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Via Email: VDouglas@baaqmd.gov

December 2, 2016

Victor Douglas, Principal Air Quality Specialist
Technical Services Division
Bay Area Air Quality Management District
375 Beale Street
San Francisco, CA 94105

Subject: Comments on Draft Regulation 11, Rule 18: Reduction of Risk from Air Toxic Emissions at Existing Facilities, and Draft Staff Report for Draft Regulation 12, Rule 16 and Draft Regulation 11, Rule 18

Dear Mr. Douglas:

Calpine Corporation (“Calpine”) is writing to provide comments in response to the Bay Area Air Quality Management District’s (“District”) on the Draft Regulation 11, Rule 18: Reduction of Risk from Air Toxic Emissions at Existing Facilities (“Reg. 11-18”)¹ and the accompanying Draft Staff Report (“Draft Staff Report”) for Draft Reg. 11-18 and Draft Regulation 12, Rule 16: Petroleum Refining Facility-Wide Emissions Limits dated October 2016 (“Reg. 12-16”).²

Calpine’s Commitment to Reducing Power Sector Emissions

Calpine Corporation is America’s largest generator of electricity from natural gas and geothermal resources. Our fleet of 82 power plants in operation or under construction represents nearly 27,000 megawatts of generation capacity. Through wholesale power operations and our retail business, Champion Energy, we serve customers in 24 states, Canada and Mexico. 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

¹ Available at: http://www.baaqmd.gov/~media/files/planning-and-research/workshops/2016/1118-and-1216/10142016_rg1118-pdf.pdf?la=en.

² Available at: http://www.baaqmd.gov/~media/files/planning-and-research/workshops/2016/1118-and-1216/1216_1118_dsr_101216-pdf.pdf?la=en.

those same ten generators' fossil fuel fleets.³ This is a direct reflection of the investments in clean generation technology Calpine routinely undertakes in developing and maintaining its fleet, which includes projects amounting to hundreds of millions of dollars of investment in the Bay Area in the past several years.

Complementing these investments, Calpine has consistently supported the U.S. Environmental Protection Agency ("EPA") in its efforts to reduce emissions in the power sector, including through its intervention in support of the EPA in defense of the Mercury and Air Toxics Standards⁴ and the Cross-State Air Pollution Rule,⁵ and its participation as *amicus curiae* in support of the EPA's authority to require that Prevention of Significant Deterioration ("PSD") permits for the largest sources include greenhouse gas ("GHG") emission controls.⁶ In addition, as part of a coalition of power companies collectively representing approximately 10% of installed U.S. generating capacity, 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.⁷

Within California, Calpine is a longtime supporter of California's groundbreaking Global Warming Solutions Act of 2006, Assembly Bill ("AB") 32, and the Air Resources Board's ("ARB") Cap-and-Trade Program implemented pursuant to AB 32. Calpine also supports the State's goal of reducing economy-wide GHG emissions to 40% below 1990 levels by 2030, as established by Executive Order B-30-15, and Senate Bill ("SB") 32. Calpine also supported SB 350's passage last year, which increased the renewable portfolio standard to 50% by 2030, set a goal to double the amount of energy efficiency in the State by 2030 and is poised to help advance the electrification of transportation.

Together, these efforts reflect Calpine's overall commitment to reducing power sector emissions and supporting market-based regulatory solutions at both the State and federal level.

Comments on Draft Reg. 11-18

Calpine supports the direction District staff has taken in proposing Draft Reg. 11-18 and believes focusing on risks to localized communities is more appropriate than the approach reflected by Draft Reg. 12-16, which would not target the actual pollutants of concern and associated risks.

³ 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).

⁴ See *White Stallion Energy Ctr., LLC v. EPA*, 748 F.3d 1222 (D.C. Cir. 2014), *rev'd sub nom. Michigan v. EPA*, 135 S. Ct. 2699 (2015).

⁵ See *EPA v. EME Homer City Generation, L.P.*, 134 S. Ct. 1584 (2014).

⁶ 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).

⁷ *West Virginia v. EPA*, No. 15-1363 (D.C. Cir.).

According to the Draft Staff Report, Draft Reg. 11-18 does not actually “start” until after completion of the health risk screening analyses (“HRSAs”) and facility-specific health risks assessment (“HRA”) for facilities with a priority score over a given threshold (increased cancer risk of greater than ten in a million (1×10^{-5}) or a non-cancer health index of 1.0 or greater).⁸ According to the Draft Staff Report and statements at public workshops, the District intends to conduct both the HRSAs and HRAs for facilities potentially subject to the requirements of Draft Reg. 11-18 and inform such facilities that they are subject to the rule and must prepare a Risk Reduction Plan.

Calpine believes that each facility identified as having a priority score that triggers preparation of an HRA should be provided the opportunity to prepare the HRA itself. In Calpine’s experience, preparation of an HRA is a detailed technical exercise that requires intimate knowledge of a facility, its sources, processes and operations. Rather than simply verify the HRA parameters and inputs as suggested by the Draft Staff Report, facilities could assure greater accuracy and representativeness by actually conducting the HRAs themselves. The facility would prepare and submit a workplan to the District for preparation of the HRA in accordance with the most recent Office of Environmental Health Hazard Assessment (“OEHHA”) HRA Guidelines and then, upon obtaining the District’s review and approval, proceed with preparation of the draft HRA. Given the potential resource burden that preparation of HRAs for all potentially covered facilities could impose on District staff, it only makes sense to let those facilities with the experience, willingness and resources to prepare the HRA take the lead in doing so. For those facilities that are lacking the experience or resources to prepare such an HRA on their own and decline to do so, the District could proceed with preparation of the HRA on their behalf.

Calpine is concerned with the District’s proposal that all HRAs be subject to public comment and the scope of such review. While certainly a draft HRA must be reviewed by District staff to assure preparation in accordance with OEHHA Guidelines and the draft Risk Reduction Plan for facilities with a qualifying risk should undergo public comment, Calpine believes there would be little benefit in terms of public information associated with putting every HRA out for public comment and review; if a facility has a risk that rises to the level that already requires public notification for environmental exposures under existing State law, then it will also be subject to the requirement to prepare a Risk Reduction Plan and that plan will undergo public review. But for those facilities where the risk estimated by the HRA does not exceed that threshold, the resource burden and amount of time associated with putting the draft HRA out for public review, receiving public comments and responding to such comments could significantly delay implementation of Reg. 11-18 and preparation and implementation of Risk Reduction Plans.

Calpine shares the concerns others have expressed that context is critically important to risk communication. Publication of draft HRAs for public review and comment in isolation of a complete description of the multiple and various risks that exist due to other sources, including mobile sources, area sources and background ambient conditions, would not be informative to the public and could lead to politicization of the HRA preparation and review process. At the very least, any communication of risk should be accompanied by background information on the significant reductions in overall lifetime cancer risk and emissions and risk from Bay Area

⁸ See Draft Staff Report at 35.

stationary sources that have occurred in the recent past, as was included in the Draft Staff Report.⁹

Comments on Conclusion that Draft Reg. 12-16 Is Inconsistent with Statutory Authority

The Draft Staff Report provides staff's analysis that the fixed numeric caps on refinery emissions proposed by draft Reg. 12-16 are inconsistent with the requirements of the federal Clean Air Act ("CAA") and California law.¹⁰ Staff notes that both the CAA and California law require permitting programs that allow for criteria pollutant emissions to increase at one location so long as those emissions are offset by reductions elsewhere.¹¹ Calpine agrees with staff's analysis of this inconsistency.

As the Draft Staff Report indicates, draft Reg. 12-16 would address pollutants of primarily regional or global concern by limiting those pollutants from one particular sector, even though the concentrations of criteria pollutants are roughly the same in refinery communities as in other urbanized areas of the region.¹² Calpine, also, agrees that, in light of the regional and global impacts associated with the emissions targeted by draft Reg. 12-16, the theoretical co-benefits associated with regulating criteria and GHG emissions, so as to limit localized communities' exposure to pollutants,¹³ would not support adoption of such a rule.

Calpine also agrees that draft Reg. 12-16's caps on GHG emissions are fundamentally inconsistent with the Cap-and-Trade Program and would therefore run afoul of State law.¹⁴ Calpine is a long-time supporter of the Cap-and-Trade Program and of market mechanisms to reduce emissions of GHG and address climate change. The Cap-and-Trade Program has been carefully designed to achieve the maximum technologically feasible and cost-effective reductions in GHG emissions through use of market forces, while also minimizing emissions leakage. *See* Cal. Health & Saf. Code §§ 38562(a), (b)(8). Placing caps on facilities in the Bay Area would frustrate the efficiency goals of the Cap-and-Trade Program, as recognized by staff.¹⁵ It could also result in emissions leakage to sources elsewhere in the State or out-of-state, which would ultimately achieve no reduction in GHG emissions and could, in fact, result in an increase in emissions from sources elsewhere not subject to the District's stringent requirements. We therefore agree with District staff's conclusion that the adoption of a rule imposing caps on GHG emissions from Bay Area facilities would not be consistent and in harmony with existing State law. *See id.* § 40727(b)(4).

Thank you for the opportunity to submit these comments. Please contact me if you have any questions at 925.557.2238 or barbara.mcbride@calpine.com.

⁹ *See* Draft Staff Report at 26-27.

¹⁰ *See id.* at 17-20.

¹¹ *Id.* at 17.

¹² *See id.* at 18.

¹³ *See id.* at 20.

¹⁴ *See id.* at 19.

¹⁵ *See* Draft Staff Report at 19 ("There is a fundamental inconsistency between a 'cap and trade' program that by its nature contemplates changeable caps versus one that fixes caps at one level, in that the latter has the potential to frustrate the efficiency goals of the former.").

Victor Douglas, Principal Air Quality Specialist

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Sincerely,

A handwritten signature in black ink, appearing to be 'B. McBride', with a long horizontal line extending to the right.

Barbara McBride

Director—Environmental Services

Calpine Corporation