PODCAST TRANSCRIPT - Class VI Injection Wells

Kim: Hello and welcome to EPA Uncovered—the official podcast of the EPA Office of Inspector General. I'm your Kim, Kim Wheeler, and today we are diving deep—literally—into the world of Class VI injection wells and our new report on how the EPA is implementing its program to regulate the construction and operation of these wells.

If you've never heard of a Class VI well, don't worry—we've got an expert with us today to help explain what it is, how the EPA is involved, and what we discovered in our latest evaluation. In the studio with me is Paul Bergstrand, the Assistant Inspector General in our Office of Special Review and Evaluation.

Paul: Thanks, Kim! I'm excited to be here.

Kim: Let's start from the top. Tell us a little bit about these wells.

Paul: Of course. Class VI wells are deep underground wells specially designed to permanently store carbon dioxide, or CO2. This is important because CO2 goes into the atmosphere when we burn coal, oil, or natural gas—basically, any of our primary energy sources. After CO2 is captured from places like power plants or factories, it can be injected and stored deep underground into rock formations that can trap it.

Kim: So, it's like putting CO2 in a vault?

Paul: Exactly. You're locking it away where it shouldn't leak into the atmosphere, ultimately reducing emissions. It's part of a process known as carbon capture and storage.

Kim: And the "Class VI" part—what is that about?

Paul: Well, CO2 isn't the only thing being stored in injection wells. Petroleum and chemical companies have used injection wells for decades to dispose of industrial liquid waste, for example. In fact, the EPA's Underground Injection Control Program regulates five other classes of wells besides CO2. The wells are categorized based on the type and depth of injection activity—as well as their potential to endanger underground sources of drinking water.

Kim: Interesting. And is that why the EPA is involved—because of the threat to drinking water?

Paul: That's right, Kim. The EPA is in charge of protecting drinking water across the United States, and when you inject anything into the ground, you want to make sure it's not going to leak into aquifers and contaminate water supplies. So, before anyone can build a Class VI well—or any injection well—they have to get a special permit from the EPA or from a state, tribe, or territory that's been granted primacy by the EPA.

Kim: When you say a state can be granted primacy, what does that mean?

Paul: In this context, primacy means that the EPA gives a state the authority to manage and permit Class VI wells within its borders instead of the Agency doing it directly. Essentially, the EPA allows the state to take over the responsibility of implementing the program, as long as the state has regulations at least as restrictive as the EPA's. But even with primacy, the EPA retains oversight to make sure that states are upholding federal standards.

Kim: Do a lot of states have primacy?

Paul: Right now, four states have primacy for Class VI wells. This includes Louisiana, North Dakota, West Virginia, and Wyoming. But as of February 2025, eight more states were in the process of applying for primacy.

Kim: Interesting. Um so, turning back to the permits, does the EPA get a lot of applications?

Paul: For a long time, they didn't. Between 2010, when the EPA finalized its Class VI Wells regulation, and the end of 2020, the Agency received only eight permit applications. Fast forward a year and they were suddenly flooding in. From May 2021 to July 2024, the EPA received permit applications for over 200 Class VI wells across 16 states and one tribe—116 of those were submitted in the fiscal year 2023 alone.

Kim: Why the sudden interest?

Paul: Several factors, I think, but it's significant that the surge in demand coincided with the expansion of tax credits for carbon injection in the Inflation Reduction Act, which passed in 2022. Additionally, in the Infrastructure Investment and Jobs Act—also known as the IIJA—which passed in 2021, Congress gave the EPA more than $25 million over five years to bolster its Class VI Wells Program, as well as $50 million to distribute to states to develop their own Class VI wells primacy program. And anticipating that permit applications would increase, Congress also provided millions of dollars in the EPA's 2021, 2022, and 2023 annual appropriations specifically for the Agency to develop expertise and capacity related to Class VI wells and to develop training to improve Class VI well permitting.

Kim: Wow. It sounds like Congress was really interested in this program. What does it take to get a permit? What kind of things does the EPA check before issuing a one?

Paul: It's a very detailed and technical process. For a Class VI well, the Agency reviews the site's geology—what kind of rock is down there, how stable is it, how well it can trap CO2. They check for fault lines, old wells, groundwater nearby. The well owner has to submit models showing where the injected CO2 will travel underground over time. They also have to monitor and report on the well—even after they stop injecting CO2, sometimes it's for decades afterwards. And if the EPA finds anything questionable in the application, they may ask the applicant to provide additional information, make changes to the project, or, in some cases, deny the permit.

Kim: That sounds pretty time-consuming.

Paul: Yes, it is—so much so that the Agency's goal is to issue permits for Class VI applications within two years. However, the actual time it takes can vary depending on factors like application completeness, technical reviews, public comment periods, and agency review capacity. Some well owners have waited as long as six years to get approval. As of now, the EPA has issued only a handful of Class VI permits. This doesn't mean that the EPA is dragging its feet. These wells are complex, and they take a lot of technical review. And since demand for these projects has grown fast, the Agency's workload for reviewing these permits has also grown.

Kim: So, what's the solution?

Paul: Well, as we talked about earlier, one solution is providing more resources in the form of additional expertise and capacity. Congress provided tens of millions of dollars in the IIJA and annual spending bills for the EPA to improve its capacity, such as by hiring more staff and by helping states obtain primacy.

Kim: Oh, and that's what the OIG's new report focuses on. Your team conducted an evaluation to examine whether the EPA has used those resources to improve its Class VI permitting. Can you tell us what you all found?

Paul: Absolutely. First and foremost, we found that the EPA has used the IIJA and annual funds to improve the Class VI Program as Congress intended. They took actions to develop expertise and capacity by hiring more staff, expanding contracts and interagency agreements, increasing training opportunities, and enhancing program tools and guidance. However, the Agency did not spend over a million dollars intended to fund training for EPA and state personnel who review Class VI permit applications within the timeframe Congress specified, although they did eventually use the money for that purpose.

The EPA relies on contractors and interagency support from the Department of Energy to review the modeling for proposed projects, and the EPA regions with the most permit applications indicated that the increased extramural support has helped improve the program's capacity. The Agency has used roughly 85 percent of the IIJA funding it has received so far to secure extramural support.

Kim: Well, that sounds like mostly good news!

Paul: It is definitely good news when we find that the EPA is using funding for their intended purposes, but this evaluation also had a few important takeaways for the Agency.

Kim: Such as?

Paul: Well, for one, despite its actions to improve the Class VI Program, the Agency is not on track to issue final permits within its two-year goal for some applications under review. Similarly, the EPA has not consistently met the statutory deadline of 30 days to review permit applications and determine that they are complete – in other words, whether they have provided the EPA all the necessary materials. Missing this initial due date throws a permit application off schedule from the start, and for the permit applications we reviewed, 40 percent of the completeness determinations exceeded 30 days.

Furthermore, some EPA regions told us that they did not have enough budget, staff, and technical capacity to issue these technically complex permits within the 24 month timeline. In fact, when we examined data from the EPA's permit tracker, it showed that nearly 67 percent of the permit applications that were expected to be finalized in 2024 were not projected to meet the Agency's two-year goal.

Kim: Sounds like there are still a lot of challenges in the permitting process.

Paul: We thought so, too. To help the Agency get on track to meet its timeliness goals, we recommended that the Agency assess its permitting process and establish a plan to achieve the Agency's goals and deadlines. This would include looking at EPA regional office resource needs, communicating with permit applicants to identify key factors contributing to delays, and outlining a plan to address these needs and factors.

Kim: Does the report include any other recommendations?

Paul: We made a total of four recommendations in this report. For example, we also found that the EPA did not consistently share information with the public about the Class VI permitting process—even though public participation and transparency are important parts of the Class VI regulatory framework. To address that, we recommended that the Agency develop procedures to identify project information that should be available to the public and describe how and when the EPA will share that information.

Kim: Interesting.

Paul: The other two recommendations are tied to the EPA's interagency agreements that support the Class VI program. While the Agency has done well in securing extramural assistance, it didn't prepare a market analysis to support its interagency agreements with the Department of Energy and its National Laboratories.

Kim: Why is that a problem?

Paul: Well, both the Federal Acquisition Regulation and EPA policy prohibit the Agency from entering into interagency agreements if the services to be acquired are available in the private sector. Without a market analysis, the Agency can't demonstrate that the services it needs are not available in the private sector. The interagency agreements supporting the Class VI Program have a total value of nearly $8 million, and without adequate documentation and analysis to ensure that these funds are used in compliance with federal regulations, the Inspector General Act requires that we identify these funds as "questioned costs" – meaning, in this case, that the spending appears not to not comply with an applicable regulation or policy.

We also found that the Department of Energy's National Laboratories have not consistently submitted required monthly progress reports. The reports that have been submitted often aren't detailed enough to support the amount the labs have billed the EPA, with little-to-no explanation of the work performed or the time spent to complete the work. In fact, some progress reports contained information that was inconsistent with invoiced costs. Missing, incomplete, or inconsistent progress reports not only violate the terms of the interagency agreement—they weaken the EPA's ability to oversee the services it is paying for.

Kim: I'm going to guess that the last two recommendations address those issues.

Paul: That's right. We recommended that the EPA prepare a market analysis or other documentation to determine whether using the National Laboratories to support the Class VI program puts them in direct competition with private industry and, if so, take steps to make sure it's following federal rules and Agency policy.

We also recommended that the Agency notify the Department of Energy and its laboratories about the required monthly progress reports and ensure that the reports contain all the necessary information so that the EPA can appropriately track the money spent and work performed.

Kim: Those all sound like logical, actionable steps the EPA can take to address the issues your team identified.

Paul: The Agency agreed as well. They've already completed corrective actions to enhance public transparency and hold the Department of Energy's National Laboratories accountable for providing

monthly progress reports with all the required information. And they're working on resolution efforts for the other two recommendations.

Kim: That's great news. Another oversight report from the OIG that will help the EPA make meaningful, lasting improvements and better safeguard taxpayer dollars.

Paul: Thanks, Kim. All credit goes to the team, and I'm proud of this report—and all our work. Our evaluators are committed to the OIG's mission to oversee EPA programs and offices and determine whether they are operating effectively and efficiently.

Kim: An important mission indeed. Well, folks, we've reached the end of our time today. But I want to thank Paul for stopping by to talk with us. And to our listeners, thank you for joining us. If you enjoyed this conversation, share it with a friend and be sure to check out our other episodes at www.epaoig.gov. Find us on social media to stay in the know when we post new reports and new episodes of EPA Uncovered.

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