

July 1, 2022

Railroad Commission of Texas
Attn: Leslie Savage, Chief Geologist
1701 N. Congress
Austin, Texas 78701

RE: Proposed amendments to 16 TAC Chapter 5 and the Commission's pre-application for Class VI Primacy from the U.S. EPA

Dear Ms. Savage:

The Environmental Defense Fund (EDF) appreciates the opportunity to provide comments in response to the proposed amendments to 16 TAC Chapter 5 and the Commission's pre-application for Class VI Primacy from the U.S. EPA. In most respects the RRC's proposed rules are technically excellent and EDF is generally supportive of the RRC's approach. We have five recommendations.

1. There is one regulatory issue that EDF believes is important for Texas to address even though doing so is not strictly necessary in order to obtain primacy – adopting measures that make sure CO2 injection projects do not cause earthquakes that would alarm the public and risk causing damage to life and property. As the Commission knows, the seismicity provisions of EPA's Class VI rule are limited to preventing earthquakes that are so large that they would jeopardize containment and thereby jeopardize underground sources of drinking water. Yet smaller earthquakes can alarm the public and do damage even if they don't threaten containment. The Railroad Commission, fortunately, has broad powers to guard the public welfare and is not limited the way EPA is.

Induced seismicity from Class VI projects is a real possibility and we recommend that the Commission do one of two things. One option would be to add provisions to this rule requiring projects to appropriately monitor for induced seismicity and to perform a risk analysis based on the resulting data that would indicate whether there is a significantly increased risk of felt earthquakes. If there is a significantly elevated risk, mitigation should be required. With some adjustments, we believe that section 4.3.2.3 (Seismicity Monitoring) of the CCS protocol adopted by the California Air Resources Board for projects seeking to qualify for the state's large Low Carbon Fuel Standard credit could serve as a useful model. The second

option would be for the Commission to include conditions in individual permits to achieve this same end. If the Commission prefers that approach, it might still be a good idea to add language to the proposed rule to serve as a basis for the permit conditions.

2. EDF recommends that the RRC give further thought to the issue of environmental justice (EJ). Carbon capture and sequestration will only be an effective greenhouse gas mitigation tool if it is coupled with proactive efforts to address historic disproportionate impacts on communities as well as new impacts. Moreover, it is our understanding that EPA expects to begin requiring states to address this issue as a condition of receiving primacy approvals. While it is not yet clear to us what EPA will require, EJ is a vital issue and we encourage the Commission to begin thinking outside the box as to how it can meaningfully address community impacts and engage with affected communities. As just one example, the Commission could discuss coordination on environmental justice issues with agencies (state or federal) that have roles to play in overseeing CO₂ capture and transportation.
3. We have doubts as to whether the RRC's exception process for transitioned wells in §5.203(e)(1)(B)(vii) is consistent with the requirements of 40 CFR at § 146.86 for Class VI wells. Any exceptions granted for well construction and operation must be granted in a way that is consistent with the EPA's Class VI requirements.¹
4. As currently written, §5.201 (g) does not define or cite to any particular definition of hazardous waste. We recommend that the RRC revise §5.201 (g) to avoid any confusion about the potential applicability of EPA's promulgated hazardous waste exclusion for carbon dioxide streams injected into Class VI wells for geologic sequestration. EDF recommends amending §5.201 (g) to clarify that "This subchapter does not apply to the injection of any CO₂ stream that meets the definition of a hazardous waste [under 40 CFR part 261](#)."²
5. EDF believes it is important that the RRC's approach to the initial delineation of the AOR be consistent with what is needed in order to determine the length of PISC period and required period of monitoring, i.e. a determination of the point at which the plume has or is expected to be essentially stabilized. Accordingly, EDF recommends that the 10 year minimum be deleted from §5.203(d)(1)(A)(i)(III). The provision would then focus solely on the cessation of plume movement and would read as follows:

¹ Additionally, the Commission may want to consider broadening this provision to apply to Class I, Class II and Class V wells that transition to Class VI.

² 40 CFR § 261.3 establishes the "Definition of hazardous waste". Carbon dioxide streams injected for geologic storage could potentially exhibit a hazardous characteristic (e.g., corrosivity) that would meet the definition of hazardous waste. But EPA promulgated 40 CFR § 261.4(h) to provide: "Carbon dioxide streams that are captured and transported for purposes of injection into an underground injection well subject to the requirements for Class VI Underground Injection Control wells, including the requirements in 40 CFR Parts 144 and 146 of the Underground Injection Control Program of the Safe Drinking Water Act, are not a hazardous waste, provided [specified] conditions are met". Thus, 40 CFR § 261.4 provides specific exclusions, stating that certain solid wastes are not hazardous waste. By adding the reference to 40 CFR part 261, the regulation will include the applicability of section 261.4(h).

(A) Delineation of AOR ~~{area of review}~~.

(i) Using computational modeling that considers the volumes and the physical and chemical properties of the injected CO₂ stream, the physical properties of the formation into which the CO₂ stream is to be injected, and available data including data available from logging, testing, or operation of wells, the applicant must predict the lateral and vertical extent of migration for the CO₂ plume and formation fluids and the pressure differentials required to cause movement of injected fluids or formation fluids into a USDW ~~{an underground source of drinking water}~~ in the subsurface for the following time periods:

- (I) five years after initiation of injection;
- (II) from initiation of injection to the end of the injection period proposed by the applicant; and
- (III) from initiation of injection until the plume movement ceases. ~~for a minimum of [to] 10 years after the end of the injection period proposed by the applicant.~~

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EDF again appreciates the opportunity to comment on this important rule as Texas prepares its Class VI primacy application. We look forward to working with Texas policymakers and other stakeholders as the state continues to develop a robust CCS oversight framework.

Respectfully submitted,

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