

**BEFORE THE HEARING BOARD OF THE  
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**

**In the Matter of  
LOS ANGELES COUNTY SANITATION  
DISTRICTS**

Order Granting A Short Variance

Section 42350 of the California  
Health and Safety Code

Facility ID 800236

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) Case No. 3715-22  
) **[PROPOSED] FINDINGS AND**  
) **DECISION**  
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**FINDINGS AND DECISION OF THE HEARING BOARD**

This petition for a short variance was heard on **November 12, 2024** pursuant to notice and in accordance with the provisions of California Health and Safety Code Section 40823. The following members of the Hearing Board were present: Micah Ali, Chair; Robert Pearman, Vice-Chair; Jerry P. Abraham M.D., MPH, CMQ; Mohan Balagopalan; and Cynthia Verdugo Peralta. Petitioner, Los Angeles County Sanitation Districts, was represented by Curtis L. Coleman, Esq. Respondent, Executive Officer, was represented by Daphne Hsu, Principal Deputy District Counsel. The matter was heard on the Hearing Board’s consent calendar so there was no appearance by either party. The matter was submitted and evidence received. The public was

given an opportunity to testify and provide comments. Evidence was received, and the case submitted. The Hearing Board finds and decides as follows:

**Nature of Business and Location of Facility**

Petitioner, LOS ANGELES COUNTY SANITATION DISTRICTS (“Petitioner” or “LACSD”) is a public agency focused on converting waste into resources like recycled water, energy and recycled materials. The agency consists of 24 independent special districts serving about 5.5 million people in Los Angeles County. The service areas in the map below cover approximately 850 square miles and encompass 78 cities and unincorporated areas in the county. To maximize efficiency and reduce costs, the 24 Sanitation Districts work cooperatively with one administrative staff headquartered near the City of Whittier.

One of the facilities operated by Petitioner is the A.K. Warren Water Resources Facility (the Facility). It is a wastewater treatment plant that currently provides primary and secondary treatment for a design capacity of 400 million gallons of wastewater per day, and serves over 4.8 million residents, businesses and industries. It is located at 24501 South Figueroa Street, Carson, California. The Facility is a vital component of a network of seven treatment facilities known as the Joint Outfall System (JOS). The JOS provides regional wastewater treatment for Los Angeles County, covering an extensive area including 73 cities and unincorporated county territory. The facility provides centralized processing of solids removed during wastewater treatment for all JOS facilities, producing renewable electricity and reusable biosolids. The treated water from the Facility is sent to the Pacific Ocean through tunnels and outfall pipes extending approximately two miles off the coast of the Palos Verdes peninsula. The Facility provides both primary and secondary treatment for approximately 260 million gallons of wastewater per day and operates 24 hours, 7 days per week, and 52 weeks per year. It qualifies as an “essential public service” facility under California Health and Safety Code Section 42352(a)(2).

**Equipment and Permit to Construct/Operate**

The equipment that is the subject of the short variance is a continuous emission monitoring system (CEMS) that monitors emissions from three combustion turbines located at

the facility. These turbines are part of a three cogeneration systems, each consisting of a Solar Mars 90-1300 113 mmBTU/hr digester and natural gas fired turbine, a waste heat recovery boiler and a 8700kilowatt steam turbine generator. Each cogeneration system is operated pursuant to permits issued by the District (Permit Nos. R-G2781, R-G2782 and R-G2783).

The turbines are used to generate electrical power and steam for the wastewater treatment processes at the Facility. Digester gas produced as a byproduct of the wastewater treatment process is combusted in the turbines (supplemented by natural gas). This allows waste gases that would otherwise have to be flared to be used beneficially to provide electrical power and steam to meet the needs of the Facility. Normally, two combustion turbines are operated at any one time with one in reserve.

The permits for the cogeneration systems require emissions of NOx and oxygen to be monitored at all times the combustion turbines are in operation. Petitioner has one CEMS central control unit that monitors inputs from three sets of analyzers, one set for each combustion turbine.

### **SUMMARY**

District Rule 3002(c) requires that Petitioner shall comply with all permit conditions contained in its Title V Facility Permit, and permit conditions for all equipment under permits to operate. District Rule 218(b) requires a CEMS to be in operation whenever equipment it is monitoring is in operation. Petitioner's Title V Facility Permit includes Conditions that require the CEMS to be in operation whenever the combustion turbines are in operation. Specifically conditions 1, 2 and 9 in Permit Nos. R-G2781, R-G2782 and R-G2783 require that the CEMS monitoring emissions from the cogeneration turbines be in operation at all times that any of the combustion turbines are operating. Petitioner needs to take the CEMS off-line to perform maintenance and upgrade activities to make the CEMS compliant with the requirements of District Rules 218.2 and 218.3. Rule 218.2(d)(2)(B) requires Petitioner's CEMS to be upgraded to meet its requirements by January 1, 2025.

As noted above, the cogeneration system is used to provide electricity and steam to critical wastewater treatment processes by using digester gas (supplemented by natural gas)

generated during the wastewater treatment process. If the cogeneration system had to be shut down and not operated during the CEMS upgrade process, the digester gas would have to be burned in flares at the Facility. While this would avoid Petitioner's noncompliance with permit conditions, Petitioner would have to purchase electricity and generate steam through the use of natural gas in boilers. This would cost Petitioner an additional \$25,000 per day to purchase electricity from the grid. Because Petitioner is seeking this variance to upgrade equipment to meet District rule requirements and the emissions from the cogeneration system will meet rule and permit requirements during a variance, requiring the shutdown of the cogeneration system would result in an unreasonable burden being imposed on Petitioner that provides an essential public service.

During the variance period Petitioner will continue to monitor the emissions from the cogeneration turbines by renting a certified CEMS data acquisition and processing system that will take input from the analyzers that acquire data from each combustion turbine during operation and log that data.

Petitioner plans to come into compliance by completing the upgrade and maintenance on the CEMS and returning it to service as soon as the upgrade process has been completed. Petitioner has been advised that the upgrade process will take no more than 10 days. The work on the upgrade is scheduled to begin on November 15, 2024.

Conditions have been imposed in the variance order to assure that the work is completed expeditiously, emissions from the combustion turbines are monitored during their operation, and District personnel are kept apprised of progress in performing and completing the upgrade. There are no excess emissions expected during the variance, and this variance will not authorize any emissions in excess of those allowed by District rules and permit conditions.

Following are the facts and conclusions supporting the findings set forth in Health and Safety Code Section 42352 necessary to grant the variance. The Executive Officer did not oppose the granting of the variance.

## **FINDINGS OF FACT AND CONCLUSIONS**

- a. The petitioner for a variance is or will be in violation of Section 41701 or of any rule, regulation, or order of the District.**

Petitioner will be in violation of District Rules 203(b), 218(b) and 3002(c) when it takes the CEMS serving the three combustion turbines at the Facility off-line while continuing to operate any of the combustion turbines.

- b(1). Non-compliance with District Rule(s) is due to conditions beyond the reasonable control of the petitioner.**

Petitioner needs to upgrade and recertify the CEMS to meet new District CEMS requirements by no later than January 1, 2025 so at some point before then the CEMS will have to be taken off-line.

- b(2). Requiring compliance would result in either (1) an arbitrary or unreasonable taking of property, (2) the practical closing and elimination of a lawful business, or an unreasonable burden on an essential public service.**

Petitioner is a public agency providing an essential public service (i.e., sewage treatment). Requiring Petitioner to comply by not operating any of its combustion turbines to combust waste digester gas and provide electricity and steam required to operate the Facility would constitute an arbitrary or unreasonable taking of property (i.e., the ability to generate electricity and steam via the beneficial use of waste digester gas) and the closing of a lawful electrical and steam generating system. It would also impose an unreasonable burden on Petitioner by requiring it to purchase electricity from the grid at a cost of \$25,000 per day which would be borne by its ratepayers.

**c. The closing or taking would be without a corresponding benefit in reducing air contaminants**

The operation of the combustion turbines and cogeneration systems during the variance will continue to be in compliance with all District rule and permit requirements. The variance will not authorize any excess emissions and no excess emissions are expected.

**d. The petitioner for the variance has given consideration to curtailing operations of the source in lieu of obtaining a variance.**

Petitioner cannot curtail operations at the Facility as it must treat the wastewater received and has no control over the amount of wastewater received. Additionally, curtailment of the combustion turbines would mean flaring at the facility instead.

**e. During the period the variance is in effect, the petitioner will reduce excess emissions to the maximum extent possible.**

As described above, there are no excess emissions expected during the variance period.

**f. During the period the variance is in effect, the petitioner will monitor or otherwise quantify emission levels from the source, if requested to do so by the District, and report these emission levels to the District pursuant to a schedule established by the District.**

Petitioner will monitor emissions during the variance period by renting a certified data acquisition and processing unit to accept and log data from the analyzers monitoring emissions from each combustion turbine. This will allow the District to assure that no excess emissions will occur during the variance.

**ORDER**

THEREFORE, good cause appearing and based on the findings set forth above, the Hearing Board orders as follows:

A. Petitioner is granted a variance from District Rules 203(b) and 3002(c) [from Condition Nos. 1, 2 and 9 in Permit Nos. R-G2781, R-G2782 and R-G2783 to the extent that those permit conditions require the certified CEMS at the Facility to be in operation and

monitoring emissions from the combustion turbines identified in those permits, whenever the combustion turbine is in operation] and from District Rule 218(b) [to the extent that the rule requires the certified CEMS at the Facility to be in operation and monitoring emissions from any of the combustion turbines identified in Permit Nos. R-G2781, R-G2782 and R-G2783 when they are in operation]. The variance shall commence on November 15, 2024 and terminate at midnight November 25, 2024 or once the CEMS upgrade is complete and the upgraded CEMS is brought back online, whichever occurs first.

B. The variance granted herein is subject to the following conditions:

1. This short variance shall only apply to Cogeneration Systems Nos. 1-3 (Gas Turbines) with South Coast AQMD Permit to Operate Nos. R-G2781, R-G2782, and R-G2783.
2. Petitioner shall notify South Coast AQMD by email to Jose Mejia ([jmejia@aqmd.gov](mailto:jmejia@aqmd.gov)) and Jaime Reynoso ([jreynoso@aqmd.gov](mailto:jreynoso@aqmd.gov)) within 24 hours of initial CEMS and DAHS restart, following Continuous Emission Monitoring System (CEMS) equipment and software upgrades.
3. Petitioner shall ensure that any digester gas not combusted in the gas turbines shall be routed to other combustion and/or control equipment operated under valid South Coast AQMD Permits (e.g., digester gas flares under Permit to Operate Nos. R-F74941, R-F74942, G67151, G67152, and G67153 and digester gas boilers under Permit to Operate Nos. R-F13765, R-G15413, G30635, G30636, and G30637) or routed to the biogas conditioning system under Permit to Operate No. G72078. To the extent possible, digester gas not combusted in the gas turbines shall be routed to the digester gas boilers or the biogas conditioning system.
4. Petitioner shall install and operate a standby NO<sub>x</sub>/O<sub>2</sub> CEMS provided and operated by a South Coast AQMD Laboratory Approval Program (LAP)-approved contractor for each operating turbine. The NO<sub>x</sub>/O<sub>2</sub> CEMS probe shall be installed in a location that enables measurements of NO<sub>x</sub>/O<sub>2</sub> that are

representative of the emissions of the gas turbines. For the purpose of this variance, a standby NO<sub>x</sub>/O<sub>2</sub> CEMS is a LAP-approved, Reference Method trailer-mounted CEMS provided by a LAP-approved contractor.

5. Petitioner shall not operate any of the gas turbines while any of the CEMS and the Data Acquisition and Handling System (DAHS) are offline for equipment and software upgrades, unless any gas turbine in operation is individually and continuously monitored by a standby NO<sub>x</sub>/O<sub>2</sub> CEMS by a South Coast AQMD LAP-approved contractor.
6. Petitioner shall calibrate each South Coast AQMD LAP-approved standby NO<sub>x</sub>/O<sub>2</sub> CEMS at least once every 8 hours for zero and span checks as defined in South Coast AQMD Method 100.1 Section 2.6.2, and at least once every 24 hours for a Calibration Error check, pursuant to South Coast AQMD Method 100.1, while the standby NO<sub>x</sub>/O<sub>2</sub> CEMS is operational. The calibration checks shall be conducted by a LAP-approved contractor.
7. Petitioner shall submit a schedule of activities by email to Jose Mejia ([jmejia@aqmd.gov](mailto:jmejia@aqmd.gov)) and Jaime Reynoso ([jreynoso@aqmd.gov](mailto:jreynoso@aqmd.gov)), which shall include, at a minimum, the proposed timeline for shutdown, CEMS upgrades, and equipment restart for each gas turbine, and installation of South Coast AQMD LAP--approved NO<sub>x</sub>/O<sub>2</sub> standby CEMS within two (2) calendar days after the variance period begins.
8. Petitioner shall submit emissions data and associated parametric data, for all standby NO<sub>x</sub>/O<sub>2</sub> CEMS provided and operated by a South Coast AQMD LAP-approved contractor, by email to Jose Mejia ([jmejia@aqmd.gov](mailto:jmejia@aqmd.gov)) and Jaime Reynoso ([jreynoso@aqmd.gov](mailto:jreynoso@aqmd.gov)), every seven (7) calendar days after the variance period begins. This shall include, but may not be limited to, the raw data logs, which include processed and unprocessed data as recorded by the standby NO<sub>x</sub>/O<sub>2</sub> CEMS. The data log shall be in ASCII text comma delimited format or Microsoft



Excel format. The contents of the data logs shall include, but shall not be limited to, emission concentration for all compounds being measured at least once every minute.

9. Petitioner shall pay all applicable fees to the Clerk of the Hearing Board or the variance shall be invalidated pursuant to Rule 303(k), except for excess emissions fees, which shall be paid within fifteen (15) days of notification in writing that the fees are due, unless otherwise ordered by the Hearing Board.
10. Petitioner shall notify the Clerk of the Hearing Board at [clerkofboard@aqmd.gov](mailto:clerkofboard@aqmd.gov) in writing when final compliance has been achieved.
11. This variance shall terminate upon notification by the Petitioner to the South Coast AQMD that operation of all equipment for which a short variance is granted has been fully restored.

**FOR THE BOARD:** \_\_\_\_\_

**DATE SIGNED:** \_\_\_\_\_

**Prepared by:** Curtis L. Coleman, Attorney for Petitioner

**Reviewed by:** Daphne Hsu, Attorney for Respondent