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April 23, 2018

Clerk of the Board
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: Carbon Capture and Sequestration (CCS)
Protocol under LCFS Amendments

File No. 055167-0005

Clerk of the Board:

We draw your attention to the draft post-injection site care (PISC) provision for carbon capture and sequestration (CCS) projects credited under the low carbon fuel standard (LCFS) program. This provision appears in Section 5.2(b)(2):

After injection is complete, the CCS Project Operator must continue to conduct monitoring as specified in this section and the Executive Officer-approved Post-Injection Site Care and Site Closure Plan for a minimum of 100 years.

We are deeply concerned that such a requirement would severely limit, if not wholly preclude, the use of CCS in the state.

Initial discussions with staff suggest there is a serious misunderstanding regarding whether such a prohibitively-lengthy monitoring period is legally required by other ARB decisions. In particular, we believe there is confusion regarding whether the appellate court in *Our Children's Earth Foundation v. State Air Resources Board*, 234 Cal. App. 4th 870 (2015) or the Superior Court in Case No. CGC-12-519554 (Jan. 25, 2013) determined any applicable additionality or permanence criteria that could apply to CCS project monitoring. The trial court upheld the *additionality* of the urban forestry protocol on the basis that the Air Resources Board's (ARB's) protocol was amply conservative in assuring emissions reduction performance (in that instance, carbon sink value) significantly beyond business-as-usual forestry practices and thus was neither arbitrary nor capricious upon review. Neither the trial nor the appellate court, however, made any determination at all regarding the appropriate duration (e.g., permanence of storage) that would be required for any particular type of project and certainly did not address what monitoring period would be sufficient to assure that sequestered CO₂ would remain in the ground.

The appropriate question for selecting a post-injection monitoring period is what period the literature supports as sufficient to confirm that there will not be any significant leakage from the storage area. As other commenters have noted, that period is much, much shorter than 100 years. For example, the Obama EPA promulgated a 50-year default PISC and provided for

shorter, alternative periods when supported by appropriate technical criteria.¹ In fact, the US EPA has granted at least three CCS projects shorter, 10-year, PISCs following appropriate technical reviews.² For a specific example, *see* the Illinois Industrial Carbon Capture and Sequestration Project CCS#2: https://www.epa.gov/sites/production/files/2017-01/documents/adm_final_decision.pdf; at p.5.

On behalf of the Western States Petroleum Association and our other clients committed to the successful development of CCS, we urge the Board to direct the staff to continue to evaluate the appropriate monitoring period for CCS post-injection site care and to identify a reasonable period, consistent with the US EPA approach and available technical literature and expertise, which both assures storage integrity and provides a reasonable basis for financing and siting CCS projects. This critical design issue should not be finalized until there has been adequate further analysis.

Very truly yours,



Robert A. Wyman
of Latham & Watkins LLP

¹ 75 Fed. Reg. 77230, 77300 (December 10, 2010). Section 146.93(b)(1) of EPA's Underground Injection Control Program – Criteria and Standards provides: "Following the cessation of injection, the owner or operator shall continue to conduct monitoring as specified in the Director-approved post-injection site care and site closure plan for at least 50 years or for the duration of the alternative timeframe approved by the Director pursuant to requirements in paragraph (c) of this section, unless he/she makes a demonstration under (b)(2) of this section. The monitoring must continue until the geologic sequestration project no longer poses an endangerment to USDWs and the demonstration under (b)(2) of this section is submitted and approved by the Director."

Section 146.93(b)(2) provides the shorter post-injection monitoring alternative that EPA has approved in appropriate circumstances:

If the owner or operator can demonstrate to the satisfaction of the Director before 50 years or prior to the end of the approved alternative timeframe based on monitoring and other site-specific data, that the geologic sequestration project no longer poses an endangerment to USDWs, the Director may approve an amendment to the post-injection site care and site closure plan to reduce the frequency of monitoring or may authorize site closure before the end of the 50-year period or prior to the end of the approved alternative timeframe, where he or she has substantial evidence that the geologic sequestration project no longer poses a risk of endangerment to USDWs.

² US EPA-approved projects granted 10-year PISC's include: Arthur Daniels Midland Industrial Project, Illinois; Occidental Petroleum Denver Unit, Texas; and the Occidental Petroleum Hobbs Unit, New Mexico.