

# EPA Must Immediately Stop CO2 Injection Wells to Protect Public Safety and Drinking Water

The Honorable Michael Regan  
Environmental Protection Agency  
1200 Pennsylvania Avenue NW  
Washington, DC 20460

October 22, 2024

Dear Administrator Regan,

We, the undersigned organizations dedicated to environmental justice, public health, scientific integrity, and sustainable climate policy, are writing to ask you to suspend permits for injecting carbon dioxide (CO<sub>2</sub>) underground, permitting of new CO<sub>2</sub> injection wells, approval of primacy applications for CO<sub>2</sub> injection wells, and to direct states with primacy over injection wells to halt injections and permitting of wells. The Environmental Protection Agency (EPA) must exercise its broad authority to protect sources of drinking water from “imminent and substantial endangerment” under the Safe Drinking Water Act, 42 U.S.C. § 300i, which has been revealed by the multiple recent leaks of carbon dioxide from underground injection control wells.

These demands stem from 1) multiple leaks of CO<sub>2</sub> and equipment failures at the Archer Daniels Midland (ADM) facility in Decatur, Illinois; 2) new [information](#) about an increase in non-compliance violations in Texas Class II wells starting in 2011; 3) a higher percentage of Class II Texas CO<sub>2</sub> injection wells that have failed one or more mechanical integrity tests when these wells are compared to other Class II wells; and 4) [findings](#) at EPA that steel used for well construction at the ADM site, and others around the country, is prone to corrosion in CO<sub>2</sub> injection wells. Our demands also align with October 2024 [recommendations](#) from the White House Environmental Justice Advisory Council. The disproportionate development of [injection wells](#) and other carbon capture infrastructure on environmental justice communities will increase the risk of harm to communities already overburdened by pollution and is inconsistent with the administration's climate justice [goals](#).

This June, EPA specifically communicated its concerns in an [email](#) to injection well applicants with pending permits that steel and cement used in wells “are NOT suitable for construction of these wells in most instances, particularly under potentially corrosive conditions when both water and CO<sub>2</sub> are present.” Yet, EPA continues to allow injections at wells with unsuitable conditions. While ADM has, after two leaks, temporarily ceased injection, EPA should proactively exercise its authority to protect the public from leaks before more occur, rather than rely on profit driven corporations to decide when they will stop putting the public at risk.

These leaks, as well as the new findings in Texas, highlight the broader risks posed to drinking water, public health, and our climate by both Class VI and Class II injection wells used for CO<sub>2</sub>

storage and oil recovery respectively. These concerns are not only with the well construction materials, but also with the EPA's lack of transparency and oversight associated with these leaks.

The events at the ADM facility have brought to light systemic problems with CCS technology and its regulation, raising serious concerns that CCS is neither safe nor viable. Reported failures at monitoring and detection systems due to corrosion and the migration of CO<sub>2</sub> outside the intended storage zone expose multiple levels of failure. What is perhaps more concerning is that EPA has [identified](#) that injection wells around the country have the same design and material flaws that led to corrosion at at least one of ADM's leaking wells, raising concerns that CO<sub>2</sub> injection wells could very well be leaking significant quantities of CO<sub>2</sub> into groundwater and the atmosphere.

To date, ADM has [acknowledged](#) the release of at least 1,394 metric tons of CO<sub>2</sub> between 2018 and 2022. We also know that ADM's Illinois CO<sub>2</sub> injection operation had:

- experienced [intermittent electrical shorts](#) in September 2020 that were affecting the gauges; and
- experienced surface leaks on [November 28, 2021](#) and another on [June 28, 2022](#). Both were vented to the atmosphere; and
- detected characteristics of [CO<sub>2</sub> contamination](#) in the Ironton-Galesville formation above the confining zone sometime after 2021; and
- identified [malfunctioning monitoring gauges](#) by January 2022; and
- found a [subsurface leak](#) of 307 metric tons in 2022. [According to ADM's reporting](#) to EPA, the company took “temporary measures to isolate the CO<sub>2</sub> leakage” which consisted of removing the tube, plugging the well with cement, and closing a downhole flow control valve and two wellhead valves at the surface to prevent further leakage. ADM's [response](#) to the EPA's Notice of Violation indicates that the company identified the corroded pipe in October 2023 and at that time stopped using the well.

Neither EPA nor ADM made efforts to inform the public of any of these failures. It wasn't until September 13, 2024, when investigative journalists [reported](#) 8,000 metric tons of CO<sub>2</sub> had leaked in March of 2024 that the public became aware that there were any problems at this facility.

This timeline raises questions about the transparency and effectiveness of the monitoring and enforcement process. Despite reporting that the presence of CO<sub>2</sub> was detected outside the confinement zone in 2021, that Monitoring Well #2 was totally malfunctioning in January of 2022, and that the first subsurface leak was detected as early as 2022, EPA waited until August of 2024 to issue a [notice of violation](#) to ADM, and September to send an [enforcement order](#). It is important to note that ADM was publicly silent on these leaks, both while they were negotiating state legislation that passed in May, and during negotiations with the City of Decatur regarding [easements](#) that would allow ADM to store CO<sub>2</sub> under Lake Decatur.

Following release of the enforcement order, ADM [reported](#) another leak in another monitoring well that it claims was discovered in response to EPA fact-finding requests, which prompted ADM to stop injecting CO<sub>2</sub> into its well. As with the 2018 leak, this additional breach highlights the uncertainty about how long that other well had been leaking, what caused these leaks, why the required testing regimes under ADM's permit failed to detect the leak, why injection was not stopped earlier, and why we rely on corporations to monitor themselves for pollution instead of EPA regulators.

The threat to drinking water and public health posed by CO<sub>2</sub> injection wells cannot be overstated given that leaks from the injection of CO<sub>2</sub> into underground saline formations can [migrate](#) into overlying freshwater aquifers and be released into the atmosphere. Once CO<sub>2</sub> dissolves in water, it [forms carbonic acid](#), which lowers the pH of the water, eroding and [corroding](#) rock and well equipment, and [mobilizing toxic metals](#) such as lead, arsenic, and mercury. These metals are particularly concerning for drinking water sources near injection sites. The release of CO<sub>2</sub> into the atmosphere adversely impacts our climate. Even at relatively low concentrations, it can impair cognitive, cardiovascular, neurologic, hearing, and vision function through asphyxiation and toxicity as was, in part, demonstrated by a [CO<sub>2</sub> pipeline rupture in Satartia, Mississippi](#) that sent dozens of people to the hospital and highlighted the challenges to first responders needing to respond to CO<sub>2</sub> releases into the atmosphere.

Another serious concern associated with CO<sub>2</sub> sequestration is [induced seismicity](#) from injecting CO<sub>2</sub> underground, which can cause fractures and re-activate faults, either of which can result in additional pathways for CO<sub>2</sub> migration. In combination with malfunctioning equipment, the injections can create unpredictable and widespread impacts from leaks on the water we drink and the air we breathe.

EPA's oversight of carbon dioxide injection wells is lacking in general, and is highlighted by the lack of transparency and oversight relating to these well failures. These concerns are not limited to Class VI wells like the one operated by ADM, but extend to Class II wells, a much larger universe of thousands of potential injection sites across the country used to extract oil. The practice of injecting CO<sub>2</sub> into these wells carries many of the same risks associated with Class VI wells used for CCS; however, the regulations governing Class II wells are less stringent, posing an even greater risk of leaks.

EPA has [approved](#) primacy for permitting Class VI wells to Wyoming, North Dakota, Louisiana and granted primacy for dozens of states for permitting Class II wells. Several states have [begun](#) the process of gaining primacy or program revisions for class VI wells. Many of these states, such as Louisiana, which was just granted primacy, have a history of favoring oil and gas interests over the health and wellbeing of their residents. A [summary](#) of peer review literature, regulatory actions, and other sources highlight this history in Louisiana specifically, raising serious questions about the appropriateness of EPA's decision to grant primacy to states.

The concerns raised in this letter also bear on the efficacy of the 45Q tax credit for carbon oxide sequestration. 26 U.S.C. §45Q. Section 45Q(f)(2) expressly requires that the Secretary of

Treasury consult with EPA to define the term “secure geological storage,” which must be achieved for a taxpayer to claim this credit. The statute requires the Secretary of Treasury to determine “adequate security measures for secure geological storage . . . such that the qualified carbon oxide does not escape into the atmosphere.” Rather than establish its own program to ensure “secure geological storage,” Treasury relies on the EPA’s Underground Injection Control program contained in 40 C.F.R. Part 98 for both sequestration and enhanced oil and gas recovery facilities. 26 C.F.R. §1.45Q-3. The well failures at the ADM Decatur sequestration facility put into question whether the EPA’s Underground Injection Control program’s well construction standards are adequate to prevent “escape into the atmosphere” and ensure permanent secure geological storage in the near term, much less on a geologic time scale.

Given the potential for significant harm to the environment, human health, taxpayers, and our climate, we urge EPA to take immediate action to update rules and regulations for CO2 injection wells. These revisions are needed to ensure more rigorous permitting, transparency, and oversight to ensure safety of existing wells. Until these revisions are finalized, EPA should:

- Halt CO2 injections into Class II and Class VI wells across the country;
- Halt permitting of new Class II and Class VI injection wells;
- Halt approval of State primacy applications for Class II and Class VI injection programs; and
- Direct States with primacy to halt injections as well as approvals of new Class II and Class VI injection wells.

The risks associated with carbon capture and storage, particularly the injection of CO2 into Class II and Class VI wells, are too great to ignore. The recent events at the ADM facility in Decatur are a warning sign that current regulatory practices are inadequate. We urge EPA to act now to protect drinking water, public safety, and the environment from the dangers of CO2 injection, transportation, and storage.

Sincerely,

**Original Signatories:**

Food & Water Watch

350 Chicago (Illinois)

Blacks in Green (Illinois)

Central Illinois Healthy Community Alliance  
(Illinois)

Citizens Against Heartland Greenwashing  
Projects (Illinois)

Eco-Justice Collaborative (Illinois)

Citizens Against Predatory Pipelines  
(Illinois)

Climate Reality Project: Chicago Metro  
Chapter (Illinois)

Coalition to Stop CO2 Pipelines (Illinois)

Faith in Place (Illinois)

Fox Valley Peace and Justice Group  
(Illinois)

Illinois Environmental Council (Illinois)

Illinois People's Action (Illinois)

Nuclear Energy Information Services  
(Illinois)

Prairie Rivers Network (Illinois)

Save Our Illinois Land (Illinois)

Third Act (Illinois)

Unitarian-Universalists Advocacy Network  
of Illinois (Illinois)

BOLD Alliance

Commission Shift (Texas)

CURE (Minnesota)

Institute for Policy Studies Climate Policy  
Program

Public Goods Institute

Science and Environmental Health Network

350 Bay Area Action (California)

### **Signatories**

ACES 4 Youth

Alliance for Affordable Energy

Alliance for the Wild Rockies

Alliance of Nurses for Healthy  
Environments

American Holistic Nurses Association  
(AHNA)

Benicians for a Safe and Healthy  
Community

Better Path Coalition

Biofuelwatch

Blacks in Green

BOLD Alliance

Breathe Easy Susquehanna County

Breathe Project

Carbondale Concerned Citizens

Center for Biological Diversity

Center for International Environmental  
Law

Central Illinois Healthy Community  
Alliance

Citizens Against Heartland  
Greenwashing Projects

Citizens Against Predatory Pipelines

Citizens Against Predatory Pipelines  
(Illinois)

Clean Power Lake County

Climate Action Evanston

Climate Code Blue

Climate Equity Policy Center

Climate Reality Project Greater New Orleans Chapter

Climate Reality Project: Chicago Metro Chapter

Coalition Against Death Alley

Coalition Against the Rockaway Pipeline

Coalition to Stop CO2 Pipelines (Illinois)

Commission Shift

Communities Against Carbon Transport & Injection (CACTI)

Concerned Citizens of St. John

Concerned Health Professionals of New York

CT COALITION FOR ECONOMIC AND ENVIRONMENTAL JUSTICE

CURE

Dakota Resource Council

Deep South Center for Environmental Justice

Delaware Riverkeeper Network

Don't Gas the Meadowlands

Earth Ethics, Inc.

Eco-Justice Collaborative

Eco.Logic

Elders Climate Action

Elders Climate Action (ECA) Northern California (NorCal) Chapter

Elders Climate Action (ECA) Southern California (SoCal) Chapter

Elmirans & Friends Against Fracking

Faith Coalition for the Common Good

Faith in Place Action Fund

Fenceline Watch

First Unitarian Universalist Society of New Haven, Social Justice Cttee

Food & Water Watch

For a Better Bayou

Fox Valley Citizens for Peace & Justice

Fox Valley Electric Auto Association

FracTracker Alliance

FreshWater Accountability Project

Friends of the Earth

Go Green Winnetka

Good Neighbor Steering Committee of Benicis

Great Plains Action Society

Greater Highland Area Concerned Citizens

Greater New Orleans Interfaith Climate Coalition

Greenfire Coalition Writers' Forum

Health Professionals for a Healthy Climate

Healthy Gulf

Human Impact Partners	No False Solutions PA
Illinois Environmental Council	No North Brooklyn Pipeline Alliance
Illinois Water Authority Association	North American Climate, Conservation and Environment(NACCE)
Inclusive Louisiana	Nuclear Energy Information Service (NEIS)
Indigenous Environmental Network	Nuclear Energy Information Services (Illinois)
Institute for Policy Studies Climate Policy Program	Ocean Conservation Research
Iowa Citizens for Community Improvement	Oil and Gas Action Network
ISEE-Justice40 Consortium	Oil Change International
JPAP	Oilfield Witness
Illinois People's Action	People for a Healthy Environment
Louisiana Just Recovery Network	Peoria Riverkeeper
Louisiana League of Conscious Voters	Physicians for Social Responsibility
Memphis APRI	Physicians for Social Responsibility - Concerned Health Professionals of PA
Metro East Green Alliance	Physicians for Social Responsibility - New York
Metro East Green Alliance (Illinois)	Physicians for Social Responsibility -Los Angeles
Mi Familia en Accion	Physicians for Social Responsibility Colorado
Micah 6:8 Mission	Physicians for Social Responsibility Florida
Move Past Plastic (MPP)	Physicians for Social Responsibility Los Angeles
NAACP Peoria Branch	Physicians for Social Responsibility Maine
Natural Habitat Evanston	
New Mexico Climate Justice	
New Mexico Environmental Law Center	
New York Climate Action Group	
Ní Btháska Stand Collective	

Physicians for Social Responsibility  
Oregon

Physicians for Social Responsibility  
Oregon

Physicians for Social Responsibility  
Pennsylvania

Physicians for Social Responsibility San  
Francisco Bay

Physicians for Social Responsibility  
Texas

Physicians for Social Responsibility,  
New Mexico

Port Arthur Community Action  
Network(PACAN)

Port Arthur Community Action  
Network(PACAN)

Prairie Group of the Sierra Club

Prairie Rivers Network

Presente.org

Public Goods Institute

Resistor Sisterhood

Retired Physician--Professor of  
Medicine UIC

Santa Cruz Climate Action Network

Save Our Illinois Land

Science and Environmental Health  
Network

Sierra Club - Houston Group

South Bronx Unite

Sowing Justice

Sunflower Alliance

Sustainable Springfield Inc

Terra Advocati

Texas Campaign for the Environment

Texas Environmental Justice Advocacy  
Services

Texas Permian Future Generations

The Enviro Show

The Park Church in Elmira

The People's Justice Council

The Raices Collab Project

The Texas Drought Project

The Wei LLC

Third Act Illinois

TRIAA-Divest!

Turtle Island Restoration Network

Unitarian Universalist Advocacy  
Network of Illinois

Unitarian Universalist Church in  
Anaheim

Unitarian Universalist Church of  
Urbana-Champaign, Social Action  
Council

United For Clean Energy

United Native Americans

Universalist Unitarian Church of Peoria



Utah Physicians for a Healthy  
Environment

Vermont Climate and Health Alliance

Vessel Project of Louisiana

Veterans for Climate Justice

Washington Physicians for Social  
Responsibility

Waterspirit

WE ACT for Environmental Justice

Wellington United Church of Christ

West End Revitalization Association -  
WERA

Western Organization of Resource  
Councils

WindSolarUSA, Inc.

1000 Grandmothers for Future  
Generations

198 methods

350 Bay Area Action

350 Chicago

350 Eugene

350 New Orleans

350 Seattle

350 Wisconsin

350 Hawaii