Notes of EPA-California Call about the CES-Mendota Permit Application

Date: August 10, 2020

Participants: EPA Region 9, EPA Headquarters, State Water Board, Regional Water Board, CalGEM, CARB, Cadmus.

The purpose of the call was to gain input from California state agencies about the CES-Mendota Class VI UIC permit application. EPA envisions that additional calls will take place throughout the review.

David Albright invited the Water Board, CalGEM, and CARB to ask questions or provide comments. EPA's replies are provided in italics.

State/Regional Water Boards

The RWB asked if the state will have an opportunity to provide further input after the well is drilled. *David replied that, if EPA issues a construction permit, the applicant must submit updated information before injection will be authorized. The need for a follow-up public process will depend on the amount/type of new information submitted. In any case, there would be an opportunity for the state to review the updated information.*

Will the applicant sample/assess water quality from the Panoche Formation and will they perform a step rate test? *Yes – both are required as part of the pre-operational testing program.*

The applicant says that they plan to inject for between 12 and 20 years. Does this reflect a maximum time limit on the permit? *No – Class VI permits are issued for the life of the project.*

Regarding faults, will CES be doing a 3D seismic survey and is there any indication that any faults are transmissive? What data will be collected to determine whether the faults are sealing? *There is currently no indication that any of the faults are transmissive. Pre-operational 3D seismic data is expected to better characterize the faults in the area and core data will be reviewed to confirm the sealing capacity of Fault 13.*

What is the mechanism for up-dip movement of the CO_2 plume? *EPA will provide follow up information based on the results of additional review.* Calvin: this is actually the subject of one of our clarifying questions, so we can share the response with the state. -- Will do.

Figure 46 of the permit application shows the centroids of the water well locations. It will be necessary to verify the actual locations. Calvin: it was a little unclear whether the RWB was planning to do this. -- Can we add this question to the evaluation?

Any newly drilled monitoring wells would need to be approved by the Central Valley Water Board. While existing wells would not need to be approved, the Water Board would be interested in any plans to use existing wells as monitoring wells.

What is the basis for the applicant's statement that, based on a clay volume threshold of 30%, the Moreno Formation is considered to be a shale? *EPA can ask this as part of their follow up questions for the applicant about the geologic information.* Calvin: we should add this to the site characterization questions. -- agreed

CalGEM

CalGEM has no specific questions about the permit application at this time, but expressed excitement about a initiating CCS in California. They hope that this first review will generate a process that facilitates the reviews of future Class VI permit applications.

CARB

The ARB is currently talking to the applicant about their certification, particularly about the risk assessment. Their certification requires 100 years of post-injection monitoring; there are no specific requirements for what this monitoring entails, although it is most intensive in the first 15 years.

How often are MITs required? *The Class VI Rule requires annual external MITs and continuous monitoring of operating parameters to demonstrate internal mechanical integrity.*

EPA's Review Process

Following an overview of EPA's process for evaluating geologic information, the State asked about the predicted CO_2 concentration in various phases. *This information is unknown at this point of the permit application, but EPA will provide further details to the state when information is available.*