

June 27, 2022

Rules Coordinator
Office of General Counsel
Railroad Commission of Texas
P.O. Box 12967
Austin, TX 78711-2967

RE: Proposed Amendments to 16 TAC Chapter 5 Relating to the Geologic Storage of Anthropogenic Carbon Dioxide.

Dear Sir or Madam:

Thank you for this opportunity to offer comments on the Railroad Commission's (RRC) proposed amendments to 16 Texas Administrative Code (TAC) Chapter 5. These proposed amendments were published in the May 20th, 2022 volume of the *Texas Register*.

Texas 2036 supports Texas' energy expansion, where oil and gas will continue to serve an integral role as our energy portfolio expands to include hydrogen, geothermal, and other forms of energy. Carbon capture and underground storage (CCUS) serves as a critical component to this energy expansion. House Bill 1284 passed during the 87th Regular Session of the Texas Legislature made an important step towards advancing Texas' energy expansion by establishing streamlined jurisdictional control for Texas CCUS within RRC. The agency's proposed amendments to 16 TAC Chapter 5 are necessary for both implementing the requirements of HB 1284 and for RRC's application to the US Environmental Protection Agency for enforcement primacy for Class VI underground injection wells under the US Safe Drinking Water Act.

Last month, Texas 2036 and the Center for Public Finance at Rice University's Baker Institute for Public Policy released a report on Texas' energy expansion that included a substantive discussion on carbon capture and storage. The report finds that Texas has many comparative advantages and existing synergies for CCUS to grow and flourish. These include industry concentration, nearby geological formations, existing pipeline infrastructure, and an extraordinary workforce in the areas of engineering, geology, chemistry, and supply chain management. The report also discusses how federal carbon



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sequestration tax credits provided by 26 U.S. Code (USC) §45Q work to incentivize CCUS development. Should Congress increase the §45Q tax credit, as is currently being discussed, this will have a powerful impact on prospective CCUS development.

These comments are offered in the spirit of supporting expanded CCUS development in Texas and aligning the state’s permitting program with the incentives within §45Q. Given the importance of this program and policy development in Texas, these comments are also offered to improve transparency and clarity where needed. Our comments and associated recommendations are itemized below.

1. Expand the definition of “Geologic storage facility or storage facility” in 16 TAC §5.102(27) to include formations described in 26 USC §45Q.

16 TAC §5.102(27) defines the types of underground storage facilities used for the geologic storage of CO₂. The only geologic feature described within the definition is “underground reservoir.” While this term is broad, we recommend that it be amended to include the specific types of formations described within 26 USC §45Q(d)(2). This section of federal law describes those formations that may be used for secure geological storage for the purposes of the federal carbon dioxide sequestration tax credit. In particular, §45Q(d)(2) lists “deep saline formations, oil and gas reservoirs, and unmineable coal seams” as geologic formations that shall qualify as secure geological storage. We recommend that these formations be included in the definition of “geologic storage facility” in 16 TAC §5.102(27). This change would ensure consistency between the adopted rule and the federal requirements for carbon dioxide sequestration tax credits.

2. Define “fluid or injected fluid” in 16 TAC §5.102 to include CO₂.

Chapter 5 includes multiple references to “fluids” and “injection fluids” without describing what these substances include. For example, §5.202(d)(2)(B)(i)(III) authorizes the termination of a permit if “fluids are escaping or likely to escape the injection zone.” Further, the delineation of the area of review and corrective action required of a permit applicant in §5.203(d) must contemplate the relationship between injected fluids and underground sources of drinking water. And, as a final example, the permitting standards described within §5.206 prohibit the movement of “fluids” or “injection fluids” that endanger underground sources of drinking water. It is unclear in these and other examples precisely what type of fluid is subject to the applicable rule.



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The terms “fluid” or “injection fluid” are not defined for the purposes of Chapter 5. While 16 TAC §5.102(24) defines “formation fluid,” the definitions section in §5.102 does not define the other fluids listed throughout the chapter. Defining “fluid or injection fluid” in §5.102 would clarify those specific substances – namely CO₂ – subject to the applicable regulations within the proposed rules. Towards that end, we recommend amending the proposed rule with a definition of “fluid or injected fluid” that includes gaseous, liquid, or supercritical CO₂. Adding this definition would provide greater clarity to Chapter 5’s requirements.

3. Require that each draft permit fact sheet include a description of the source of CO₂ proposed to be injected and stored.

Proposed 16 TAC §5.202(e)(2) requires that the Oil and Gas Division Director prepare a fact sheet for each draft permit that includes a description of the proposed facility and quantity of CO₂ planned for injection and storage. This fact sheet would be made available to the permit applicant and, upon request, to any other person. The fact sheet shall also be included as part of the public notice for each permit application. We suggest that the fact sheet also include a description of the proposed source, or sources, of CO₂ for a CCUS project. Examples of potential sources could include electric generation facilities, manufacturing facilities, hydrogen generation facilities, or even direct air capture.

Given that the fact sheet is a public document for each permit application, and included as part of the public notice provided under §5.204(a), it should include a disclosure regarding potential sources of CO₂. If a proposed facility is planned to capture CO₂ from a specific source, then that is a material disclosure that should be made available early in the permitting process. This disclosure would enhance the transparency for each permit application while helping advance the policy argument for each proposed CCUS facility. Amending the fact sheet disclosure requirements in §5.202(e)(2) to require the description of the proposed CO₂ source(s) would achieve this result.

It’s worth noting that 26 USC §45Q provides a sequestration tax credit for the capture and disposal of “qualified carbon dioxide,” which includes CO₂ captured from an industrial source. Just as permit applicants would need to identify the source of their “qualified carbon dioxide” in order to qualify for a §45Q sequestration credit, they should be able to identify that source in their permit application.



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Lastly, the proposed rule states that the fact sheet shall be made available to any other person upon request. In the interest of enhancing the transparency of this critical RRC program, we suggest that fact sheets for proposed CCUS facilities be made publicly available on RRC's website.

4. Publish notice of proposed draft permits and hearing on RRC's website.

§5.204(a)(2) requires that RRC publish notice of a draft permit for a specified time in a newspaper of general circulation in each county where the storage facility will be located. As more Texans get their news and notices from on-line, rather than print, resources, we recommend that this publication requirement be expanded to include posting on RRC's website. Further, and in the interest of improving outreach to the Environmental Justice and Limited English Proficiency communities described elsewhere in the proposed rules (see §5.204(a)(6)), notices published on RRC's website should be in both English and Spanish.

5. Clarify that individual notice of draft permits be provided to persons or entities above the geologic storage facility.

The proposed rules require that individual notice be provided to certain persons and local governmental entities in the area of a proposed CCUS project. These persons and entities qualify for notice on the basis of their surface location in relation to the underlying proposed storage site. Subsections §5.204(a)(3)(A)(v), (viii), (ix), and (x) use different terms to describe that site, however. These terms include "storage reservoir," "storage facility," and "facility." In the interest of ensuring a uniform and consistent application of this notice requirement, we recommend that these terms be replaced with "geologic storage facility." This term is used for other individual notice requirements within §5.204(a)(3)(A) and is defined in §5.102(27).

6. Require that the annual report submitted by each operator include the source of CO₂ captured.

16 TAC §5.207(a)(2)(D) requires that an operator submit an annual report to the RRC detailing the tons of CO₂ injected, among other items. This section should be amended to include the source(s) of the injected CO₂. In addition, the annual report should disclose if the current sources of CO₂ have changed from those sources described in the permit



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application's fact sheet. These data will be important to RRC's monitoring and tracking of its CCUS permitting program. Moreover, these data will provide the public with a clear understanding of the types of industries engaging in CCUS programs. This level of reporting and transparency would work to enhance the policy argument for continued and expanded CCUS in Texas.

7. Develop RRC metrics for tracking CCUS success.

CCUS will be an integral component to Texas' continued energy expansion. If the EPA approves the agency's request for enforcement primacy of the Class VI underground injection well program, then RRC's new jurisdiction will play a critical role in statewide CCUS deployment. In light of the critical nature of this program, and its important work to remove anthropogenic carbon dioxide from Texas' air, we recommend that RRC develop public-facing metrics to inform Texans of the permitting program's success. Examples include: the number of CCUS facilities permitted; tons of CO₂ sequestered per year; and volumes of sequestered CO₂ emissions by source type.

RRC has already developed exceptionally informative data visualization maps highlighting state oil and gas production and permitting. We encourage the agency to consider developing similar maps for CCUS data once it becomes available.

Thank you for your time and consideration of these comments. We make these comments and recommendations in the earnest hope that they assist the Commission in its application for Class VI enforcement primacy. Please feel free to contact us should you have any questions, concerns, or wish to discuss further.

Sincerely,



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