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July 18, 2016

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

Subject: Comments on the proposed Regulation for Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities

Dear Chair Nichols and Members of the Board,

Calpine Corporation (“Calpine”) is writing in regard to the proposed Regulation for Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities (the “Proposed Regulation”).

Calpine Corporation is America’s largest generator of electricity from natural gas and geothermal resources. Our fleet of 84 power plants in operation or under construction represents more than 27,000 megawatts of generation capacity. Through wholesale power operations and our retail business, Champion Energy, we serve customers in 21 states and Canada. We specialize in developing, constructing, owning and operating natural gas-fired and renewable geothermal power plants that use advanced technologies to generate power in a low-carbon and environmentally responsible manner. Of the ten largest electricity generators in the U.S., Calpine ranks as having the lowest overall emissions intensity for nitrogen oxides (“NO_x”) and sulfur dioxide (“SO₂”) and the lowest emissions intensity for carbon dioxide (“CO₂”) among those same ten generators’ fossil fuel fleets.¹

Calpine is also a long-time supporter of the California Global Warming Solutions Act of 2006, the Air Resources Board’s (“ARB”) Cap-and-Trade Program and California’s goals of reducing economy-wide greenhouse gas (“GHG”) emissions to 40% below 1990 levels by 2030 and 80% below 1990 levels by 2050. Calpine also actively supports regulation of GHG emissions at the federal level, including through its participation as *amicus curiae* in support of the U.S. Environmental Protection Agency’s (“EPA”) authority to require that permits for the largest

¹ See Natural Resources Defense Council et al., Benchmarking Air Emissions of the 100 Largest Electric Power Producers in the United States, at 26 (2016), available at: <https://www.nrdc.org/sites/default/files/benchmarking-air-emissions-2016.pdf> (emissions and generation data from 2014).

sources include GHG emission controls.² In addition, as part of a broad coalition of power companies, Calpine is currently defending EPA's Clean Power Plan in litigation brought by 27 states and the coal industry in the U.S. Court of Appeals for the District of Columbia Circuit.³

While Calpine generally supports ARB's efforts to regulate GHG emissions from oil and natural gas production operations, Calpine is concerned that the Proposed Regulation sweeps too broadly and potentially includes very small operations within its scope.

Calpine's affiliate, CPN Pipeline Company ("CPN Pipeline), operates six facilities in and around the Sacramento Valley that include some form of water/condensate separation and storage. None of these facilities includes natural gas production, compression or processing plants. However, section 95666 of the Proposed Regulation applies to, *inter alia*, "[c]rude oil, condensate, and produced water separation and storage." Proposed Regulation § 95666(a)(2). "Condensate" is defined as "hydrocarbon or other liquid, excluding steam, either produced or separated from crude oil or natural gas during production and which condenses due to changes in pressure or temperature." *Id.* § 95667(a)(9). "Crude oil and produced water separation and storage" is, in turn, defined as "all activities associated with separating, storing or holding of emulsion, crude oil, condensate, or produced water at facilities to which this subarticle applies." *Id.* § 95667(a)(14). These definitions appear to be intended to regulate condensate production and storage when such separation activities occur as part of the production of crude or natural gas or in association with crude or natural gas production, compression or processing activities. *See id.* § 95667(a)(9), (14) (defining covered water separation and storage as activities occurring "at facilities to which this subarticle [otherwise] applies").

CPN Pipeline receives dry gas from producers of natural gas throughout the Sacramento Valley, which CPN Pipeline delivers through a network of pipelines to various electric generation facilities operated by Calpine and its affiliates. However, the gas received from such producers is not always dry and CPN Pipeline therefore conducts "polishing" dehydration and/or liquid separation at several facilities located along the transmission pipeline between the producers and the electric generating facilities. Because the Proposed Regulation would apply to "[c]rude oil, condensate, and produced water separation and storage", CPN Pipeline's facilities would appear to fall within the scope of section 95666(a)(2).

Calpine does not believe that it was ARB's intention to include isolated condensate and water separation and storage facilities such as these (i.e., those which are not operated in association with any crude or natural gas production, compression or processing facilities) within the scope of the Proposed Regulation. The cost and regulatory burdens associated with developing and implementing a leak detection and repair ("LDAR") program for these remote facilities would outweigh any potential emission reduction benefit to be achieved through implementation of the Proposed Regulation at such facilities.

² *See Util. Air Regulatory Grp. v. EPA*, 134 S. Ct. 2427, 2447 (2014) (citing brief for Calpine as *amicus curiae* in upholding EPA's authority to mandate that prevention of significant deterioration permits for so-called "anyway" sources require the best available control technology for GHGs).

³ *West Virginia v. EPA*, No. 15-1363 (D.C. Cir.).

The Proposed Regulation provides an exemption from the separator and tank system standards for, *inter alia*, “[t]anks that recover less than 10 gallons per day of any petroleum product from equipment provided that the owner or operator maintains, and can make available at the request of the ARB Executive Officer, a record of the amount of liquid recovered.” *Id.* § 95668(a)(2)(F). CPN Pipeline’s facilities all produce less than 10 gallons per day of water and condensate. However, because of the facilities’ remote locations, tank volume is only recorded on a monthly basis. To clarify that these facilities should not be subject to the separator and tank system standards at section 95668(a), Calpine would recommend that ARB insert the words “or 300 gallons per month” immediately after the words “10 gallons per day” in section 95668(a)(2)(F).

Even if CPN Pipeline’s separator and tank systems were to be excluded from the separator and tank system standards, they would nevertheless appear to be subject to the Proposed Regulation’s LDAR requirements. However, given the size and remote location of these facilities, the development and implementation of a LDAR program for each of them would involve significant time and effort, with very limited to no emissions benefit. Calpine would therefore urge ARB to exempt from the Proposed Regulation’s LDAR requirements any natural gas condensate and separator system/tank that has a throughput of less than 300 gallons per month and is not adjacent to or associated with any production facility, compressor station or processing plant.

Thank you for the opportunity to submit this letter. Please contact us if you have any questions at barbara.mcbride@calpine.com or scott.vickers@calpine.com.

Sincerely,



Barbara McBride
Director—Environmental Services
Calpine Corporation



Scott Vickers
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CPN Pipeline Company