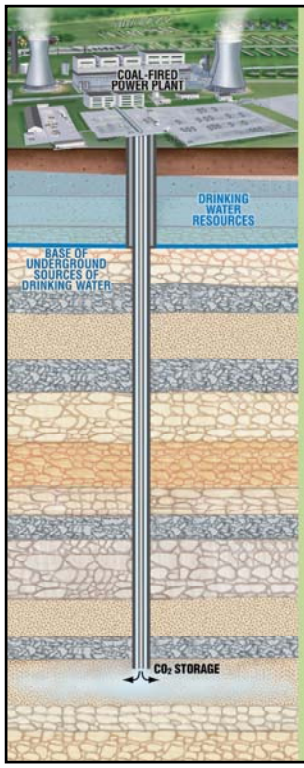
United States
Environmental Protection
Agency



Underground Injection Control Geologic Sequestration Rule Training Workshop: Primacy for Class VI Programs

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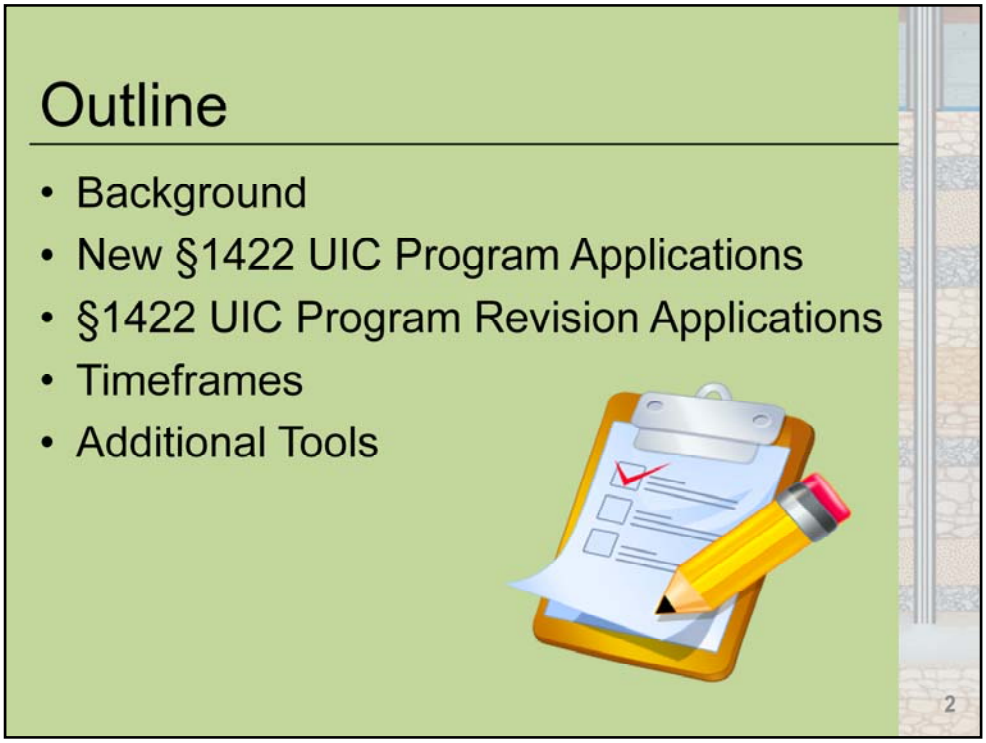
This presentation provides information on applying for UIC Class VI Program primacy. The intended audience is mainly states, Indian tribes, and U.S. territories. Throughout this presentation, the terms “state” and “states” are used to refer to every type of primacy entity that may implement the UIC Program, including states, Indian tribes, U.S. territories, and EPA Regional offices directly implementing UIC programs on behalf of the state (DI Program).

The GS Rule can be found at 75 FR 77230.



This presentation is divided into 5 sections:

1. Background – This section will provide background information on Class VI primacy, including EPA's mandates and authorities.

2. New §1422 UIC Program applications – This section will provide information for states that are submitting a New §1422 UIC Program primacy application for a Class VI program.

3. §1422 UIC Program Revision applications – This section will provide information for states that are submitting a §1422 UIC Program Revision application to add Class VI to an existing §1422 UIC Program.

4. Timeframes – This section provides information on timeframes for applying for Class VI primacy based on the publication date of the GS Rule and applying for Class VI permits.

5. Additional tools – This section provides information on tools available to states, tribes, and U.S. territories applying for Class VI primacy.

Acronyms

CCS	Carbon Capture and Storage
CFR	Code of Federal Regulations
CO_2	Carbon Dioxide
EPA	Environmental Protection Agency
DI	Direct Implementation
GS	Geologic Sequestration
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
RA	Regional Administrator (EPA)
SDWA	Safe Drinking Water Act
UIC	Underground Injection Control
USDW	Underground Source of Drinking Water

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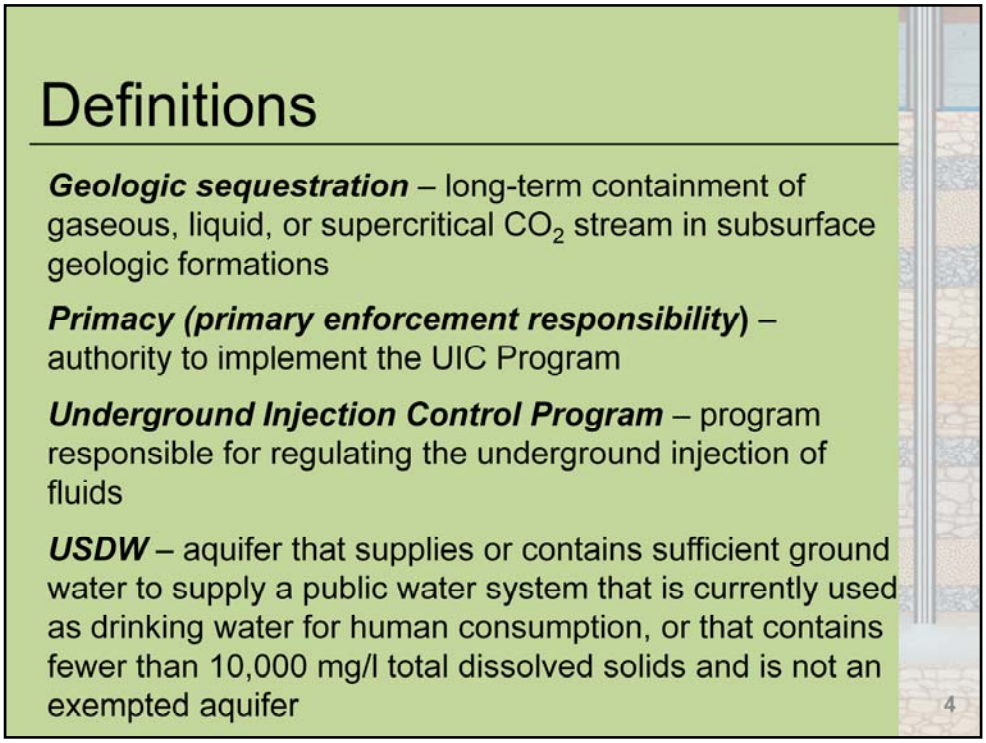
Acronyms used in this presentation of the GS Workshop include:

CCS: Carbon Capture and Storage
CFR: Code of Federal Regulations
CO_2: Carbon Dioxide
EPA: Environmental Protection Agency
DI: Direct Implementation
GS: Geologic Sequestration
MOA: Memorandum of Agreement
MOU: Memorandum of Understanding
RA: Regional Administrator (EPA)
SDWA: Safe Drinking Water Act
UIC: Underground Injection Control
USDW: Underground Source of Drinking Water



Geologic sequestration: the long-term containment of a gaseous, liquid, or supercritical carbon dioxide stream in subsurface geologic formations. This term does not apply to carbon dioxide capture or transport.

Primacy (primary enforcement responsibility): the authority to implement the UIC Program. To receive primacy, a state, territory, or tribe must demonstrate to EPA that its UIC program is *at least as stringent* as the federal standards; the state, territory, or tribal UIC requirements may be more stringent than the federal requirements. (For §1425 Class II UIC programs, states must demonstrate that their programs *are effective* in preventing pollution of USDWs.)

Underground Injection Control Program: the program that EPA, or an approved state, is authorized to implement under the Safe Drinking Water Act (SDWA) that is responsible for regulating the underground injection of fluids. This includes setting the minimum federal requirements for construction, operation, permitting, and closure of underground injection wells.

Underground Source of Drinking Water (USDW): an aquifer or portion of an aquifer that supplies any public water system or that contains a sufficient quantity of ground water to supply a public water system, and currently supplies drinking water for human consumption, or that contains fewer than 10,000 mg/l total dissolved solids and is not an exempted aquifer.

Background

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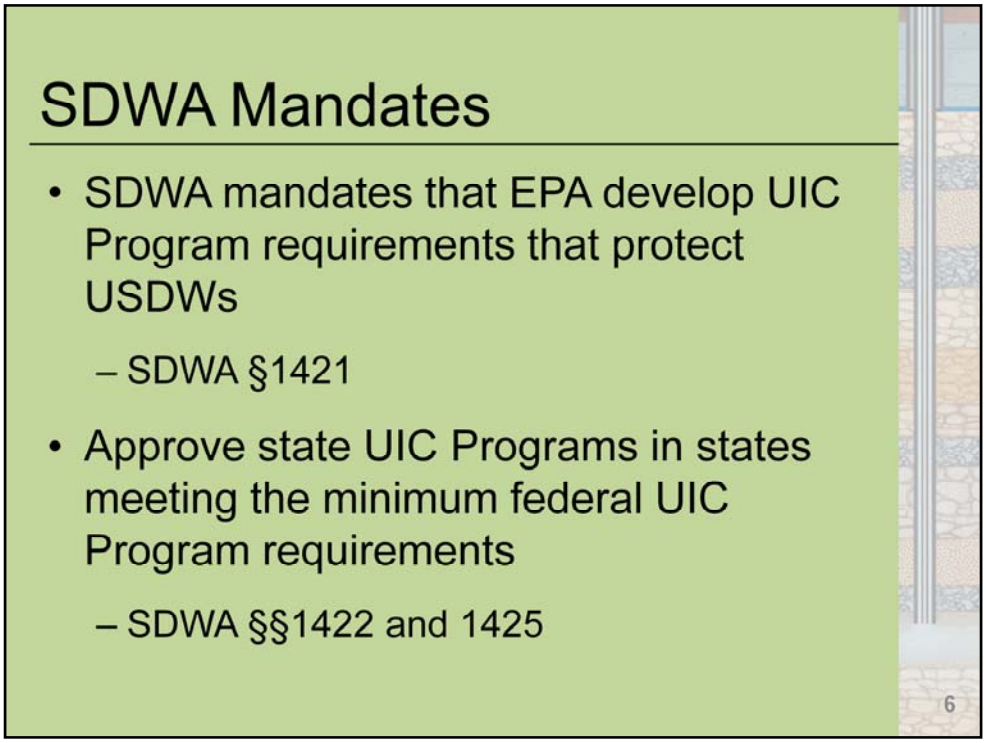
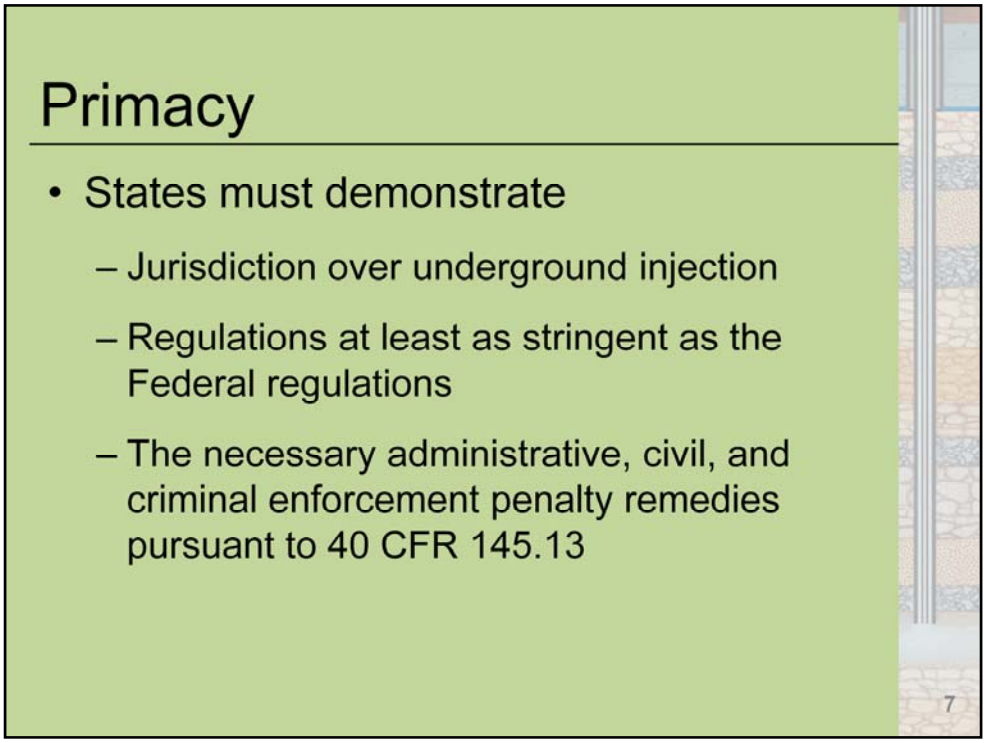
This section of the presentation will provide background information on Class VI primacy, including EPA's mandates and authorities.



The Safe Drinking Water Act (SDWA) mandates that EPA develop UIC Program requirements that protect underground sources of drinking water (USDWs) from endangerment. SDWA §§1422 and 1425 authorize EPA to approve State UIC Programs (grant primary enforcement responsibility (primacy) for states that develop programs meeting the minimum federal UIC Program requirements (SDWA §1421(b) and 40 CFR Parts 144-146 and 148). States with an approved UIC Program take full implementation and enforcement responsibility.



To be granted primacy, states must, in general, demonstrate to EPA that the state has jurisdiction over underground injection; regulations at least as stringent as federal regulations; and necessary administrative, civil, and criminal enforcement penalty remedies pursuant to 40 CFR 145.13. The specific requirements for Class VI primacy are discussed throughout the remainder of this presentation.

Two Approaches to UIC Primacy

- Approach 1: SDWA §1422
  - Applies to all UIC injection well classes
  - Proposed UIC Program meets statutory requirements of SDWA §1421
  - State program requirements are at least as stringent as federal requirements

Under SDWA §1422 (which applies to all classes of UIC wells), states must demonstrate that their proposed UIC Program is at least as stringent as the federal requirements (SDWA §1421 and 40 CFR Parts 144-146, and 148) to prevent underground injection that endangers USDWs.

Two Approaches to UIC Primacy

- Approach 2: SDWA §1425
  - Applies to Class II wells only
  - Proposed Class II program is an effective program to prevent underground injection that endangers USDWs

States seeking primacy under SDWA §1425 (Class II wells only) must demonstrate that their proposed Class II program is an effective program to prevent underground injection that endangers USDWs.

Authority to Regulate Class VI Wells

- Statutory authority to regulate Class VI wells comes from SDWA §1422
- States must make a satisfactory showing of either:
  - Development of a new state §1422 UIC Program for Class VI wells, or a
  - Revision of an existing state §1422 UIC Program to include Class VI wells
- Either a state's new program or program revision must be at least as stringent as the federal requirements of 40 CFR Parts 124, 144-146

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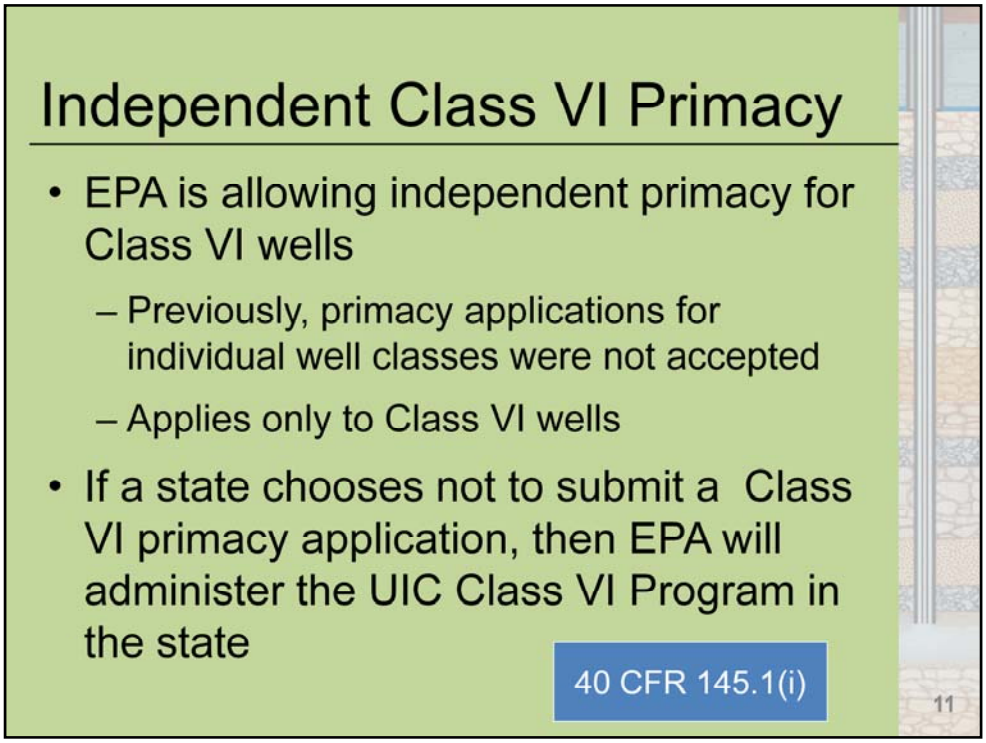
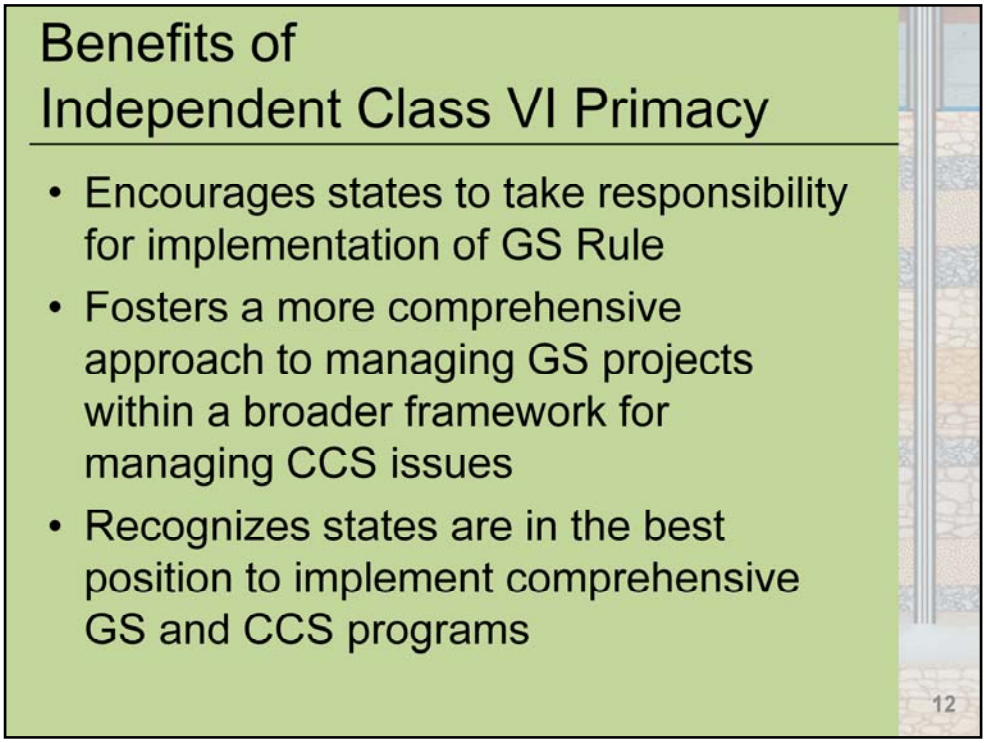
Since §1425 only applies to Class II wells, primacy applications for Class VI wells must be evaluated under §1422. Thus, states must follow the statutory requirements under SDWA §1422 and regulatory requirements under 40 CFR Parts 124, and 144-146 to obtain Class VI primacy from EPA. To meet these requirements, a state, in its UIC Class VI primacy application, must demonstrate that it has either:

1. Developed a New UIC Program for Class VI wells in accordance with SDWA §1422 that is at least as stringent as the federal requirements found in 40 CFR Parts 124, 144-146; or,

2. Revised its existing UIC Program to include Class VI wells in accordance with SDWA §1422 that is at least as stringent as the federal requirements found in 40 CFR Parts 124 and 144-146.



Under the GS Rule [40 CFR 145.1(i)], EPA will allow states to apply for independent primacy for Class VI wells under SDWA §1422. Thus, states without UIC primacy, or states with only SDWA §1425 primacy for Class II wells, can apply for independent primacy for Class VI wells under SDWA §1422. If a state chooses not to apply for Class VI primacy, then the EPA Regional office will administer the Class VI Program in the state.

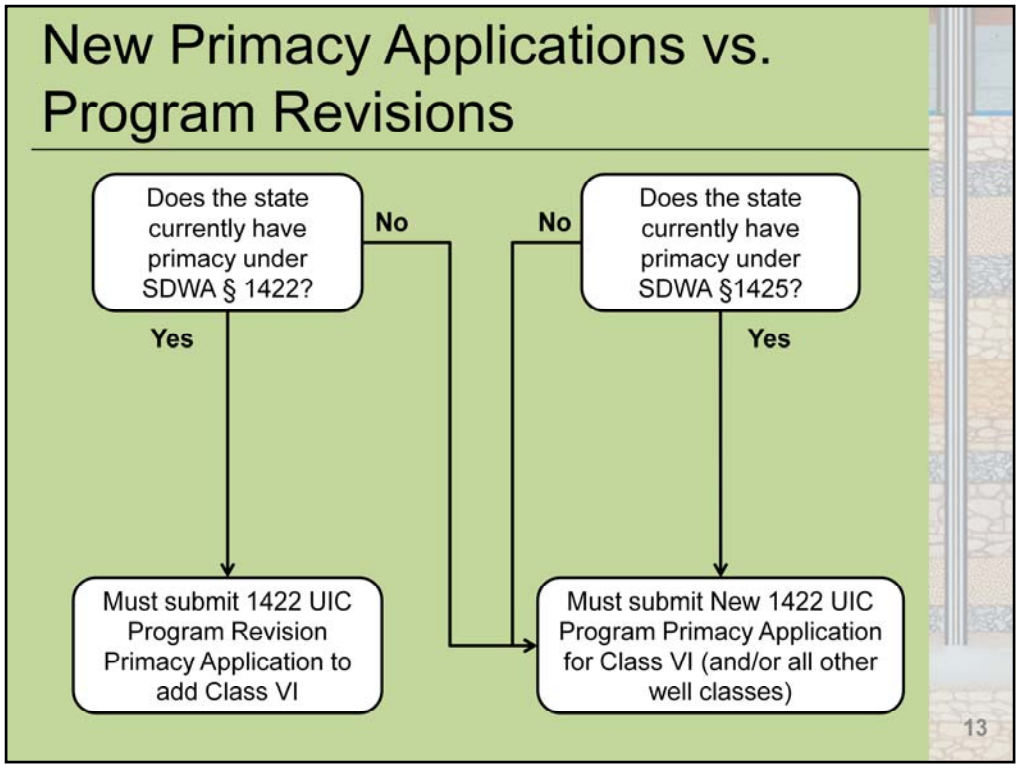


Allowing independent primacy for Class VI wells may encourage states to obtain Class VI primacy and to develop a more comprehensive approach to managing GS projects and integrate carbon capture and storage (CCS) issues, which may be outside the scope of the SDWA.

In light of national priorities for promoting climate change mitigation strategies and Administration priorities for developing and deploying CCS projects in the next few years, it is important to have enforceable Class VI regulations in place nationwide as soon as possible.

A clear, nationally-consistent deadline will avoid potential confusion that may arise if some states have approved Class VI Programs and others do not.

At the same time, EPA recognizes that states are in the best position to implement comprehensive GS and CCS programs in their states. Allowing states to apply only for Class VI primacy may also shorten the primacy approval process.



This chart shows the path that a state must take to obtain Class VI primacy.

States that currently do not have primacy under SDWA Section 1422 must submit a new primacy application to gain primacy for Class VI wells – either independently or along with primacy for other injection well classes. This would include states that only have Class II primacy under Section 1425; these states must submit a new primacy application to gain primacy for Class VI wells.

States that currently have primacy under SDWA Section 1422 must apply for a program revision to include Class VI in their primacy programs. EPA considers all Class VI primacy applications to be substantial revisions of a state's Section 1422 program, and federal rulemakings will be needed to add Class VI to a state's UIC program.

Although the requirements for new primacy applications and program revisions are in different subparts of 40 CFR Part 145, the primacy application and review process for each is largely the same. The differences in the review process will be highlighted in this presentation.

Pre-Application

- EPA encourages states to contact EPA (HQ or Regions) for pre-application discussions
  - Ensures complete applications
  - Aids in understanding requirements
  - Speeds up review and approval process

EPA encourages states interested in applying for UIC Class VI primacy, either independently (new §1422 UIC program) or by revising their current §1422 UIC Program to include Class VI injection wells, contact EPA (Headquarters and Regional Offices) to schedule “pre-application” discussions.

States may also want to contact EPA to clarify Class VI primacy application requirements or Class VI program requirements to ensure complete and accurate application submissions that can assist EPA in conducting a faster review and approval process.

New §1422 UIC Program Primacy Application

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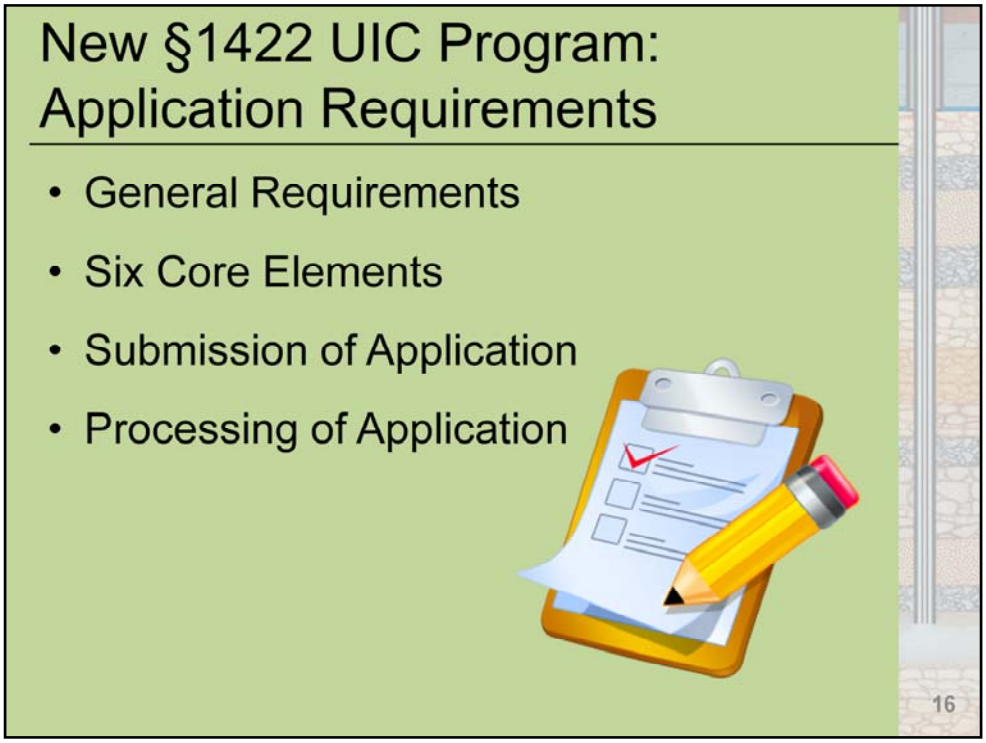
This section of the presentation will provide information for states that are submitting a New §1422 UIC Program primacy application for Class VI wells.

States without primacy or with §1425 primacy for Class II wells only must submit a New §1422 UIC Program primacy application for Class VI primacy. The §1422 primacy application can be for Class VI only or for all UIC well classes.

The same application process will be followed for these states whether they are applying for full §1422 UIC primacy (e.g., primacy for all existing classes of UIC wells) or for independent primacy for Class VI wells only.

40 CFR Part 145 specifies the primacy application submission requirements, as well as the procedures EPA will follow when approving, revising, and/or withdrawing state programs under SDWA §1422. The CFR can be found on the Internet at: www.gpoaccess.gov/cfr/index.html.

The Class VI specific requirements can be found at 75 FR 77230, or on the Internet at: http://federalregister.gov/a/2010-29954.



The following slides will discuss the application requirements for §1422 UIC program primacy:

- General requirements
- Six core elements
- Submission of New §1422 Class VI Primacy Application
- Processing of Application

New §1422 UIC Program: General Requirements

- The necessary administrative, civil, and criminal enforcement penalty remedies pursuant to 40 CFR 145.13
- State regulations that are at least as stringent as federal requirements for:
  - Permitting [40 CFR 145.11 refers to 124]
  - Inspection and compliance monitoring [40 CFR 145.12]
  - Reporting and recordkeeping [40 CFR 144.54 and 146.91]

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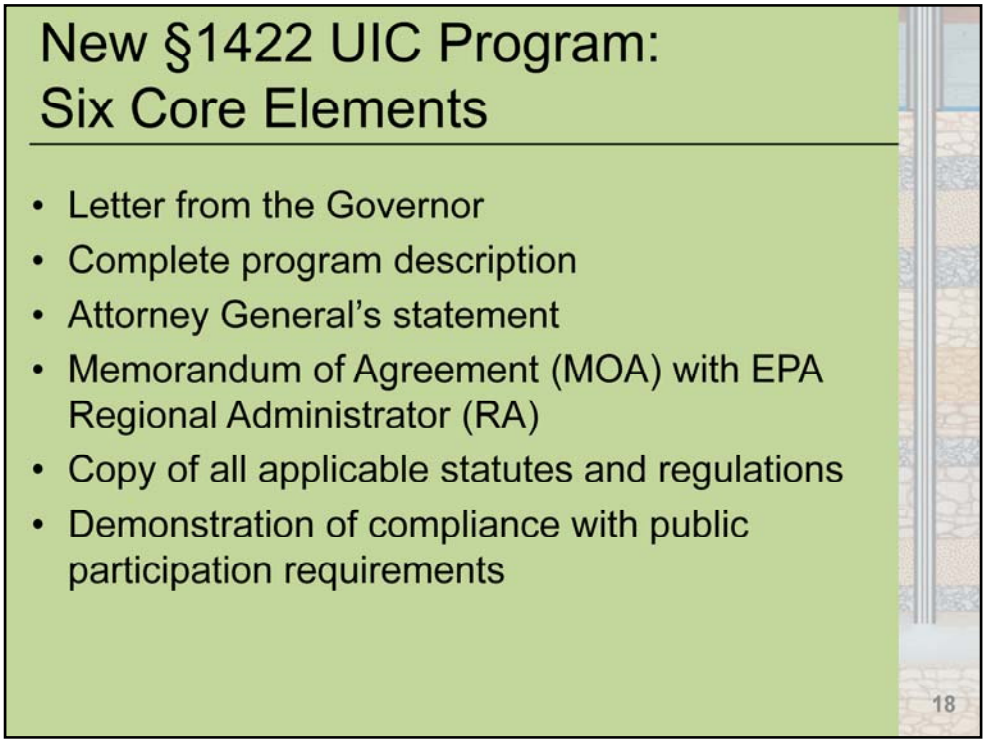
In accordance with 40 CFR 145.11, 145.12, and 145.13, a new state §1422 UIC Program must include certain substantive provisions in order for EPA to approve it. In the primacy application, a state must demonstrate that the state has:

- The necessary administrative, civil, and criminal enforcement penalty remedies pursuant to 40 CFR 145.13.
- Regulations that are at least as stringent as those promulgated by EPA (e.g., permitting, inspection, operation, monitoring, and recordkeeping requirements).
  - Permitting requirements are found in 40 CFR 145.11 (including public notification requirements found in 40 CFR 124).
  - Inspection and compliance monitoring requirements are found in 40 CFR 145.12.
  - Reporting and recordkeeping requirements are found in 40 CFR 144.54 and 146.91 for Class VI wells.



Under 40 CFR Part 145, states seeking Class VI primacy under SDWA §1422 through a New §1422 UIC Program must submit to EPA the following six core primacy application elements:

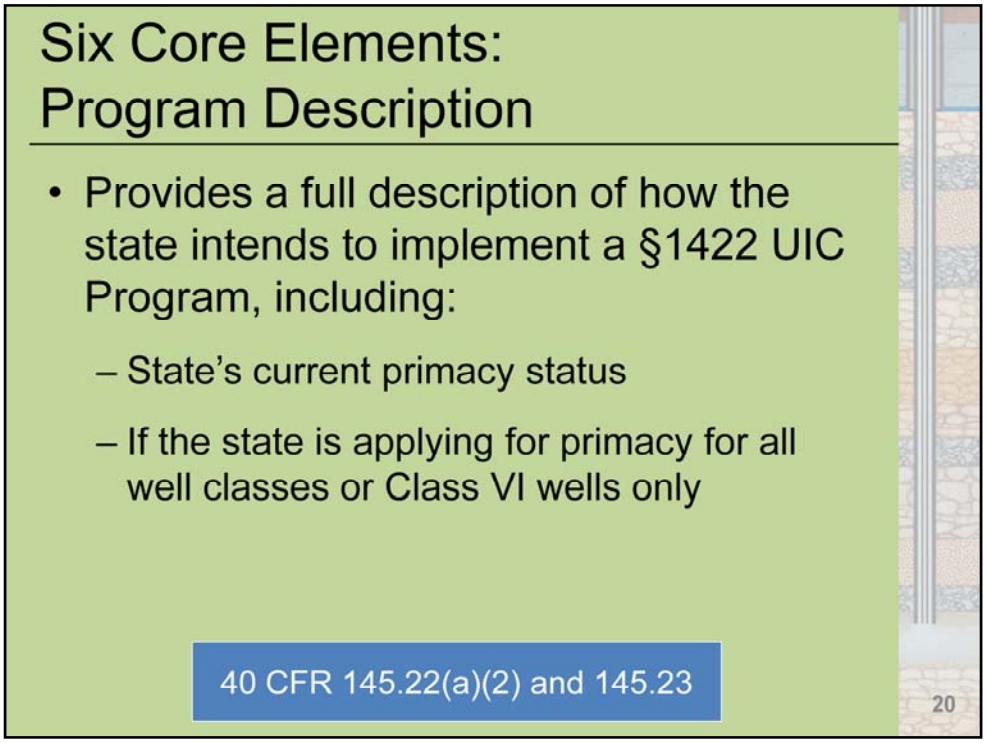
1. A letter from the Governor of the State requesting program approval [40 CFR 145.22(a)(1)];
2. A complete program description describing how the State intends to carry out its responsibilities [40 CFR 145.22(a)(2) and 40 CFR 145.23];
3. An Attorney General's statement [40 CFR 145.22(a)(3) and 40 CFR 145.24];
4. A Memorandum of Agreement with the Regional Administrator [40 CFR 145.22(a)(4) and 40 CFR 145.25];
5. A copy of all applicable state statutes and regulations, including those governing State administrative procedures [40 CFR 145.22(a)(5)]; and,
6. A demonstration of compliance with the public participation requirements [40 CFR 145.22(a)(6)].

Six Core Elements: Letter from the Governor

- Requests approval of the state's UIC program for primacy
- Specifies that approval is sought under SDWA §1422
- Affirms that the state is willing and able to carry out the UIC program described

40 CFR 145.22(a)(1)

The UIC primacy application includes a letter from the Governor of the state requesting program approval for primacy. The letter also must specify that approval is sought under SDWA §1422 and affirm that the state is willing and able to carry out the program described in the application.



A state applying for primacy for Class VI must include a program description with its application. 40 CFR 145.23 lists all of the information that must be included in the program description.

Some of the required program description information will not be applicable to states submitting an application for independent primacy for Class VI wells only [e.g., 40 CFR 145.23(f)(5)-(6) and (10)-(12)]. Therefore, the information a state is required to include in the program description will depend on:

- A state's current primacy status (i.e., no primacy authority or SDWA §1425 primacy for Class II wells only); or,
- If the state is applying for primacy for all well classes under SDWA §1422 or independent primacy for Class VI wells only.

Six Core Elements: Program Description

- Description in narrative form of the scope, structure, coverage, and processes of the state program [40 CFR 145.23(a)]
- Description of the organization and structure of the state agency(ies) administering the program [40 CFR 145.23(b)]
  - Program staff
  - Organization charts
  - Estimated costs and sources of funding for program's first two years

Narrative is required by 40 CFR 145.23(a).

Description of organization structure is required by 40 CFR 145.23(b).

Six Core Elements: Program Description

- If the program is divided between two or more state agencies, each agency must have
  - Statewide jurisdiction over administered activities
  - A Memorandum of Understanding (MOU) in place (See Appendix D of the Draft Class VI PAIM)
- Program description must describe each agency's responsibilities and coordination procedures

EPA recognizes that states may choose to include in their UIC primacy application a UIC Program that is administered by multiple agencies. For example, the state oil and gas agency could either exercise authority for the Class VI Program through a Memorandum of Understanding (MOU) with the Class VI primacy agency, or primacy for the entire Class VI Program could reside with the state oil and gas agency.

Under 40 CFR 145.23, if more than one agency will have authority for the program, each agency must have statewide jurisdiction over each class of activity that will be administered, and the program description must set out the responsibilities of each agency and the procedures for coordination.

The MOU provides an operating agreement for state agencies to execute their respective responsibilities concerning regulation of Class VI wells. A sample MOU between two state agencies is included in the UIC Program Class VI Primacy Application and Implementation Manual (PAIM) Appendix D. The example MOU can be modified if the agencies will share responsibilities for other classes of wells.

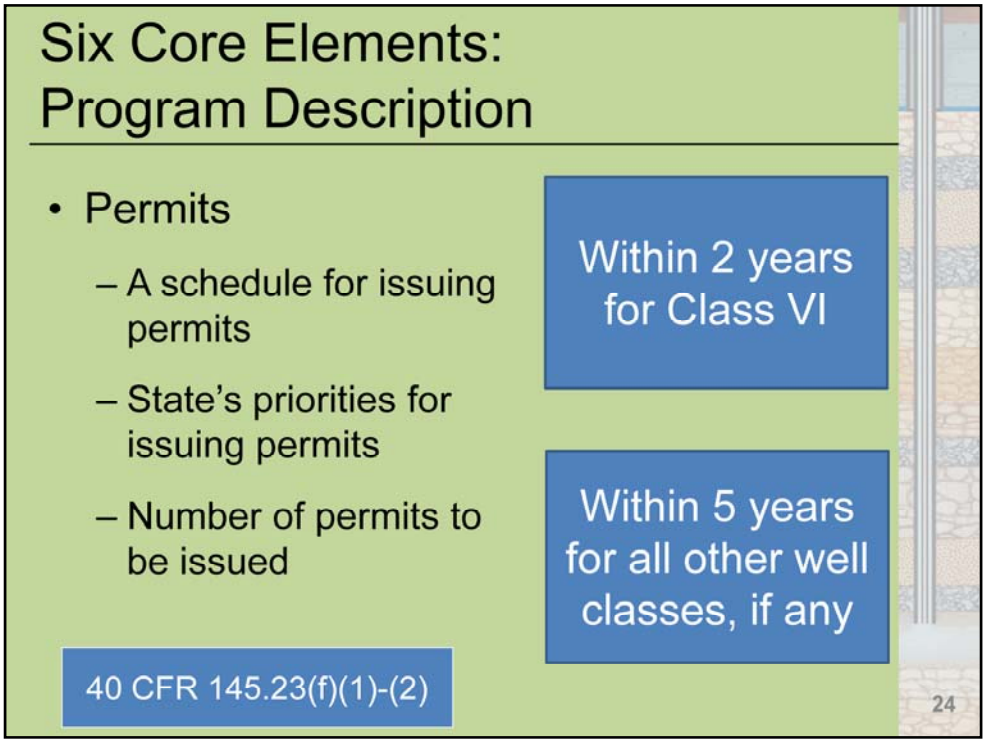
Six Core Elements: Program Description

- Description of applicable state procedures, including permitting procedures and any state administrative or judicial review procedures [40 CFR 145.23(c)]
- Copies of the permit form(s), application form(s), reporting, and manifest format the state intends to employ in its program (if any) [40 CFR 145.23(d)]
- Description of the state's compliance tracking and enforcement program [40 CFR 145.23(e)]

A description of permitting, administrative, and judicial review procedures is required by 40 CFR 145.23(c)

For Class VI Programs, the state can submit copies of the current permit, application, reporting, and manifest forms in use by the state, if any [40 CFR 145.23(d)].

A description of the state's compliance tracking and enforcement program is required by 40 CFR 145.23(e).



As required by 40 CFR 145.23(f)(1) & (2), for Class VI Programs, the program description must include a schedule for issuing permits within two years after program approval, and a statement of the state's priorities for issuing Class VI permits and the number of permits that will be issued during the first two years of program operation.

For all other well classes, if any, states must include a description of the priorities (according to criteria set forth in 40 CFR 146.9) for issuing permits, including the number of permits in each class of UIC well that will be issued each year during the first five years of program operation.

Six Core Elements: Program Description

- Mechanical integrity testing (MIT)
  - Description of how the state will meet MIT requirements [40 CFR 145.23(f)(3)]
  - Frequency of testing and number of tests that will be reviewed by the UIC Program Director each year [40 CFR 146.89]
- UIC Well Inventory
  - How the state will establish and maintain an UIC well inventory [40 CFR 145.23(f)(7)]

The requirement for a description of how the state will meet mechanical integrity testing (MIT) requirements is at 40 CFR 145.23(f)(3).

For Class VI wells, the program description must include a description of how the state will meet the new MIT requirements of 40 CFR 146.89, including the frequency of testing that will be required and the number of tests that will be reviewed by the UIC Program Director each year.

For any other well classes, states must include a description of how the state will meet the existing mechanical integrity requirements of 40 CFR 146.8.

Also, states are required by 40 CFR 145.23(f)(7) to include a description of how the state will establish and maintain an UIC well inventory.

Six Core Elements: Program Description

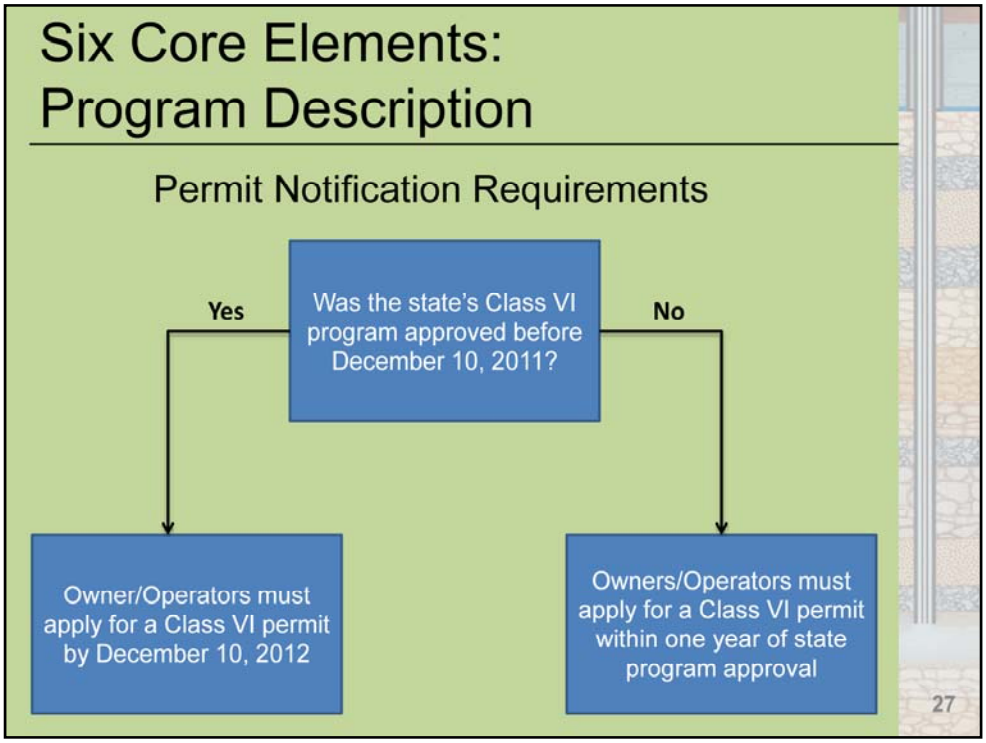
- Permit Notification Requirements [40 CFR 145.23(f)(4)]
- For Class VI wells [GS Rule 145.23(f)(4)] include a description of the notification procedure for how the Director will notify owners and operators of:
  - Class I wells previously permitted for GS to apply for, and obtain, a Class VI permit, or
  - Class V experimental technology wells continuing to inject for GS to apply for, and obtain, a Class VI permit

40 CFR 145.23(f)(4) requires states to include in their UIC program descriptions a description of the state's procedures to notify owners and operators of UIC wells of the requirement that they apply for and obtain a permit.

This notification must require well owners and operators to file a permit application as soon as possible, but no later than 4 years after program approval for all UIC wells requiring a UIC permit.

For Class VI wells, 75 FR 77230; 40 CFR145.23(f)(4) requires states to include in their UIC program description a description of any Class I well previously permitted for geologic sequestration or any Class V experimental technology wells that are no longer experimental but will continue to inject carbon dioxide for GS that they must apply for a Class VI permit.

As shown on the next slide, the length of time the owner or operator has to apply for a Class VI permit will depend on when the state receives primacy for the Class VI program.



For Class VI wells, if the Class VI program is approved before December 10, 2011, the state must describe its procedures for notifying owners and operators of any Class I well previously permitted for geologic sequestration, or any Class V experimental technology wells that are no longer experimental but will continue to inject carbon dioxide for GS, that they must apply for a Class VI permit by December 10, 2011.

For Class VI programs approved after December 10, 2011, the state must describe it's procedures for notifying the Class I and Class V well owners and operators, as described above, that they must apply for a Class VI permit within one year of state program approval [40 CFR 145.23(f)(4) and 145.23(f)(4)].

Six Core Elements: Program Description

- Interstate coordination notification
  - Procedures for notifying states, tribes, and territories when a proposed area of review crosses jurisdictional boundaries
  - Procedures for documenting consultations [GS Rule 145.23(f)(13)]
  - See Appendix I
- Identification and description of designated underground sources of drinking water in the state [40 CFR 145.23(f)(8)]

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Because Class VI operations are likely to have larger Area of Reviews (AoRs) that may cross jurisdictional boundaries and necessitate transboundary coordination, for Class VI Programs, the program description must include a description of the state's procedures for notifying any states, tribes, and territories of Class VI permit applications where the AoR crosses jurisdictional boundaries, and the procedures for documenting these consultations.

An example of a Interstate Coordination letter is included in the UIC Program Class VI PAIM in Appendix I.

A description and identification of all designated underground sources of drinking water.

Six Core Elements: Program Description

- Aquifer Exemption (for Class VI only) [40 CFR144.7(d) and 145.23(f)(9)]
  - Information related to any EPA approved exemptions expanding the areal extent of existing aquifer exemptions
  - Class II wells transitioning to Class VI
  - Summary of supporting data
  - Specific location of the aquifer exemption expansions

75 FR 77230; 40 CFR 145.23(f)(9) requires states to incorporate information related to any EPA approved exemptions expanding the areal extent of existing aquifer exemptions for Class II EOR/EGR wells transitioning to Class VI injection pursuant to requirements at 40 CFR 146.4(d) and 144.7(d).

States must also include a summary of supporting data and the specific location of the aquifer exemption expansions.

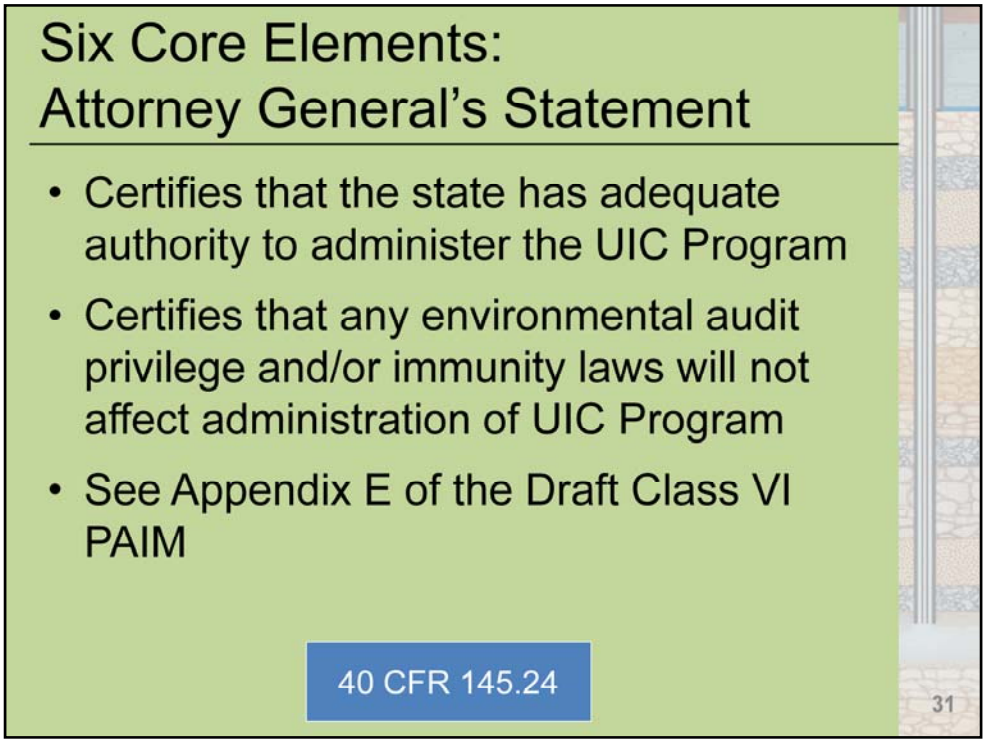
Six Core Elements: Program Description

- Additional Information
  - Aquifer Exemptions
  - Injection Depth Waivers
  - Financial Responsibility Requirements

The GS Rule provides states with certain flexibilities to develop a Class VI Program that addresses unique characteristics within the state, the program description may need to include additional information.

For example, the GS Rule provides the UIC Program Director with certain discretion including options to issue injection depth waivers or aquifer exemptions. If the state chooses to exercise this discretion, these waivers and exemptions need to be described in the state's program description [40 CFR 145.23(f)(9)].

In addition, EPA encourages states to include information on how the state is going to implement the financial responsibility requirements of the GS Rule in their program description.



An Attorney General's statement is required by 40 CFR 145.24.

This statement is a certification by a qualified representative of the state, asserting that the state's statutes, regulations, and judicial decisions demonstrate adequate authority to administer the UIC Program.

It also certifies that the state either does not have environmental audit privilege and/or immunity laws, or if there are environmental audit privilege and/or immunity laws, these laws will not affect the ability of the state to meet enforcement and information gathering requirements under the SDWA.

An example Attorney General's Statement is included in Appendix E of the UIC Program Class VI Primacy Application Implementation Manual (PAIM).

Six Core Elements: Memorandum of Agreement with EPA Regional Administrator

- Is a central agreement that sets out the provisions and arrangements between the state and EPA
- Includes provisions for:
  - The transfer from EPA to the state of pending permit applications
  - Specifying classes and categories of permits that the state will send to the RA for review
- See Appendix C of the Draft Class VI PAIM

40 CFR 145.25

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A Memorandum of Agreement (MOA) with the EPA Regional Administrator (RA) is required by 40 CFR 145.25. The MOA is the central agreement setting out the provisions and arrangements between the state and EPA. The MOA describes the administration, implementation, and enforcement of the state's UIC Program.

An example MOA is included as Appendix C in the PAIM. The MOA can be revised or amended based on the specific circumstances of the agreement (e.g., agreement for the transfer of permits) between the state and EPA.

The MOA includes provisions for :

- The prompt transfer from EPA to the state of pending permit applications not already in the possession of the State Director.
- Specifying classes and categories of permit applications, draft permits, and proposed permits that the state will send to the RA for review, comment and, where applicable, objection.

Six Core Elements: Memorandum of Agreement with EPA Regional Administrator

- Includes provisions for (cont'd):
  - Specifying the frequency and content of reports, documents and other information which the state is required to submit to EPA
  - State's compliance monitoring and enforcement program
  - Joint processing of permits by the state and EPA
  - Provisions for modifying the MOA

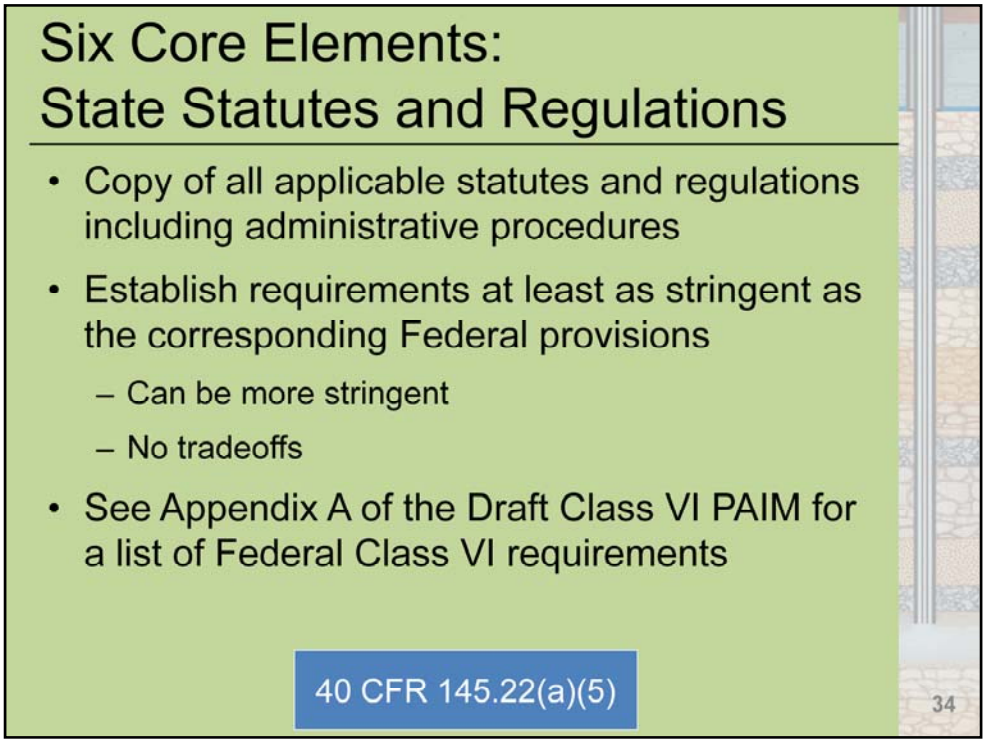
The MOA includes:

•Specifying the frequency and content of reports, documents and other information which the state is required to submit to EPA.

•Provisions on the state's compliance monitoring and enforcement program.

•When appropriate, provisions for joint processing of permits by the state and EPA.

•Provisions for modification of the MOA.

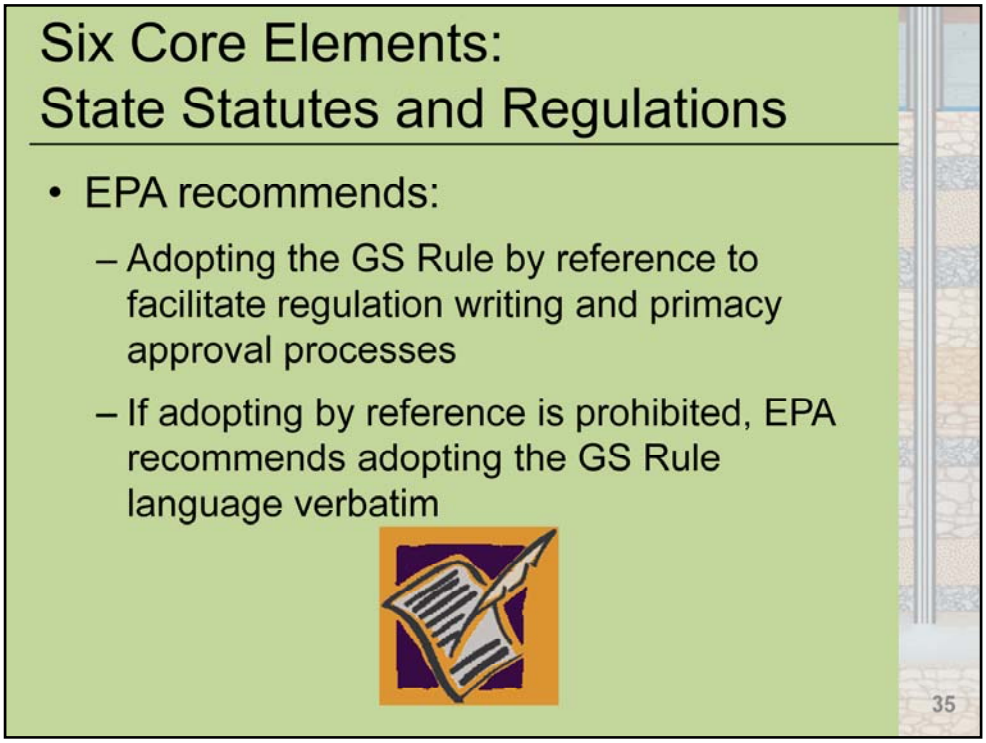


40 CFR 145.11(b)(1) says that "states need not implement provisions that are identical to the provisions listed in paragraphs (a)(1) through (a)(32) of this Section. Implemented provisions must, however, establish requirements at least as stringent as the corresponding listed provisions.

While states may impose more stringent requirements they may not make one requirement more lenient as a tradeoff for making another requirement more stringent."

If the state's provisions differ from Federal requirements, the state should explain in the Federal/State Regulatory Comparison Crosswalk, included in Appendix A of the PAIM, how its requirements are no less stringent than the Federal requirements. Completing the Crosswalk will facilitate EPA's evaluation of the differences between the state requirements and the federal requirements.

In its primacy application, the state must include a copy of all applicable statutes and regulations (including those governing state administrative procedures).

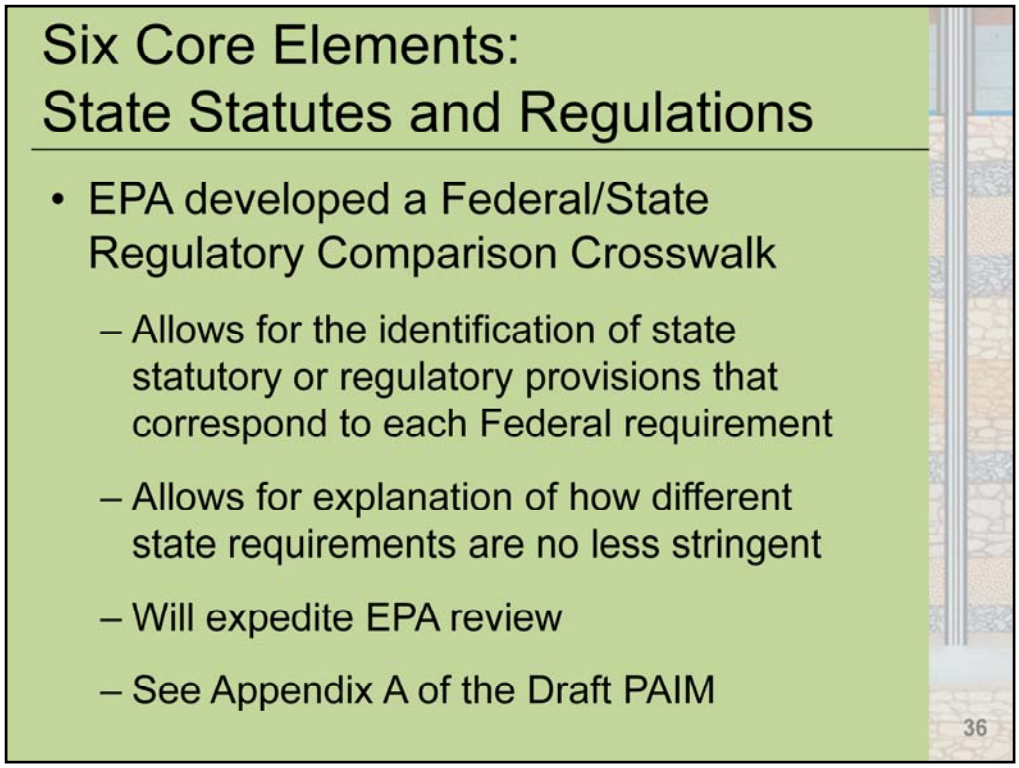


The requirements and provisions of a state's program do not need to be identical to the Federal provisions; however, each requirement must be at least as stringent as the corresponding Federal provision.

EPA is aware that several states have published GS regulations, and several more are in the process of developing their statutory and regulatory authorities.

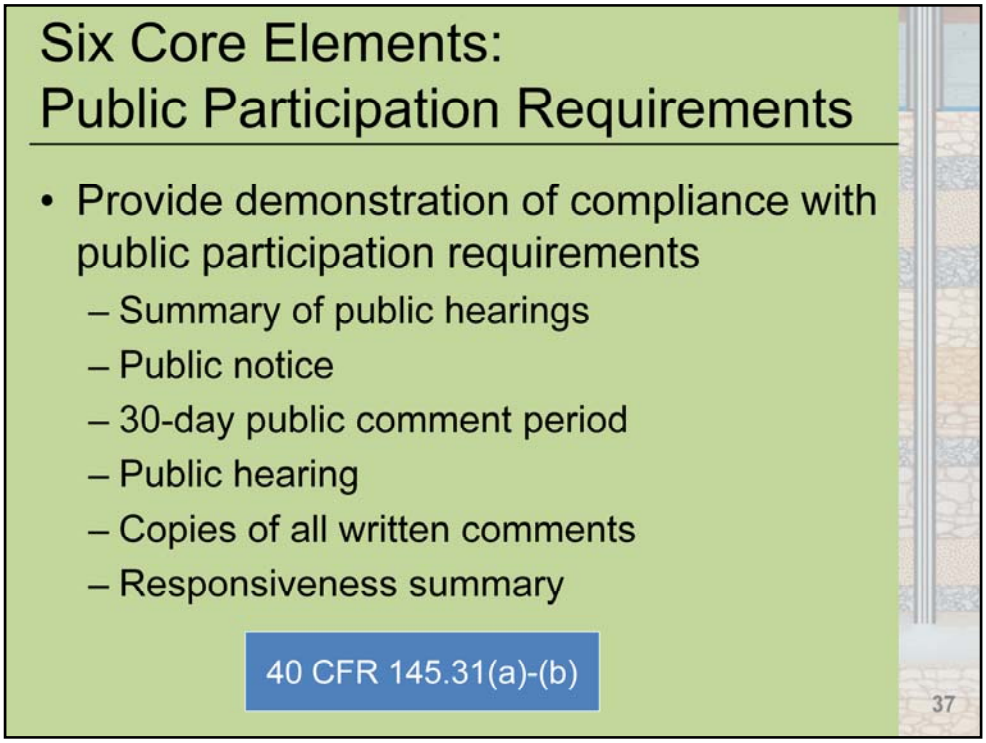
EPA recognizes the complexity and importance of the states' approaches to managing GS and is aware that states are in various stages of developing statutory frameworks, regulations, technical guidance, and strategies for addressing CCS and GS.

To facilitate the application approval process, EPA encourages states to incorporate the Federal requirements by reference, or incorporate the Federal language verbatim.



EPA strongly recommends states to fill in the crosswalk prior to submitting a complete new §1422 UIC Class VI Program primacy application.

EPA will work with states to determine whether their Class VI regulations meet the federal Class VI requirements.



States without SDWA §1422 primacy (including states with §1425 primacy for Class II wells only) can apply for primacy only after issuing public notice of their intent to seek program approval from EPA to implement a program. 40 CFR 145.22(a)(6) requires states to demonstrate that they have met the public participation requirements of 40 CFR 145.31(a) and (b).

All states seeking approval of a UIC Program must issue a public notice indicating the state's intent to adopt a new §1422 UIC Program, provide at least a 30-day public comment period, and schedule a public hearing.

The demonstration of compliance can be submitted once the notice, comment, and hearing requirements have been met.

States must also include copies of all written comments received by the state; a transcript, recording, or summary of any public hearings; and a "responsiveness summary" which identifies public participation activities conducted by the state, significant comments received by the state, and how the state responded to those comments.

Six Core Elements: Public Participation Requirements

- Public Notice must:
  - Be circulated in a manner that attracts interested persons
  - Indicate when and where the proposed program may be reviewed
  - Indicate the cost of obtaining a copy of the program
  - Provide for a 30 day comment period
  - Briefly outline the fundamental aspects of the program
  - Provide contact information

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The public notice must:

- Be circulated in a manner that attracts interested persons (e.g., publication in enough of the largest newspapers and mailing to persons on approved state mailing lists);
- Indicate when and where the State's proposed program submission may be reviewed by the public; and,
- Indicate the cost of obtaining a copy of the program submission.

The public notice must:

- Provide for a comment period for at least 30 days;
- Briefly outline the fundamental aspects of the state UIC Program; and
- Identify a person who can be contacted for further information.

Submission of New §1422 UIC Primacy Application

- EPA is allowing the electronic submission of required Class VI primacy application information

- Send applications to ClassVIPrimacy@epa.gov or
- Upload to http://classviprimacy.cadmusweb.com

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In accordance with the GS Rule and to support states with the Class VI primacy application process, EPA is allowing the electronic submission of required primacy application information (e.g., letter from the Governor, program description, Attorney General's statement, and MOA, etc.).

Electronic submissions will reduce the amount of paper used in applying to EPA for Class VI Program primacy; thereby reducing the state's cost in submitting a primacy application and expediting the application and approval processes. In the event that the state cannot submit electronically to the locations listed above, mailed, hard copy submissions will be accepted – See the Primacy Application and Implementation Manual for the mailing address.

Processing New §1422 UIC Program Applications

- EPA receives New §1422 UIC Program Application
  - Conducts completeness review
    - Includes state's 30-day public notice requirements
  - Begins statutorily required review
  - EPA provides notice, 30-day comment period, and an opportunity for a public hearing

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When EPA receives a state's primacy application, EPA must first determine whether the application is complete. Remember timing wise, a state submitting a New §1422 UIC Program application must first issue a public notice indicating the state's intent to adopt a UIC Program, provide at least a 30-day public comment period, and schedule a public hearing if there is significant public interest. This must be done before submitting the state program application to EPA.

Once EPA determines that the state's primacy application is complete, EPA's statutory review period will be deemed to begin on the date of receipt of the state's submission.

If EPA finds that a state's submission is incomplete, the statutory review period will not begin until all the necessary information is received by EPA. EPA will review and then either approve, approve in part, disapprove in part, or disapprove the application through a rulemaking, as prescribed under SDWA §1422(b)(2) and 40 CFR 145. If a state seeks independent primacy for Class VI wells, primacy may only be approved or disapproved in its entirety, i.e., with no partial approval.

In accordance with 40 CFR 145.31(c), once EPA determines that the application is complete, EPA must issue a second public notice and provide a public comment of at least 30 days. EPA must publish the public notice in the Federal Register and in the state's largest newspapers, and mail it to interested persons. The public notice must include a summary of the proposed UIC Program, note the availability of the submission for inspection and copying, and provide for a public hearing, which will be held only if there is significant public interest.

Processing New §1422 UIC Program Applications

- After statutory review and public comment periods, new program application will be approved or disapproved
- If approved
  - EPA announces through rulemaking
  - Publishes in *Federal Register*
  - Program effective on publication day
  - Codified under 40 CFR Part 147

After the public comment period has ended and all comments evaluated, the state §1422 UIC Class VI Program will be either approved or disapproved by the EPA Administrator. If the EPA Administrator approves the program, EPA will then announce the program approval through a rulemaking, published in the *Federal Register,* and the state program will become effective on the date it was published in the *Federal Register*. The state program will be also be codified under 40 CFR Part 147.

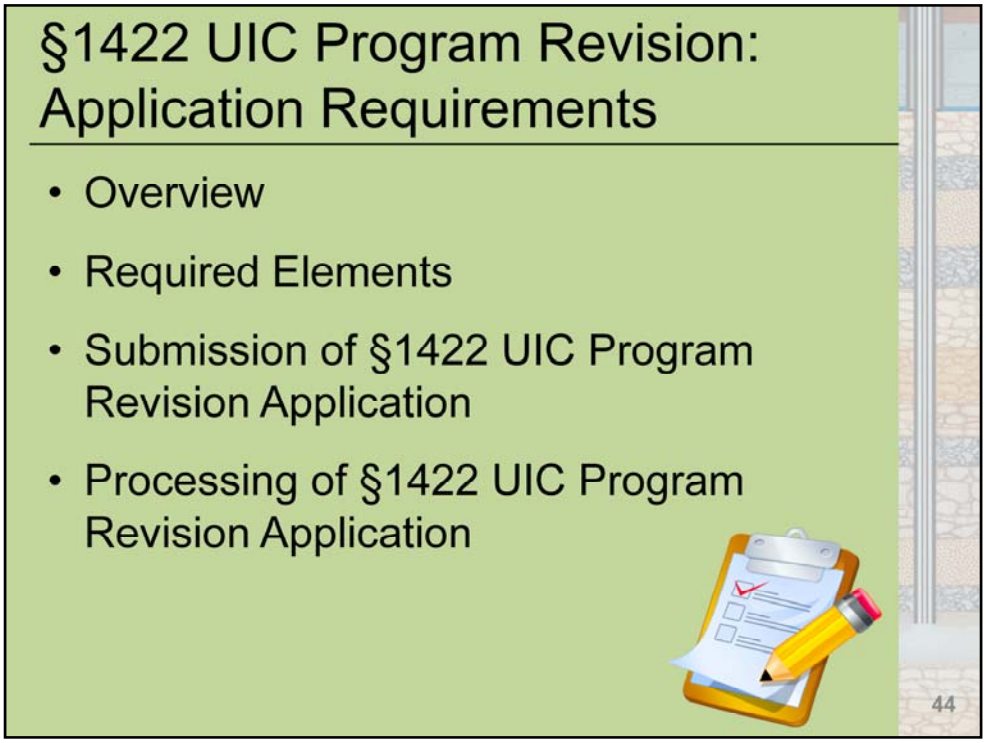
§1422 UIC Program Revision Application

This section of the presentation will provide information for states that are submitting a §1422 UIC Program revision application to add Class VI to their existing program. States currently with SDWA §1422 primacy have already demonstrated that their §1422 UIC Program contains minimum requirements equivalent to Federal requirements in order to prevent underground injection that endangers USDWs. These states do not need to submit the New §1422 UIC Program application just discussed, but rather need to submit a §1422 UIC Program revision application in accordance with 40 CFR 145.32, to incorporate the Class VI requirements.

Revisions to Other UIC Well Classes

- May be necessary (40 CFR Part 147 updates)
- States are encouraged to submit all updated information with Class VI Program revision application

EPA acknowledges that revisions to other UIC programs may be necessary to include Class VI injection wells. EPA encourages states to revise the programs as appropriate and to submit all program revision information with the §1422 Class VI UIC Program Revision application.



This section of the presentation will discuss the following elements of a UIC Program Revision Application:

- Overview
- Required Elements
- Submission of §1422 UIC Program Revision Application to include Class VI wells
- Processing of §1422 UIC Program Revision Application to include Class VI wells

§1422 UIC Program Revision: Application Requirements

- State must submit a modified:
  - UIC program description
  - Attorney General's statement
  - Memorandum of Agreement
- State must submit other documents as EPA deems necessary
  - Copy of the state's statutes and regulations, including administrative procedures for Class VI UIC Program
  - Modified Governor's letter (if necessary)

For a §1422 UIC Program revision application to include Class VI wells, states must update, modify or revise materials submitted as part of their original UIC Program application. These materials include:

- The program description to include the new requirements of the GS Rule
- The AG's statement
- The MOA
- State's statutes and regulations, including administrative procedures for Class VI UIC Program
- The Governor's letter (if necessary)

EPA encourages states to submit the Federal/state Regulatory Comparison Crosswalk with their §1422 UIC program revision application. EPA will work with states to determine whether their regulations meet the federal requirements.

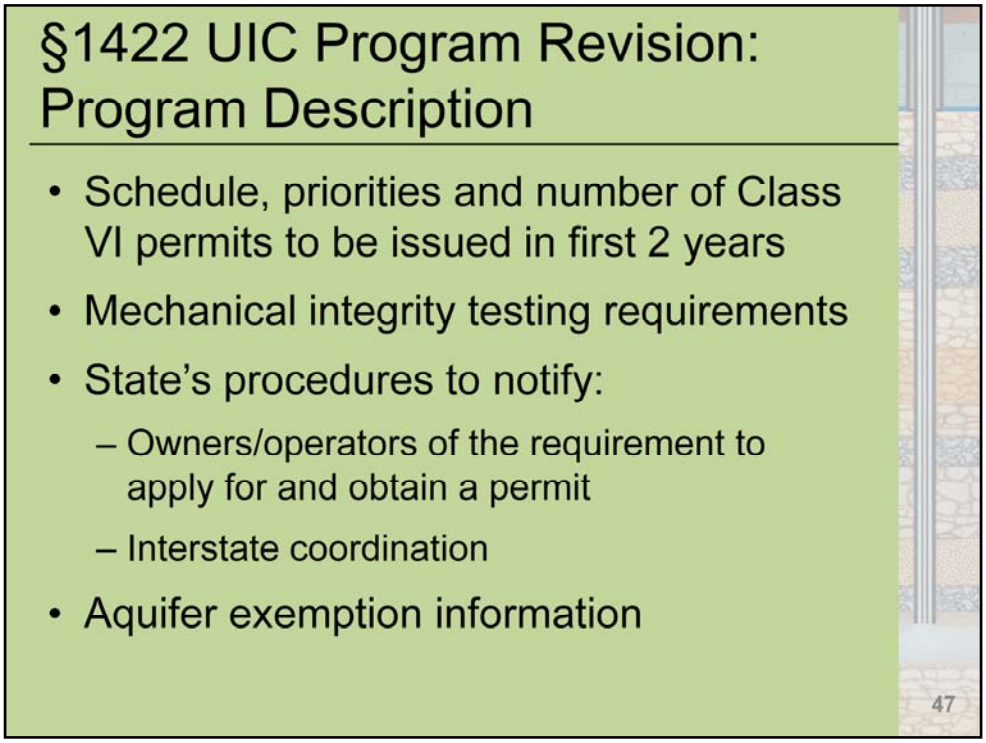
NOTE: States do not need to re-demonstrate compliance with the public participation requirements in 40 CFR 145.22(a)(6).

§1422 UIC Program Revision: Program Description

- Updates UIC Program description to include new requirements for GS Class VI RulE [40 CFR145.23(f)]
- Focus is on Class VI program

The next few slides describe the minimum information that must be included in the modified program description of a §1422 UIC Program Revision application to add Class VI wells.

Additional requirements may apply and states may need to include additional information to fully describe the Class VI Program.



A modified program description must include the new requirements of the Class VI Rule at 75 FR 77230; 40 CFR 145.23(f) including:

- Information regarding the schedule, priorities for, and number of Class VI permits to be issued in the first 2 years of program operation [75 FR 77230; 40 CFR 145.23(f)(1) & (2)].
- A description of how the state will meet the new mechanical integrity testing (MIT) requirements of 75 FR 77230; 40 CFR 146.89, including the frequency of testing that will be required and the number of tests that will be reviewed by the UIC Program Director each year. [75 FR 77230; 40 CFR 145.23(f)(3)].
- 75 FR 77230; 40 CFR 145.23(f)(4) requires the modified program description to include a description of the state's procedures for notifying owners and operators of Class I wells previously permitted for GS, or any Class V experimental technology wells that are no longer experimental but will continue to inject carbon dioxide for GS, of the requirement that they apply for and obtain a Class VI permit.
    - If the state Class VI program is approved before December 10, 2011, the owners and operators of these wells must apply for a Class VI permit by December 10, 2012.
    - If the state Class VI program is approved after December 10, 2011, the owners and operators must apply for a Class VI permit within one year of state program approval.
- Information related to any EPA approved exemptions expanding the areal extent of existing aquifer exemptions for Class II EOR/EGR recovery wells transitioning to Class VI injection for geologic sequestration pursuant to requirements at 75 FR 77230; 40 CFR 146.4(d) and 144.7(d), including a summary of supporting data and the specific location of the aquifer exemption expansions.
- The state's procedures for notifying any states, tribes, and territories of Class VI permit applications where the AoR will cross jurisdictional boundaries, as well as the procedures for documenting these consultations [75 FR 77230; 40 CFR 145.23(f)(13)].

§1422 UIC Program Revision: Program Description

- Modified Memorandum of Understanding (MOU) between state agencies
- If more than one agency will administer the Program
  - Identify respective regulatory authorities
  - Set out responsibilities and procedures for coordination
  - Include applicable organization charts
- Each agency must have statewide jurisdiction over administered activities
- See Appendix D of the Draft Class VI PAIM

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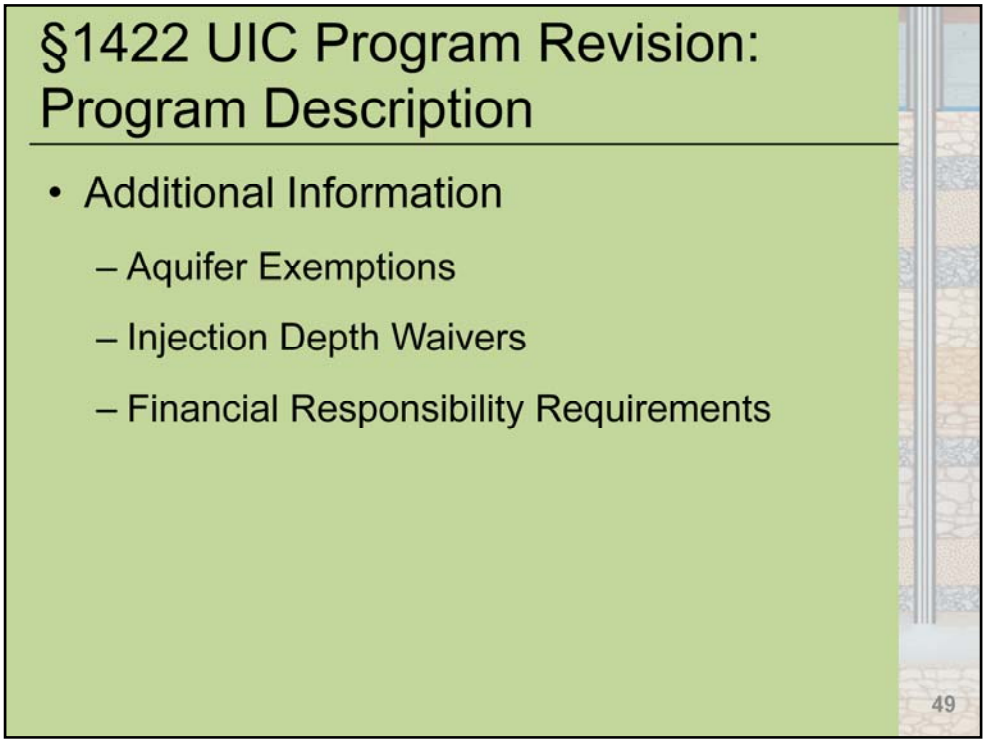
In the §1422 UIC Program revision application, the state must identify the regulatory authorities of the respective agencies, if the state elects to divide the administration of the UIC Program between agencies. For example, if the state oil and gas agency will exercise authority for Class VI through a MOU with the Class VI primacy agency, or by obtaining primacy for the entire Class VI program.

Each agency must have statewide jurisdiction over administered activities.

The state must also submit the organization charts required under 40 CFR 145.23(b).

An example MOU is included in the PAIM in Appendix D.



The GS Rule provides states with certain flexibilities to develop a Class VI Program that addresses unique characteristics within the state, the modified program description may need to include additional information.

For example, the GS Rule provides the UIC Program Director with certain discretion including options to issue injection depth waivers or aquifer exemptions. If the state exercises this discretion, these waivers and exemptions need to be described in the state's program description [40 CFR 145.23(f)(9)].

In addition, EPA encourages states to include information on how the state is going to implement the financial responsibility requirements of the GS Rule in their modified program description.

§1422 UIC Program Revision: Attorney General's Statement

- State's statutes, regulations, and judicial decisions demonstrate adequate authority to administer the additional Class VI Program requirements
- Environmental audit privilege and/or immunity laws still will not affect administration
- See Appendix E of the Draft Class VI PAIM

A modified Attorney General's statement is required by 40 CFR 145.24.

The modified Attorney General's statement re-certifies that, since the state was granted primacy for the UIC Program, the state either still does not have environmental audit privilege and/or immunity laws, or if there are now environmental audit privilege and/or immunity laws, these laws will not affect the ability of the state to meet enforcement and information-gathering requirements under the SDWA.

An example Attorney General's statement is included in the PAIM in Appendix E.

§1422 UIC Program Revision: Memorandum of Agreement

- New provisions and arrangements between the state and EPA for Class VI Program
- Covers the administration, implementation, and enforcement of the program
- See Appendix C of the Draft Class VI PAIM

- The revised MOA should address the specifics of adding the Class VI Program including:
    - Provisions for the prompt transfer from EPA to the state of pending Class VI permit applications
    - Provisions specifying the frequency and content of reports, documents and other information which the state is required to submit to EPA.
    - Provisions on the state's compliance monitoring and enforcement Program.
    - When appropriate, provisions for joint processing of permits by the state and EPA.
    - Provisions for modification of the MOA.

An example MOA is included in the PAIM in Appendix C.

§1422 UIC Program Revision: Adopt GS Rule by Reference

- EPA recommends:
  - Adopting the GS Rule by reference to facilitate regulation writing and primacy approval processes
  - If adopting by reference is prohibited, EPA recommends adopting language verbatim

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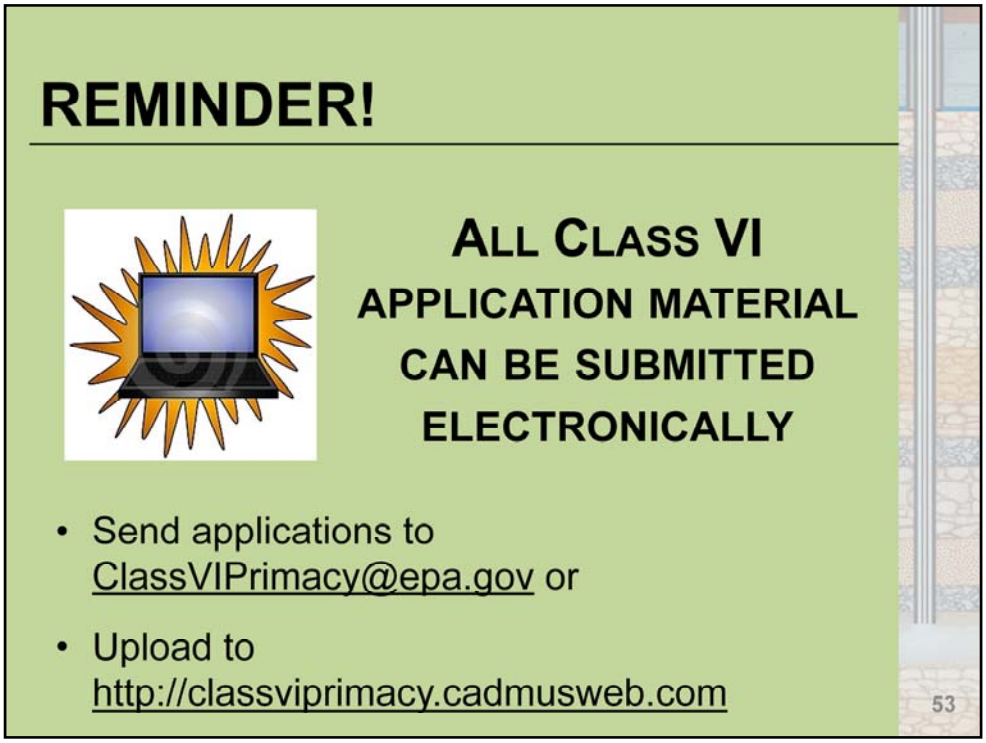
The requirements and provisions of a state's program do not need to be identical to the Federal provisions; however, each requirement must be at least as stringent as the corresponding Federal provision.

EPA is aware that several states have published GS regulations, and several more are in the process of developing their statutory and regulatory authorities. EPA recognizes the complexity and importance of the states' approaches to managing GS and is aware that states are in various stages of developing statutory frameworks, regulations, technical guidance, and strategies for addressing CCS and GS. To facilitate the application approval process, EPA encourages states to incorporate the Federal requirements by reference, or incorporate the Federal language verbatim.



In accordance with the GS Rule and to support states with the Class VI primacy application process, EPA is allowing the electronic submission of required primacy application information (e.g., letter from the Governor, program description, Attorney General's statement, and MOA, etc.).

Electronic submissions will reduce the amount of paper used in applying to EPA for Class VI Program primacy; thereby reducing the state's cost in submitting a primacy application and expediting the application and approval processes. In the event that the state cannot submit electronically to the locations listed above, mailed, hard copy submissions will be accepted – See the Draft Class VI Primacy Application and Implementation Manual for the mailing address.

Processing §1422 UIC Program Revision Applications

- EPA receives §1422 UIC Program Revision
  - Conduct review of program revision application
  - EPA provides public notice

Once EPA receives the state's §1422 UIC Program Revision to add Class VI wells to their current §1422 UIC Program, EPA will review the program revision and will publicly notice the program revision.

Processing UIC Program Revision Applications

- EPA's public notice will provide:
  - A summary of the proposed revisions to the state's program
  - A 30-day public comment period
  - The opportunity to request public hearing
- The public notice will be:
  - Published in state newspapers
  - Published in the *Federal Register*
  - Mailed to interested persons

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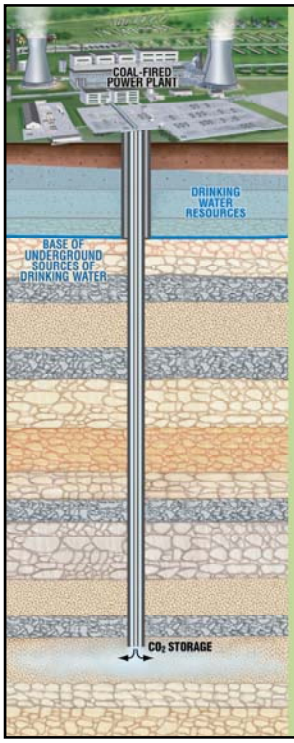
Adding Class VI wells to a §1422 UIC program requires a substantial revision to a state's UIC program. Therefore, EPA will issue public notice once the Agency receives and reviews the state UIC Class VI Program revision application.

The notice will announce that EPA has received a UIC Program revision application, provide a 30-day opportunity for comment and provide for the opportunity to request a public hearing. EPA will hold a public hearing if there is significant public interest.

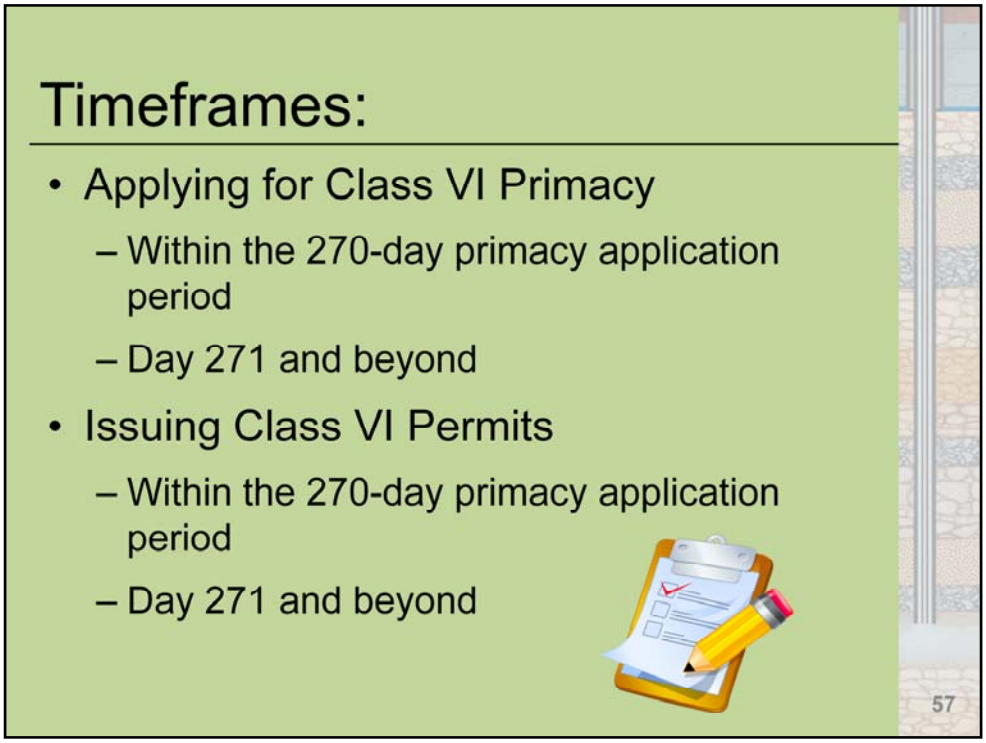
After the public comment period has ended, the state UIC Program revisions will be either approved or disapproved by the EPA Administrator. If the EPA Administrator approves the program revisions, EPA will then announce the approval through a rulemaking published in the *Federal Register.*

The revised state program becomes effective on the date it is published in the *Federal Register*. The revised state program, incorporating Class VI requirements, will be also be codified under 40 CFR Part 147.



Timeframes

This section provides information on timeframes for applying for Class VI primacy based on the promulgation of the GS Rule.



Activities can occur on two different schedules:

(1) from the day EPA publishes the GS Rule to day 270 after publication; and,

(2) from day 271 and beyond.

Also, timing issues surrounding the submission, review, and approval of primacy applications as well as issuing Class VI permits are also included in the following slides.

Timeframes: Applying for Class VI Primacy

- 270 days following publication to submit Class VI primacy application (or program revision)
  - Required by SDWA §1422
  - September 6, 2011
  - No extension
- From day 271 and beyond, EPA Region administers Class VI program until state receives primacy
  - September 7, 2011

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Under SDWA §1422 and 40 CFR 145.21(h), states have 270 days following publication of the GS Rule in the *Federal Register* to submit a UIC primacy application for Class VI wells (or program revision to include Class VI wells) and receive EPA approval by rule. This timeframe is required by SDWA §1422, with an allowance for an additional 270-day extension at EPA's discretion.

In light of national priorities and the need for clear, nationally-consistent requirements, the Agency has determined that it will not provide for an extension for states applying for Class VI primacy.

If a state does not submit a Class VI primacy application during the 270-day period or receive EPA's approval of its Class VI program submission, then EPA will implement the UIC Class VI program on the state's behalf, beginning on Day 271 following promulgation of the GS Rule.

Timeframes: Class VI Primacy

- States can continue to submit Class VI UIC Primacy applications after the first 270 days
- States with primacy for Class VI
  - Can issue Class VI permits
  - Must re-permit any GS issued Class I or Class V Experimental permit as Class VI within one year

It is important to note that, although the Agency is not accepting extension requests to the 270 day application period, a State may, at any time in the future, apply for primacy and the same procedures and requirements apply. If a State receives primacy after the 270-day deadline (for an application submitted either before or after the deadline), EPA will publish a subsequent notice of the approval as required by the SDWA and at that point, the state, rather than EPA, will implement the Class VI program.

States with previous SDWA §1422 primacy that have received approval for their Class VI UIC Program revision application may begin issuing Class VI permits.

All Class I and Class V wells used to inject carbon dioxide for GS must be re-permitted as Class VI wells within 1 year of promulgation of the Class VI regulation, pursuant to GS Rule requirements at 40 CFR 146.81(c).

Timeframes: Issuing Class VI Permits

- States with SDWA §1422 primacy
  - Can submit UIC Program Revision application to EPA to add Class VI
  - Can process GS permit applications under existing authorities
    - Class I preferable
    - Encouraged to include conditions that meet Class VI requirements
- No Class VI permits can be issued by states or EPA Regions during 270-day application period

During the 270-day application period, states with current SDWA §1422 primacy may consider using existing authorities (e.g., Class I or Class V) to issue permits for carbon dioxide injection for GS.

EPA suggests using Class I permits, if allowed, because the GS Rule limits the use of the Class V experimental technology well sub-classification to wells that are of an experimental nature (i.e., to test GS technologies and collect data).

EPA encourages states to issue permits with conditions that meet the requirements for Class VI wells to ensure that Class I and Class V wells previously used for GS can be re-permitted as Class VI wells. Including the Class VI requirements in the Class I or Class V permit will allow the Class VI permit to be issued with minimal additional effort on the part of the owner or operator or the UIC Program Director.

Timeframes: Issuing Class VI Permits

- States without SDWA §1422 primacy
  - Can submit New UIC Program application to EPA for Class VI primacy
  - EPA Regional Office will process GS permit application under existing authorities
    - Class I preferable
    - Encouraged to include conditions that meet Class VI requirements

During the 270-day application period, and prior to EPA approval of a Class VI primacy application, states without existing SDWA §1422 primacy programs must direct all Class VI permit applications to the appropriate EPA Region. EPA Regions will issue permits using existing authorities and well classifications (e.g., Class I or Class V), as appropriate.

Again, EPA suggests using Class I permits, if allowed, because the GS Rule limits the use of the Class V experimental technology well sub-classification to wells that are of an experimental nature (i.e., to test GS technologies and collect data).

Regions are encouraged to issue permits with conditions that meet the requirements for Class VI wells to ensure that Class I and Class V wells previously used for GS can be re-permitted as Class VI wells.

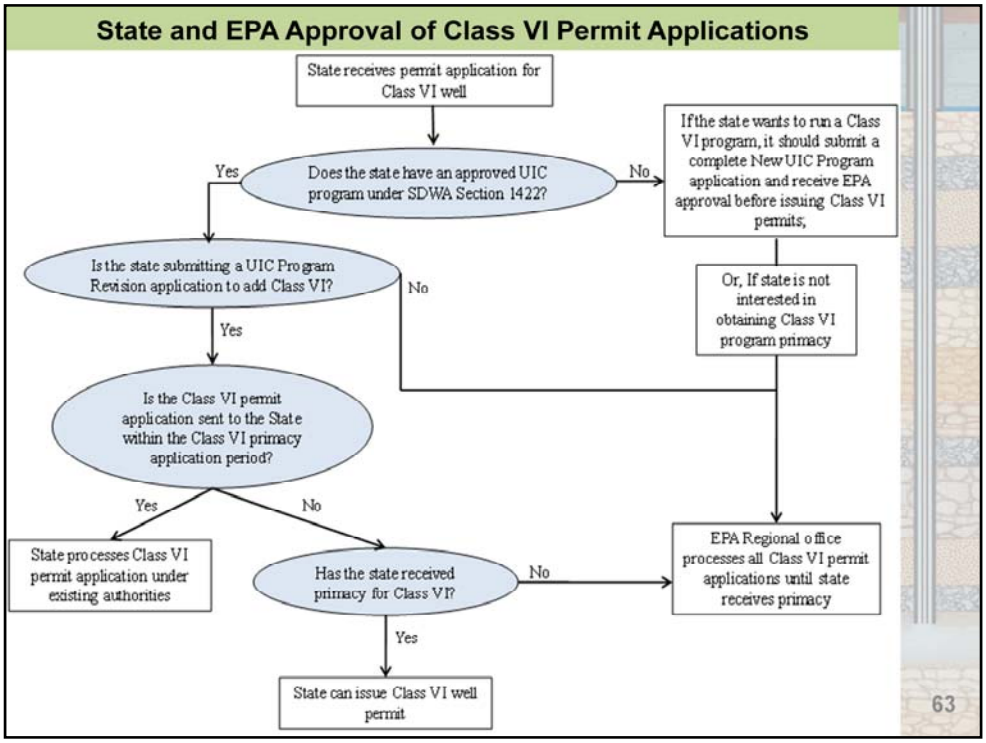
Timeframes: Issuing Class VI Permits

- Region implements Class VI Program until state receives primacy
  - Processes GS applications as Class VI
    - No Class I permits for CO_2 injection for GS
    - Limited Class V permits
  - Re-permits any GS issued Class I or Class V Experimental permit as Class VI within a year

If the state has not received approval by the close of the application period, the EPA Region will issue Class VI permits until the state receives primacy (i.e., the state no longer needs to issue Class I or Class V permits for GS wells).

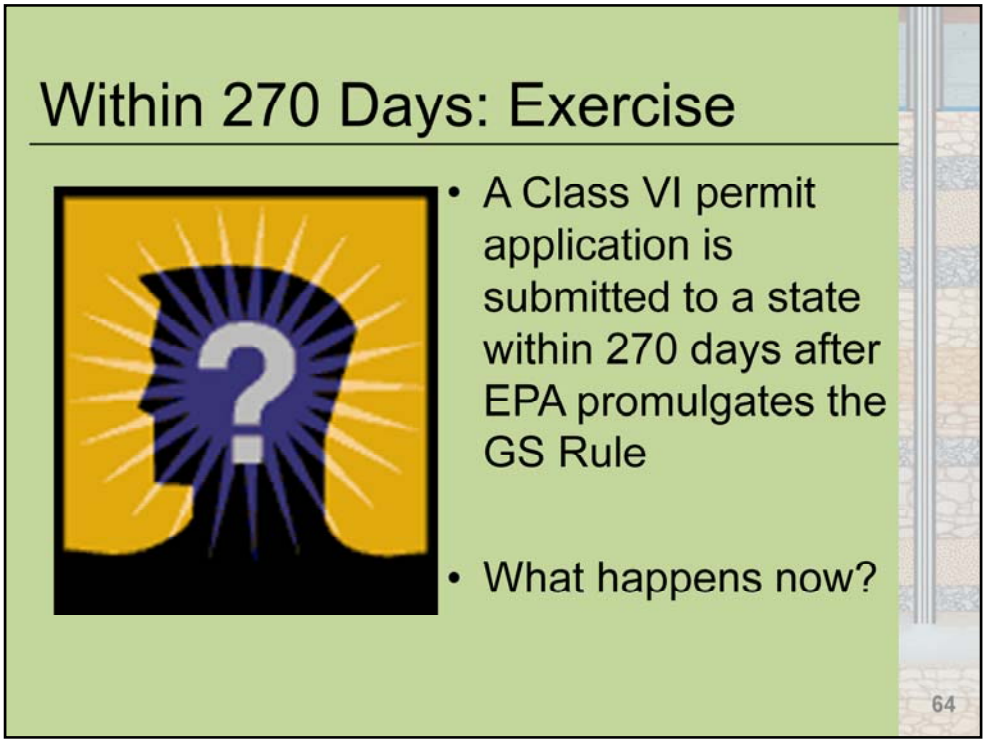
In States where EPA directly implements the Class VI program, Class I permits for carbon dioxide injection for GS may no longer be issued and Class V permits may only be issued to projects eligible for such permits.

All Class I and Class V wells used to inject carbon dioxide for GS must be re-permitted as Class VI wells within one year of promulgation of the Class VI regulation, pursuant to GS Rule requirements at 40 CFR 146.81(c).



The flowchart describes the timing for the states' or EPA Regions' approvals of Class VI permit applications. To determine the type of permit and who can issue the permit (Class VI or other Class) first you have to determine if the state has an approved UIC program under SDWA §1422. If the state has an approved UIC Program, then determine if the state has submitted a UIC Program Revision application to add Class VI. If the application has been submitted, then determine if the Class VI permit application was sent to the state within the Class VI primacy application period (i.e., within 270 days after promulgation of the Rule). If the Class VI application was received during the primacy application period, the State can process the permit under existing authorities. If the Class VI permit application is submitted 271 days or after promulgation, then determine if the state has primacy for the Class VI program. If the state has received primacy, the state can issue a Class VI permit; if the state has not received primacy, the EPA Regional office processes all Class VI permit application until the state receives primacy.

Now if the state does not have an approved UIC program under SDWA §1422, the EPA Regional office processes all Class VI permit application until the state receives primacy.



Summary/Exercise slide of activities that can happen within the first 270 days after Rule promulgation.

Within 270 Days: Exercise

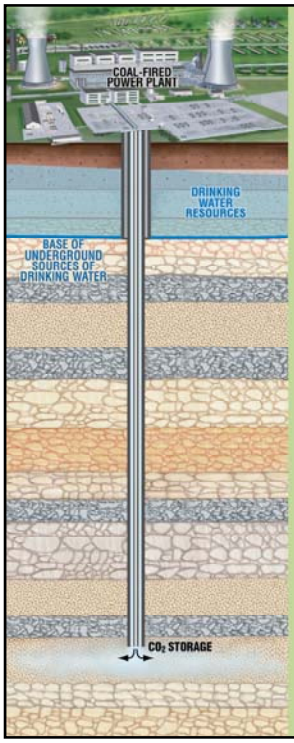
1. No Class VI permits can be issued by states or EPA Regions
2. State can submit UIC program revision application
3. State can submit New UIC Program primacy application
4. States with SDWA §1422 primacy can process the Class VI permit application as Class I
5. States without SDWA §1422 primacy send the application to the EPA Region which can process it as Class I

Day 271 and Beyond: Exercise

- Class VI permit application submitted to a state 271 days after EPA promulgates the GS Rule
- What happens now for:
  - States with Class VI primacy
  - States without Class VI primacy
  - EPA Regions

Day 271 and Beyond: Exercise

- States with primacy for the Class VI Program:
  - Can issue Class VI permits
  - Must re-permit any GS issued Class I or Class V experimental technology permits as Class VI permits
- States without Class VI primacy:
  - Send Class VI applications to the EPA Region for processing as Class VI
  - Can submit Class IV primacy application (new or revised)
- EPA Regions
  - Can issue Class VI permits in states without Class VI primacy
  - Re-permit any GS issued Class I or Class V experimental technology permits as Class VI permits in Class VI DI states



Additional Primacy Tools

Primacy and Implementation Manual: Primacy Application Tools

- Federal and state Class VI regulations crosswalk (Appendix A)
- Class VI UIC primacy application checklist (Appendix B)
- Memorandum of Agreement (Appendix C)
- Memorandum of Understanding (Appendix D)
- Attorney General's Statement (Appendix E)
- Interstate Coordination Letter (Appendix G)
- Permit Application Materials Checklist (Appendix I)

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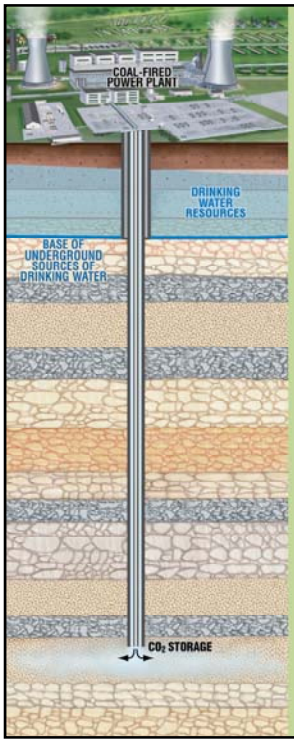
In EPA's Geologic Sequestration of Carbon Dioxide: Underground Injection Control (UIC) Program's Class VI Primacy Application and Implementation Manual (PAIM) the appendices are materials that will help in the development of primacy application. The materials include:

- Appendix A: Crosswalk for Comparison of Federal and State GS Regulatory Requirements
- Appendix B: Primacy Application Checklist for a New UIC Program
- Appendix C: Example Memorandum of Agreement
- Appendix D: Example Memorandum of Understanding
- Appendix E: Example Attorney General's Statement.
- Appendix G: Example Interstate Coordination Letter
- Appendix I: Class VI Permit Application Materials Checklist

Additional Primacy Application Tools

- EPA's Class VI UIC Primacy Program Web site
  - http://water.epa.gov/type/groundwater/uic/primacy.cfm

EPA's Class VI UIC Primacy Program Web site is available at http://water.epa.gov/type/groundwater/uic/primacy.cfm.


COAL-FIRED
POWER PLANT
DRINKING
WATER
RESOURCES
BASE OF
UNDERGROUND
SOURCES OF
DRINKING WATER
CO_2 STORAGE

Questions?