Written Testimony of
Dan Yates
Executive Director
Ground Water Protection Council
Before the U. S. Senate Committee on Environment and Public Works

Advancing Carbon Capture, Utilization and Sequestration Technologies and Ensuring Effective Implementation of the USE IT Act

Wednesday, February 12, 2025

Thank you, Madame Chairman Capito, Ranking Member Whitehouse and to all committee members for the invitation to testify today. It is an honor and a privilege to be able to discuss the work the Ground Water Protection Council (GWPC) has been doing for the past 40 years with its state agency members, and specifically on Class VI primacy for the states and carbon capture and storage.

The Ground Water Protection Council was created in 1983 to bring together technical and regulatory experts to specifically address underground injection control issues and overall groundwater protection. Since its creation, GWPC has grown into a national organization who represents both energy and water agencies including oil and gas programs, water quality programs, underground injection control programs, drinking water source protection, and groundwater protection.

My experience and knowledge spans 25 years at GWPC helping aid state regulatory programs with tool development and regulatory considerations for multiple topics including Underground Injection Control (UIC). We have been at the forefront of carbon capture and storage discussions including work on CO_2 injection for enhanced oil recovery, the creation of a new Class VI UIC program, state promulgation of carbon capture and underground storage (CCUS) rules and regulations, and state primacy attainment including interfacing with USEPA, state regulators, industry, and NGOs.

GWPC maintains a repository of current and relevant information on Class VI and CCUS that is widely used by our state regulators, federal agencies and other stakeholders, which can be easily accessed on the GWPC website.

Storing CO_2 in oil and gas fields has been occurring for more than fifty years. This work demonstrates that geologic storage of CO_2 can be done safely with little to no risk of CO_2 migration outside a formation when properly sited and regulated.

Class VI well regulations, like all UIC programs, are designed to protect public health and underground sources of drinking water. They cover injection site evaluation, construction specifications, operational constraints, well-testing parameters, monitoring approaches, emergency response procedures, financial responsibility, and site closure requirements. In addition to the Class VI regulations, USEPA requires reporting of CO_2 injected along with approved monitoring, reporting, and verification procedures with additional required reporting to its air quality program.

As part of the state primacy application, states develop their own rules and regulations that meet or exceed the federal rules. The UIC Class VI program is a novel and complex regulatory

program that relies heavily on site-specific determinations for long-term geologic storage. Currently three (3) states have primacy for the UIC Class VI program: North Dakota, Wyoming, and Louisiana, with West Virginia primacy expected in the coming month. Several of this committee's states have submitted primacy applications while even more are in the process of putting together their primacy applications. As the first state that applied for Class VI primacy, North Dakota took several years to attain primacy. Other states, such as Texas and Alaska, have been working for a few years through the complex application process. Some states do not show up on the USEPA chart as applying for Class VI primacy as the cumbersome process places it on the states to prove the state program has support and capacity. For example, Arkansas, who does not show up on the EPA website as applying but has a bill in their state legislature this session, has been diligently working to apply.

CURRENT UIC PRIMACY

EPA manages all well classes for 8 states and DC including:

1. Arizona*
2. Minnesota
3. Iowa
4. New York
5. Pennsylvania
6. Virginia
7. Hawaii
8. Vermont

*Arizona has submitted an application to obtain primacy for all well classes.

Only three states have primacy for all well classes (Classes I, II, III, IV, V and VI)

1. North Dakota
2. Louisiana
3. Wyoming

Most states have primacy for all wells except Class VI including:

1. Washington
2. Oregon
3. Idaho
4. Utah
5. Nevada
6. New Mexico
7. Texas
8. Oklahoma
9. Nebraska
10. Kansas
11. Arkansas
12. Missouri
13. Illinois
14. Wisconsin
15. Ohio
16. Tennessee
17. Alabama
18. Mississippi
19. Georgia
20. Florida
21. North Carolina
22. South Carolina
23. West Virginia
24. Maine
25. Rhode Island
26. New Jersey
27. Maryland
28. Delaware
29. Massachusetts
30. New Hampshire
31. Connecticut

States with Class II primacy only.

1. Alaska
2. California
3. Montana
4. Colorado
5. South Dakota
6. Michigan
7. Indiana
8. Kentucky

States currently in some phase of obtaining Class VI primacy:

1. According to EPA website, West Virginia is in final phase.
2. Alaska, Arizona, Colorado, Oklahoma, Mississippi, Texas, Utah, Alabama

According to the USEPA Class VI permit tracker,

1. There are 161 well applications currently under review with 37 % of those received in the last 12 months. 56 of these applications are in Texas and 55 in California.
2. The permit tracker says that "EPA aims to review complete Class VI applications and issue permits, when appropriate, within approximately 24 months."
3. Only eight (8) permits have been issued nationally, including in Illinois, Indiana, Texas, and California, since USEPA began managing in 2011. Four of these permits were issued in December 2024.

Since receiving primacy in 2018, North Dakota has approved eight Class VI injection well permits. USEPA approved Wyoming for primacy in 2020, and Wyoming Department of Environmental Quality has issued nine Class VI permits.

Federal regulations are supposed to be the foundation for states to create programs that best fit their states' needs, as there cannot be a one-size-fits-all Class VI program. State regulators have a more vested interest in the communities where they live, raise their families, and call home. When a state asks for primacy, it is because they want what is best for their home in environmental protection, economic development, public health, etc. The state agency employs the staff that has the depth of knowledge and experience in geology, climate, water sources and aquifers, geography, and geopolitics. It is the state regulators that understand the needs of their state and can manage their own resources better. Like most state regulatory programs that have been given primacy, it is the state that can regulate more efficiently, with faster response, and engage their cities and towns.

CHALLENGES TOWARDS OBTAINING PRIMACY

State regulators have expressed to GWPC that they believe USEPA staff want to help them gain primacy as the USEPA has been helpful in providing information about Class VI application process. USEPA staff have made themselves available to meet and discuss the process and provide valuable guidance documents. They have interfaced with states individually and collectively through GWPC led workgroups.

The current application process is extremely rigorous, specifically the Crosswalk template that states must compare to federal regulations. It is almost like having a language barrier as working

through the Crosswalk is not comparing apples to apples. Though EPA has done some work to improve this process, states that already have regulatory programs in place, including other components of the UIC program (Classes I-V), are well suited to manage the Class VI program and should have a more streamlined process to attain primacy. Priority has been placed on activities that are not part of programmatic, science-based regulations in this rigorous application process that has hindered primacy approval. Regulations for Class VI should be based primarily on geologic siting, operation, and secure project closure after operation ends.

STATE CAPACITY

States are the best equipped to administer the complexities of the Class VI programs, but additional knowledgeable staff is greatly needed. Capacity development, with more easily accessible resources, is needed to help states increase permitting and regulatory oversight including staffing, training, and technology.

Some funding has been provided by Congress either directly to state programs (Class VI state grant) or through the USEPA budget (Class VI training) but not all of those funds have been yet released by USEPA, including $1.2 Million from the FY24 budget for state training. Training must be provided for any new program, especially as robust and complex as a Class VI program.

GWPC has initiated a state Class VI training program by developing a Class VI curriculum and interfacing with states on specific needs, additional training budget for states from Congress would speed the development of state programs

Data management focused on the full well lifecycle, history of permits, inspections, regulatory actions, compliance, and reporting is critical. States and GWPC have previously developed similar systems for other UIC well classes. Class VI wells are significantly more complicated, and funding is needed to create a sound and effective state-managed Class VI well data management reporting system.

According to the USDOE report *Carbon Storage Atlas,* the United States' geology offers vast potential to permanently and securely store captured carbon deep underground in appropriate geologic formations safely. The report shows that the country's geologic storage capacity is anywhere from 2.2 trillion to 21.2 trillion metric tons of CO_2. For greater context, US emissions totaled approximately 6,340 million metric tons of CO_2 in 2021. In essence, we won't run out of available geologic storage.

HOW CONGRESS CAN HELP

Robust and thoughtful federal funding enacted as part of annual appropriations could provide essential support for geologic storage deployment, including by expanding the capacity of federal and state authorities to permit geologic storage in saline formations and providing funds for further geologic storage site characterization. From industry partners that have the technology to construct these projects to states ready to develop safe and effective regulations, all the ingredients are there to remove CO_2 from the air and implement safe and secure carbon sequestration.

Through cooperative federalism, GWPC stands ready with its state agency members to work with its federal counterparts to advance the implementation of responsible management of effective and efficient Class VI rules and regulations at the state level. To attain geologic storage on the needed scale, state regulators, with federal assistance, will be able to provide the resources, staffing, and training necessary for regulatory program deployment and ensure that proper regulations are in place to allow storage at the scale necessary to ensure water resources are protected and to mitigate impacts to the environment.