

UIC Financial Responsibility Requirements

Carbon Sequestration Working Group

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UIC Financial Responsibility

- Owning and operating a UIC well is a costly venture that requires financial stability from the beginning of the permitting process through closure of the well and post-closure care, if applicable.
- An owner/operator must demonstrate that funds will be available to properly close the facility and provide post-closure care.
- UIC well, the owner/operator must use one or more of the financial assurance mechanisms designed by EPA or the primacy State.

Financial Responsibility Requirements

- Required for all permitted Class I, II, and III UIC wells (§144.52(a)(7)); optional for Class V wells at discretion of Director
- Most stringent requirements for Class I hazardous waste disposal wells
- Variety of mechanisms for providing assurance
- Separate and distinct from closure authority- §144.52(a)(9)

Financial Responsibility Regulatory Requirements

- 40 CFR §144.52(a)(7)
- 40 CFR §144.60-.70 (Subpart F)
- 40 CFR Part 146
- 40 CFR §146.72(a)(3), §146.73
- Basic requirement for all Class I, II, III UIC wells
- Specific requirements for Class I hazardous waste UIC wells
- Financial responsibility for closure
- Financial responsibility for post-closure for IH

Financial Responsibility Requirements

- Class II oil- and gas-related injection wells
 - Acceptable FR options for Class II wells
 - Specific information on each acceptable type
 - Full coverage (each well) or blanket coverage (acceptable portion) may be options

Class I H UIC Requirements

- §146.70(a)(17)
- §146.71(a)(3)
- §146.72(a)(3)
- §146.73
- Demonstrate resources for closure and post-closure care
- Assure financial responsibility for closure
- Assure financial responsibility for post-closure care
- Comply with specific post-closure financial requirements

Closure and Post-Closure for Class IH

- Post-closure care is required for Class I hazardous wells
- A post-closure care plan must be submitted
- A cost estimate for post-closure care and assurance of financial responsibility are required to be included in the post-closure plan.
- Post-closure care financial responsibility demonstrations are subject to the standards established for closure in 40 CFR Part 144, Subpart F.
- Cost estimates are part of the plans, and the mechanisms established to fulfill the regulatory requirements for financial responsibility must cover all the costs provided in these cost estimates.
- The requirements survive the term of the permit or cessation of injection and are separately enforceable.

Closure Plans and Cost Estimates

- Financial responsibility amounts are directly related to cost estimates in the closure and post-closure care plans
- A variety of factors influence costs
 - Inflation
 - Well design changes (drilling out to increase depth)
 - Equipment costs
 - Site-specific well issues

Reviewing the Cost Estimate

- Review the cost estimate to determine whether the amount of the financial assurance is adequate
- Ensure that all activities in the plan are covered in the cost estimate
- Ensure that costs are reasonable and valid
- As cost estimates for closure and post-closure are updated, the financial assurance mechanism is reviewed for adequacy

Mechanisms Allowed for Class IH Wells

- Trust fund
- Surety bond with standby trust
- Letter of credit with standby trust
- Insurance
- Corporate guarantee
- Financial test

Mechanisms Allowed for Class II Wells

- Surety bond with standby trust
- Financial guarantee
- Performance bond
- Letter of credit with standby trust
- Irrevocable trust
- Financial statement

Mechanisms Allowed for Other Wells

- Surety bond
- Other adequate assurance
 - Financial statement
 - Other materials
- The Director has a great deal of latitude regarding what is permissible

Operator's Choice

- The owner/operator chooses which mechanism to use
- The selected mechanism may be changed at any time with EPA's approval
- An established instrument is not terminated by the Director until a new instrument is in place and approved

Wording of Instruments

- 40 CFR §144.70 provides the **EXACT** wording for Class I H instruments
- Applies to instruments for closure and post-closure care
- Wording, including punctuation, must be in compliance
- Wording may be used as a guide for instruments for other well classes

Release from Financial Assurance

- Completion of closure (or post-closure) according to the approved plan must be certified by an independent professional engineer prior to the release
- The obligation to maintain financial assurance survives the permit termination and cessation of injection

EPA's Class VI Proposal

- Would require that owners or operators demonstrate and maintain financial responsibility, and have the resources for activities related to closing and remediating GS sites.
- Would only specify a general duty to obtain financial responsibility acceptable to the Director.
- EPA will provide guidance to be developed at a later date that describes recommended types of financial mechanisms that owners or operators can use to meet this requirement.
- EPA developed guidance for Class II wells

SDWA Limitations

- SDWA authority does not extend to financial responsibility for activities unrelated to protection of USDWs (e.g., coverage of risks to air, ecosystems, or public health unrelated to USDW endangerment).
- It also does not cover
 - transfer of owner or operator financial responsibility to other entities, or
 - creation of a third party financial mechanism where EPA is the trustee.

Scope of Financial Assurance

EPA's proposal would require financial responsibility for

1. Corrective action, including injection well plugging,
2. Post-injection site care and site closure, and
3. Emergency and remedial response

Cost Estimation Structure

- As part of the permit application, the owner or operator must provide the Director with an **emergency and remedial response plan** that describes actions to be taken to address movement of the injection or formation fluids that may cause an endangerment to a USDW during construction, operation, closure and post-closure periods.
- The owner or operator of a Class VI well must prepare, maintain, and comply with a **plan for post-injection site care and site closure** that meets the requirements of paragraph (a)(2) of this section and is acceptable to the Director.

Required Plans and Cost Estimates

- The owner or operator of a Class VI well must prepare, maintain, and comply with a **plan to delineate the area of review for a proposed geologic sequestration project, periodically reevaluate the delineation, and perform corrective action** that meets the requirements of this section and is acceptable to the Director.
- The emergency and remedial response plan (as required by § 146.94) and a demonstration of financial responsibility (as described by § 146.85) must account for the entire area of review, regardless of whether or not corrective action in the area of review is phased.

Support for Financial Assurance

- The Agency is proposing that the owner or operator periodically update the cost estimate for well plugging, post-injection site care and site closure, and remediation to account for any amendments to the area of review and corrective action plan (40 CFR 146.84), the plugging and abandonment plan, and the post-injection site care and site closure plan (40 CFR 146.93).
- EPA is also proposing that the owner or operator submit an adjusted cost estimate to the Director if the original demonstration is no longer adequate to cover the cost of the injection well plugging, post-injection site care, and site closure.

Cost Estimation Requirements

- One of the most critical aspects to ensuring that owners or operators have the resources to pay for injection well plugging is cost estimation.
- Sound cost estimation requirements ensure that sufficient funds are set aside in the financial assurance instrument to properly undertake covered activities (e.g., plugging and post-injection site care) at any time during the operating life of the facility and during the post-injection site care period.

Potential Policy Changes

- EPA is assessing whether the cost estimate underpinning financial assurance should be based on the cost of retaining an independent, third party to conduct covered activities, such as well plugging.
- EPA also is considering provisions for annual inflationary adjustments and is weighing the inclusion of a third-party certification requirement, or provisions for a third-party audit, in cases where the owner or operator self-prepares its cost estimate.

Updating Financial Assurance

- As proposed, the Director would set the frequency for owner or operator re-demonstration of financial responsibility and resources.
- EPA says it may be appropriate to re-demonstrate financial responsibility on a periodic basis.
- Such re-demonstration would take into account any amendments to the area of review and corrective action plan (40 CFR 146.84) and adjustments for inflation.
- May be necessary to adjust cost estimates if the Director has reason to believe that the original demonstration is no longer adequate to cover cost of the well plugging and post-injection site care and site closure.

Pay-in Period for Trust Funds

- Current UIC guidance describes trust funds as a form of financial assurance.
- The owner or operator may deposit funds into the trust fund in phases; that is, either over the term of the initial permit or over the remaining operating life of the injection well, as estimated in the well plugging plan, whichever period is shorter.
- Because of the possibility that the owner or operator may face financial distress prior to the trust being fully funded, EPA is considering a guidance approach that would recommend adopting a pay in period of three years for GS projects, consistent with other similar programs in the Agency.

Phased Approach for Financial Assurance

- EPA requesting comment on allowing separate financial demonstrations to be submitted for the plugging of the injection well and for the post-injection site care requirements.
- Post-injection site care has potential to extend many years into the future, subsequent to the time a permit is issued
- Trying to determine the cost for post-injection site care, possibly 30 to 50 years in the future, could be difficult, as could the approval of a financial demonstration.
- It may be advantageous to require the approval of the well plugging financial demonstration at permit issuance and the post-injection site care financial demonstration at a later time (e.g., within 180 days of notifying the Director that the well will be plugged and abandoned).

Release of Financial Assurance

- Owners or operators would no longer need to demonstrate financial assurance after the post-injection site care period has ended.
- This generally occurs when the Director approves the completed post-injection site care and site closure plan and then determines that the injected fluid no longer poses a threat of endangerment to USDWs (e.g., the fluid no longer exhibits a propensity to move or migrate out of the injection zone to any point where it could endanger a USDW).

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