Carbon Sequestration

This Act creates a regulatory scheme for geologic CO2 storage. It directs the state department of environmental quality (DEQ) to develop standards for regulating long-term, geologic storage of carbon dioxide (CO2) in the state. The Act provides a list of specific information that is required in permit applications for CO2 storage injection wells. It allows the DEQ to issue permits for pilot-scale CO2 sequestration and storage projects under current rules and regulations. It also requires the State Oil and Gas Supervisor, State Geologist and Director of DEQ to convene a working group to develop an appropriate bonding procedure and provides a $250,000 appropriation for the working group.

Submitted as:
Wyoming
Chapter 30 of 2008

Suggested State Legislation

(Title, enacting clause, etc.)

Section 1. [Short Title.] This Act shall be cited as “An Act Relating to Carbon Sequestration.”

Section 2. [Definitions.]
(A) [As used in this Act, these are] [specific definitions applying to water quality]:
   (1) “Geologic sequestration” means the injection of carbon dioxide and associated constituents into subsurface geologic formations intended to prevent its release into the atmosphere.
   (2) “Geologic sequestration site” means the underground geologic formations where the carbon dioxide is intended to be stored.
   (3) “Geologic sequestration facilities” means the surface equipment used for transport, storage and injection of carbon dioxide.

Section 3. [Carbon Sequestration; Permit Requirements.]
(A) The geologic sequestration of carbon dioxide is prohibited unless authorized by a permit issued by the [department].
(B) The injection of carbon dioxide for purposes of a project for enhanced recovery of oil or other minerals approved by the [state oil and gas conservation commission] shall not be subject to the provisions of this Act.
(C) If an oil and gas operator converts to geologic sequestration upon the cessation of oil and gas recovery operations, then regulation of the geologic sequestration facility and the geologic sequestration site shall be transferred to the [department]. If the oil and gas operator does not convert to geologic sequestration, the wells shall be plugged and abandoned according to the rules of the [state oil and gas conservation commission].
(D) Temporary time limited permits for pilot scale testing of technologies for geologic sequestration shall be issued by the [department] based upon current rules and regulations.
(E) Permit requirements for geologic sequestration of carbon dioxide shall be as defined by [department] rules.
(F) The [administrator of the water quality division of the department of environmental quality], after receiving public comment and after consultation with the [state geologist] and the [advisory board created under this Act], shall recommend to the [director] rules, regulations and standards for:

(1) The creation of subclasses of wells within the existing Underground Injection Control (UIC) program administered by the United States Environmental Protection Agency under Part C of the Safe Drinking Water Act to protect human health, safety and the environment and allow for the permitting of the geologic sequestration of carbon dioxide;

(2) Requirements for the content of applications for geologic sequestration permits. Such applications shall include:

(a) A description of the general geology of the area to be affected by the injection of carbon dioxide including geochemistry, structure and faulting, fracturing and seals, stratigraphy and lithology including petrophysical attributes;

(b) A characterization of the injection zone and aquifers above and below the injection zone which may be affected including applicable pressure and fluid chemistry data to describe the projected effects of injection activities;

(c) The identification of all other drill holes and operating wells that exist within and adjacent to the proposed sequestration site;

(d) An assessment of the impact to fluid resources, on subsurface structures and the surface of lands that may reasonably be expected to be impacted and the measures required to mitigate such impacts;

(e) Plans and procedures for environmental surveillance and excursion detection, prevention and control programs. For purposes of this section, “excursion” shall mean the detection of migrating carbon dioxide at or beyond the boundary of the geologic sequestration site;

(f) A site and facilities description, including a description of the proposed geologic sequestration facilities and documentation sufficient to demonstrate that the applicant has all legal rights, including but not limited to the right to surface use, necessary to sequester carbon dioxide and associated constituents into the proposed geologic sequestration site;

(g) Proof that the proposed injection wells are designed at a minimum to the construction standards set forth by the [department] and the [state oil and gas conservation commission];

(h) A plan for periodic mechanical integrity testing of all wells;

(i) A monitoring plan to assess the migration of the injected carbon dioxide and to insure the retention of the carbon dioxide in the geologic sequestration site;

(j) Proof of bonding or financial assurance to ensure that geologic sequestration sites and facilities will be constructed, operated and closed in accordance with the purposes and provisions of this Act and the rules and regulations promulgated pursuant to this Act;

(k) A detailed plan for post-closure monitoring, verification, maintenance and mitigation;

(l) Proof of notice to surface owners, mineral claimants, mineral owners, lessees and other owners of record of subsurface interests as to the contents of such notice. Notice requirements shall at a minimum require:

(i) The publishing of notice of the application in a newspaper of general circulation in each county of the proposed operation at weekly intervals for [four (4)] consecutive weeks;
(ii) A copy of the notice shall also be mailed to all surface owners, mineral claimants, mineral owners, lessees and other owners of record of subsurface interests which are located within [one (1) mile] of the proposed boundary of the geologic sequestration site.

(3) Requirements for the operator to provide immediate verbal notice to the [department] of any excursion after the excursion is discovered, followed by written notice to all surface owners, mineral claimants, mineral owners, lessees and other owners of record of subsurface interests within [thirty (30)] days of when the excursion is discovered;

(4) Procedures for the termination or modification of any applicable Underground Injection Control (UIC) permit issued under Part C of the Safe Drinking Water Act if an excursion cannot be controlled or mitigated;

(5) Such other conditions and requirements as necessary to carry out this section.

(G) As soon as practical and prior to [September 30, 2009], the [state oil and gas supervisor, the state geologist and the director] shall convene a [working group] for the purpose of developing an appropriate bonding procedure and other financial assurance methods to assure that adequate financial resources are provided to pay for any mitigation or reclamation costs that the state may incur as a result of default by the permit holder. The bond or other financial assurance shall be required during the operating life of the sequestration project and throughout the post-closure care period in order to abate or remedy any violation of a permit, standard or rule established under the provisions of this Act. The [working group] shall recommend to the [joint minerals, business and economic development and joint judiciary interim committees], on or before [September 30, 2009], the duration of the post-closure care period. At a minimum, the bond or other financial assurance shall provide assurance for closure and reclamation costs, post-closure inspection and maintenance costs and environmental monitoring, verification and control costs.

(H) At the time a permit application is filed, an applicant shall pay a fee to be determined by the [director] based upon the estimated costs of reviewing, evaluating, processing, serving notice of an application and holding any hearings. The fee shall be credited to a separate account and shall be used by the [division] as required to complete the tasks necessary to process, publish and reach a decision on the permit application. Unused fees shall be returned to the applicant.

(I) The [director] shall recommend to the [council] any changes that may be required to provide consistency and equivalency between the rules or regulations promulgated under this section and any promulgated for the regulation of carbon dioxide sequestration by the United States Environmental Protection Agency.

(J) The [state oil and gas conservation commission] shall have jurisdiction over any subsequent extraction of sequestered carbon dioxide that is intended for commercial or industrial purposes.

(K) Nothing in this section shall be construed to create any liability by the state for failure to comply with this section.

Section 4. [Reporting Compliance.] The [department of environmental quality] and the [oil and gas conservation commission] shall submit a joint written report, on or before [November 1] of each year, to the [joint minerals, business and economic development and joint judiciary interim committees] as to all aspects of compliance with this legislation including, but not limited to, the promulgation of rules and regulations, the formation of the [working group], permitting and changes to pertinent federal regulations affecting the same.
Section 5. [Appropriations to Perform Tasks Assigned Pursuant to the Act.] There is appropriated [two hundred fifty thousand dollars ($250,000.00) from the general fund] to the [department of environmental quality] for use by the [working group] created by Section 3 (G) of this Act for expenses related to performing the tasks assigned it pursuant to this Act. Expenses may include the costs to secure expert consultation. This appropriation shall be for the period beginning with the effective date of this Act and ending [June 30, 2010]. Notwithstanding any other provision of law, this appropriation shall not be transferred or expended for any other purpose and any unexpended, unobligated funds remaining from this appropriation shall revert as provided by law on [June 30, 2010]. This appropriation shall not be included in the [department’s] standard [biennial budget request].

Section 6. [Oil and Gas Activities at Geologic Sequestration Sites.] Nothing in Section 3 of this Act shall be deemed to affect the otherwise lawful right of a surface or mineral owner to drill or bore through a geologic sequestration site as defined by Section 2 (A)(2) of this Act, if done in accordance with the [commission rules] for protecting the geologic sequestration site against the escape of carbon dioxide.

Section 7. [Selling Emission Reduction Credits.] Nothing in this Act is intended to impede or impair the ability of an oil and gas operator to inject carbon dioxide through an approved enhanced oil or gas recovery project and establish, verify, register and sell emission reduction credits associated with the project.

Section 8. [Severability.] [Insert severability clause.]

Section 9. [Repealer.] [Insert repealer clause.]

Section 10. [Effective Date.] [Insert effective date.]