

The background features a large, semi-transparent seal of the West Virginia Department of Environmental Protection. The seal is circular with a rope-like border. Inside the border, the text "West Virginia Department of Environmental Protection" is written in a circular path. In the center of the seal is a silhouette of the state of West Virginia.

# **UNDERGROUND INJECTION CONTROL PROGRAM**

**May 15, 2014**

**Gene Smith, Assistant Chief – Permitting  
Office of Oil and Gas**

# SDWA/Primacy

- Requires EPA to promulgate regulations to protect drinking water sources from contamination through underground injection
- Fall under EPA or apply for primacy
- WV Division of Water Resources applied in 1982
- WV Division of Water Resources obtained primacy approval 1983

# UIC Permit Classes

- [Class I](#) - Inject hazardous wastes, industrial liquids, or municipal wastewater beneath the lowermost USDW
- [Class II](#) - Inject brines and other fluids associated with oil and gas production, and hydrocarbons for storage.
- [Class III](#) - Inject fluids associated with solution mining of minerals beneath the lowermost USDW.
- [Class IV](#) - Inject hazardous or radioactive wastes into or above USDWs. These wells are banned unless authorized under a federal or state ground water remediation project.
- [Class V](#) - All injection wells not included in Classes I-IV. In general, Class V wells inject non-hazardous fluids into or above USDWs and are typically shallow, on-site disposal systems. However, there are some deep Class V wells that inject below USDWs
- [Class VI](#) - Inject Carbon Dioxide (CO<sub>2</sub>) for long term storage, also known as Geologic Sequestration of CO<sub>2</sub>

# UIC CODE AND RULE REFERENCES

- W. Va. Code § 22-6
- 35CSR4
- W. Va. Code § 22-11
- 47CSR13
- 40CFR144-146
- 47CFR58
- 47CFR9
- 35CSR1
- 47CSR32

# CURRENT INVENTORY

- Private Brine Disposal = 52
- Commercial Brine Disposal = 17
- Secondary Recovery Wells = 502
- Solution Mining Wells = 21

# NEW UIC APPLICATION PACKAGE

- Began application overhaul – late February , 2014
- Draft completed – April 17, 2014
- Training – April 23, 2014
- Final Completed – May 2, 2014
- Final put on line under “Forms” May 5, 2014
  - <http://www.dep.wv.gov/oil-and-gas/GI/Forms/Pages/default.aspx>

## CHECKLIST FOR FILING A UIC PERMIT APPLICATION

Please utilize this checklist to ensure you have prepared, completed, and enclosed all required documentation and payment to ensure a timely review of your submittal.

Operator			
Existing UIC Permit ID Number		UIC Well API Number	

Office of Oil and Gas Office Use Only	
Permit Reviewer	
Date Received	
Administratively Complete Date	
Approved Date	
Permit Issued	

**Please check the fees and payment included.**

Fees		Payment Type	
UIC Permit Fee: \$500		Check	
Groundwater Protection Plan (GPP) Fee: \$50.00		Electronic	
		Other	

**Please check the items completed and enclosed.**

- Checklist
- UIC-1
  - Section 1 – Facility Information
  - Section 2 – Operator Information
  - Section 3 – Application Information
  - Section 4 – Applicant/Activity Request and Type
  - Section 5 – Brief description of the Nature of the Business
  - CERTIFICATION
  - Section 6 – Construction
    - Appendix A Injection Well Form
    - Appendix B Storage Tank Inventory
  - Section 7 – Area of Review
    - Appendix C Wells Within the Area of Review

- \_\_\_ Appendix D Public Service District Affidavit
- \_\_\_ Appendix E Water Sources
- \_\_\_ Appendix F Area Permit Wells
- \_\_\_ Section 8 – Geological Data on Injection and Confining Zones
- \_\_\_ Section 9 – Operating Requirements / Data
  - \_\_\_ Appendix G Wells Serviced by Injection Well
- \_\_\_ Section 10 – Monitoring
- \_\_\_ Section 11 – Groundwater Protection Plan (GPP)
  - \_\_\_ Appendix H Groundwater Protection Plan (GPP)
- \_\_\_ Section 12 – Plugging and Abandonment
- \_\_\_ Section 13 – Additional Bonding
- \_\_\_ Section 14 – Financial Responsibility
  - \_\_\_ Appendix I Financial Responsibility
- \_\_\_ Section 15 – Site Security Plan
  - \_\_\_ Appendix J Site Security for Commercial Wells
- \_\_\_ Section 16 – Additional Information
  - \_\_\_ Appendix K Other Permit Approvals

***\*NOTE: For all 2D wells an additional bond in the amount of \$5,000 is required.***

Reviewed by (Print Name): \_\_\_\_\_

Reviewed by (Sign): \_\_\_\_\_

Date Reviewed: \_\_\_\_\_



# PERMIT COMPLIANCE

- Read Permit
- Permit effective for 5 years
- 180 days prior to expiration for a reissuance
- Major/Minor Modifications
  - Major: alterations or additions to the permit are considered major
  - Minor: typos, change compliance dates, require more monitoring, change in ownership, quantities of fluid types, etc.
- Appeal Process
- Notice to Chief of significant alterations or changes
- Notice to Chief of any permit non compliance
- Monitoring results (WR-40's monthly)
- All records to be retained by the operator for (3) three years

# MECHANICAL INTEGRITY

- Internal - No significant leak in the casing, tubing or packer
  - Pressure test
  - Monitoring of annulus pressures
- External – No significant fluid movement into a USDW through vertical channels
  - Logs – Bond, temperature, noise, etc.
  - Cement Records
- Retest every five years and submit results on WR-37 for approval