Rethinking Class V Wells: Improving Efficiency and Effectiveness

Presented at: GWPC UIC Conference, Denver, 2016

By: Candace Cady and Brianna Ariotti
Outline

• Class V Research
  • Existing Research
• Priority
  • Existing Priority Documents
• Implementation
  • Existing Implementation Documents
• GWPC Class V Workgroup
  • Purpose
  • Questionnaire
  • Anticipated Outcome
Class V Research
1987 Report to Congress

Was mandated by the 1986 Amendments to the Safe Drinking Water Act, requiring USEPA to submit a report to Congress summarizing State surveys on Class V well injection.

1999 Class V Study

Was conducted to develop background information for USEPA to use in evaluating the risk that these wells pose to underground drinking water supplies and if additional federal regulation was warranted.
Both Documents Revealed:

- **Class V inventory** is large in number, diverse in well type, and variable in geographic distribution around the country.

- **Class V construction** types vary greatly from shallow, ‘low-tech’ designs like ‘rock pits’ to deep, ‘high-tech’ designs approaching those of Class I wells.

- **Class V potential for contaminating** USDWs ranges from low to high.
Both Documents Revealed:

- Class V regulatory authority and systems vary greatly from State to State.

And, quoting from the Executive Summary of the Class V Study:

- “State UIC programs are generally resource-constrained.”
  - “the states are often not able to implement UIC programs as vigorously as they would like”
  - “lack of resources typically manifests itself in a state program that is more reactive than proactive.”
Class V Priorities
Permitting Priorities – 40 CFR 146.9

(a) Injection wells known or suspected to be contaminating USDW

(b) Injection wells known to be injecting fluids containing hazardous contaminants;

(c) Likelihood of contamination of USDW;

(d) Potentially affected population;

(e) Injection wells violating existing State requirements;

(f) Coordination with the issuance of permits required by other State or Federal permit programs;

(g) Age and depth of the injection well; and

(h) Expiration dates of existing State permits, if any.
Class V Enforcement Priorities –
UICP Guidance #62

• Issued April 28, 1988 for use by EPA Regions for Direct Implementation of UIC Program

• Purpose - to offer prioritization scheme for enforcement actions against Class V wells that may adversely affect or imminently and substantially endanger human health.

• Identified for immediate investigation to determine violations - industrial drainage wells, industrial waste disposal wells, motor vehicle facility disposal wells, and EPA Region priority wells.
Class V Enforcement Priorities –
UICP Guidance #62

• Presented screening criteria for prioritizing enforcement action against Class V wells
• Listed available enforcement options – Emergency Administrative Powers, Civil Administrative Order, Civil Judicial Referral, and Criminal Judicial Referral.
UICP Guidance #62 – Screening Criteria

High Priority Class V Wells

Into USDW
- Contaminant $\geq 10 \times HBL$

Above USDW
- Poor Separation
  - Contaminant $\geq 20 \times HBL$
- Good Separation
  - Contaminant $\geq 50 \times HBL$

HBL = Health Based Level

Environmental Fate of Contaminants, Quantity, Hydrogeology, Water Wells within Radius of Influence

High Priority

Division of Water Quality
High Priority MVWDWs and LCCs

December 7, 1999 – EPA Revised Class V Regulations banning Motor Vehicle Waste Disposal Wells (MVWDWs) and Large Capacity Cesspools (LCCs)
Class V Implementation
Some Implementation Documents for MVWDWs
Some Implementation Documents for MVWDWs

EPA

United States
Environmental Protection Agency
Office of Water
(4606)
EPA 816-R-00-008
September 2000

State Implementation Guide

Revisions to the Underground Injection Control Regulations for Class V Injection Wells
Some Implementation Documents for MVWDWs

“This document......may not apply to a particular situation based upon the circumstances. EPA and State decision makers retain the discretion to adopt approaches on a case by case basis that differ from this guidance where appropriate. Any decisions regarding a particular facility will be made based on the applicable statutes and regulations.”
An Embarrassing, Yet Revealing, Personal Experience Regarding Motor Vehicle Waste Disposal Wells
What if we could create a knowledge pool of Class V Subclass-specific information and State regulatory schemes from which all UIC Class V Programs could draw?

- Eliminate redundant research effort.
- States could choose schemes they could customize and integrate into their own regulatory systems.
- Improve overall efficiency and effectiveness of Class V Programs; move us from being reactive to proactive
GWPC Class V Workgroup
GWPC Class V Workgroup Purpose

• GWPC approved the formation of the Class V Workgroup to focus on Class V issues and to interact with EPA as needed but especially on well prioritization issues.
GWPC Class V Workgroup Current Membership

Brianna Ariotti – UtDEQ
Candace Cady, Co-Chair – UtDEQ
Lorrie Council, Co-Chair – TCEQ
Ben Grunewald - GWPC
Sonja Massey - AlabamaDEM
Mary Musick – GWPC
Steve Musick – GWPC
Bryan Smith - TCEQ
Dan Yates - GWPC
Identifying Class V Issues

• First task for the Class V Workgroup is to identify Class V issues
• We have developed a questionnaire that will be discussed in detail at the Class V Open Forum later this afternoon.
• Purpose of questionnaire is to identify the issues Class V regulators are still having in implementing their Class V Program
Anticipated Outcomes

• Based on questionnaire results, develop products that will enable more EFFICIENT and EFFECTIVE implementation of Class V Program!
Questions