

Industry, Activists Poised For Talks on CO2 Storage in Drilling Wells

Posted August 3, 2009

Industry and environmentalists are poised to negotiate first-time Safe Drinking Water Act (SDWA) rules governing a new class of underground injection controls (UIC) for wells that can simultaneously produce oil and sequester carbon dioxide (CO₂).

Sources familiar with the issue say the new well class is necessary in addition to EPA's proposed new well class for carbon capture and storage (CCS) because the wells pose an intermediate level of risk that requires more controls than enhanced oil recovery wells but fewer controls than the proposed CCS well class, sources say. EPA's proposed CCS rules would also not allow sequestration until oil production has ceased.

However, while industry and activists are advocating for a new well category, they are split over the details of how to accomplish that goal, for instance, whether to create a new sub-category of wells under the existing class for enhanced oil recovery or create an entirely new class. Both sides intend to hold meetings this month to try to broker an agreement on how to classify the well type and other issues.

SDWA's UIC provisions cover five classes of wells that require different types of permits that set design, operation, monitoring inspection and other requirements.

The Class II category covers oil and gas recovery, while EPA is proposing to create a new Class VI category for CCS. The agency July 20 sent a notice on the CCS proposal to the White House, which sources say may indicate it is poised to issue its anticipated notice of data availability (NODA) on the Class VI proposal.

Industry Seeks Subset Of Class II

Industry officials, who recently submitted model rules for the agency to consider for wells that produce oil and sequester CO₂, would prefer that EPA regulate those wells as a subset of Class II. The officials want the agency to take comment on their model regulatory proposal in the pending CCS NODA.

While industry officials are pushing for Class II regulation of oil wells that sequester CO₂, in a letter to the agency earlier this year they acknowledged that the creation of a new Class VII is a possibility—a move some activists would support due to their concerns that some Class II requirements are too lax.

The letter to EPA, signed by groups including the American Petroleum Institute, BP America, Edison Electric Institute and Southern Company, accompanied the groups' model rule proposal.

The model outlines requirements for well-siting criteria, the area of review, corrective action, financial assurance, well construction requirements, operation requirements, monitoring and other issues.

One informed source says the rules are a hybrid approach, containing parts of SDWA's Class II rules and elements industry and environmentalists agree should be included in the Class VI CCS rule.

For example, the well construction requirements would be similar to Class II enhanced oil recovery rules, as long as they are determined to be protective of groundwater, the informed source says. This approach could allow existing wells to retain the elements of the well that are already in the ground, the source says.

Other requirements, such as the area of review, corrective action and financial assurance would be similar to recommendations that a so-called Multi-Stakeholder Group (MSG) of industry and environmental officials recently made to EPA for the proposed Class VI CCS rule, the informed source says.

While environmentalists have voiced support for the idea of a new well type that would outline requirements for oil wells that can sequester CO₂, they are yet to endorse industry's model rules and plan to meet with industry in August to work out a compromise on the appropriate class for the wells and other issues.

Environmentalists agree that a new regulatory framework is necessary for sites that both produce oil and sequester CO₂ because EPA's proposed CCS rules—which would not allow sequestration until oil production has ceased—could prevent CO₂ storage at some of the most viable sites, according to a June 26 letter that a number of environmental groups sent to EPA Administrator Lisa Jackson.

Use Of Oilfields For Carbon Storage

Oilfields are likely to be “pivotal” in early CCS efforts in part because the reservoirs are generally better characterized than saline reservoirs, they often have infrastructure in place and they offer the additional economic incentive of oil production, according to the letter, signed by key officials from the Clean Air Task Force, Environmental Defense Fund and Natural Resources Defense Council.

The letter notes that an oilfield “can continue producing small volumes in perpetuity, making cessation of production a meaningless concept as a threshold to entry into the regulatory scheme for [CCS].”

Regulations are also necessary at these sites to prove the success of CO₂ sequestration, which could help facilities win tax benefits and loan guarantees, the letter says. “[P]ower plant or industrial facility owners already have two reasons to seek a certification of [enhanced oil recovery] as geologic sequestration: the [CO₂] sequestration tax credit under Section 45Q of the tax code and the Department of Energy's Federal Loan Guarantee Program,” the letter says.

In addition to reaching agreement on model rules for oil wells that sequester CO₂, industry and activists will also have to resolve their split over whether to put the wells in SDWA Class II or a new Class VII.

The type of class under which the wells are designated is key because it can impact the way that permitting of the wells would be delegated to various state agencies. Some states delegate administration of Class II permits to the state oil and gas agency, while delegating the rest of the UIC classes to the state environment agency. Some states divvy the programs up in other ways—for example the Railroad Commission of Texas oversees the state's Class II wells—and in some states the environment agency oversees all the well classes.

While the various industry groups in their March letter to EPA acknowledges the possibility of putting the new rules in a new Class VII, they say they instead support creating a new subset of Class II.

The informed source says industry supports Class II designation because the state agency that currently has oversight of enhanced oil recovery wells should continue oversight of them when they begin sequestering carbon. In some states the oil and gas agency has overseen these wells for decades, so if the authority for the program were to switch to a new agency, that agency would have to start fresh in learning the characteristics of the well.

However, the source notes that the requirements for the new well type would be the same, regardless of how they are classified. And while the classification might provide an indication of which agency should receive oversight of the program, it is the states, not EPA, that decides how to delegate the programs, the source says.

But one environmentalist argues that the wells should be in a new Class VII, in part out of concern that the Class II delegation is more lax. While a subset of Class II could have stricter standards for delegation than normal Class II wells, it would be easier to understand the stricter requirements if the wells are in a new Class VII, the source says.

Other issues that need to be determined during the August meeting relate to the extra risk at the sites that could be caused by higher pressure limits in storage wells compared to enhanced oil recovery wells, the environmentalist says. For example, stakeholders will likely consider whether well components need to be pressure-rated, whether there should be special rules for well construction and whether there should be rules for unique leak pathways such as lateral spill points, the source says.—*Kate Winston*