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from imposing new restrictions on chemicals identified as “high-priority” by EPA at the time the agency publishes a schedule for assessing safety of the substance.

State officials believe such language would undermine California’s Prop. 65 labeling law as well as its landmark green chemistry program requiring assessment of alternatives to toxic substances.

But during the Dec. 4 teleconference, Dooley indicated that ACC believes the preemption issues are manageable, acknowledging that some states have already taken action to restrict certain chemicals and proponents of the bill need to be thinking about how that action can be preserved “if they are not inconsistent with EPA action” under a revised TSCA.

Dooley reiterated that preempting California’s Prop. 65 regulation was never the intent of S. 1009 and that ACC does not believe that is what the bill does, but that Sen. Tom Udall (D-NM), who has taken over leadership on the bill, and Vitter are committed to finding a path forward on placating those concerns.

He said on the call that the group believes the bill’s preemption provision can be structured in a way that is consistent with federal pharmaceutical, auto safety and medical device laws on preempting state regulations, and other industry sources have said previously that the preemption issues appear to be solvable.

However, talks between Boxer, Vitter and Udall have so far failed to reach an agreement and industry officials have now turned to the House to advance the issue.

The industry groups had initially hoped that a Nov. 13 energy panel hearing on S. 1009 — the fourth in a series of hearings held by the committee’s environment subcommittee on various aspects of TSCA, but the first to take an in-depth look at the Senate bill — would lend momentum as the Senate talks appeared to stall out over Boxer’s concerns.

Instead, the hearing provided EPA’s Jones an opportunity to detail a series of concerns with the bill, though sources said after the hearing that Jones’ concerns may also help focus negotiations on issues that EPA believes should be addressed.

Despite the hurdles, an ACC source says that the bipartisan support the bill has received so far, the commitments from Vitter and Udall to negotiating a compromise and the interest in the House are circumstances that should not go to waste. “This opportunity is very unique,” the source says.

“We have a lot of momentum right now. The goal is to see a good compromise bill signed as soon as we can.”

— Bridget DiCosmo

SAB Suggests Dropping Review Of CCS In Utility NSPS After EPA Pushback

Members of EPA’s Science Advisory Board (SAB) are suggesting they will drop their earlier call to review the scientific and technological bases for the agency’s decision to effectively mandate carbon capture and sequestration (CCS) in its greenhouse gas (GHG) rule for new power plants after agency officials argued that the board’s concerns about the technology was outside the scope of the rulemaking.

“Essentially this rule basically does not speak to the issue of sequestration per se other than to say, ‘follow the current rules and practices that are out there,’” Peter Tsirigotis, director of sector policies at EPA’s Office of Air Quality Planning and Standards (OAQPS) said during a Dec. 4 presentation. *Relevant documents are available on InsideEPA.com. See page 2 for details. (Doc ID: 2454912)*

While the board at its Dec. 4-5 meeting in Washington, D.C., delayed a vote on whether to review the rule until they meet as early as next January, they indicated that many of their key scientific concerns with the CCS requirements in the proposed new source performance standard (NSPS) may fall outside the realm of the rule, or may be policy and legal matters SAB is not tasked with reviewing.

“Under the narrow legal road map that EPA is using to come up with the proposed rule, in that case I believe the recommendation of the SAB is that the proposed action does not require review,” Jim Mihelcic, chair of a work group that last month recommended review of the NSPS in a Nov. 12 memo, said toward the end of the two-day SAB meeting.

Mihelcic said it appeared the agency was taking a “very narrow legal focus” where the agency says the rule is only concerned with the release of carbon dioxide into the atmosphere. He said he wanted to meet more with EPA officials over the next few weeks and revise his initial call for SAB to review the rule, after which the SAB would reconvene and vote whether to adopt the memo’s recommendations.

Last month Mihelcic in the Nov. 12 memo asked the SAB to review the NSPS after finding the agency’s scientific and technological basis for requiring CCS was “new science” that would benefit from the SAB’s review. The memo raised special concerns about the adequacy of peer review for Department of Energy (DOE) studies used to estimate the costs of CCS, as the work group could not obtain details on the peer review and some reports were updated without peer review.

The SAB’s initial interest in reviewing the NSPS triggered interest from Congress, with Rep. Lamar Smith (R-TX), the chairman of the House science committee and a strong critic of the rulemaking, sending separate Dec. 3 letters to EPA Administrator Gina McCarthy and Mihelcic highlighting concerns with peer review and the science supporting the rule.

Smith in his letter to McCarthy said the SAB uncovered “serious problems” with the science backing the NSPS and the peer review process, and said EPA’s “stubborn insistence on placing its judgment above” its science advisors’ was based on “partisan politics rather than sound science.”

At issue is EPA’s proposed NSPS for new power plants, which the agency released Sept. 20 but has not yet published

in the *Federal Register*. For coal-fired units, the plan sets a 1,100 pounds per megawatt hour carbon limit for new coal-fired units, a limit that facilities would have to meet by installing partial CCS.

Smith and other critics are concerned that the technology is not available and would effectively block construction of new plants. As a result, they charge that CCS is not “adequately demonstrated” as required by the Clean Air Act and the rule is unlawful.

To make its case that the technology is adequately demonstrated, EPA’s proposed rule has cited some pending domestic CCS projects, such as Southern Company’s Kemper plant.

Critics, however, say some of the projects EPA cites are not appropriate as they have not yet completed construction, they sequester carbon in a narrow range of geologic formations and they have received some type of government subsidy — an aspect they say is prohibited by the 2005 energy policy law.

Theresa Pugh, director of environmental services for the American Public Power Association, said at the meeting on Dec. 5 that she would be “absolutely delighted” if geological sequestration of carbon dioxide was demonstrated and widely available but said that it is not. Pugh said to be demonstrated, CCS would need to be in use with all fuel types in all types of geologic formations, adding that some states have no laws allowing the injection of carbon dioxide.

But during the SAB meeting, EPA’s Tsigotis pushed back on the view that the rule includes new science that merits SAB peer review. He argued the rule does not cover how carbon emissions are stored underground in geologic formations or depleted oil and gas fields but only addresses the control technology that limits the amount of carbon dioxide that is allowed to be vented into the atmosphere. This narrow approach relates to the statutory requirements of the Clean Air Act, he said.

Tsigotis, a high-ranking official with a major role in crafting the NSPS, compared the climate rule to past air rules limiting the amount of sulfur emissions from power plants, in which EPA set rules saying how much sulfur could be vented but did not tell utilities what to do with sulfur sludge after it is removed. After carbon dioxide is captured from power plants, Tsigotis said, other regulations from other program offices take over.

“On geologic sequestration, we basically are not setting any requirements on sequestration and not providing any analysis as such because we don’t speak to the sequestration,” he said, adding that the agency does recognize there are scientific issues with CCS “but most of those things are outside of this rulemaking that we’re doing right now.”

Tsigotis noted that when industry was trying to adopt selective catalytic reduction technology to control nitrogen oxides from power plants, the same issues of commercial availability came up, and though it “seemed pretty controversial” at the time, now the industry has made “heroic efforts” to advance the technology.

His arguments appeared to win over SAB members. Christopher Frey, an environmental engineering professor who also chairs EPA’s Clean Air Scientific Advisory Committee, said the rule appeared to be on the boundary of the “technology forcing dimensions” of what is allowed under EPA’s NSPS authority, but said on the other hand “maybe this is fully within the discretion of the agency, and then maybe it’s not a scientific issue.”

The SAB agreed with the recommendation from Mihelcic to revise the memo, and hopes to meet in mid-January, which is the earliest it could reconvene given federal advisory board notice requirements.

Despite indications that SAB may decide not to review the NSPS, members continued to voice concerns with the peer review process of the DOE studies that went into the rule, how EPA made the determination about the carbon dioxide emission limits and the fact that the rule fails to look into the sequestration side of CCS.

The peer review process of a DOE study first published in 2007 and later updated multiple times, which was flagged in the memo as a potential problem, was a recurrent issue at the meeting, and some members did not appear to have their concerns addressed by EPA officials.

Tsigotis said he “heard the request for further documentation” on the peer review of the DOE study on CCS costs but did not yet have documentation. After SAB member Michael Dourson, president of Toxicology Excellence for Risk Assessment, asked if the document on the peer review process was available he said, “I can’t tell you specifically right now, what I can tell you is that our original basis was the 2007 report that DOE feels quite comfortable with.”

Dourson later responded that, “it sounds like if they’re comfortable, then they should be happy to share it, right?”

Another SAB member said, “if we’re going to say that EPA science is going to be based on the science, science doesn’t mean science, it means peer-reviewed science, and so I would strongly urge that we understand how this process was done for peer review.”

SAB member Gina Solomon, however, said the DOE studies at issue appeared to only relate to determining how much CCS costs and potentially may not have a major consequence on the rule’s determination to mandate the technology.

Several EPA officials at the meeting all declined to comment, and an EPA spokeswoman declined to comment about the DOE peer review process. A DOE spokesman also did not respond to repeated requests for comment.

EPA officials, however, pledged to continue meeting with the work group to explain the issues with the rule and the peer review process the documents went through. Kevin Culligan, another high-ranking official at OAPQS, said they would “further delve into the peer review issue” and why the agency feels that the peer review was adequate and why DOE updates to the CCS documents did not warrant peer review.

SAB members also raised concerns about how a full scientific review would align with the prompt schedule under

which EPA is supposed to issue its power plant climate rules, given that SAB reviews can sometimes take a full year to complete. Paige Tolbert, a professor at Emory University, said she was concerned about SAB embarking on a year-long review “unless we really are convinced that there would be a material benefit, improvement overall” with the rule, when there could be a compromise approach of raising concerns in another way.

Other SAB members acknowledged the high-profile nature of the rule and the potential controversies involved. “My own bias is I think this is an area we could make a contribution to EPA if we waded in,” Otto Doering, a professor of agricultural economics at Purdue University, said on Dec. 4. “It’s difficult, it’s tough, we probably would be unloved by everybody.”

Meanwhile, the SAB voted to endorse work group calls to review the health and environmental protection standards for uranium and thorium mill tailings and uranium in situ leaching processing facilities. Because the proposed rule is still under development, SAB plans to wait for the rule to be further developed before starting scientific review.

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CO2 injection. The prior studies “generally conclude that EOR projects using CO2 captured from power plants can store significant amounts of CO2, thus reducing the greenhouse gas impacts of power generation and oil production,” the authors write. “These studies, however, have, for the most part, used boundaries that exclude emissions associated with the lifecycle of power generation and downstream processing of produced crude oil. This study assesses the overall lifecycle emissions associated with sequestration via CO2-EOR under a number of different scenarios.”

The authors conclude that between 3.7 and 4.7 metric tons of CO2 are emitted for every metric ton of CO2 injected, and that the only way to make the total net emissions zero would be “to operate a sequestration project concurrently with the CO2-EOR project.”

The informed source calls the draft paper “a bit tangy” and expects it to gain traction, including a likely letter to EPA on the matter from GOP House members opposed to the NSPS. A Hill letter is also seen as likely because the proposal’s publication is delayed, meaning the formal public comment period has yet to launch, even though it has been more than two months since EPA Administrator Gina McCarthy signed the proposal.

The source also expects the argument will “find its way into” comments to EPA but suggests the paper started as an educational item for Hill staff.

EPA did not respond to a request for comment, but this source says the agency’s likely reaction would be to “run screaming into the night” over the thought of conducting a lifecycle analysis for the NSPS.

One oil industry source says the argument that EPA should consider emissions from EOR-generated oil “is specious because the same quantity of oil would be produced anyway (without the benefit of having at least some of the CO2 sequestered in the process). Therefore, it would be inappropriate to associate the CO2 emitted from combusting oil produced from NSPS-CO2 with the [electric generating unit (EGU)] NSPS — because the same quantity of crude oil would have been produced anyway.”

One source with the Natural Resources Defense Council (NRDC) agrees with the oil industry position and adds that logic is also consistent with NRDC’s opposition to Keystone. This source notes that the number of EOR projects that will be prompted by the power plant standard “will not be large enough to affect overall demand for oil or world oil prices. Therefore, any oil from EOR fields would be oil that would have been produced from some other field, so we don’t think there is a reason to count the additional emissions.”

On Keystone, NRDC is arguing that the State Department must consider only the additional emissions needed to refine tar sands into crude oil, not the full lifecycle of the tar sands, because “we are assuming that the oil that would be produced from tar sands would be produced somewhere else in the world if the Keystone pipeline is not built. So what we’re calculating is the additional carbon from upgrading the processing of tar sands to turn it into crude oil.”

But the group concluded in a July white paper that even this limited lifecycle analysis shows Keystone fails President Obama’s pledge not to approve it if it “significantly exacerbates the problem of carbon pollution.”

The NRDC source says the idea that EPA should extrapolate its analysis of the NSPS so far out is likely “somebody being mischievous” in an attempt to kill EPA’s reliance on CCS in the NSPS. Another source calls it “a poison pill.”

Clean Air Act experts agree that the paper is an apparent attempt to scuttle the new source NSPS while also noting that the lifecycle argument does have merit.

For example one source calls it “a persistent problem for how far upstream/downstream” lifecycle impacts need to be considered. For example, the source points to questions over whether “green” building developers need to include the energy that went into making the steel and cement, or even the energy that went into mining the iron ore. “How far back do you go? Here, we have a downstream impact of CCS. . . . I think it’s a legitimate question.”

However, the source says the correct answer is not to count all of the EOR-derived oil emissions but to calculate the additional emissions that will result from the EPA rule. “So it’s not that every additional ton of CO2 that is captured is going to mean a ton of CO2 going for EOR that wouldn’t otherwise occur. . . . The legitimate question is what would be the marginal increase in EOR that might occur” due to the NSPS. — *Dawn Reeves*