Final Rulemaking:
25 Pa.Code Chapters 78 and 78a
Environmental Protection Standards at
Oil & Gas Well Sites

Environmental Quality Board
February 3, 2016

Tom Wolf, Governor
John Quigley, Secretary
Update the Department’s regulations relating to surface activities at oil and gas well sites

Address statutory changes and new environmental protection standards under the 2012 Oil and Gas Act

Address new technologies associated with extracting natural gas from unconventional formations which are also used to develop conventional formations
Purpose

• Address changes in the Department of Environmental Protection’s other programs
• Address gaps in the Department’s existing program addressed through other means (e.g., policies or permit applications)
• Address recommendations from State Review of Oil and Natural Gas Environmental Regulations (STRONGER)
Unprecedented Public Participation

• April 2011: DEP Initiated Rulemaking
• August 27, 2013: Environmental Quality Board (EQB) adopted as proposed
• 20 Advisory Board/Committee Meetings
• 2 public comment periods
• 135 days of public comment
• 12 public hearings
• Almost 28,000 public comments received
Based on extensive public comment and Act 126 of 2014, regulations relating to conventional oil and gas are promulgated separately from regulations relating to unconventional wells

- Chapter 78 – Conventional
- Chapter 78a – Unconventional
Regulatory Development Process

- EQB regulation package
- Small business concerns
- Regulatory Analysis Form
- Engagement with industry, the public and advisory groups
  - Wide variation in positions expressed
  - Thoughtful and thorough consideration of all public comments and input;
Costs – Conventional Wells

• Based on 1,334 wells drilled annually
• Maximum annual cost to conventional operators - $28,622,568
• Containment for brine tanks
  • Only new, refurbished or replaced
• Quarterly tank inspections
• Disposal pits separation from groundwater
Costs – Unconventional Wells

• Based on 1,300 wells drilled annually; 434 well sites constructed
• Maximum annual cost to unconventional operators - $31,149,664
• Maximum initial cost - $73,463,000
• Centralized impoundments
• Well development impoundments
• Tank standards
• Area of review
Key Areas of Change

• Considers needs of industry with appropriate level of public health and environmental protections – responsible drilling
  • Improves protection of water resources
  • Adds public resources considerations
  • Protects public health and safety
  • Addresses landowner concerns
  • Enhances transparency and improves data management
• Noise Regulation (Unconventional Only)
  • Technical Challenges
  • Best Practices Guidance to be adopted
  • Future rulemaking considerations

• Centralized Tank Storage (Unconventional and Conventional Operations)
  • Off site waste issues regulated by DEP waste management program
KEY SIMILARITIES BETWEEN UNCONVENTIONAL AND CONVENTIONAL REGULATIONS
Permitting

• Water Resources
  – Well site within 100 feet from all bodies of water (includes wetlands) in HQ or EV watershed, must demonstrate protection of water quality.

• Permit may be renewed only one time for a two year period

• Public resources section amended for clarity
Public Resource Protections

• Screening process to determine if DEP needs to condition permits to avoid probable harmful impacts
• Limit of disturbance versus vertical wellbore
• Added playgrounds, schools and DEP-approved well head protection areas as public resources
• DEP evaluation of impacts beyond the agency’s traditional mission, including concepts such as recreation and aesthetics
Pre-drilling Review

• All operators must evaluate the potential for their hydraulic fracturing operations to impact abandoned and operating wells.
• Surveys and monitoring tailored to well development
• Timing tied to drilling
• Recommendation for improvements to DEP’s well development regulations by the STRONGER organization
• Pre-drill surveys submitted as a single report ten business days prior to commencement of drilling

• If oil and gas development degrades a water supply, the operator must restore or replace the supply with one that meets Safe Drinking Water Act standards or is as good as pre-drilling conditions if the water supply was better than the Drinking Water Act standards.
• Spills greater than five gallons outside of containment of any substance that can pollute the environment must be reported to DEP.
• Spills greater than 42 gallons (one barrel) outside of containment must be cleaned up in accordance with the Land Recycling and Environmental Remediation Standards Act (Act 2) in a timely manner.
• Cleaning up spills to the scientifically based standards established by Act 2 is required of all industries.
Centralized Impoundments

• Significant compliance issues with existing impoundments
• Proposed rule codified existing permit requirements
• Final-form rulemaking:
  • All existing centralized impoundments have two options:
    – Appropriately closed within three years
    – Obtain a residual waste impoundment permit
• Costs
KEY DIFFERENCES BETWEEN UNCONVENTIONAL AND CONVENTIONAL REGULATIONS
Vandal-Proofing Tanks

• The unconventional industry will be required to install valve locks, open end caps, retractable ladders or other similar protective measures to prevent vandalism to their tanks.

• No such requirement exists for the conventional industry.
• The unconventional industry is prohibited from utilizing pits to store drill cuttings and waste fluids.
• The conventional industry will continue to be able to use pits that are less than 3,000 square feet and store less than 125,000 gallons of fluid under a permit by rule. Larger pits will require an individual permit.
• Use of open-topped structures to store production fluids is banned for both the unconventional and conventional industries.
• The unconventional industry will be required to obtain an individual permit to dispose of drill cuttings at the well site, just like any other generator of residual waste.

• This practice is permitted by rule for the conventional industry and no changes to this practice are included in the final-form Chapter 78.
The unconventional industry must employ secondary containment around all storage vessels, trucks used to store regulated substances and drill rigs.

Secondary containment is only required at new, replaced or refurbished brine tanks at conventional sites, or for tanks storing oil or condensate, in accordance with existing state and federal requirements.
• The final-form unconventional rules contain new sections on gathering line construction and horizontal directional drilling beneath streams.
• The conventional rules do not contain these sections.
• The final-form unconventional rules contain a new section on the installation and use of temporary lines used to transport freshwater and wastewater.

  – Pipelines that transport materials:
    • Used for the drilling or hydraulic fracture stimulation of a well and the residual waste generated; and,
    • Which lose functionality after the well site it serviced has been restored.

• The conventional rules do not contain this provision.
The final-form unconventional rules require operators to obtain a water management plan before they withdraw water for drilling or hydraulic fracturing purposes.

The conventional rules do not contain this requirement.
• Conventional operators have the ability to beneficially use their brine for dust suppression and de-icing purposes in accordance with the protective standards codified in Chapter 78.

• Waste fluid from unconventional wells may not be used for these purposes.
• Unconventional operators must report their product (gas and condensate) and waste on a monthly basis.
• Conventional operators must report annually.
DEP recommends that EQB approve the Environmental Protection Standards at Oil & Gas Well Sites final rulemaking.
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