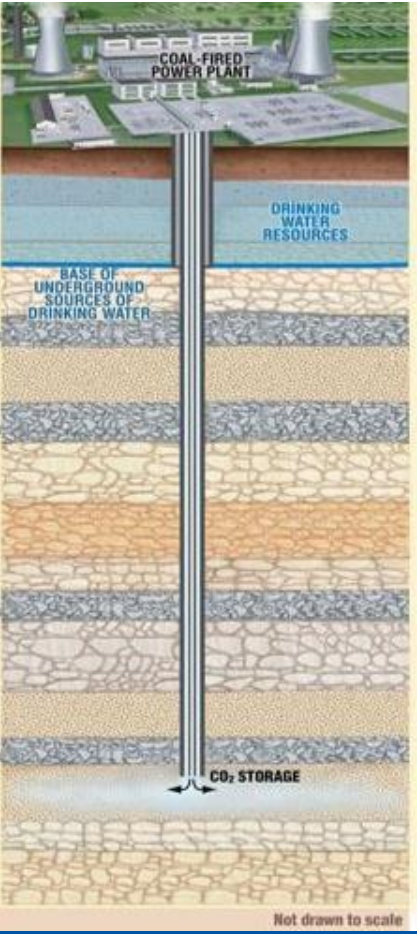
Class VI Update

FECM / NETL Carbon Management Research Project Review Meeting

August 31, 2023

United States Environmental Protection Agency

Office of Water



SDWA and the UIC Program

The Safe Drinking Water Act (SDWA):

- protects public health by regulating the nation's public drinking water supply.
- protects both surface and underground sources of drinking water.

The Underground Injection Control (UIC) program:

- is regulated under SDWA.
- protects underground sources of drinking water (USDWs) from contamination from injection of fluids into the subsurface for disposal or storage.
  - USDWs are aquifers or parts of aquifers that currently are, or in the future could be, a drinking water source.
  - Fluids include water, wastewater, brines produced during oil and gas production, or carbon dioxide (CO_2).

UIC Well Classes and Program Activities

Six UIC Well Classes for Different Types of Fluids

- Class I: Non-hazardous and hazardous wastes
- Class II: Fluids from oil and gas production
- Class III: Fluids to dissolve and extract minerals
- Class IV: Shallow hazardous and radioactive (banned)
- Class V: Nonhazardous wastes into or above USDWs
- **Class VI: Geologic sequestration (GS) of carbon dioxide (CO_2)**

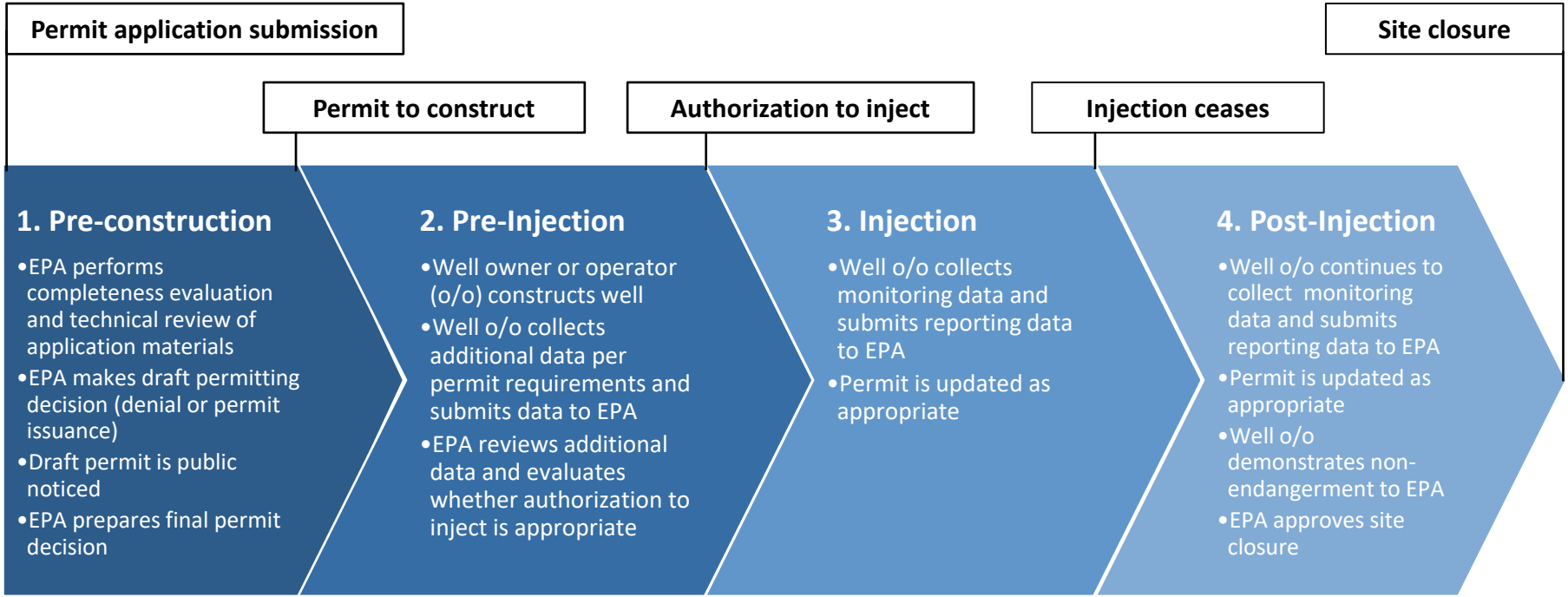
UIC Regulations Cover a GS Project from Start to Finish

- Siting
- Permitting
- Well Construction
- Operations
- Well and Site Closure

Class VI Regulatory Jurisdiction

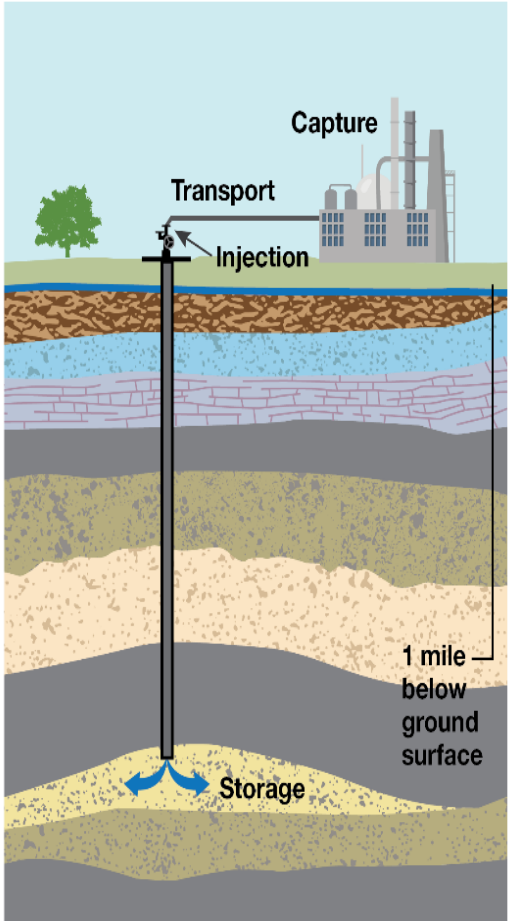
- Class VI regulations only covers a small part of a CCS or CDR project
- Containment of CO_2 for USDW protection also prevents surface leaks, but Class VI does not regulate CO_2 capture, air emissions, or transport
- Applies onshore and offshore in state waters (e.g., not on the outer continental shelf)
- Agnostic to pore space ownership

Class VI Permitting Process



Class VI Permitting

- EPA continues to see an increase in Class VI permitting activity. As of 8/18/23 EPA has received 119 applications across 40 projects.
- EPA aims to review complete Class VI applications and issue permits, when appropriate, within approximately two years. This timeframe is dependent on several factors, including:
  - the complexity of the project
  - the quality and completeness of the submitted application
  - timely responses to Requests for Additional Information
  - number and complexity of Public Comments received



EJ Guidance for UIC Class VI

EPA has developed Environmental Justice Guidance for UIC Class VI Permitting and Primacy to:

- Outline EJ considerations and expectations for UIC well owners/operators and EPA staff;
- Communicate EPA's guidance to states, tribes, and territories that have primacy for UIC programs; and
- Expand upon the tools presented in the Class VI EJ Quick Reference Guide.

PDF download of Memorandum on Environmental Justice Guidance for UIC Class VI Permitting and Primacy

EJ Themes

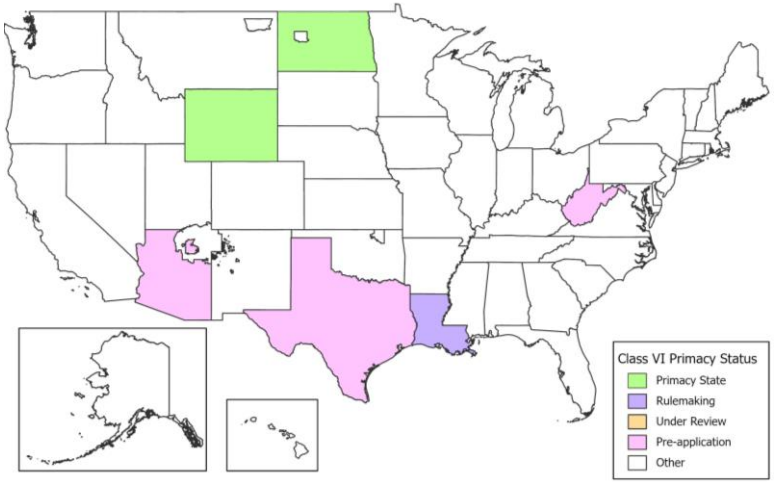
Guidance is organized into five themes representing EJ principles. Themed recommendations vary and are directed to EPA, primacy states, and operators, as applicable.

1. Identify communities with potential EJ concerns
   – Recommendations focus on conducting EJ screening as early in the project as possible.
2. Enhance public involvement
   – Recommendations focus on enhanced outreach and EPA support of community engagement activities.
3. Conduct appropriately scoped EJ assessments
   – For projects identified to have potential EJ concerns, additional EJ analyses are recommended to assess impacts of the project.
4. Enhance transparency throughout the permitting process
   – Recommendations focus on making Class VI application and reporting data available to the public online.
5. Minimize adverse effects to USDWs and the communities they may serve
   – Recommendations include enhanced community engagement during the development of the Emergency & Remedial Response plan and Testing & Monitoring plan to better ensure clear and open lines of communication and coordinated planning.

Class VI Primacy Application Status

Louisiana:

- EPA is currently working through rulemaking and codification for Louisiana's Class VI primacy package.
  - The Agency proposed to approve LA's Class VI application in May 2023 and the public comment period closed in July 2023.
- Since the proposal, LA created a new act that was signed into law.
  - EPA published this new information via a notice of availability (NOA) for a limited 30-day comment period on August 16th.



EPA is also working with Arizona, Texas and West Virginia as they are developing their primacy applications.

Currently Available Resources

- **Permit Application Outline:** An overview of items and associated activities an applicant may complete during the Class VI permit application process. https://www.epa.gov/uic/class-vi-permit-application-outline
- **Permit application templates.** These templates streamline the development and evaluation of applications and submission of reports. https://www.epa.gov/uic/class-vi-permit-application-templates
- **Completeness Review Checklist:** A list of information that must be submitted with a Class VI permit application for that application to be deemed administratively complete by the permitting authority. https://www.epa.gov/uic/class-vi-geologic-sequestration-permit-application-and-permitting-tools##completeness_checklist
- **GS Rules and Tools Crosswalk:** This report, published by DOE's National Energy Technology Lab (NETL) with contributions from EPA, summarizes computational tools and methods that may be used to address specific requirements of the Class VI permit application process. https://www.epa.gov/uic/class-vi-geologic-sequestration-permit-application-and-permitting-tools#RulesAndTools
- **GSDT video tutorials:** EPA has released five GSDT video tutorials to provide an overview of GSDT capabilities as well as technical instructions. https://www.epa.gov/uic/geologic-sequestration-data-tool-gsdt-video-tutorials

Additional Information

For more information on the UIC program, please visit:

EPA UIC Website: https://www.epa.gov/uic

EPA UIC Class VI Website: https://www.epa.gov/uic/class-vi-wells-used-geologic-sequestration-carbon-dioxide

EPA UIC Fact Sheet: https://www.epa.gov/sites/default/files/2020-04/documents/uic_fact_sheet.pdf

Who to contact with questions:

For general UIC questions, email: safewater@epa.gov

For Class VI questions, email: UIC-ClassVI@epa.gov

For GSDT Questions, email: GSDataTool@epa.gov