CENTER for INTERNATIONAL ENVIRONMENTAL LAW

3 July 2023

Michael S. Regan, Administrator
Radhika Fox, Assistant Administrator
Environmental Protection Agency
1101A EPA Headquarters
William Jefferson Clinton Building
1200 Pennsylvania Avenue, NW
Washington, D.C. 20004

Re: Public Comment on Docket No. EPA-HQ-OW-2023-0073
Submitted via regulations.gov

Dear Administrator Regan and Assistant Administrator Fox,

The Center for International Environmental Law (CIEL) respectfully submits these comments concerning the State of Louisiana's Application for Primacy over Class VI well permitting.[1]

We implore the EPA to reject Louisiana's application. According to the EPA, Class VI wells are used to inject carbon dioxide (CO_2) into geologic formations.[2] The primary function of Class VI wells is to facilitate carbon capture and storage (also known as carbon capture and sequestration), or "CCS." Because the State achieving Class VI primacy would accelerate the expansion of carbon capture activities in Louisiana, CIEL opposes the application because of the significant local and global risks CCS presents, particularly when conducted under an inadequate regulatory framework.[3]

First, expansion of CCS threatens the local environment and public health of frontline communities in areas where CCS infrastructure and storage facilities are located. The White House Environmental Justice Advisory Committee (WHEJAC) concluded in May 2021 that underground storage of CO_2 is a type of project that "will not benefit a community," and called

[1] Environmental Protection Agency, State of Louisiana Underground Injection Control Program; Class VI Program Revision Application (EPA-HQ-OW-2023-0073) (May 4, 2023); https://www.federalregister.gov/documents/2023/05/04/2023-09302/state-of-louisiana-underground-injection-control-program-class-vi-program-revision-application
[2] U.S. Envtl. Protection Agency (EPA), Class VI - Wells used for Geologic Sequestration of Carbon Dioxide | US EPA, https://www.epa.gov/uic/class-vi-wells-used-geologic-sequestration-carbon-dioxide
[3] *See generally* Center for International Environmental Law, Confronting the myth of carbon-free fossil fuels: Why carbon capture is not a climate solution (2021), https://www.ciel.org/wp-content/uploads/2021/07/Confronting-the-Myth-of-Carbon-Free-Fossil-Fuels.pdf

on the federal and state governments to invest only in projects that have clear community benefits and do not cause harm.[4] The capture, compression, transportation, injection, and storage of carbon dioxide pose significant environmental, health, and safety risks that are not adequately assessed or addressed under existing regulations.[5] Those risks are heightened in areas where geological formations, aquifer structures, weather patterns, and climate conditions increase the likelihood of leakage, rupture, and contamination due to subsidence, erosion, salinization, and other factors affecting the interaction of ground and surface waters and soils.

Second, CCS undermines efforts to mitigate global climate change by prolonging fossil fuel use and other high-emitting activities. Global emissions must rapidly fall in order to limit warming by 1.5° Celsius, with fossil fuels being the primary contributor to those emissions. This requires the phase out of fossil fuels, not their purported marginal improvement. By contrast, CCS allows the industry to continue operating and polluting, delaying the needed transition.

Third, injecting and storing CO_2 underground for ten or even fifty years is not "permanent" sequestration. In order to meet the climate promises made by proponents of CCS, the CO_2 injected underground must be permanently stored - not just for several decades, but in perpetuity to prevent the CO_2 from being released into the atmosphere.[6] It is not clear whether this is possible at the scale proposed by proponents. Moreover, transferring liability for underground CO_2 to the public after a mere ten years[7] (thereby "socializing" the liability) poses unnecessary environmental, health, safety and fiscal risks to Louisiana residents, while letting operators off the hook.

In July 2021, we submitted comments to the Louisiana Department of Natural Resources on their primacy application and we received their response to those comments in September of 2021.[8] What follows is a non-exhaustive list of our remaining concerns about Louisiana attaining primacy for Class VI injection wells that we would like to bring to the attention of the U.S. Environmental Protection Agency, for consideration when evaluating the present application. In particular, we wish to highlight: (1) the heightened risks underground CO_2 injection and storage poses in Louisiana; (2) shortcomings and capacity constraints impairing the state's enforcement of environmental regulations and prevention of environmental racism and other forms of environmental injustice; and (3) concerns about the regulatory framework applicable to Class VI wells and the carbon capture activities served by those wells.

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[4] White House Environmental Justice Advisory Council, Justice40 Climate and Economic Justice Screening Tool & Executive Order 12898 Revisions: Interim Final Recommendations 55-58 (May 13, 2021), https://www.epa.gov/sites/production/files/2021-05/documents/whejac_interim_final_recommendations_0.pdf

[5] Council on Environmental Quality Report to Congress on Carbon Capture, Utilization, and Sequestration (2021), 38–43 https://www.whitehouse.gov/wp-content/uploads/2021/06/CEQ-CCUS-Permitting-Report.pdfv

[6] Sekera, J., Lichtenberger, A. Assessing Carbon Capture: Public Policy, Science, and Societal Need. *Biophys Econ Sust* 5, 14 (2020). https://doi.org/10.1007/s41247-020-00080-5

[7] La. Revised Statutes RS 30:1109 (§1109 Cessation of storage operations; liability release), available at http://legis.la.gov/Legis/Law.aspx?d=670795

[8] LA Summary Report of Public Comment 9-17-2021 508 at 58. https://www.regulations.gov/document/EPA-HQ-OW-2023-0073-0011

1. **Louisiana is particularly vulnerable to environmental, health, and safety risks of underground CO_2 injection.**

The State of Louisiana still has not addressed the specific geologic uncertainties and vulnerabilities surrounding carbon dioxide injection in Louisiana. Carbon dioxide pipelines and injection wells located in wetlands may be at increased risk of leaks or breaks, which threaten surrounding communities.[9] Vulnerabilities could include pipeline corrosion from coastal saltwater, the erosion of the wetlands themselves which would threaten the stability of pipelines and injection wells, and coastal flooding and storms.[10]

Louisiana's existing oil and gas industry presents another set of risks. CO_2 pipelines and injection wells would have to compete for space and interact with the pre-existing networks of petroleum wells and pipelines already in place. Old wells from oil and gas extraction can serve as pathways for injected carbon dioxide to escape back into the atmosphere.[11] Oil and gas extraction can also alter the underground geography by cracking rocks, making the geology less conducive to the storage of carbon dioxide. Induced seismicity is also a concern as CO_2 is injected underground.[12]

Additionally, the increasing impacts of climate change in Louisiana magnify these preexisting risks. Storms, floods, and coastal erosion are accelerating or increasing in frequency and intensity.[13] Leaks, spills, or other CO_2 well failures caused by extreme weather events and changing climate conditions would compound the already-significant risks that nearby communities face from climate impacts, concentrating exposure in the same overburdened populations.

For these reasons, Louisiana is particularly vulnerable to environmental and health harms associated with underground CO_2 injection and storage. As will be described in the next sections, this risk is likely to be magnified by shortcomings in enforcement and an inadequate regulatory structure.

2. **Louisiana has a concerning track record when it comes to enforcement of environmental regulations**

In our previous comments to the state, we raised our concerns with the state's track record with unplugged, orphaned, and otherwise inactive wells. In response, the state stated that "there will

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[9] *See* Nat'l Energy Tech. Lab., Overview of Potential Failure Modes and Effects Associated with CO_2 Injection and Storage Operations in Saline Formations at 2, 4, and 24. (2020), https://www.energy.gov/sites/default/files/2021/01/f82/DOE-LPO_Carbon_Storage_Report_Final_December_2020.pdf

[10] Bureau of Ocean Energy Management, Best Management Practices for Offshore Transportation and Sub-Seabed Geologic Storage of Carbon Dioxide, Platform Equipment, Wells, and Storage Reservoir Mitigation (2017). https://espis.boem.gov/final%20reports/5663.pdf

[11] *Id*. at 9 ("If not properly constructed or plugged and abandoned, well bores may be potential leakage pathways through which CO_2 may escape…")

[12] Sally Benson et al., Underground Geological Storage, in IPCC SPECIAL REPORT ON CARBON DIOXIDE CAPTURE AND STORAGE, at 249 https://www.ipcc.ch/site/assets/uploads/2018/03/srccs_chapter5-1.pdf

[13] US EPA, What Climate Change Means for Louisiana (2016), https://19january2017snapshot.epa.gov/sites/production/files/2016-09/documents/climate-change-la.pdf

be no direct competition for funding between the respective programs regulating injection wells and orphan wells."[14] However, the issue at hand is not specifically about diverting money or resources, but rather about the state's track record and accountability with oversight of its oil and gas industry. The state has tens of thousands of unplugged, orphaned, or otherwise inactive wells.[15] The failure of the State to manage and track its orphan wells suggests it will not be able to adequately conduct the kind of scoping, supervision, and monitoring necessary for the injection well program. In the context of Class VI well permitting this is especially important, given the risk of carbon dioxide leaks through existing well bores.

In the context of environmental justice, we raised the issue of the use of EJSCREEN as a mechanism for evaluating environmental justice impacts from CO_2 injection and storage. While that state claims "Peer-reviewed literature, stakeholder input, and other available forms of data *may* be used to evaluate the need for the applicant to conduct a more in-depth EJ analysis," and the EPA understands that "qualified third party reviewers" will help evaluate, we want to emphasize the importance of adhering to the EPA best practices for understanding, assessing, addressing, and remedying environmental justice concerns of CO_2 injection wells. EPA's best practices outlined in the 2016 *Technical Guidance for Assessing Environmental Justice in Regulatory Analysis* are a much better tool than EJSCREEN for the state to use in assessing risk to communities.[16]

We also raised the issue of how simply notifying a community of environmental justice concerns was not adequate to address, prevent, or mitigate those concerns, adding that there should be mechanisms in place for a permit to be denied upon demand from potentially impacted communities. The state responded that the EPA has never recommended that any existing primacy for injection wells be altered or revoked. This response is inapt, as even if EPA has not recommended revocation of primacy for permitting other classes of wells, Class VI wells are different in kind and the state has not dealt with them before. Moreover, the scale at which corporate actors are targeting Louisiana for carbon dioxide injection should give pause for transferring such authority, and necessitates heightened scrutiny. The state should have mechanisms within its Class VI program to address, prevent, or mitigate community concerns with Class VI wells beyond simple notification before this application is approved.

3. Concerns about the regulatory framework governing class VI wells and the CCS activities that would lead to their use

In our previous comments to the state, we raised our concerns about the use of eminent domain to acquire subsurface rights, as well as the surface rights needed to support a CCS facility and the pipelines necessary to serve it. Those concerns were not addressed in response from the state, and so we bring them up again here, considering how much of a threat underground

[14] LA Summary Report of Public Comment 9-17-2021 508 at 59. https://www.regulations.gov/document/EPA-HQ-OW-2023-0073-0011

[15] Interstate Oil and Gas Compact Comm'n, Idle and Orphan Oil and Gas Wells: State and Provincial Regulatory Strategies (2021), https://iogcc.ok.gov/sites/g/files/gmc836/f/documents/2022/iogcc_idle_and_orphan_wells_2021_final_web_0.pdf (indicating Louisiana has 4,260 orphan wells, 23,448 idle wells, and 59,093 documented drilled and unplugged wells).

[16] U.S. Envtl. Protection Agency (EPA), Technical Guidance for Assessing Environmental Justice in Regulatory Analysis - April 2016, https://www.epa.gov/sites/production/files/2016-06/documents/ejtg_5_6_16_v5.1.pdf

storage could be for surface owners in the state.

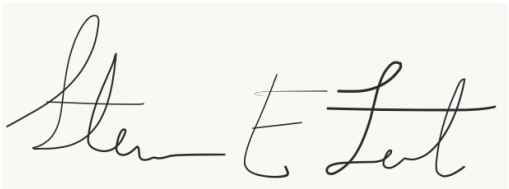
The establishment of pathways in law to use eminent domain for the construction of CO_2 pipelines raises concerns that projects will be rushed forward, further stressing the ability of the State of Louisiana to provide proper oversight of Class VI permitting. Revised Statute 30:1102(A)(2) characterizes carbon dioxide as a "valuable commodity" to the citizens of the state.[17] Because Revised Statute 30:1102(A) defines CCS as in the "public interest," it is possible that eminent domain could be used for CCS projects in the state, including the siting of Class VI wells.[18] Indeed, Revised Statute 30:1108 states that a CCS operator who has obtained a certificate of public convenience and necessity from the Louisiana Office of Conservation can use the power of eminent domain to acquire subsurface rights, as well as the surface rights needed to support a CCS facility and the pipelines necessary to serve it.[19] The prospect that eminent domain may be deployed to facilitate underground CO_2 injection, despite the aforementioned significant risks it poses and deficiencies in environmental justice protections, elevates concerns about the present application for primacy.

Conclusion

Underground injection of carbon dioxide is a complicated technical, regulatory, and legal matter, and authority over its permitting process should not be transferred without adequate demonstration of competence from the State. Because of its geography, history of oil and gas development, and exposure to the impacts of climate change, Louisiana is uniquely vulnerable to environmental and health harms from underground storage of CO_2. The state also has a poor track record of enforcing environmental regulations and an insufficient framework for considering and preventing environmental justice harms. Finally, Louisiana's regulatory framework for carbon capture and sequestration, including regulations pertaining to Class VI injection wells, raises several concerns. For these reasons, the Environmental Protection Agency should reject the Louisiana Department of Natural Resources Class VI well primacy application.

Thank you for your consideration of these comments. Should you have any questions, please do not hesitate to contact us.

Sincerely,



[17] La. Revised Statutes RS 30:1102, (§1102. Policy; jurisdiction), available at http://legis.la.gov/Legis/Law.aspx?p=y&d=670788
[18] *Id*.
[19] La. Revised Statutes RS 30:1108 (§1108 Eminent domain; expropriation), available at http://legis.la.gov/Legis/Law.aspx?d=670794

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