

# Concerns with Offshore Carbon Dioxide Injection Rulemaking

April 30, 2026

Secretary Doug Burgum  
Department of the Interior  
Bureau of Ocean Energy Management  
1849 C Street NW,  
Washington, DC 20240

Dear Secretary Burgum:

On behalf of an alliance of public-interest, landowner, Indigenous, and environmental justice organizations, we write to express serious concerns regarding the Department of the Interior's ongoing work to establish a regulatory program for offshore carbon dioxide storage on the Outer Continental Shelf.

We urge the Bureau of Ocean Energy Management (BOEM) and the Bureau of Safety and Environmental Enforcement (BSEE) to pause the rulemaking process for [RIN: 1082-AA04](#) planned to move forward in May of 2026 until you close tremendous regulatory and oversight gaps to ensure the overall safety of transporting and injecting carbon dioxide, conduct Comprehensive Spatial Planning, and finalize a robust Environmental Impact Statement under the National Environmental Policy Act.<sup>1</sup>

There are significant concerns with onshore carbon dioxide transportation and injection stemming from significant regulatory gaps and technical challenges that, if addressed, could help inform but not fully apply to the [distinct technical and environmental challenges](#) of offshore carbon dioxide storage.<sup>2</sup> Offshore geologic sequestration involves different and more complex reservoir conditions; monitoring constraints; cumulative impact concerns; complex liability issues; corrosion from saltwater; and marine-specific environmental and economic risks including energy infrastructure, fisheries, protected habitats, and unique marine ecological concerns such as existing hypoxic zones.

BOEM's own [environmental studies materials](#) state that the agency still needs information on the potential impacts to the human, marine, and coastal environments, effective monitoring methods, and region-specific mitigation measures to support NEPA analysis, leasing decisions, and program guidance.<sup>3</sup> Without taking steps to address the [serious scientific questions](#) and research needed to understand the additional challenges of carbon dioxide sequestration in an

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<sup>1</sup> DOI/ASLM [Carbon Sequestration Rulemaking](#). Federal Register, 2025.

<sup>2</sup> USEPA. Report to Congress, in Consultation with the Bureau of Ocean Energy Management, on the Class VI Program Relevance to the Outer Continental Shelf. 2022. At 6-7.

<sup>3</sup> BOEM. "Understanding Impacts of Offshore Carbon Sequestration on the Marine Environment: Informing Operational Management Needs Through Focused Literature Review and Synthesis" Environmental Studies Program: Studies Development Plan. FY 2024-2025. At 2-3.

oceanic environment, we will be opening coastal communities and the marine environment to unnecessary risks.<sup>4</sup>

Despite significant safety and oversight concerns with existing land-based commercial carbon storage operations, industry professes confidence that it can properly capture, transport, and store CO<sub>2</sub> in offshore reservoirs. While the industry expounds robust optimism for the viability and safety of this technology, BOEM has a responsibility to oversee safe and environmentally responsible development activities on the OCS, not just take industry at their word, especially an industry with a history marred with [disinformation](#) to mislead the public and decision makers.<sup>5</sup>

Plans to move this rulemaking forward now seem driven not by scientific readiness, but by industry efforts to capitalize on generous federal subsidies, primarily through the 45Q tax program. The recent [expansion of 45Q](#) and [reductions in public oversight](#) have created a strong financial incentive to rapidly develop carbon capture and storage projects, including the offshore proposals your agency will oversee.<sup>6</sup> This dynamic risks prioritizing speed over safety, encouraging deployment of this technology in a more complicated offshore environment, while onshore concerns with safety and oversight for pipeline and injection wells remain unaddressed. It would be concerning for these regulations to move forward while the Federal Government has failed to address longstanding concerns with the safety of injection wells and pipelines of onshore projects and without a deeper understanding of impacts on carbon dioxide injections and transport in a marine environment.

**Below is a summary of key concerns about offshore projects that you must evaluate and understand before any regulatory proceeding moves forward:**

**Systemic land-based carbon dioxide injection well failures:** Experience with onshore carbon dioxide injection has identified [persistent concerns](#) related to [well integrity, including corrosion](#) and [cement degradation](#), as well as challenges with monitoring, plume tracking, and identifying potential [leakage pathways](#) through faults and legacy wells.<sup>7,8,9,10</sup> In some cases, injection wells are associated with [increasing seismicity](#).<sup>11</sup> [Members of Congress](#) and [advocates](#) are also raising significant concerns with the safety, enforcement, and oversight of land-based

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<sup>4</sup> BOEM. "Understanding Impacts of Offshore Carbon Sequestration on the Marine Environment: Informing Operational Management Needs Through Focused Literature Review and Synthesis" Environmental Studies Program: Studies Development Plan. FY 2024-2025. At 2-3.

<sup>5</sup> Maloney, Carolyn and Khanna, Ro. Investigation of Fossil Fuel Industry Disinformation. House Committee on Oversight. Dec 9, 2022.

<sup>6</sup> Global CCS Institute. "U.S. Preserves and Increases 45Q Credit in "One Big Beautiful Bill Act"" July 8, 2025.

<sup>7</sup> Warner, Travis et al. "Overview of Potential Failure Modes and Effects Associated with CO<sub>2</sub> Injection and Storage Operations in Saline Formations." National Environment and Technology Lab 2020.

<sup>8</sup> Center for International Environmental Law. Deep Trouble: The Risks of Offshore Carbon Capture and Storage. November 2023.

<sup>9</sup> Ting, Xaio, "A review of risk and uncertainty assessment for geologic carbon storage" Los Alamos National Laboratory. November 21, 2023. At 10.

<sup>10</sup> NRDC. Strengthening the Regulation of Enhanced Oil Recovery to Align it with the Objectives of Geological Carbon Dioxide Sequestration. November 2017. At page 25-26.

<sup>11</sup> Cheng, Yuxiang. Seismicity induced by geological CO<sub>2</sub> storage: A review. Earth Science Reviews. April 2023.

carbon dioxide injections by the Environmental Protection Agency, as well as inadequate safety standards from the Pipeline and Hazardous Materials Safety Administration for [transporting](#) carbon dioxide via pipelines.<sup>12,13,14</sup> Most notably, a carbon dioxide [pipeline rupture](#) in Satartia, Mississippi, led to dozens of people going to the hospital, some suffering long-term cognitive disabilities from carbon dioxide exposure.<sup>15</sup> [Failures](#) at the landmark carbon dioxide injection well in Decatur, Illinois, as well as hundreds of [well failures in Texas](#), have exposed [significant issues](#) with the ability to effectively monitor and safely store carbon dioxide in injection wells.<sup>16,17,18</sup>

**Impacts of catastrophic or slow leaks of carbon dioxide on marine ecosystems and water chemistry are not well understood:** A growing body of research, including laboratory studies, modeling, and limited field experiments, has examined subsea carbon dioxide releases, but important [uncertainties remain](#) regarding the scale, persistence, and cumulative effects of leaks in real-world offshore environments.<sup>19</sup> Long stretches of underwater [pipeline are subject to corrosion](#) and damage, making them potential leakage points.<sup>20</sup> Wellbores, unidentified or improperly plugged wells, vessel transportation incidents, and fractures or weaknesses in caprock formations can also provide [pathways](#) for carbon dioxide migration and release along with toxic fluid.<sup>21</sup> What is known is that carbon dioxide releases can cause a reduction in oxygen levels, causing suffocation of marine life and [broader areas of acidification](#) that [can adversely impact biota](#).<sup>22,23</sup> Leaked fluid from storage reservoirs may also [contain toxic compounds that](#)

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<sup>12</sup> Casten, Sean and Huffman, Jarred. Concerns regarding the adequacy of the Environmental Protection Agency's (EPA) oversight of underground injection control wells used for carbon dioxide. September 21, 2025

<sup>13</sup> Food & Water Watch et al. EPA Must Immediately Stop CO2 Injection Wells to Protect Public Safety and Drinking Water. October 22, 2024.

<sup>14</sup> Omar, Illina. Et al. Ongoing rulemaking at the Pipeline and Hazardous Materials Safety Administration (PHMSA) concerning the transport of carbon dioxide (CO2) via pipelines. October 3, 2023.

<sup>15</sup> Ziegart, Dan. The Gasing of Satartia. Aug 21, 2021.

<sup>16</sup> Casten, Sean and Huffman, Jarred. Concerns regarding the adequacy of the Environmental Protection Agency's (EPA) oversight of underground injection control wells used for carbon dioxide. September 21, 2025

<sup>17</sup> Russ, Abel. Concerns regarding the Texas Railroad Commission's UIC Program. Environmental Integrity Project. October 2, 2024.

<sup>18</sup> Food & Water Watch et al. EPA Must Immediately Stop CO2 Injection Wells to Protect Public Safety and Drinking Water. October 22, 2024.

<sup>19</sup>Rastelli, Eugenio. "Impact of CO<sub>2</sub> leakage from sub-seabed carbon dioxide capture and storage (CCS) reservoirs on benthic virus–prokaryote interactions and functions." *Frontiers in Microbiology*. September 7, 2015.

<sup>20</sup> Snider, Annie. Carbon storage projects hit a hurdle: Corroding steel. *E&E News*. October 10, 2024.

<sup>21</sup> Carroll, Susan A. Key factors for determining groundwater impacts due to leakage from geologic carbon sequestration reservoirs. *International Journal of Greenhouse Gas Control*. October 2014.

<sup>22</sup> Molari, Massimiliano. "CO<sub>2</sub> leakage can cause loss of benthic biodiversity in submarine sands." *Marine Environmental Research*. Feb 2019.

<sup>23</sup> Rastelli, Eugenio. "Impact of CO<sub>2</sub> leakage from sub-seabed carbon dioxide capture and storage (CCS) reservoirs on benthic virus–prokaryote interactions and functions." *Frontiers in Microbiology*. September 7, 2015.

[pollute the water column directly](#), posing threats to marine life as well as fisheries or consumers that depend on impacted species.<sup>24,25,26</sup>

**Offshore freshwater aquifers can fall into dangerous regulatory gaps:** While the Safe Drinking Water Act protects underground sources of drinking water, offshore [freshwater reservoirs remain largely unstudied](#) and undeveloped, in part because coastal communities rely on more accessible and affordable onshore supplies.<sup>27</sup> This creates significant vulnerability because aquifers that could serve as future drinking water sources may not be identified or recognized as protected in practice. As freshwater scarcity intensifies, these untapped resources will become increasingly important, yet have inadequate safeguards from [carbon dioxide leakage](#) that can increase water acidity and mobilize toxic constituents that degrade water quality.<sup>28</sup> Thus, it is imperative that your agency understand and consider the risks to these aquifers in any such rulemaking you undertake.<sup>29,30</sup>

**Safety impacts on workers and first responders:** Equipment for capturing, storing, and injecting carbon dioxide presents distinct safety risks, particularly where it is colocated with existing oil and gas infrastructure. Carbon dioxide is a colorless, odorless gas that can act as an asphyxiant, even at lower levels of concentration, displacing oxygen and [impairing human awareness and motor function](#).<sup>31</sup> This can create a scenario where workers and first responders may not be able to safely operate or effectively respond to an incident at offshore oil and gas infrastructure due to simultaneous releases of carbon dioxide and fossil fuels. In an offshore environment, these risks may be amplified by logistical challenges of emergency response in offshore areas. The [Deepwater Horizon leak](#), which released uncontrolled hydrocarbons into the ocean for nearly three months, would have been significantly harder to address if uncontrolled carbon dioxide release prevented first responders, rescue workers, and repair crews from accessing the release site.<sup>32</sup>

**Coastal fishing and tourism industries are at risk of economic damage:** Carbon storage project construction will add to the existing burdens of coastal communities by threatening the

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<sup>24</sup> Carroll, Susan A. Key factors for determining groundwater impacts due to leakage from geologic carbon sequestration reservoirs. *International Journal of Greenhouse Gas Control*. October 2014.

<sup>25</sup> Molari, Massimiliano. "CO<sub>2</sub> leakage can cause loss of benthic biodiversity in submarine sands." *Marine Environmental Research*. Feb 2019.

<sup>26</sup> Rastelli, Eugenio. "Impact of CO<sub>2</sub> leakage from sub-seabed carbon dioxide capture and storage (CCS) reservoirs on benthic virus–prokaryote interactions and functions." *Frontiers in Microbiology*. September 7, 2015.

<sup>27</sup> USEPA. Report to Congress, in Consultation with the Bureau of Ocean Energy Management, on the Class VI Program Relevance to the Outer Continental Shelf. 2022. At 6-7.

<sup>28</sup> USEPA. Federal Requirements Under the Underground Injection Control (UIC) Program for Carbon Dioxide (CO<sub>2</sub>) Geologic Sequestration (GS) Wells. *Federal Register*. Dec 10, 2010.

<sup>29</sup> Para, Sacha Enormous freshwater reservoir discovered off the East Coast may be 20,000 years old and big enough to supply NYC for 800 years. Jan 21, 2026.

<sup>30</sup> Gustafson, Key, and Evans. Aquifer systems extending far offshore on the U.S. Atlantic margin. Jun. 18, 2019.

<sup>31</sup> The National Institute for Occupational Safety and Health. Carbon Dioxide. Center for Disease Control website, accessed April 1, 2026. <https://www.cdc.gov/niosh/idlh/124389.html>

<sup>32</sup> USEPA. Deepwater Horizon – BP Gulf of America Oil Spill. <https://www.epa.gov/enforcement/deepwater-horizon-bp-gulf-america-oil-spill> accessed April 2, 2026.

economic security of local residents whose livelihoods in the fishing and tourism sectors depend on clean water and environmental preservation. Coastal communities have experienced decades of [environmental and economic impacts associated with oil and gas development](#), including spills, legacy contamination, and aging infrastructure.<sup>33</sup> The GAO has found that idle offshore wells can pose ongoing environmental risks, including leakage if not plugged, and as of 2023, they identified [over 2700 wells that were in need of decommissioning](#) in the Gulf of Mexico.<sup>34</sup> These wells also pose potential [pathways for carbon dioxide to escape](#) into the marine environment.<sup>35</sup> Leaks of carbon dioxide in underwater environments can [disrupt marine life](#), creating more strain on the fishing industry.<sup>36</sup> Large volumes of gas released into water can also reduce water density, impacting the buoyancy of ships, [posing risk of ships capsizing and sinking](#).<sup>37</sup>

**Carbon Dioxide for oil extraction compounds existing risks to coastal economies:** Over 90% of existing carbon dioxide injection projects in the United States support [oil extraction](#).<sup>38</sup> Carbon storage projects utilizing enhanced oil recovery in offshore areas threaten the economic security of local residents, whose livelihoods in the fishing and tourism sectors depend on clean water and environmental preservation, by increasing sources of future oil leaks. NOAA responds to over [150 oil spills per year](#), which can force fishery closures, contaminate seafood sources, and deter tourism, with [impacts](#) that can persist long after an initial release.<sup>39,40</sup> Major incidents such as the 2010 Deepwater Horizon spill demonstrate the scale of these risks, with millions of barrels of oil released over several months, causing [widespread](#) injury to marine life, contamination of habitats, and economic disruption to fishing and tourism industries across the Gulf Coast.<sup>41</sup> The recent 730-barrel release from LOOP has [shut down oyster production in](#)

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<sup>33</sup> Andrews, Nathan. Oil, fisheries and coastal communities: A review of impacts on the environment, livelihoods, space and governance. Energy Research and Social Science

<sup>34</sup> Government Accountability Office. Offshore Oil and Gas: Interior Needs to Improve Decommissioning Enforcement and Mitigate Related Risks. January 25, 2024.

<sup>35</sup> S. Taku Ide. "CO2 leakage through existing wells: current technology and regulations" Dept. of Petroleum Engineering, Stanford Univ, National Livermore Lab.

<sup>36</sup> Rastelli, Eugenio. "Impact of CO<sub>2</sub> leakage from sub-seabed carbon dioxide capture and storage (CCS) reservoirs on benthic virus–prokaryote interactions and functions." *Frontiers in Microbiology*. September 7, 2015.

<sup>37</sup> Pierro, Alessio. "CONSEQUENCES ON BUOYANCY LOSS IN CASE OF SUBSEA GAS DISPERSION." *Human and Sustainable Engineering*.

<sup>38</sup> EPA. Supply, Underground Injection, and Geologic Sequestration of Carbon Dioxide. EPA website, accessed, April 2, 2026

<https://www.epa.gov/ghgreporting/supply-underground-injection-and-geologic-sequestration-carbon-dioxide>

<sup>39</sup> NOAA Damage Assessment, Remediation, and Restoration Program. NOAA website accessed April 2, 2026. <https://darrp.noaa.gov/oil-spills>

<sup>40</sup> NOAA. Oil and Chemical Spills: NOAA provides scientific expertise, data, tools, training, and assistance to help people respond to oil and chemical spills. <https://oceanservice.noaa.gov/hazards/spills/> Accessed, April 2, 2026.

<sup>41</sup> NOAA Sea Turtles, Dolphins, and Whales - 10 Years after the Deepwater Horizon Oil Spill. NOAA website, accessed April 2, 2026 <https://www.fisheries.noaa.gov/national/marine-life-distress/sea-turtles-dolphins-and-whales-10-years-after-deepwater-horizon-oil>

[Terrebonne Bay](#).<sup>42</sup> Shrimping families have been [forced to work farther and farther offshore](#) due to the Gulf Dead Zone that emerges in the Gulf's shallow waters each summer.<sup>43</sup>

Again, we ask for a pause in the rulemaking process until tremendous regulatory and oversight gaps are closed to ensure the overall safety of transporting and injecting carbon dioxide, and further ask that you conduct Comprehensive Spatial Planning, as well as an Environmental Impact Statement under the National Environmental Policy Act to evaluate and understand the complex issues related to offshore carbon dioxide injection and transport.

Sincerely,

### **Original Signatory**

Bold Alliance  
Center for Biological Diversity  
Clean Ocean Action  
Climate Justice Alliance  
Food & Water Watch  
For a Better Bayou  
Healthy Gulf  
Indigenous Environmental Network  
Ocean Conservation Research  
Oil Change International  
Science and Environmental Health Network  
The Alliance for Affordable Energy  
The Raices Collab Project

### **Signatories**

A Community Voice  
AbibiNsroma Foundation  
Alaska Community Action on Toxics  
Animals Are Sentient Beings, Inc  
Between the Waters  
Biofuelwatch  
Bold Alliance  
Center for Biological Diversity  
Center for International Environmental Law  
Center for Progressive Reform  
Center on Race, Poverty & the Environment  
Clean Ocean Action  
Climate Crisis Working Group (Indivisible Mohawk Valley)  
Climate Conversation Brazoria County  
Climate Hawks Vote Civic Action  
Climate Justice Alliance  
Climate Reality - NJ

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<sup>42</sup> Louisiana, Gray. Louisiana shuts down some oyster harvesting areas after oil spill raises contamination fears. WAFB 9. March 18, 2026

<sup>43</sup> Crockett, Jennifer. Terrebonne Parish fishermen say oil spill is already hurting business. Fox 8 Mar 19, 2026

Climate Reality Project Greater New Orleans Chapter  
Commission Shift  
Concerned Citizens of St. John  
Concerned Health Professionals of Pennsylvania  
Cook Inletkeeper  
DivestNJ  
Don't Gas the Meadowlands Coalition  
Earth Neighborhood Productions  
Elders Coalition for Climate Action  
ENSO  
Environmental Defense Center  
Family Farm Defenders  
Food & Water Watch  
For a Better Bayou  
Fox Valley Citizens for Peace & Justice  
Good Neighbor Steering Committee of Benicia  
Grassroots Environmental Education  
Great Plains Action Society  
Greater New Orleans Interfaith Climate Coalition  
Greenpeace USA  
Healthy Gulf  
Hip Hop Caucus  
Inclusive Louisiana  
Indigenous Environmental Network  
Indivisible Scarsdale  
Institute for Agriculture and Trade Policy  
Institute for Policy Studies Climate Policy Program  
International Marine Mammal Project of Earth Island Institute  
JUJustice Washington  
League of Conservation Voters  
Louisiana League of Conscious Voters  
M-W & Associates Environmental Policy  
New York Progressive Action Network  
North American Climate, Conservation and Environment (NACCE)  
Nuclear Information and Resource Service  
NYPAN enviro committee  
Ocean Conservation Research  
Ocean Defense Initiative  
Oil and Gas Action Network  
Oil Change International  
One Mississippi  
Physicians for Social Responsibility  
Physicians for Social Responsibility - Los Angeles  
Port Arthur Community Action Network (PACAN)  
PSR Iowa Chapter  
Putnam Progressives  
Rivers & Mountains GreenFaith  
S.A.F.E. Communities  
San Francisco Bay Physicians for Social Responsibility  
SanDiego350  
Santa Cruz Climate Action Network

Save Our Illinois Land  
SaveOurWhalesNow.org  
Science and Environmental Health Network  
Seneca Lake Guardian  
SF Baykeeper  
Sierra Club Louisiana Chapter  
SoCal 350 Climate Action  
Southern Oregon Climate Action Now  
Sunflower Alliance  
Surfrider Foundation  
Texas Impact  
The Alliance for Affordable Energy  
The Enviro Show  
The Raices Collab Project  
The Wei LLC  
Therapists for Peace & Justice  
Third Act  
Third Act - Virginia  
Third Act Georgia  
Third Act MA  
Third Act Maine  
Third Act Maryland  
Third Act New Jersey  
Third Act NYC  
Third Act Oregon  
Third Act Sacramento  
Third Act So Cal  
Third Act Texas  
Third Act Upstate New York  
Third Act Washington  
Turtle Island Restoration Network  
Unitarian Universalists for a Just Economic Community  
United Native Americans  
Urbecon LLC  
Walkearth.org  
Waterspirit  
100 Grannies for a Livable Future  
1000 Grandmothers for Future Generations  
350 Bay Area Action  
350 Triangle  
350NYC

Cc:

Kenneth Stevens, Principal Deputy Director, Exercising the Delegated Authorities of the Director, Bureau of Safety and Environmental Enforcement

Matthew Giacona, Acting Director, Bureau of Ocean Energy Management