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September 27, 2018

Members of the Board
California Air Resources Board (CARB)
1001 I Street, Sacramento, CA

Subject: Proposed CCS (Carbon Capture and Sequestration) Protocol and Amendments to the Low Carbon Fuel Standard (LCFS)

Dear Chairwoman Nichols and Members of the Board:

Occidental Petroleum supports the Air Resources Board's adoption of the proposed amendments to the Low Carbon Fuel Standard and the quantification methodology memorialized in the Carbon Capture and Sequestration Protocol (CCS Protocol).

In April of this year, Occidental appeared before this board to express its appreciation and support for CARB's leadership in these efforts. In the months since, we have met with CARB staff on several occasions to discuss many of the Protocol's specific provisions. CARB staff have been engaged, enthusiastic and extremely helpful throughout the rulemaking process. By way of example, in one meeting we arrived with four experts to explain in detail the advanced Supervisory Control and Data Acquisition systems we have that continuously collect and monitor data from sensors at each of our wells. We also described our use of fully peer reviewed main-line simulators to model complex reservoir geologies and performance. Throughout the meeting CARB staff displayed a deep understanding of our technology, its deployment and the challenges of CO₂-EOR operations.

The resultant Protocol is a rigorous regulatory document that requires applicants to submit 15 separate plans covering everything from site selection and subsurface modeling to monitoring and verification. It is a superior document likely to be replicated by other jurisdictions.

This is important because Occidental and White Energy have announced an engineering study to evaluate the feasibility of a joint carbon capture, utilization and storage project. The study is now

examining the costs of building a carbon capture facility, drawing on Occidental's more than 40 years of experience in CO2 management. The project is designed to be eligible for carbon capture credits, including California's Low Carbon Fuel Standard credit program. Successful implementation will help demonstrate that the important incentives represented by CARB's efforts can result in near term investments that reduce carbon intensities in transportation fuels such as ethanol.

We do urge the board to direct CARB staff to address a few outlying issues that we think will enhance participation in the Protocol, including site-care and the 100-year post closure period.

Regarding site-care, the Protocol proscribes certain activities commonly conducted in the vicinity of oil and gas production. These activities are conducted by others that own rights to access other formations near, but not within, a CO2-EOR project. Other formations can be safely accessed without threat to the CO2-EOR operations because drilling activities must always comport with state drilling rules implementing the Safe Drinking Water Act. These rules protect underground sources of drinking water from cross contamination and have a side benefit of also preventing the loss of CO2 from a CCS Project. Occidental welcomes the opportunity to work with CARB staff to incorporate additional requirements into the Protocol that would safeguard CCS Projects while recognizing that others may have rights to access other formations in the vicinity.

Regarding the 100-year post closure period, We understand that there is a resolution before the board on this issue and support its adoption. We expect that technological improvements during long CCS project life cycles will enable some projects to demonstrate permanent geological storage sooner than the 100-year timeframe. Accordingly, Occidental recommends additions to the Protocol that permit a CCS Project to meet demanding performance-based criteria with a corresponding reduction in the post closure monitoring period.

In closing, Occidental urges this board to adopt the CCS Protocol and the proposed amendments to the LCFS and we look forward to working with CARB staff to obtain permanence certification for our projects.

Sincerely

Myles Culhane