



South Coast Air Quality Management District

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SENT VIA E-MAIL:

December 3, 2024

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Notice of Availability of a Draft Initial Study/Mitigated Negative Declaration for the 1977 Saturn Data Center Project (Proposed Project) (SCH No. 2024101397)

South Coast Air Quality Management District (South Coast AQMD) staff appreciate the opportunity to review the above-mentioned document. The City of Monterey Park is the California Environmental Quality Act (CEQA) Lead Agency for the Proposed Project. To provide context, South Coast AQMD staff has provided a brief summary of the project information and prepared the following comments which are organized by topic of concern.

Summary of Proposed Project Information in the MND

Based on the Draft Initial Study/Mitigated Negative Declaration (IS/MND), the Proposed Project consists of demolishing an existing site and constructing a new 218,400 square-foot data center with a new ancillary equipment yard, new electrical substation, parking, and landscaping. The ancillary equipment yard would be approximately 75,000 square feet and located adjacent to the data center's north side. The Proposed Project would include 14 new emergency diesel generators/engines to provide backup power in the event of an emergency. The Proposed Project would also include a new 24,000 square-foot electrical substation to provide electricity to the data center.¹ Based on a review of aerial photographs, South Coast AQMD staff found that the nearest sensitive receptor (e.g., residential development) is located 65 feet west of the Proposed Project.² Construction is anticipated to occur over one phase, lasting approximately 24 months, beginning as early as September 2025 and ending as early as August 2027.³ The site of the Proposed Project encompasses 15.8 acres and is located at 1977 Saturn Street.⁴

South Coast AQMD Comments

Recommend Revisions to the CEQA Regional and Localized Operational Air Quality Impacts Analysis

According to the Draft IS/MND, the Proposed Project includes 14 new emergency diesel engines, each with a capacity of four megawatts (MW) which is equivalent to approximately 5,364

¹ IS/MND, Page 11.

² *Ibid*, Page 46.

³ *Ibid*, Page 21.

⁴ *Ibid*, Page 11.

horsepower (hp), to be located on the north side of the site. The operational emissions, both regional and localized, have been evaluated and calculated using the California Emissions Estimator Model (CalEEMod), as detailed in Appendix A-1: *Air Quality Analysis Memorandum*. The Lead Agency concludes that the Proposed Project's operational emissions are less than the South Coast AQMD air quality significance thresholds for both regional and localized emissions.

However, the emissions calculations do not include operational emissions from the 14 new 5,364 hp emergency diesel engines, which would require air permits from South Coast AQMD. The omission of these operational emissions from the calculations is a major flaw in the analysis because the conclusion of less than significant air quality impacts is relying on underestimated emissions from all criteria pollutants. This is especially concerning considering the Proposed Project's proximity to residential neighborhoods.

To ensure a comprehensive analysis of the Proposed Project's regional and localized air quality impacts on the surrounding area, it is recommended that the Lead Agency:

- Include the calculated emissions from the 14 new 5,364 hp emergency diesel engines. Permits for emergency engines are typically limited to up to 50 hours per year for maintenance and testing and no more than 200 hours per year of total operation (this includes emergency use). Therefore, the CEQA document should calculate the emissions from the operation of all 14 emergency engines for 200 hours per year or if a lower number of hours of operation is used, South Coast AQMD staff would have to include a condition in the permit limiting the hours of operation to what was assumed in the CEQA document. Please also note that depending on the engine tier, the Proposed Project might trigger Title V requirements, as described later.
- Re-run CalEEMod to incorporate these emissions and reassess the total operational emissions.
- Utilize an appropriate air quality dispersion model, such as AERMOD, to evaluate localized air quality impacts to the 1-hour NO_x federal and state ambient air quality standards (AAQS) from the operation of all 14 new 5,364 hp emergency diesel engines. Since the engines are not restricted to when they will be operated for maintenance and testing, the CEQA document should analyze the impacts from all 14 new 5,364 hp emergency diesel engines concurrently operating during a one-hour duration and compare the results to the AAQS.

These updated calculations, along with their associated impact analyses, should be discussed and included in a revised CEQA document to provide a transparent and complete assessment of the Proposed Project's air quality impacts.

Recommend Revisions to Greenhouse Gas Analysis

According to Section 4.8, *Greenhouse Gas Emissions*, the Draft IS/MND concluded a less than significant impact on greenhouse gases (GHG). However, Table 4.8-3 – *Operational Greenhouse Gas Emissions Opening Year* indicates that the total GHG emissions from the Proposed Project would be 85,309 MTCO_{2e} per year, which significantly exceeds South Coast AQMD's air quality significance threshold for GHGs emissions of 10,000 MTCO_{2e} per year. As such, the GHG emission impacts of the Proposed Project should be concluded as significant. If the Proposed

Project results in significant environmental impacts that cannot be mitigated to a “less than significant” level through feasible mitigation measures, a more comprehensive environmental review, such as an Environmental Impact Report (EIR), will be required. The EIR must also include an analysis of alternative project options that could potentially reduce the environmental impacts. The Lead Agency is recommended to address this issue and revise the CEQA document accordingly.

Health Risk Assessment (HRA) during Project Operation

Similarly, the Draft IS/MND for the Proposed Project does not include a comprehensive assessment of the health risks associated with operating 14 new 5,364 hp emergency diesel engines. This omission of a health risk analysis from the calculations is another major flaw in the analysis because the majority of toxic air contaminants (TACs) emissions, primarily as diesel particulate matter (DPM) which is an air toxic and a carcinogen, will be emitted by these 5,364 hp engines. Additionally, the site of the Proposed Project is adjacent to multiple residential neighborhoods, with the nearest sensitive receptor located within 65 feet north of the Proposed Project site. As a result, the potential cancer risk associated with these 14 new 5,364 hp emergency diesel engines from the Proposed Project remains unknown and undisclosed.⁵

Based on the project description for the 14 new 5,364 hp emergency diesel engines, South Coast AQMD staff conducted a preliminary evaluation to estimate the potential cancer risk (CR). Using the Health Risk Assessment Tool and AERMOD-Ready Meteorological Data Files for South Coast AQMD permit applications and CEQA analyses⁶, the estimated CR from one new 5,364 hp emergency diesel engine could be as high as 134 in one million, which significantly exceeds the South Coast AQMD CR threshold of 10 in one million.⁷

This calculation is based on the following assumptions:

- The diesel generator is equipped with a U.S. EPA-certified Tier 2 non-road diesel engine.⁸
- Particulate matter (PM) emission rate of 0.15 grams per brake horsepower-hour (g/bhp-hr) for diesel engines rated at ≥ 560 kilowatts (kW).
- Emergency diesel engine capacity: 4-MW (equivalent to 5,364 hp)
- Operation: up to 200 hours per year.
- Distance to the nearest sensitive receptor: 65 feet.

When the CR is estimated for all 14 new 5,364 hp emergency diesel engines, the total CR will be 1,876 in one million, far exceeding South Coast AQMD’s air quality significance threshold of 10 in one million for TAC impacts. This substantial cancer risk highlights the potential to create significant adverse impacts from the 14 new 5,364 hp emergency diesel engines to the surrounding community, with the nearest residential receptors bearing the largest burden of that exposure.

⁵ South Coast AQMD’s guidance for performing a mobile source health risk assessment is available at: <https://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis>

⁶ South Coast AQMD’s Health Risk Assessment Tool and AERMOD-Ready Meteorological Data Files.

https://www.aqmd.gov/assets/aermet/AERMET_files_And_HRA_Tool.html

⁷ South Coast AQMD Air Quality Significance Thresholds. <https://www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf>

⁸ EPA Emission Standards for Nonroad Engines and Vehicles.

<https://www.epa.gov/emission-standards-reference-guide/epa-emission-standards-nonroad-engines-and-vehicles>

However, if the Proposed Project utilizes Tier 4 Final engines in lieu of Tier 2 engines, the PM emission rate would decrease by about an order of magnitude to 0.02 g/bhp-hr, reducing the total CR to approximately 17.9 per one million. Even if Tier 4 Final engines are utilized, the total CR would remain significant because it would exceed the South Coast AQMD CR threshold of 10 in one million, but the CR impacts would occur at a lesser extent than if Tier 2 engines are utilized. This demonstrates the importance of adopting advanced, cleaner engine technologies during the design phase to reduce air quality impacts and protect public health, especially those of the residents who are located 65 feet away.

Therefore, the Lead Agency is strongly recommended to conduct an operational phase HRA that evaluates the impact of the 14 new 5,364 hp emergency diesel engines. This assessment is critical for determining the potential cancer risks to offsite sensitive receptors and workers and for comparing these risks to South Coast AQMD's Air Quality Significance Thresholds for TACs. The analysis should also disclose the potential chronic health risks associated with the Proposed Project's operation for residents and workers outside the Proposed Project's boundary in the revised CEQA document.

Title V Permit Requirements

Title V is a federal program designed to standardize air quality permits and the permitting process for major sources of emissions across the country. Title V requirements are implemented by the South Coast AQMD through its Regulation XXX – Title V Permits.¹¹ Title V only applies to major sources, which the U.S. EPA defines as facilities that emit or have the potential to emit (PTE) any criteria pollutant or hazardous air pollutant (HAP) at levels equal to or greater than the Major Source Thresholds (MST) found in Table 2 of South Coast AQMD's Rule 3001 – *Applicability*. For the South Coast Air Basin, which is where the Proposed Project is located, the MST is 10 tons per year for NOx.⁹

The U.S. EPA nonroad Tier 2 diesel engine emission limit for NOx + (Non-Methane Hydrocarbon) NMHC is 4.8 g/bhp-hr. Typically, NMHC accounts for 5% of this total (0.24 g/bhp-hr), leaving NOx emissions at 4.56 g/bhp-hr. Assuming NOx emissions are 4.56 g/bhp-hr and each 5,364 hp emergency diesel engine would be permitted to operate up to 50 hours per year for maintenance and testing, the 14 new emergency engines would emit 19 tons of NOx per year, which exceeds the MST. Therefore, the Proposed Project/facility would require an initial Title V permit application and be subject to Title V as well as South Coast AQMD Rule 317.1 – Clean Air Act Nonattainment Fees for 8-Hour Ozone Standards.¹³ As part of the Title V permitting requirements, the facility will be required to install equipment that meets the Lowest Achievable Emissions Rate (LAER) at the time the permit is issued, which is currently a Tier 4 Final engine.

Therefore, the Lead Agency is recommended to revise the CEQA document to include a discussion of the Title V applicability requirements or apply additional feasible mitigation measures to ensure that the NOx emissions remain less than the MST.

⁹ South Coast AQMD. Rule 3001 available at <https://www.aqmd.gov/docs/default-source/rule-book/reg-xxx/rule-3001-applicability.pdf>

Use of South Coast AQMD's Mass Rate Localized Significance Threshold (LST) Look-Up Table to Analyze the Proposed Project's Localized Air Quality Impact is not Consistent with Guidance for the LST Methodology

Based on the Project Description in MND, the Proposed Project covers approximately 15.8 acres.¹⁰ The Lead Agency uses South Coast AQMD's Mass Rate LST Look-up Table for five acres as a screening tool to determine if the Proposed Project's operational daily emissions of NO_x, CO, PM₁₀ and PM_{2.5} could result in a significant impact to local air quality.¹¹ However, South Coast AQMD staff developed the LST methodology specifically for proposed projects that are less than or equal to five acres.¹² For projects exceeding five acres in size or projects that fall into specific categories outlined in Table 3-2 of the LST methodology, the Lead Agency is recommended to conduct project-specific dispersion modeling to accurately assess localized air quality impacts. Since the Proposed Project site is larger than five acres in size, includes numerous large combustion sources, and may potentially be subject to Title V requirements, the LST lookup tables are not applicable. Therefore, the Lead Agency is recommended to: 1) perform project-specific air dispersion modeling for the Proposed Project's operational phase emissions to determine localized air quality impacts; and 2) include the results in the revised CEQA document.

South Coast AQMD Air Permits and Role as a Responsible Agency

Since implementation of the Proposed Project would require the use of new stationary sources, including but not limited to emergency generators, air permits from South Coast AQMD will be required. The revised CEQA document should include a discussion about the South Coast AQMD rules that may potentially apply to the Proposed Project. In addition to Regulation XXX and Rule 317.1, those rules may include, for example, Rule 201 – Permit to Construct,¹³ Rule 203 – Permit to Operate,¹⁴ Rule 401 – Visible Emissions,¹⁵ Rule 402 – Nuisance,¹⁶ Rule 403 – Fugitive Dust,¹⁷ Rule 1110.2 – Emissions from Gaseous and Liquid Fueled Engines,¹⁸ Rule 1166 – VOC Contaminated Soil Excavation,¹⁹ Regulation XIII – New Source Review,²⁰ Rule 1401 – Air

¹⁰ IS/MND. Page 54.

¹¹ *Ibid.* Page 55.

¹² South Coast AQMD. Final Localized Significance Threshold Methodology available at <https://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf>

¹³ South Coast AQMD. Rule 201 available at <https://www.aqmd.gov/docs/default-source/rule-book/reg-ii/rule-201.pdf>

¹⁴ South Coast AQMD. Rule 203 available at <https://www.aqmd.gov/docs/default-source/rule-book/reg-ii/rule-203.pdf>

¹⁵ South Coast AQMD. Rule 401 available at <https://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-401.pdf>

¹⁶ South Coast AQMD. Rule 402 available at <https://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-402.pdf>

¹⁷ South Coast AQMD. Rule 403 available at <https://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-403>

¹⁸ South Coast AQMD. Rule 1110.2 available at https://www.aqmd.gov/docs/default-source/rule-book/reg-xi/r1110_2.pdf

¹⁹ South Coast AQMD. Rule 1166 available at <https://www.aqmd.gov/docs/default-source/rule-book/reg-xi/rule-1166.pdf>

²⁰ South Coast AQMD. Regulation XIII available at <https://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book/regulation-xiii>

Toxics,²¹ Rule 1466 – Control of Particulate Emissions from Soils with Toxic Air Contaminants,²² Rule 1470 – Requirements for Stationary Diesel Fueled Internal Combustion and Other Compression Ignition Engines,²³ Rule 1472 – Requirements for Facilities with Multiple Stationary Emergency Standby Diesel-Fueled Internal Combustion Engines, and etc.³⁰ It is important to note that when air permits from South Coast AQMD are required, the role of South Coast AQMD would change from a Commenting Agency to a Responsible Agency under CEQA. In addition, if South Coast AQMD is a Responsible Agency, per CEQA Guidelines Section 15086, the Lead Agency is required to consult with South Coast AQMD.

CEQA Guidelines Section 15096 sets forth specific procedures for a Responsible Agency, including making a decision on the adequacy of the CEQA document for use as part of the process for conducting a review of the Proposed Project and issuing discretionary approvals. Moreover, it is important to note that if a Responsible Agency determines that a CEQA document is not adequate to rely upon for its discretionary approvals, the Responsible Agency must take further actions listed in CEQA Guideline Section 15096(e), which could have the effect of delaying the implementation of the Proposed Project. In its role as CEQA Responsible Agency, the South Coast AQMD is obligated to ensure that the CEQA document prepared for this Proposed Project contains a sufficient project description and analysis to be relied upon in order to issue any discretionary approvals that may be needed for air permits. South Coast AQMD staff is concerned that the project description and analysis in its current form in the MND is inadequate to be relied upon for this purpose.

For these reasons, the Final CEQA document should be revised to include a discussion about any and all new stationary and portable equipment requiring South Coast AQMD air permits, provide the evaluation of their air quality and greenhouse gas impacts, and identify South Coast AQMD as a Responsible Agency for the Proposed Project as this information will be relied upon as the basis for the permit conditions and emission limits for the air permit(s). Please contact South Coast AQMD's Engineering and Permitting staff at (909) 396-3385 for questions regarding what types of equipment would require air permits. For more general information on permits, please visit South Coast AQMD's webpage at <https://www.aqmd.gov/home/permits>.

Conclusion

Staff recommends that the Lead Agency revise the CEQA analysis to address the aforementioned comments by including emissions from the 14 new emergency engines and estimating the health risks to provide the necessary evidence to support the conclusions reached. If the requested information and analysis are not included in the Revised or Final MND or other type of CEQA document, the Lead Agency should provide reasons for not doing so. Pursuant to California Public Resources Code Section 21092.5(b) and CEQA Guidelines Section 15074, prior to approving the Proposed Project, the Lead Agency shall consider the MND for adoption together with any comments received during the public review process and notify each public agency when any

²¹ South Coast AQMD. Rule 1401 available at <https://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1401.pdf>

²² South Coast AQMD. Rule 1466 available <https://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1466.pdf>

²³ South Coast AQMD. Rule 1470 available at <https://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1470.pdf>

public hearings are scheduled. Please provide South Coast AQMD with written responses to all comments contained herein prior to the adoption of the Final MND. When responding to issues raised in the comments, detailed reasons supported by substantial evidence in the record to explain why specific comments and suggestions are not accepted must be provided. In addition, if the Lead Agency decides to adopt the Final MND, please provide South Coast AQMD with a notice of any scheduled public hearing(s).

Thank you for the opportunity to provide comments. South Coast AQMD staff is available to work with the Lead Agency to address any air quality questions that may arise from this comment letter. Please contact me at swang1@aqmd.gov or Sahar Ghadimi, Air Quality Specialist, at sghadimi@aqmd.gov should you have any questions.

Sincerely,

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ORC241106-01
Control Number