

GIBSON DUNN



Oil and Gas Update

January 23, 2025

## The State of West Virginia Is Granted Primacy Over Class VI Wells

The final rule marks a significant transition in the regulatory oversight of the carbon capture and sequestration industry within West Virginia.

On January 17, 2025, the United States Environmental Protection Agency (EPA) signed a final rule giving the State of West Virginia primary enforcement authority (or “primacy”) over Class VI underground injection wells, which are used by the carbon capture and sequestration (CCS) industry to permanently sequester captured carbon in underground geological formations, within the state.[1] The approval process for the state of West Virginia lasted less than a year; West Virginia submitted its application for Class VI primacy on May 1, 2024 and received approval from the EPA just eight months later. [2] This marks a significant transition in the regulatory oversight of the CCS industry within the state of West Virginia, as the primary regulatory body for the CCS industry in the state shifts from the EPA to the West Virginia Department of Environmental Protection (WVDEP).[3] Granting primacy over Class VI wells to the WVDEP empowers the state to manage its own CCS projects and leverage state-level expertise to speed the permitting process.[4] This will likely lead to accelerated growth of the CCS industry within the state of West Virginia. West Virginia now joins Louisiana, North Dakota and Wyoming among states with Class VI primacy.

### **Class VI Wells, Primacy and Federal Incentives**

Class VI underground injection wells are specifically designed for the permanent geological sequestration of carbon dioxide, playing a crucial role in CCS technologies aimed at mitigating

climate change.[5] Geological sequestration involves injecting captured carbon dioxide into underground rock formations, such as in deep saline formations, at depths and pressures high enough to keep the carbon dioxide in a supercritical fluid phase, which allows more carbon dioxide to be sequestered and is less likely to lead to the carbon dioxide escaping into the atmosphere or migrating into other underground formations.[6] Class VI wells are distinct from other injection wells in that they are exclusively dedicated to long-term storage of carbon dioxide that is either captured directly from the ambient atmosphere (in direct air capture CCS projects) or from industrial emissions or other anthropogenic sources (in point source CCS projects).

Federal income tax credits are available for the capture and utilization or sequestration of qualified carbon oxides (see our previous alert [here](#)). Significantly greater credits are awarded for “secure” geological sequestration of carbon oxides, and Class VI wells generally satisfy IRS and Treasury requirements for such secure sequestration. The Inflation Reduction Act of 2022 (IRA) further enhanced the economic benefit of these credits by making it easier to monetize them, extending the benefit of new direct payment (see our previous client alert [here](#)) and transferability (see our previous client alert [here](#)) rules to these credits. Qualifying point-source CCS projects may also unlock other federal income tax credits made available under the IRA, such as the new hydrogen production credit (see our previous client alert [here](#)) and the technology-neutral investment tax credit and production tax credits (see our previous client alert [here](#)). Additional federal funding for CCS projects was also made available under the Infrastructure Investment and Jobs Act.[7]

Class VI wells are subject to stringent regulations under the Safe Drinking Water Act’s Underground Injection Control (UIC) program. Under the Act, the EPA is responsible for developing UIC requirements for injection wells of all classes that are intended to protect underground sources of drinking water, among other objectives. Any state, territory, or tribe can obtain primary enforcement authority over a given class of injection wells by adopting injection well requirements that are at least as stringent as the EPA’s requirements and subsequently applying to the EPA for primary enforcement authority over that class of injection well.[8] If the EPA approves the primacy application, the state, territory, or tribe will then implement and manage the permitting and compliance processes for the applicable class of injection well. However, if a state, territory, or tribe does not adopt its own injection well requirements or apply for enforcement authority over a given class of wells, then the EPA will remain responsible for implementing and enforcing the UIC requirements for that class of wells

### **Permitting Backlog at the EPA Driving Interest in Class VI Primacy**

Many states have been granted primacy by the EPA over multiple classes of injection wells, particularly Class II injection wells, which can be utilized for CCS projects utilizing captured carbon for enhanced oil recovery projects.[9] However, prior to West Virginia, only three other states (North Dakota, Wyoming and Louisiana) had successfully applied for primacy over Class VI wells. As a result, the EPA retains oversight over nearly all Class VI well permit applications in the US.

The EPA’s process for granting a Class VI well permit is rigorous and requires applicants to provide extensive (and expensive) data and modeling to show that the Class VI well will protect drinking water and prevent the escape or migration of carbon dioxide.[10] Although the EPA

currently estimates that the Class VI permitting process for new permits will take about 24 months from start to finish, some Class VI permits have been awaiting approval from the EPA since 2021.[11]

The EPA has also issued very few Class VI permits, leading to a backlog of pending permit applications. As of January 3, 2025, the EPA has only issued eight active Class VI permits, four were approved on December 30, 2024, for projects in California.[12] While, as of April 2024, North Dakota and Wyoming have granted eleven permits since receiving primacy over Class VI wells from the EPA.[13] Additionally, the EPA is nearing final approval for one CCS project in Texas covering three wells. [14] However, as of January 3, 2025, there were 57 permit applications covering 163 wells at some point in the EPA's permitting process, and most applications are not close to approval, as shown in the attached [CHART](#). (As of 1/3/2025. Source: *The United States Environmental Protection Agency*.)

Currently, there are two CCS projects, covering three wells, under review in West Virginia. Now that the state of West Virginia has obtained primacy over Class VI wells, all pending permits before the EPA will be transferred to the WVDEP for review, and the WVDEP will have oversight of all future Class VI well applications in the state of West Virginia. Many CCS industry participants have welcomed the switch to the review process under the WVDEP, which is expected to be more efficient and to take a shorter period of time than the EPA's process. This belief is supported by the Class VI permit process in North Dakota, which has produced eight Class VI permits since North Dakota obtained Class VI primacy in 2018 (compared to the twelve (including inactive permits issued) Class VI well permits issued by the EPA nationwide since the UIC program was implemented in 2010).[15]

### **Class VI Requirements Adopted by West Virginia**

After facing public comment and EPA scrutiny, West Virginia's application was revised to address concerns over adequate staffing, environmental justice, and protecting drinking water, groundwater, and surface water. On August 17<sup>th</sup>, 2023, the EPA released guidance on addressing environmental justice in Class VI permitting and encouraged states seeking primacy to incorporate this guidance. WVDEP incorporated that guidance in their application for primacy and specifically addressed the following five themes: identifying communities impacted by environmental justice concerns using a tool developed by the EPA, implementing a public participation process, conducting assessments for projects in communities impacted by environmental justice concerns, ensuring the transparency of the permitting process, and minimizing adverse effects to drinking water sources. Additionally, under WVDEP's program, well owners or operators are required to conduct an environmental justice review as part of the permitting process. The EPA required West Virginia to demonstrate in their plan the adequacy of their staff in technical areas such as site characterization, well construction, and risk analysis.[16]

Furthermore, the EPA found that WVDEP's program complies with the necessary federal statutes, including 40 CFR Parts 124, 144, 145, and 146.

The WVDEP program differs from the federal minimum requirements in the following ways:

- The federal regulations allow UIC permit terms of up to ten years, WVDEP permits are for a duration of five years.
- WVDEP's program requires new Class I wells which inject hazardous waste to comply with location standards similar to those in the Hazardous Waste Management Act.
- Due to West Virginia regulations, the program prohibits injection of hazardous waste into Class IV wells.[17]

### **Additional States Seeking Class VI Primacy**

West Virginia is the fourth state to receive primacy over Class VI wells, joining North Dakota (2018), Wyoming (2020), and Louisiana (2023, see our previous client alert [here](#)).[18] Primacy applications from Texas, submitted by the Railroad Commission of Texas on December 19, 2022, and Arizona, submitted by the Arizona Department of Environmental Quality on February 16, 2024, are under review by the EPA.[19] While Texas and Arizona are likely next in line to receive primacy, timing is unpredictable. West Virginia received primacy less than a year after submitting its application, while Texas is still awaiting primacy more than two years after submitting its application.[20] Despite the unpredictable timing, successful applications by the first four states have prompted a recent increase in the number of states seeking Class VI primacy, with Mississippi, Oklahoma, Utah, Alabama, Colorado, and Alaska all in various stages of pre-application activity.[21]

States seeking Class VI primacy should pay close attention to West Virginia's application for guidance on how to approach the primacy application process, especially since West Virginia received approval for its primacy application significantly faster than most other applicant states.

### **Impacts of the New Administration**

The new Trump Administration immediately issued certain Executive Orders that could impact the primacy application process and the CCS industry in general. One of President Trump's Executive Orders, titled "Ending Radical and Wasteful Government DEI Programs and Preferencing" terminates certain environmental justice programs, which have been a required component of applications for primacy over Class VI wells. Another Executive Order issued by President Trump, titled "Unleashing American Energy," pauses the disbursement of funds appropriated under the Inflation Reduction Act pending further review by certain federal agencies. It is not clear at this time what impact these and other Executive Orders will have on the CCS industry or the Class VI primacy process, but Gibson Dunn is actively monitoring these developments.

[1] View [here](#).

[2] View [here](#).

[3] *Id.*

[4] <https://carbonherald.com/west-virginia-gets-green-light-to-permit-class-vi-well-projects/>.

[5] [Class VI - Wells used for Geologic Sequestration of Carbon Dioxide | US EPA](#)

[6] Sequestration of Supercritical CO<sub>2</sub> in Deep Sedimentary Geological Formations”, Negative Emissions Technologies and Reliable Sequestration: A Consensus Study Report of The National Academies of Sciences, Engineering, and Medicine, pg. 320.

[7] [FECM Infrastructure Factsheet.pdf \(energy.gov\)](#).

[8] [Primary Enforcement Authority for the Underground Injection Control Program | US EPA](#).

[9] The Underground Injection Control program consists of six classes of injection wells. Each well class is based on the type and depth of the injection activity, and the potential for that injection activity to result in endangerment of an underground source of drinking water (USDW). Class I wells are used to inject hazardous and non-hazardous wastes into deep, isolated rock formations. Class II wells are used exclusively to inject fluids associated with oil and natural gas production. Class III wells are used to inject fluids to dissolve and extract minerals. Class IV wells are shallow wells used to inject hazardous or radioactive wastes into or above a geologic formation that contains a USDW. Class V wells are used to inject non-hazardous fluids underground. Class VI wells are wells used for injection of carbon dioxide into underground subsurface rock formations for long-term storage, or geologic sequestration.

[10] [https://www.epa.gov/uic/class-vi-wells-used-geologic-sequestration-carbon-dioxide#ClassVI\\_PermittingProcess](https://www.epa.gov/uic/class-vi-wells-used-geologic-sequestration-carbon-dioxide#ClassVI_PermittingProcess)

[11] View [here](#).

[12] *Id.*; <https://www.globalccsinstitute.com/news-media/latest-news/californias-first-class-vi-well-permits-approved-by-u-s-epa/>.

[13] View [here](#).

[14] View [here](#).

[15] View [here](#) ; <https://www.globalccsinstitute.com/news-media/latest-news/californias-first-class-vi-well-permits-approved-by-u-s-epa/>; View [here](#).

[16] View the proposed final rule [here](#).

[17] View WVDEP’s Program Description [here](#).

[18] [Capito Announces West Virginia’s Approval to Permit Class VI Well Carbon Capture Projects - Majority News - U.S. Senate Committee on Environment and Public Works](#).

[19] [CO<sub>2</sub> Storage \(texas.gov\)](#); [Proposed Arizona Underground Injection Control Primacy Program | US EPA](#)

[20] [Federal Register: West Virginia Underground Injection Control \(UIC\) Program; Class VI Primacy.](#)

[21] [EPA Proposes Granting West Virginia Primacy for Class VI Wells | Environment, Land & Resources \(globalelr.com\).](#)

**The following Gibson Dunn lawyers prepared this update: Michael P. Darden, Rahul D. Vashi, Michael Q. Cannon, Matt Donnelly, Graham Valenta, Muriel Hague, Jason Ferrari, and Caroline Simms.**

Gibson, Dunn & Crutcher's lawyers are available to assist in addressing any questions you may have about these developments. To learn more, please contact the Gibson Dunn lawyer with whom you usually work, the authors, or any leader or member of the firm's [Oil and Gas](#), [Tax](#), [Environmental Litigation and Mass Tort](#), [Cleantech](#), [Energy Regulation and Litigation](#), or [Power and Renewables](#) practice groups:

**Oil and Gas:**

[Michael P. Darden](#) – Houston (+1 346.718.6789, [mpdarden@gibsondunn.com](mailto:mpdarden@gibsondunn.com))

[Rahul D. Vashi](#) – Houston (+1 346.718.6659, [rvashi@gibsondunn.com](mailto:rvashi@gibsondunn.com))

[Graham Valenta](#) – Houston (+1 346.718.6646, [gvalenta@gibsondunn.com](mailto:gvalenta@gibsondunn.com))

**Tax:**

[Michael Q. Cannon](#) – Dallas (+1 214.698.3232, [mcannon@gibsondunn.com](mailto:mcannon@gibsondunn.com))

[Matt Donnelly](#) – Washington, D.C. (+1 202.887.3567, [mjdonnelly@gibsondunn.com](mailto:mjdonnelly@gibsondunn.com))

**Environmental Litigation and Mass Tort:**

[Stacie B. Fletcher](#) – Washington, D.C. (+1 202.887.3627, [sfletcher@gibsondunn.com](mailto:sfletcher@gibsondunn.com))

[David Fotouhi](#) – Washington, D.C. (+1 202.955.8502, [dfotouhi@gibsondunn.com](mailto:dfotouhi@gibsondunn.com))

[Rachel Levick](#) – Washington, D.C. (+1 202.887.3574, [rlevick@gibsondunn.com](mailto:rlevick@gibsondunn.com))

**Cleantech:**

[John T. Gaffney](#) – New York (+1 212.351.2626, [jgaffney@gibsondunn.com](mailto:jgaffney@gibsondunn.com))

[Daniel S. Alterbaum](#) – New York (+1 212.351.4084, [dalterbaum@gibsondunn.com](mailto:dalterbaum@gibsondunn.com))

[Adam Whitehouse](#) – Houston (+1 346.718.6696, [awhitehouse@gibsondunn.com](mailto:awhitehouse@gibsondunn.com))

**Energy Regulation and Litigation:**

[William R. Hollaway](#) – Washington, D.C. (+1 202.955.8592, [whollaway@gibsondunn.com](mailto:whollaway@gibsondunn.com))

[Tory Lauterbach](#) – Washington, D.C. (+1 202.955.8519, [tlauterbach@gibsondunn.com](mailto:tlauterbach@gibsondunn.com))

**Power and Renewables:**

Peter J. Hanlon – New York (+1 212.351.2425, [phanlon@gibsondunn.com](mailto:phanlon@gibsondunn.com))  
Nicholas H. Politan, Jr. – New York (+1 212.351.2616, [npolitan@gibsondunn.com](mailto:npolitan@gibsondunn.com))

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