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July 28, 2017

Tim Johnston
Planning Department, City and County of San Francisco
1650 Mission Street, Suite 400
San Francisco, CA 94103

RE: EIR for the Biosolids Digester Facilities Project

Dear Mr. Johnston,

Bay Area Air Quality Management District (Air District) staff have reviewed the Draft Environmental Impact Report (DEIR) for the Biosolids Digester Facilities Project. This project demolishes buildings and reorganizes a portion of San Francisco's Southeast Water Pollution Control Plant (SEP) to add new solids treatment, odor control, energy recovery, and associated facilities to its wastewater treatment capabilities. The project imagines a construction period between 2018-2023, assumes full operation of the redesigned plant by 2025, and expects its highest operating level by 2045 after a 20 percent growth in population and associated wastewater processing needed. The combination of this increase in flows and more effective biosolids digester equipment is anticipated to increase biogas production by roughly 50 percent. The project plans to burn all of this biogas in a new cogeneration facility and to use all of the generated electricity and steam on site.

Air District staff submitted comments on this DEIR on June 26, 2017. This letter clarifies comments about asbestos management and supersedes our previous letter.

Air District staff want to compliment the City for producing a high-quality report that thoughtfully and meticulously explores air quality concerns. We find the separate air quality technical report (AQTR) quite helpful in understanding assumptions about impacts and recommend including it or key portions of it as an appendix in the final environmental impact report (FEIR). We commend the project on the greater recovery efficiency of biosolids digestion, the planned odor control improvements, and the reduction in emissions of volatile organic compounds and associated nuisance odors in the adjacent neighborhood. We further commend this project for its planned inclusion of renewable diesel fuel to reduce diesel emissions from the project.

We also have identified project aspects that warrant additional review and/or clarification in the FEIR. The first of these aspects is the project's location. Two noteworthy programs have classified the location as a disadvantaged and vulnerable community that warrants heightened protection from air quality-related health risk. In San Francisco's Community Risk Reduction Plan (CRRP), this area has been designated an Air Pollution Exposure Zone (APEZ) and a Health Vulnerability zip code. At the Air District this area has been identified as an area with disproportionate air quality burden by our Community Air Risk Evaluation (CARE) program. The Air District's 2017 Clean Air Plan strives to eliminate the disparity in air quality between the eight CARE communities and the rest of the region by stabilizing and decreasing emissions around and in them. For this reason, we suggest that this project strive for "no net increase" in criteria air pollutant and toxic air contaminant emissions over existing conditions. We recommend this standard across construction and operation

phases of the project. We strongly recommend that NO_x and PM_{2.5} emission increases associated with this project (i.e., those listed in Tables 4 and 14 of the AQTR) be reduced or offset by lower-emission equipment choices in this project, by revised operating plans or other equipment upgrades within the SEP, and/or by off-site initiatives. We recommend that any off-site mitigation occur in or immediately upwind of the communities affected by this project to assure consistency with SFPUC's environmental justice policy, the environmental justice report written for this project, and the community vulnerability concerns discussed above. We encourage more detailed equipment choices prior to finalization of the EIR to strive for no net increases in emissions and to assure consistency between the FEIR and the application for a Permit to Operate from the Air District.

To mitigate its NO_x emissions during construction, the project proposes Mitigation Measure M-AQ-1a, which will require that "equipment with engines greater than or equal to 140 horsepower must meet Tier 4 final standards; [and] equipment with engines less than 140 horsepower must meet Tier 2 standards and be equipped with diesel particulate filters (DPFs)" (p. 4.8-46). We recommend or affirm the use of this mitigation approach for both municipally-owned and contractor-owned equipment in this project. We also see in the same section that "at least 80 percent of haul trucks (i.e., trucks used to remove or deliver backfill soil, excavated soil, and demolition debris) used must have 2010 or newer engines." Unless or until there is a conflicting local business enterprise requirement, we encourage the project to strive for 100 percent of all haul trucks to be 2010 engines or newer.

To mitigate its greenhouse gas emissions, the project states that "all diesel haul trucks and off-road equipment must use renewable diesel" (p. 4.8-46) as part of Mitigation Measure M-AQ-1a. We recommend or affirm the use of this mitigation approach for both municipally-owned and contractor-owned equipment in this project. Further, we recommend that this standard be extended to any portable diesel engines used in this project and to the backup generator installed in this project.

To mitigate NO_x emissions during the five years anticipated for construction, the project proposes funding off-site efforts that reduce emissions. The DEIR anticipates an offset price of \$18,030 per weighted ton. Our expectation is that the price of offsets for NO_x emissions alone is around \$35,000 per weighted ton and is likely to rise during the course of the project. We strongly recommend revision of this cost estimate, while also noting that this pricing correction was raised by the Air District in a comment letter on the Seawall Project (dated June 7, 2017) and the Event Center & Mixed use Development at Mission Bay (dated July 20, 2015).

We also recommend that this project consider how it might be designed to allow for addition of additional anaerobic digestion infrastructure at the SEP, given that the California Air Resources Board is looking toward publicly owned treatment works as co-location opportunities for food waste management as part of its "Short-lived Climate Pollutant Reduction Strategy" (March 2017). Further, to meet the requirements of SB 1383 (Lara, 2016), the City and County of San Francisco, as well as all other local jurisdictions around the State, will need to divert 50 percent of organic wastes from landfill in 2020 and 75 percent in 2025. Given the requirements of SB 32 (Pavley, 2016) to reduce greenhouse gas emissions by forty percent below 1990 levels by 2030, there is further need to assure that long-haul trucking is not required to satisfy the intention of SB 1383. As such, there is growing need to identify opportunities close to or within San Francisco and the Bay Area to compost and/or digest organic materials. Given that this facility has been permitted for biodigestion, we encourage this project to consider potential co-location during its design and buildout. Such consideration may mean designing a project that is conducive to any or all of the following: (i) the addition of more biodigester vessels at this site, (ii) the upsizing or addition of biogas storage facilities at this site, (iii) the addition of infrastructure that will enable upgrading of biogas to renewable natural gas, and (iv) the capacity to install piping that enables produced biogas to be transported via rail tanker or pipeline.

At the time of the review of this DEIR, the Air District has not yet received a permit application for an Authority to Construct for this project because the SFPUC is still designing this facility. In light of your

pending equipment choices and their impacts on your emissions estimates, we recommend that SFPUC seek quotes for a selective catalytic reduction system and/or low-NOx burners to determine whether a lower NOx limit is technologically feasible and cost-effective, particularly given that the proposed NOx limit for the turbine/duct burner (i.e., 25ppm @ 15% oxygen) is based on a BACT determination from 1999. We recommend that the facility request emission factors and guarantees from the manufacturer for each planned piece of combustion equipment as an alternative to using the emission factor of 3.2E-3 kg methane/MMBtu from Table C-2 of 40 CFR 98. We recommend that the facility determine whether the new thermal hydrolysis process will increase precursor organic compounds in the biogas.

To assure that demolition associated with this project complies with Air District Regulation 11, Rule 2, this project may need to take multiple actions, which include but are not necessarily limited to a thorough asbestos survey by a certified asbestos consultant, removal of all regulated asbestos present, and a renovation and/or demolition notification. We also observe that the SEP is within one quarter mile of the geologic ultramafic unit (JSP) on the Naturally Occurring Asbestos (NOA) geologic map of the area. Accordingly, we recommend that soil analysis be conducted to determine whether NOA is present where soil surfaces would be disturbed. Presence of NOA may trigger applicability of the Asbestos Airborne Toxic Control Measure (ATCM) for Construction, Grading, Quarrying and Surface Mining Operations (CCR Title 17 Section 93105) and require dust mitigation measures, reporting, and submission of an Asbestos Dust Mitigation Plan. Should no NOA be found, the Air District recommends that construction dust best management practices (BMP) be implemented to control any fugitive dust during the construction phases.

The Air District also wants to assure that diesel equipment used in this project complies with applicable registration requirements. Off-road diesel-powered equipment greater than 25 horsepower must be registered in the Diesel Off-Road On-line Registration System (DOORS) Database and display an Equipment Identification Number (EIN). Portable diesel-powered equipment must be permitted by the Air District as part of the Portable Equipment Registration Program (PERP), and we encourage SFPUC to pick the lowest emission equipment available for this project.

As a final note, we noticed a statement on p. 4.8-29 of the DEIR that "...based on the odor complaint history, the [Air District] does not consider the SEP to be a significant source of odors in the area." While the number of odor complaints has not resulted in designation of the SEP as a significant source of odors and although the project will improve odor control for biosolids digestion, the entirety of the treatment works is still considered a potentially significant odor source by the Air District.

Air District staff is available to assist the City in addressing these comments. For more information, or if you have any questions, please contact Chad White, Senior Planner, at (415) 749-8619 or via email at cwhite@baaqmd.gov.

Sincerely,



Jean Roggenkamp
Deputy Executive Officer

cc Director Edwin M. Lee
Director Hillary Ronen
Director Jeff Sheehy