



**REGULATORY UPDATE**

**PBI Hot Topics in Oil & Gas  
Law Seminar**

**July 21 2011**

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**OVERVIEW**

- Chapter 78 regulations
- High TDS regulation
- Water storage, treatment and disposal options
- Air quality issues
- Marcellus Shale Commission report
- Questions

  
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**CHAPTER 78 REVISIONS**

- Revisions to Chapter 78
  - Published February 5, 2011
  - Key Changes
    - Pre-drilling testing and data submission/reporting to preserve defense to presumption
    - Well completion reporting
    - Well construction, casing and cementing specs
    - Stray gas response requirements

  
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**CHAPTER 78 REVISIONS**

- **Pre-drilling survey**
  - O&G Act
    - Well operator who affects a water supply must replace with an alternate source (§208(a))
    - Rebuttable presumption that well operator is responsible for pollution of water supply within 1,000 feet of well if pollution occurred within 6 months of drilling completion (§208(c))
      - **5 enumerated defenses, including establishing that pollution existed prior to drilling or landowner refused access for survey** (§208(d))



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**CHAPTER 78 REVISIONS**

- **Pre-drilling survey (cont)**
  - O&G Act (cont)
    - To preserve defenses regarding pre-existing pollution, operator must retain services of an independent laboratory to conduct pre-drilling or pre-alteration survey, and a "copy of the results of any such survey shall be submitted to the department and the landowner or water purveyor **in a manner prescribed by the department.**" (§208(e))



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**CHAPTER 78 REVISIONS**

- **Regulatory revision – §78.52**
  - In order to preserve defenses to presumption, the operator must
    - Conduct a survey in accordance with regulation
      - **Regulation sets forth required content of report and who may/must perform it**
    - Submit a copy of the results of the survey to PADEP and to the landowner or water purveyor **within 10 business days**



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**CHAPTER 78 REVISIONS**

- **Regulatory revision – §78.52 (cont)**
  - Defense waiver
    - "Test results not received by the Department within 10 business days may not be used to preserve the operator's defenses under section 208(d)(1) of the act."
  - What is the impact of the revision?
    - Can PADEP limit the statutory defense via regulation (the O&G Act does not expressly provide for a defense waiver)?
    - When are "test results" considered received?
    - Report notice of impact to PADEP w/in 24 hrs



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**CHAPTER 78 REVISIONS**

- **Well completion report (§78.122)**
  - Detailed well record and completion report now required
  - Well record (§78.122(a))
    - Submit within 30 calendar days of completion of drilling
    - Certify that well has been constructed in accordance with regulations and well permit



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**CHAPTER 78 REVISIONS**

- **Well completion report (§78.122(b))**
  - Stimulation record
    - List of frac chemicals
    - Total volume of recycled water used
  - Operator must "arrange to provide a list of the chemical constituents of the chemical additives used to hydraulically fracture a well... upon written request by the Department."
    - Confidentiality / frac company issues



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**HIGH TDS REGULATION**

- **25 Pa. Code §95.10 (8/21/10)**
  - Well operators to develop wastewater source reduction strategy by 8/22/11
    - Identify procedures to maximize recycling and reuse to frac other wells or for beneficial use
    - Complete characterization of wastewater stream
      - Chemical analyses, TDS concentrations, monthly generation rate at each well
    - Description of reduction options
    - Rationale for selecting reduction methods
    - Quantification of recycled/reused water



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**HIGH TDS REGULATION**

- **Limits discharge of high TDS wastewater**
  - “New or expanding mass loadings of TDS”
    - Exempts *De minimis* new and expanding loadings  $\leq 5,000$  lbs/day
      - Does not apply to new loadings of flowback and produced water
  - Exemption pertinent to gas wastewater
    - Grandfathers TDS loadings that were “authorized” by PADEP prior to 8/21/10
      - Existing POTW and traditional brine treatment



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**HIGH TDS REGULATION**

- **PADEP "request" to E&P companies**
  - April 19, 2011 letter asks E&P companies cease delivering wastewater from shale gas extraction activities to grandfathered facilities
    - Stated rationale was presence of elevated levels of Bromide
    - Industry complied voluntarily



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**HIGH TDS REGULATION**

- **Requirements for gas wastewater**
  - §95.10 prohibits discharge unless
    - Delivered to permitted deep disposal well; or
    - Delivered to grandfathered facility and discharged in accordance w/ permit (no longer available); or
    - Meets following requirements:
      - **Discharge is from a centralized waste treatment facility (CWT) and meets new effluent limits**
      - **If discharge is from POTW, was treated at CWT and meets effluent limits prior to POTW**



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**HIGH TDS REGULATION**

- **Discharge limits applicable to gas well wastewaters**
  - 500 mg/L TDS
  - 250 mg/L Total Chlorides
  - 10 mg/L Total Barium
  - 10 mg/L Total Strontium
  - Comply with EPA new source requirements (40 CFR 437.45(b))
  - Effectively prohibits dilution and mandates treatment via evaporation or disposal via injection well



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**FLOWBACK AND PRODUCED WATER TREATMENT/DISPOSAL**

- **PADEP TDS regulation and "request" create storage volume issues**
- **Options for handling**
  - Injection wells
  - Direct reuse (w/ or w/o mobile treatment)
  - Off-site treatment
  - Treatment for reuse or to disposal levels
    - Evaporation/crystallization
    - Other treatment plants (for reuse only)



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## WATER STORAGE ISSUES

- **Storage of flowback and produced water**
  - On same well pad for reuse (tanks or pits)
  - On another well pad for reuse (tanks/pits)
    - OG-71 Request for approval of alternative waste management practices
  - Centralized impoundment
    - Evaporation, filtered, or not treated?
- **What is "fresh water" for purposes of impoundments**



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## WATER STORAGE ISSUES

000-PR-0008 Rev. 3/0/11  
 PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 BUREAU OF OIL AND GAS MANAGEMENT  
 BUREAU OF WATERWAYS ENGINEERING

### WORKSHEET FOR PERMITTING OF PITS AND DAMS FOR OIL AND GAS OPERATIONS

Complete this form to determine what permits or approvals are necessary for proposed impoundment pits and dams for the development of oil and gas wells. Then complete the appropriate application and submit to the indicated DEP Office.

Dam (DAM) Operator: \_\_\_\_\_ Dam Name: \_\_\_\_\_  
 County: \_\_\_\_\_ Municipality: \_\_\_\_\_ Lat N: \_\_\_\_' \_\_\_\_' \_\_\_\_' Long W: \_\_\_\_' \_\_\_\_' \_\_\_\_'

Stream Name (if located on a stream): \_\_\_\_\_

What Sections of This Form Do I Complete?

**Impoundment Function:**  Inake Dam  Fresh Water Storage  
 Reservoir (Fresh water)  Other: \_\_\_\_\_  
 water (e.g. drilling or fracturing fluids or wastewater) such as AMD or wastewater treatment plant effluent storage

**Fresh Water or Wastewater Impoundment Pit or Dam at a Well Pad:** \_\_\_\_\_  
 Well Pad No.: \_\_\_\_\_ Well Pad Name: \_\_\_\_\_  
**Impoundment at a Well Pad:** \_\_\_\_\_ Complete Section 3



**Fresh Water Storage Dam at a Well Pad:** \_\_\_\_\_ Complete Sections 3 & 4

**Fresh Water Storage Dam Off-Stream:** \_\_\_\_\_ Complete Sections 3, 4, 5 & 7

**Fresh Water Storage Dam Off-Stream that May Store Wastewater in the Future:** \_\_\_\_\_ Complete Sections 4 & 5 as necessary, 7 and 8

**Impoundment at an Existing Well Pad at a Well Location:** \_\_\_\_\_ Complete Section 5 as necessary only

**Impoundment Storage Dam Off-Stream or Off-Stream:** \_\_\_\_\_ Complete Sections 4, 5 as necessary, 7 and 8

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## AIR QUALITY

- **Background**
- **GP-5 and GP-11**
  - Exemptions
  - Status of GP-11
  - Status of GP-5



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**AIR QUALITY**

- **Single Source Determination/Aggregation**
  - Recent EPA developments
  - DEP approach
    - Recent challenges
- **Greenhouse Gas Reporting**
  - PSD and Title V Greenhouse Gas Tailoring Rule



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**MARCELLUS SHALE COMMISSION**

- **Report**
  - To be issued July 22, 2011
  - Highlights



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**QUESTIONS?**



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