

Geologic Carbon Sequestration Rulemaking

08/06/2009

Position Paper

The National Ground Water Association, founded in 1948, is a not-for-profit professional society and trade association for the groundwater industry. Our 13,500 members from all 50 states include some of the country's leading public and private sector groundwater scientists, engineers, water well contractors, manufacturers, and suppliers of groundwater-related products and services. NGWA has been and continues to be a forum for discussing and promoting the responsible protection, utilization, and cleanup of the nation's groundwater.

Background

As the U.S. Environmental Protection Agency develops proposed rules for the geologic sequestration of carbon dioxide, the Association asks that the following be considered and incorporated into future rulemaking related to geological carbon sequestration.

Recommended Position

- Reevaluate the appropriateness of the definition of an underground source of drinking water (USDW) as one containing less than 10,000 ppm total dissolved solids prior to large-scale licensing of carbon capture and storage (CCS) sites to ensure future drinking water supplies are not unintentionally degraded.
- Protect aquifers from unacceptable degradation during every phase of a CCS project through hydrologic and hydrogeochemical characterization.
- Require that all potentially impacted formations be modeled to ensure that the Area of Review over which data are collected includes (at a minimum) an area greater than the predicted worst-case CO₂ plume and pressure field dimensions.
- Ensure that regional and site characterizations are conducted such that the appropriate high-quality data are collected and analyzed to make good, informed, decisions on CCS site selection and site construction.
- Require the use of multiple and sufficient confining units, where possible, to reduce the risk and consequences of a leak into underground sources of drinking water.
- Ensure wells are constructed such that fluid cannot move between formations along the wellbore of all wells that may be drilled into or through the primary or secondary cap rocks.
- Establish monitoring of the injection formation and appropriate overlying formations and aquifers to provide for the long-term protection of groundwater. Ensure that any tracers or contaminants co-injected with CO₂ are fully studied and approved so that there is no unintended contamination of groundwater resources or the environment.

- Ensure that liability is handled in a manner that ensures proper site monitoring and mitigation throughout the post-closure phase.
- Ensure that groundwater scientists and engineers are consulted when selecting performance criteria that may impact groundwater resources at all stages of a CCS project.

Contact

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Date

Approved by the NGWA Government Affairs Committee on February 22, 2008.