EPA Nod For La. Program Bodes Well For Carbon Storage

By Samuel Boxerman, Brittany Bolen and Caleb Bowers (June 2, 2023)

The regulatory stars may have started to align for U.S. carbon capture deployment.

Unprecedented incentives for development of carbon capture and sequestration, or CCS, under newly enacted laws, and the Biden administration's ambitious climate targets, have made CCS an attractive potential pathway to carbon management.

Most recently, the U.S. Environmental Protection Agency has been in the CCS spotlight with a proposal that if finalized could build further momentum for CCS projects. On May 4, the EPA proposed to grant Louisiana control over the permitting of carbon dioxide geologic sequestration wells, known as Class VI wells, in the state.

Granting Louisiana primary enforcement responsibility, or primacy, over Class VI wells would make it only the third state to receive such approval — and the first under the Biden administration.

The EPA's proposed approval is a welcome development for states interested in Class VI primacy and developers seeking Class VI well permits. States with Class VI primacy have advanced projects that otherwise might remain backlogged at the agency.

If the trend continues, and the EPA approves additional states' primacy applications, CCS plans stymied by the backlog of permit applications pending before the agency may advance — and bring developers one step closer to implementing CCS projects in the U.S.

Class VI Well Program and State Primacy

Under the Safe Drinking Water Act's underground injection control, or UIC, provisions, the EPA issues regulations to protect underground sources of drinking water from underground injection activities. The agency issued the first UIC regulations in 1980, establishing five classes of UIC wells:

- Class I, for industrial and municipal waste;
- Class II, for oil- and gas-related wells;
- Class III, for solution mining;
- Class IV, for shallow hazardous and radioactive waste; and
- Class V, for nonhazardous fluids.

In 2010, the EPA established Class VI wells, for the deep injection and long-term geologic sequestration of CO2.

The agency may grant states primacy over a particular UIC class of well that meets the minimum federal requirements. Currently, 43 states have primacy over at least one UIC class well program — and 35 of these have primacy over multiple UIC class wells. Only



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North Dakota and Wyoming have primacy over all UIC class wells.

While the Class VI well program was established in 2010, state interest in primacy of the program is relatively new. The EPA had maintained sole authority over Class VI wells until 2018, when the agency granted primacy first to North Dakota.[1] Wyoming gained primacy in 2020.[2]

Since then, additional states besides Louisiana have moved toward requesting primacy of the Class VI well program — including Texas, West Virginia and Arizona, all of which are in the preapplication phase. In March, Pennsylvania announced its intent to apply for primacy, and other states have also expressed interest in applying.

The primacy approval process is extensive. Primacy applications must meet the minimum federal requirements, which in some instances requires states to change their laws or regulations.

Applications require an EPA completeness review and consultation, followed by a notice and comment rulemaking process. Thus, primacy approval takes time. In the case of North Dakota, the EPA took five years to approve the application, though Wyoming's application was approved within one year.

Louisiana submitted its request for Class VI well primacy in the second quarter of 2021. Nearly two years later, the EPA published its proposed approval of Louisiana's Class VI well program.[3] The agency concluded that Louisiana has the legal authority, and the Class VI program requirements and procedures, to administer a sufficiently stringent program.

The agency also noted the incorporation of environmental justice in Louisiana's program, which will "require well owners or operators to conduct an [environmental justice] review as part of the Class VI application process." The proposal is now subject to public input, through several planned public hearings and a comment period extending until July 3.

As the EPA process plays out, the agency's proposed approval of Louisiana's primacy is significant. The proposal marks the first Class VI well-related formal agency action by the EPA under the Biden administration.

The proposal also reveals the agency's policy priorities — and a path other states can follow in order to obtain approval.

How Environmental Justice Figures Into Approval of Louisiana's Program

Among the policy priorities revealed in the EPA's proposed approval of Louisiana's Class VI primacy application, environmental justice was featured prominently.

At issue are concerns that already environmentally overburdened communities — particularly minority and low-income communities — may bear a disproportionate environmental burden associated with new CCS projects.

A December 2022 letter from EPA Administrator Michael Regan to state governors called on states seeking primacy to incorporate environmental justice and equity into proposed UIC Class VI programs and permitting.

In evaluating Louisiana's primacy application, the EPA found that Louisiana addressed all environmental justice elements.

These elements include a commitment to implementing an inclusive public participation process, incorporating environmental justice and civil rights considerations in permit review processes, enforcing Class VI regulatory protections, and incorporating mitigation measures.

For states seeking Class VI primacy, Louisiana sets an example for working with the EPA to incorporate sufficient environmental justice considerations into state UIC programs.

State Primacy May Unlock Class VI Well Backlog

The EPA's proposed approval for Louisiana is a welcome development for advancing carbon capture projects in Louisiana and across the U.S., as primacy may unlock the growing backlog of Class VI well applications seeking federal signoff.

Nearly two dozen Class VI well applications awaiting EPA approval are for projects located in Louisiana. It is uncertain at this point whether Louisiana project applicants that have already submitted federal Class VI preconstruction applications will be required to resubmit their applications to the state authority if the EPA grants primacy, or whether applicants may have a choice.

The EPA does not specify in the proposal how primacy would affect those pending applications or others filed with the agency prior to primacy. Under the EPA's current UIC program, applications for Class VI wells have received few stamps of approval.[4]

To date, the EPA has approved only two Class VI wells that were ultimately constructed, both for the same project under the Obama administration.[5] These permit applications took five to six years to approve.

Currently, there are 30 distinct CCS projects with over 70 individual Class VI well applications pending the agency's approval.

While the EPA stated in an October 2022 report to Congress its intent to process Class VI well permits within "approximately two years" of receiving complete applications, it is unclear what, if any, actions the agency has taken toward meeting that time frame.[6]

Indeed, some of the 70 Class VI well applications have been pending before the EPA for nearly two years without any public-facing agency action, such as issuing a draft permit to drill for public comment. Staffing challenges are among several reasons for the EPA's delay.

Thus, as a practical matter, more states obtaining primacy of the program, such as Louisiana, could reduce the workload on limited EPA staff which could help to alleviate the backlog of Class VI permits pending at EPA.

In addition, the two states that have primacy — North Dakota and Wyoming — appear to be processing Class VI permit applications on an accelerated track as compared to the EPA.

North Dakota has already approved one Class VI permit within one year — several years less than it took applicants to obtain permits for the two EPA-approved wells, and less than the agency's stated goal of issuing permits in two years.

Thus, state primacy could accelerate Class VI well approvals — resulting in more carbon sequestration on a shorter timeline.

Administration Policy Goals and Legislative Incentives Align for Class VI Wells

Interest in Class VI wells and primacy has surged after Congress boosted financial incentives for CCS projects involving the use of geologic sequestration, and provided federal agencies significant funding for CCS.

These incentives align with the Biden administration's policy goals of reducing greenhouse gases and removing carbon dioxide from the atmosphere. And EPA approval of Louisiana's and other states' primacy over Class VI wells should help achieve these policy goals.

The Infrastructure Investment and Jobs Act, or IIJA, enacted in November 2021, signaled U.S. legislative interest in approval of Class VI wells and primacy, and provided significant funding to support CCS development.

Specifically, the IIJA directed the EPA to advance Class VI well applications, by authorizing \$5 million a year through 2026 for its permitting process, and authorizing \$50 million over five years for the agency to issue grants to states to defray the costs of developing and administering a Class VI program.

The EPA has already taken steps to make these funds available, by announcing its intent to determine funding allocations and award the full \$50 million in a one-time distribution.

Interested states, tribes and territories were provided an opportunity to submit a letter of intent to the agency indicating interest in the grants by March 20. Distribution of the funding is anticipated later this year.

The IIJA also provided \$18 billion to the U.S. Department of Energy funding for carbon capture projects and related activities. The Inflation Reduction Act, or IRA, enacted in August 2022, went further than the IIJA, and was considered a game-changer for CCS project development through major changes to the Internal Revenue Code Section 45Q tax credit.

The IRA increased the credit from \$50 to \$85 per ton for geologic sequestration of carbon. The IRA also lowered the plant size eligibility thresholds for CCS projects, and extended the date CCS projects must begin construction from 2026 to 2033, among other flexibilities.

In addition, the IRA provided approximately \$3.6 billion to the DOE and other agencies for additional grants and loan guarantee authority for various CCS projects.

Looking Ahead

It is unclear how long it may take the EPA to issue a final grant of Louisiana's Class VI primacy, or when the next state's primacy application may advance. Last month the U.S. House of Representatives adopted an amendment to speed up EPA review of state applications for Class VI primacy.[7]

While the amendment is not likely to pass the Senate, Congress is expected to take up a permitting reform bill this year, and Class VI primacy could be considered as part of that legislation. Earlier this month, the White House also issued a statement outlining its priorities to streamline permitting for all types of clean-energy infrastructure, including for CCS.

Class VI wells will become increasingly important if CCS is going to be part of the U.S.

toolkit to reduce carbon emissions. Hence, the EPA's proposal to grant primacy to Louisiana is a promising development for states interested in primacy, and developers seeking Class VI well permit approvals.

Further EPA action to grant state primacy applications would facilitate the type of project development that Congress sought to encourage with incentives included in the IIJA and the IRA — and would assist the Biden administration in meeting greenhouse gas reduction goals.

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