as part of a PUC’s general oversight and ratesetting process for investor-owned electric utilities.

A rigorous integrated resource planning (IRP) process is the foundation for pursuit of these issues. An IRP, if done correctly, puts energy efficiency and supply-side resources on the same playing field, and required them to be evaluated using the same metrics. The cost advantages of energy efficiency are highlighted versus the supply-side options. Moreover, the process will place a proper value on the price to be paid for investments in energy efficiency, by examining the costs avoided by deferring or displacing supply-side resources. In other words, the process should produce the correct price signal to be paid to acquire energy efficiency investments, calculated by reference to the more expensive supply-side options that will be avoided or deferred.

No statutory authorization is necessary to require a utility to undertake a rigorous IRP process. Rather, the requirement can be integrated in the utility’s burden of proof to justify rate recovery of the costs it incurs in providing utility service. If the utility cannot demonstrate in rate proceedings that it is following a resource acquisition strategy that provides the lowest long-term cost path for its customers, the utility runs the risk of a regulatory disallowance. If energy efficiency and demand response programs are demonstrated in an IRP process to be the most cost-effective means of meeting the utility’s expected load, for example, then any incremental costs associated with departure from that path can, and should, be disallowed.

The same strategy applies with respect to consideration of renewable and “clean” energy resources, as well as distributed generation resources. The IRP process should include an analysis that internalizes the externalities associated with traditional fossil fuel-fired, central generating resources. In other words, the analysis of alternatives should include environmental adders that capture the environmental impacts associated with GHG emissions and other pollutants. This places renewable resources at a relative advantage (or at least reduces the cost disadvantage) compared to dirtier generating resources. Similarly, the analysis should consider the advantages of distributed
generation resources in avoiding or deferring investment in transmission and distribution (T&D) infrastructure, reducing transmission losses, and increasing the reliability and security of the electric grid.

Environmental advocates should be encouraged to press the “clean energy” agenda whenever a utility’s resource acquisition strategy is at issue, whether it be in IRP proceedings, retail rate cases, or stakeholder advisory groups charged with oversight of energy efficiency programs. The utility has the burden of proof in these proceedings to demonstrate that its resource acquisition strategy is reasonable, and the “clean energy” path – involving energy efficiency, demand response, renewable resources, and distributed generation – must be integrated into the utility’s analysis as a strategy worthy of serious consideration.
Tyson Slocum  
Public Citizen’s Energy Program

Biography

Tyson Theron Slocum is director of Public Citizen’s Energy Program, covering the regulation of petroleum, natural gas and other energy markets and serving on the US Commodity Futures Trading Commission’s Energy & Environmental Markets Advisory Committee. Tyson has expertise on climate change policy, working to develop carbon pricing legislation that achieves greenhouse gas emission reductions while protecting working families. Tyson addresses the sustainability of our current electric power and transportation fuel mix, promoting strong regulations over natural resource extraction, and sustained incentives for fossil fuel alternatives. Tyson presents his research in Congressional testimony (most recently before the US Senate in November 2011 on commodity market regulation) and appears regularly in the media, including guest appearances on The Colbert Report.

Tyson is a member of the faculty at the University of Maryland Honors College, where he teaches on energy and climate policy. Prior to joining Public Citizen, Tyson served as an analyst with the Institute on Taxation & Economic Policy. Tyson earned a BA from the University of Texas at Austin, and grew up in Newport, RI. Follow him on twitter @tysonslocum

Tyson Slocum  
Abstract

The Federal Energy Regulatory Commission (FERC) has morphed from a sleepy regulator of pipelines in the 1970s to one of the most powerful federal agencies today, with jurisdiction now stretching over roughly 80% of electricity markets. But with the expanded responsibilities, FERC remains a black box, with complex proceedings unintelligible to most without an expensive Federal Power Act attorney on retainer. And try to search for something on FERC’s website without the docket number – good luck finding it!

FERCs primary mandate – reviewing that all electric rates be “just and reasonable” – has morphed into an assumption that “competition” automatically produces just and reasonable prices. To this end, FERC has delegated sweeping Federal Power Act authorities to private entities – so-called Regional Transmission Organizations.

As environmental and energy efficiency priorities are added to FERC’s portfolio, questions are raised as to how household and small business consumers fare under FERC’s programs. And if the US contemplates pricing carbon as part of a plan to address greenhouse gas emissions, there are concerns that FERC’s organized markets won’t efficiently price pollution.

In addition to reforms to FERC’s market oversight, Public Citizen urges the development of an Office of Consumer Advocate at FERC, to help facilitate community, environmental and consumer involvement at this critical federal agency.
**Rose McKinney-James**
*Energy Works Consulting*

**Biography**
Rose McKinney-James is widely recognized as one of the most prominent advocates for the commercial deployment of solar resources in the state of Nevada. In 1997, she facilitated the drafting and passage of Nevada’s first RPS. As CEO for the Corporation for Solar Technology and Renewable Resources, (CSTRR) McKinney-James worked with the U.S. Department of Energy and the solar industry in establishing the policy framework for the original solar energy zones in the state. A former Commissioner with the Nevada Public Service Commission, she also served as Nevada’s first Director of the Department of Business and Industry. She is currently the Managing Principal of Energy Works Consulting and McKinney-James & Associates. The firms provide business-consulting services and advocacy in the areas of public affairs, energy policy, economic, and sustainable development. Prior to establishing her own firm, she served as President of Brown & Partners, President of Government Affairs for Faiss Foley Merica. In her current capacity, she provides consulting and strategic guidance to businesses engaged in energy related matters. A registered lobbyist with the Nevada Legislature, Rose currently represents a range of public and private entities with interests in regulatory and energy policy.

A member of the Board of Directors of MGM Resorts International, MGM Detroit, and Employers Holdings Inc., she also serves as a member of the Board of Directors for Toyota Financial Savings Bank, VOTE Solar, and the American Council for an Energy Efficient Economy (ACEEE) and the Clean Energy Project. Rose is currently the Board Chair for Nevada Partners a nationally recognized workforce development agency.

A candidate for Lieutenant Governor, McKinney-James was the first African-American to win a statewide primary in the state of Nevada. Ms. McKinney-James served as a member of the Obama-Biden Transition Team with responsibility for the US Department of Energy and the Team Lead for the Federal Energy Regulatory Commission (FERC). A native of Detroit, Michigan, she is a graduate of Antioch School of Law in Washington D.C., and secured her undergraduate degree from Olivet College in Olivet, Michigan. Ms. McKinney-James is married and the mother of two sons.

**Abstract**

**Considering the Value of the Voice of the Public Interest Advocate in Utility Rate Making and Resource Planning and Other Regulatory Proceedings**

Quite often, both the importance and value of the voice of the grass roots consumer advocate is under estimated in the regulatory process. Increasingly these advocates have found creative ways to navigate the process and provide a path for advancing issues that ultimately become a critical component of policy decisions. Strategically placed advocates have made a significant difference in a number of recent state proceedings. In Nevada a recent general rate case saw a record number of public
interest advocates intervene. This was preceded by statutory change in intervention rules relaxing and clarifying the criteria for entry. The entry of these non-traditional parties provides regulators with an oft times fresh and unique perspective that adds depth to the often cold analytics of traditional ratemaking, resource planning and rate design proceedings. This has been very helpful in advancing policies that are supportive of the deployment of renewable energy resources and take advantage of energy efficiency opportunities.

While many states have made significant progress in this regard, the ability to coordinate and or mirror these efforts with federal regulatory proceedings has been relatively slow.

Consumers are increasingly interested in participating more fully in managing energy costs. Demand response programs have gained acceptance and the introduction of SMART meters has raised the level of interest. With a greater emphasis on these issues, regulators are faced with yet another hurdle to add to the ultimate balancing act, attempting to achieve a result that inures to the benefit of the broader public interest. Few opportunities to bridge the state and federal interests exist today. Both states and federal regulators have some responsibility in ensuring greater attention is paid to demand side initiatives. To date, states have been far more active in this regard. The Chairman of the Federal Energy Regulatory Commission (FERC) has co-authored an article that attempts to focus the need for better coordination between the states and his agency. The article suggests that the FERC has the authority and jurisdiction to consider such matters. Perhaps it is time to consider his theory. It is certainly a topic worthy of further exploration.
Jeffrey W. Mayes  
Monitoring Analytics  

Biography  
Mr. Mayes, General Counsel of Monitoring Analytics, LLC, has over 16 years of experience practicing primarily before the Federal Energy Regulatory Commission and state regulatory commissions on matters pertaining to the energy industries. Mr. Mayes served three years as Senior Counsel at PJM Interconnection, LLC, primarily covering markets and market monitoring issues. Prior to working for PJM, Mr. Mayes was associated with the Energy and Corporate group at the international law firm of White & Case, LLP and other leading law firms and served as a law clerk at the FERC’s Office of Administrative Law Judges. Mr. Mayes is a member of the Virginia State Bar, the District of Columbia Bar and the Pennsylvania State Bar. Mr. Mayes has a JD, MA (Foreign Affairs) and BA from the University of Virginia.

Jeffrey W. Mayes  
Abstract  

How Environmental Regulation Impacts PJM Capacity Prices  

Federal and state regulators have recently promulgated many new environmental regulations that will require the owners of a large portion of the generation fleet to make significant new investment in scrubbing and other equipment or retire. Although these regulations will not be in force for a number of months or years, the costs of these regulations are now being built into the future prices of wholesale electricity.

Environmental compliance costs are impacting the markets administered by PJM Interconnection (PJM) for much of the Northeastern United States. Power suppliers typically earn most of their money in the PJM energy market, but another market, the PJM Capacity Market, known as “RPM” for the Reliability Pricing Model, drives decisions about new investments and about entry into or exit from PJM markets. In May of every year, RPM procures capacity three years in advance. Participants offer in that market on the basis of the anticipated continued economic viability of their resource.

Certain mitigation measures allow resource owners to include in their RPM Offers the anticipated costs of new investment. These costs include those related to environmental compliance. This requires resource owners and the Independent Market Monitor for PJM (IMM) to address in the near term the uncertainties about the implementation of the new rules. The rules that form prices in PJM markets have implications for regulators. For example, if the costs associated with environmental compliance are already built into capacity prices in a future year, there may be no public savings from extending the compliance deadline at the request of an owner.

U.S. Environmental Protection Agency (EPA) rules, including the Cross-State Air Pollution Rule (CSAPR), the Mercury Air Toxics Rule (MATS), and others are important drivers in setting prices in RPM auctions today. State regulations, such as New Jersey’s High Energy Demand Day Rule (HEDD), are also having an impact.

This presentation will briefly explain the role of PJM’s Capacity Market, the rules relating to three-year-forward procurement, mitigated pricing and the treatment of investment costs, and how new environmental regulations are impacting the pricing of capacity in RPM.
**Will Reisinger**  
*Assistant Attorney General, Commonwealth of Virginia*

**Biography**

Will Reisinger serves as an assistant attorney general in the Office of the Attorney General’s Division of Consumer Counsel. Mr. Reisinger represents the Attorney General and ratepayers of the Commonwealth in electric and natural gas utility matters at the Virginia State Corporation Commission. He has represented the Attorney General in renewable energy certification cases, environmental cost recovery cases, and integrated resource planning issues.

Prior to working for the Attorney General, Mr. Reisinger served as staff attorney for a non-profit environmental organization in Columbus, Ohio, where he worked to implement and enforce Ohio’s renewable energy portfolio standard and energy efficiency standards at the Public Utilities Commission of Ohio. He has published articles and spoken about various environmental law and policy issues, including federal climate legislation, state renewable energy portfolio standards, and the federal Clean Air Act. Mr. Reisinger is a graduate of Emory & Henry College and Ohio Northern University’s College of Law. He is a member of the Young Lawyers Conference and the Administrative Law Section of the Virginia State Bar.
**Third Panel**  
**Production & Underground Injection of Gases**

**Moderator:**  Professor Ronald Rosenberg  
*William & Mary Law*

Professor Rosenberg joined the William & Mary faculty in 1982. He served on the legal staff of the Environmental Protection Agency in Washington, D.C. Taught at Cleveland State School of Law and was a visiting professor at the University of North Carolina - Chapel Hill School of Law. He was also a Fulbright Senior Scholar.


Professor Rosenberg served as a member of the Executive Board, Historic Rivers Land Conservancy, Inc. and the Planning Commission, York County. He also served as a member of the Chesapeake Bay Local Assistance Board and on the Editorial Board for the *Washington Lawyer*, District of Columbia Bar Association. He served as Chair and member of numerous American Bar Association committees including, the Local Government Law Committee; Section of Natural Resources, Energy, and Environmental Laws; Committee on Environmental Law; and the Professionalism Committee of the Section of Legal Education and Admission to the Bar.
Barry K. Lay
Vice President of Operations—Eastern Division, EnerVest Operating, LLC
Chairman, West Virginia Oil and Gas Conservation Commission
Chairman, West Virginia Coalbed Methane Review Board
Chairman, West Virginia Shallow Gas Well Review Board

Biography
Barry K. Lay is with EnerVest Operating, LLC, where he serves as vice president of operations—eastern division. Prior to that, he served as vice president and general manager of the Pennsylvania/New York District for EnerVest’s predecessor, Belden & Blake Corporation. Before joining Belden & Blake, Mr. Lay was Vice President of Engineering for Waco Oil and Gas Company. Mr. Lay has 30 years of experience in the oil and gas industry. Mr. Lay graduated from West Virginia University with a Bachelor of Science degree in Petroleum Engineering. He serves as chairman for numerous state oil and gas regulatory boards, including the West Virginia Oil and Gas Conservation Commission, the West Virginia Coalbed Methane Review Board, and the West Virginia Shallow Gas Well Review Board. Mr. Lay is a registered professional engineer and a licensed land surveyor in West Virginia.

Barry K. Lay
Abstract

Oil & Gas Pooling and/or Unitization in West Virginia

The regulation of natural resources has proven to be a complex issue, as many states have struggled to adequately address competing concerns. State governments, in this way, have established themselves as laboratories in which we often find creative solutions.

This presentation focuses on West Virginia statutes and regulations. In particular, it addresses the use of pooling and unitization by both the West Virginia Oil and Gas Conservation Commission and the West Virginia Coalbed Methane Review Board. The statutes and regulations governing both bodies have a great deal of overlap and at times may be administratively burdensome. However, their goal is to find the most efficient production of natural gas consistent with the protection of correlative rights of various interest holders.

I. What is Pooling of Interests and/or Unitization?
   a. Definitions
   b. Voluntary agreement
   c. Forced Pooling

II. West Virginia Legislative Background
   a. WV Code on Pooling and/or Unitization
      i. Deep Wells
      ii. Coalbed Methane Wells

III. West Virginia Oil & Gas Conservation Commission
    a. Declaration of Public Policy
i. Public Interest
   ii. Legislative Finding
b. Deep Well Definitions
   i. Deep Well
   ii. Unit
   iii. Special Field Rules
   iv. Pool
c. Drilling Units
   i. Establishing a Pool
   ii. Establishing a Drilling Unit
      1. Area of Unit
      2. Shape
      3. Spacing
      4. Location to Unit Boundary
      5. Other Provisions
d. Pooling of Interest in Drilling Unit
   i. Who May Request Pooling
      1. Voluntary Pooling
      2. Forced Pooling
   ii. Public Hearing
      1. Notice of Hearing
      2. Designate the Operator
      3. Reasonable Costs & Expenses
      4. Interests of the Parties
      5. Surface Owner Consent & Easement
   iii. Pooling Order
      1. Final Size & Shape of Unit
      2. Final Terms
      3. Participation Election
         a. Option 1
         b. Option 2
         c. No Election
   iv. Dispute Arising from Order
IV. West Virginia Coalbed Methane Review Board
   a. Declaration of Public Policy
      i. Legislative Findings
      ii. Public Interest
   b. Coalbed Methane Definitions
      i. Coalbed Methane Well
      ii. Stimulate
      ii. Workable Coalbed or Workable Coal Seam
   c. Drilling Units and Pooling of Interest
      i. Voluntary Agreement
      ii. Application for Pooling
         1. Who May File Application
         2. What Can Be Pooled
         3. Requirement of Application
iii. Public Hearing
   1. Notice of Hearing
      a. Who is to be Notified
      b. How Are They to be Notified
      c. Requirement of the Notified
   2. Pre-Hearing Conference
   3. Designate the Operator
   4. Reasonable Costs & Expenses
   5. Interests of the Parties
   6. Coal Mining Plans
iv. Pooling Order
   1. Final Size & Shape of Unit
   2. Operator
   3. Spacing of Wells
   4. Reasonable Fees & Expenses
   5. Participation Elections
      a. Option 1
      b. Option 2
      C. Option 3
      d. No Election
   6. Escrow Account

V. Benefits of Pooling and/or Unitization
Philip A. Reale  
Law Office of Philip A. Reale

Biography  
Philip A. Reale is a long-time general practitioner of law with substantial experience in the field of oil and gas law and a former prosecuting attorney. He served as chairman of Former West Virginia Governor Gaston Caperton’s transition team and later as Governor Caperton’s first Chief of Staff. In addition, he is former president of the Independent Oil and Gas Association of West Virginia, two-time chair of the State College System of West Virginia, and a successful lobbyist and strategist with more than 30 years of experience.

Philip A. Reale  
Abstract

Marcellus Shale: Regulatory Challenges, But Economic Driver

What is the interplay of the estates in land and the processes associated with exploring for, drilling and producing natural gas in the Appalachian Basin, and why it is important to balance various inherent interests will be the subject of this presentation. Within that context, highlights of the recently enacted West Virginia Natural Gas Horizontal Well Control Act will be discussed. It represents the first of such acts enacted by those states generally associated with exploration, drilling and production of the Marcellus Shale. General observations over the broad base of regulatory structure afforded by the West Virginia act as it relates to ownership of coal, surface lands, surface and groundwater, well site construction, well site safety, local public road usage, disposal of wastes and the myriad of notices which must be provided by the well operator to interested parties will all be available for discussion.

I. The backdrop
   a. Separating fact from fiction
   b. Ideology vs. Evidence
   c. Debunking myths
II. The Economic Driver
   a. Local impacts
   b. Regional industrialization and revitalization
   c. A national and international scope
III. Regulatory elements or “What the Lawyers giving advice have to be concerned about”
   a. Fees
      i. Permit fees
      ii. Local impact fees (Pa.)
      iii. Surface owner property tax reimbursement (WV)
   b. Bonding
      i. Wells
      ii. Local roads being utilized in the process
   c. Taxation – on the activity of drilling in the Marcellus Shale
i. State severance tax (WV)
ii. County ad valorem property tax (WV)
iii. County real estate tax (WV)
iv. Severance tax surcharge to pay long term Workers’ Comp Fund debt (WV)

d. Water management
   i. Intensive use of water in hydraulic fracturing process
   ii. A water management plan – SB 401 passed in special session – reasonable template
   iii. No permit for water withdrawal, but specified information as a condition of the drilling permit
   iv. Water Management Plan
      1. Type of water source – lake, pond, river etc.
      2. Anticipated volumes of water to be withdrawn
      3. Anticipated months during which withdrawal will take place
      4. Disposition of waste water (recycled, treated, disposal well etc.)
      5. Surface water withdrawal considerations and utilization of DEP’s Water Management Tool
         a. Identification of current designated and existing water uses, including public water intakes within 1 mile downstream of the withdrawal location
         b. Demonstrate sufficient in-stream flow capacity will be available immediately downstream
         c. Minimize adverse impact to aquatic life
         d. Notify DEP at least 48 hours in advance of withdrawal by longitude and latitude
      6. List of additives in frac water maintained on truck manifest and provided WVDEP
      7. Withdrawal site must be identified with signage identifying name and contact information for operator
      8. Operator must record and retain specified information:
         a. Quantity of flowback water
         b. Quantity of produced water from the well
         c. Quantity of water transported
         d. Collection and delivery of disposal locations of water
         e. Name of water hauling (trucking) company
      9. Free-standing impoundments must be constructed under the charge of a registered professional engineer (freshwater and wastewater impoundments with a capacity of 210,000 gallons or more and which could be used for multiple well locations. Some avoidance by landowner consent through constructing “farm pond” in accord with USDA specifications with pond retained by landowner.

e. Site Construction Plan
   i. Certification by registered professional engineer by contrast to conventional drilling
f. Well Site Safety Plan
   i. Emergency point of contact for operator
   ii. Copy of plans to local emergency officials

g. Erosion and Sediment Control Plan – as distinguished from such plans provided in association with conventional drilling
   i. Upgraded to be certified by a registered professional engineer
   ii. More disturbed area, more utilization of equipment coming on and off locations

h. Local road usage – county roads
   i. Biggest element of public concern
   ii. Certification from DOH of compliance with road use agreement and road use regulations (primary considerations are pre-assessment of road conditions, safety for traveling public, special considerations for school buses, emergency vehicles and such)
   iii. Bonding requirements established at $250K for a single county or $1 million statewide
   iv. Relationship between being compliant with DOH regulations and obtaining a drilling permit – drilling permit applicant must submit a letter certifying compliance with DOH requirements (real leverage is bonding)

i. Conditions for Horizontal Well Permits
   i. Definitions and applicability of SB 401
   ii. Plug all wells in accord with WVDEP rules and regulations
   iii. Disposal of drill cuttings and associated drilling wastes in approved solid waste landfill or managed on-site with WVDEP approval (rarely granted)
   iv. Intermediate reclamation of disturbed areas not immediately required in production – grade, terrace, plant, seed etc.
   v. Take measures in accord with industry standards to minimize fire hazards and other conditions impacting public safety
   vi. Take measures to protect quantity and quality of surface and groundwater systems during and after drilling and reclamation by:
      1. Making sure of sufficient in-stream capacity for the withdrawal without adverse impact to downstream considerations
      2. Casing, sealing or otherwise managing wells to keep returned fluids from entering ground and surface waters – closed loop systems becoming more common
      3. Utilize best management practices to prevent, to the extent possible, contributions of suspended or dissolved solids to streamflow or runoff outside the permitted area
      4. Registering all water supply wells operated by the oil and gas operator
      5. Flow-test for flow and quality drinking water wells within 1500 feet of a water supply well

j. New and more notice requirements
   i. Personal service or certified mail
ii. Prior to entry on property for surveying – from 7 – 45 days for surface owners, coal owners or lessees and any owner of minerals underlying the property
   1. Notice must include copies of the Erosion and Sediment Control Plan manual and that copies of statutes and rules may be obtained from the DEP secretary along with the web page address for the WVDEP where all sorts of information can be found
   2. At least 10 days prior to filing an application for a horizontal well permit, the applicant must file a Class II legal advertisement
   3. Water source owners (surface owners and water well owners within 1500 feet) are entitled to notice that will include a statement of rights afforded them under the statute, as well as the opportunity for the testing of their wells.
   4. Written notice to surface owners must be provided at least 10 days prior to filing the permit application of intent to enter onto land for the purpose of drilling a horizontal well and by the application filing date provide written notice of the planned operation including a copy of § 22-6A-16 and a proposed surface use and compensation agreement containing an offer of compensation for damages to the surface
   5. Written notice must be provided 3 days prior to performing seismic activity to surface owners, coal owners and lessees, gas storage well owners and Miss Utility of West Virginia, which notice shall include a reclamation plan in accordance with the erosion and sediment control plan. (Note: Seismic activity does not cause surface disturbance as a general rule.)

k. New well location restrictions include:
   i. No well may be drilled within 250 feet of a water well or spring;
   ii. The center of the well pad must be at least 625 feet from an occupied dwelling or large (2,500 sq. ft. or larger) cattle or poultry barn;
   iii. Well pad and well must be
       1. at least 100 feet from a perennial stream, lake, pond, reservoir or wetland;
       2. at least 300 feet from a naturally reproducing trout stream; and
       3. at least 1,000 feet from a public water supply intake.
       a. Distance restrictions in certain circumstances may be waived with written consent of the surface owner or by a variance granted by DEP; restrictions in (c) may be waived by DEP. Note: DEP must report to the Legislature beginning January 1, 2013 and each year thereafter regarding the number of waivers granted.
l. SB 401 expands the presumption of liability of a gas well operator for contamination or deprivation of water supply located within 1,500 feet of a well site (prior presumption for conventional wells extended 1,000 feet) and a new obligation to provide an emergency replacement drinking water supply within 24 hours, a temporary water supply within 72 hours and establish a permanent water supply within 30 days. Additionally, it requires the operator to use the services of an independent certified laboratory to conduct the pre-drilling or pre-alteration water well test in order to be eligible to rebut the presumption and to pay all reasonable costs incurred by the real property owner in securing a water supply.

m. Civil and criminal penalties – Willful violations of the Act or any permit can result in a civil penalty of up to $5,000 for each day of violation. Willful disposal of waste fluids or drill cuttings or other wastes in violation of the Act or any other state or federal statute or regulation that has a “significant adverse environmental impact on surface or groundwater subjects the violator to a civil penalty of up to $100,000. Additionally criminal penalties for intentional violations of the act, including intentionally misrepresenting any material fact in an application, record, report, plan or other document filed or required, are provided.

i. Increased casing and cementing minimum standards, plus requirement that DEP develop regulations concerning same.
ii. Horizontal well production damage compensation for surface owners and procedures for determining such damages covers loss of use of the land, crop damages and diminution of value of land based on use thereof at time of the drilling.

n. Reports and Regulations Required
i. Karst Terrain study and new rules.
ii. Air quality study and rulemaking.
iii. Impoundment and pit safety study and rulemaking.
iv. Report by the secretary by December 31, 2012, on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section and potential additional rules related thereto.
v. DEP is required to report number of waivers granted starting in 2013.
vi. DEP is required to report to the Governor and publish on its website the average time between well application filings and permit issuances.
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