

## **Marcellus Shale: Tough Regulations, Greater Enforcement**

Since 2008, Pennsylvania has been proactively increasing its oversight of gas drilling.

Pennsylvania has added more staff, done a more comprehensive strengthening of its rules and more aggressively enforced its rules than any other state.

### **Consider the following:**

- In 2008, the Department of Environmental Protection (DEP) required every application for a Marcellus Shale drilling permit to include a mandatory water plan that governed water withdrawal and disposal issues.
- In 2008, DEP placed on its website the list of chemicals mixed with water that are used to frac or break the shale to free the gas, usually 5,000 to 8,000 feet underground. The department recently updated that list. DEP also required that the list of chemicals be available at each well site from the time the first Marcellus Shale well was drilled in 2005. Drillers must also publicly disclose fracturing and drilling fluids to FracFocus.org, a publicly accessible database.
- In 2008, DEP substantially increased fees for drilling permit applications. The application fee was raised from \$100 to a sliding scale based on total wellbore length, with the average well permit application costing more than \$3,200. All revenue was invested to increase oversight.
- Throughout 2009 and 2010, DEP more than doubled the number of inspectors. In 2011 and 2012, DEP conducted more inspections of oil and gas well sites than ever before.
- In 2009, DEP opened a new office for gas staff in Williamsport, Lycoming County, and another new office in Scranton, Lackawanna County, in 2010—two areas of the commonwealth that were experiencing drilling for the first time.
- On Nov. 1, 2010, DEP began posting well-specific gas production data and updates every six months for unconventional wells.
- A new regulation went into effect on Aug. 21, 2010, that requires drilling companies to treat drilling water to the safe drinking water standard for Total Dissolved Solids (TDS). This new rule ensures that streams in Pennsylvania do not exceed the safe drinking water standard of 500 milligrams per liter (mg/L).
- DEP's regulations require the use of blowout preventers to prevent loss of control at the wellhead.
- On Feb. 5, 2011, amendments to 25 Pa. Code Chapter 78 updating existing requirements regarding the drilling, casing, cementing, testing, monitoring and plugging of oil and gas wells, and the protection of water supplies were finalized. The strengthened regulations require best well design and construction practices and regular pressure testing.
- On March 8, 2011, Governor Corbett issued his first Executive Order (2011-01) creating the Governor's Marcellus Shale Advisory Commission. The Commission was tasked with producing a comprehensive proposal for the responsible and environmentally sound development of Marcellus Shale. After 20 public meetings and 60 expert presentations, the Commission issued its final report containing 96 recommendations for the oversight of natural gas development on July 22, 2011.

- On April 20, 2011, Governor Corbett and then DEP Secretary Mike Krancer called on the drilling industry to stop sending wastewater to treatment plants that had been permitted prior to a regulatory change for that was finalized Aug. 15, 2010. The rule-change required any new or expanded facility discharging unconventional wastewater to limit discharges to 500 mg/L for total dissolved solids, the same as the federal drinking water standard. The Marcellus shale industry complied promptly, resulting in a sea change in disposal practices. Since then, reuse and recycling of flowback has never been higher, with some operators at 100 percent recycling.
- One of the recommendations from the Governor's Marcellus Shale Advisory Commission was to ensure the safety of public and unconventional gas well workers by requiring every unconventional well site to have an address and sign for local emergency response purposes. On Feb. 2, 2012, this recommendation became law and directed the department and the Pennsylvania Emergency Management Agency to develop emergency regulations regarding emergency response at unconventional well sites.
- On Feb. 14, 2012, Governor Corbett signed Act 13 of 2012, the most comprehensive overhaul of oil and gas regulation in the country.
  - This law increases well setback distances from bodies of water and drinking water sources, expands operator liability, enhances water quality replacement standards, increases bonds, requires secondary containment practices, enhances hydraulic fracturing disclosures, and increases civil penalties.
  - Act 13 of 2012 also authorizes a county level and statewide impact fee, provides grant money for environmental projects, and expands operator notifications to the department. Most of these updates are the result of recommendations advanced by the Governor's Marcellus Shale Advisory Commission.
- On March 21, 2012, DEP issued a revised general waste permit that allows for greater regulatory clarity for facilities treating oil and gas wastewater for reuse with zero liquid discharge to waterways. Since the revised permit was issued, dozens of new treatment plants have come online and recycling treatment capacity continues to grow across the state.
- On Jan. 31, 2013, DEP finalized a revised air quality general permit for compressor stations and gas processing facilities. The permit includes significantly lower allowable emission limits.
- As required by Act 9 of 2012, DEP and the Pennsylvania Management Agency developed regulations regarding emergency response at unconventional well sites to require all unconventional operators to register well site addresses, erect signs at access roads, and develop emergency response plans. On Jan. 26, 2013, these regulations became final.

The Marcellus Shale and other unconventional oil and gas formations in the state are world-class resources. Pennsylvania expects and demands world-class performance from the operators extracting, developing and using these resources. The state's standards set a high but fair bar to ensure these resources are developed safely, responsibly and in an environmentally conscious manner.

For more information, visit [www.dep.state.pa.us](http://www.dep.state.pa.us), keyword: Oil and Gas.