March 28, 2025

Rachel Danielson
Matthew Botill
California Air Resources Board
1001 I Street Sacramento, CA 95814

Re: CA CCUS Forum Comments on the Carbon Sequestration: Carbon Capture, Removal, Utilization, and Storage Program Workshop Held February 27, 2025

Dear Ms. Danielson and Mr. Botill,

The CA CCUS Forum thanks California Air Resources Board ("CARB") staff for organizing and hosting the *Carbon Sequestration: Carbon Capture, Removal, Utilization, and Storage Program Workshop* ("Workshop") and providing stakeholders with an update on the implementation of Senate Bill ("SB") 905 (Caballero, 2022). The development of the Carbon Capture, Removal, Utilization, and Storage Program ("CCUS Program") in California comes at a time when California must lead not only the United States but also the world in demonstrating implementable climate solutions that can be scaled.

At the CCUS Program Workshop, staff shared context regarding CARB's staffing constraints and existing priorities for SB 905 implementation.[1] The CA CCUS Forum supports staff's implementation priorities, especially the inclusion of the creation of the library to collect permit data requirements and the permit portal project, which will enable the unified permit application required by SB 905.

In the section below, the CA CCUS Forum responds to the Permit and Project Portal questions posed during the Workshop held on February 27, 2025.

1. *Considering its voluntary to use, what features of the permit portal would increase the likelihood the portal is used by both project developers and permitting agencies?*

   The CA CCUS Forum's mission is to foster awareness and relationship building through open dialogue and a focus on finding solutions to support the deployment of carbon capture technologies. In carrying out this mission, the CA CCUS Forum hears directly from both the organizations using carbon capture to decarbonize their industrial processes and the organizations developing innovative carbon capture and removal technologies about the

[1] Carbon Sequestration: Carbon Capture, Removal, Utilization, and Storage Program (SB 905, Caballero, 2022) Workshop, Slide 8. Accessible at: https://ww2.arb.ca.gov/sites/default/files/2025-02/FEB27_2025_CARBWorkshop_Introduction_Public%20Comment.pdf.

permitting challenges they face. Although use of the unified permit application and portal is optional, the CA CCUS Forum emphasizes the large opportunity that development of the portal represents.

Permitting carbon capture and removal projects is a lengthy and highly complex process, involving multiple jurisdictions. However, the Health and Safety Code § 39741.2(d) states that the unified permit application "shall not displace the role of individual permitting agencies and shall not eliminate, abridge, or reduce the review or issuance of the individual permits covered by the application by the respective agencies." Accordingly, the value of the unified permit application portal lies in streamlining information gathering and information transfer.

The unified application portal must distinguish between the various activities that enable the capturing and storage of carbon dioxide when specifying permit requirements and the relevant application fields. For example, a carbon capture and removal project may need permits for the construction of capturing facilities, permits for the transfer of captured carbon to a storage site, and permits for the sequestration of the captured carbon in geological formations (which in a state without state primacy such as California is permitted by the federal Environmental Protection Agency).

More specifically, the permit portal should include the following features:

1) The ability to create a query for both a site location (address or coordinates) and the specific activity for which a permit is sought (e.g., capture, transport, or storage), which returns the list of permits required for the queried activity along with the list of authorities having jurisdiction ("AHJs") over the site.
2) The ability to search the portal for a specific project to gather data about the project, the permits it is required to seek, and the permits it has sought that are under review (i.e., its permitting status).
3) Visualizations for the applicable permitting timelines and a project's progress through the different applicable permitting processes, such as those developed by the U.S. Environmental Protection Agency ("USEPA") for the permitting of Class VI injection wells. See for example, the status bar charts developed for each individual project accessible here: https://awsedap.epa.gov/public/single/?appid=8c074297-7f9e-4217-82f0-fb05f54f28e7&sheet=51312158-636f-48d5-8fe6-a21703ca33a9&theme=horizon&bookmark=6218ffed-bb6e-42e4-a4f1-52d87e036a1b&opt=ctxmenu. Note: you must click on a specific project to bring up its individual status bar chart.
4) Statistics on a portal dashboard that aggregate data about all the projects in California and the amount of time spent seeking approval for each category of permits. This dashboard could be similar to the one developed by the USEPA, accessible here.

5) A data dictionary that defines application data fields.
6) A user guide for the portal.
7) "Last updated" date information clearly visible throughout the portal. Outdated information will diminish trust and ultimately the likelihood that the portal is used by project developers and permitting agencies.
8) A robust portal search feature that enables easy access to the requirements for each category of permits (i.e., application data that must be submitted) for project developers as well as a specific project's already submitted application data by AHJs or other interested parties.

These features will enable project developers and permitting agencies to access a central source for permitting and project data in California. Data centralization to enable administrative efficiency is fundamental to the successful implementation of the permit portal and unified permit application.

Although it is a complex undertaking to develop the portal, once the underlying data architecture for the portal is developed and relevant permitting library is developed, the CA CCUS Forum believes the portal will provide long-term value to all stakeholders developing and permitting carbon capture and removal projects in California as well as transparency to the public, demonstrating the rigorous permitting standards that carbon capture and storage projects must meet before being built.

2. *Are there examples of existing similar systems (e.g. CEQAnet) that CARB should look to when developing the permit portal?*

   The CA CCUS Forum is not aware of similar systems that provide a unified application portal.

3. *Are there other considerations that CARB should address when developing the unified permit application?*

   Designing a unified permit application that is useful for all agencies involved in a project involves gathering the information required by local and state agencies involved in the permitting of carbon capture and storage projects.[2] It may be helpful for CARB to invite some of the agencies involved with the permitting of carbon capture and storage projects to the next workshop held to further the development of the unified permit application.

[2] California Health and Safety Code § 39741.2(a).

4. *Are there examples of existing public CCUS project databases that we should look to and/or emulate for public reporting on project deployment?*

   As mentioned above, the USEPA has developed a public reporting tool for Class VI well permitting progress that the CA CCUS Forum recommends CARB emulate.

The CA CCUS Forum thanks CARB leadership and staff for the opportunity to comment on the development of California's Carbon Capture, Removal, Utilization, and Storage Program.

Sincerely,

Nicole Cheng
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CA CCUS Forum