

BEFORE THE HEARING BOARD  
OF THE  
VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT  
STATE OF CALIFORNIA

In the matter of the application of:

City of Santa Paula  
970 Ventura Street  
Santa Paula, CA 93060

Facility Location:

Santa Paula Water Recycling Facility  
921 Calpipe Road  
Santa Paula, CA 93060

For a variance from:

Rule 29.C, Conditions on Permits –  
Violation of Condition No. 14

Ventura County APCD Permit to Operate No. 08044  
Notice of Violation Number: 24319

Hearing Board Case No.: 888

ORDER GRANTING  
REGULAR VARIANCE

Granted: February 12, 2021  
Effective to: February 11, 2022

INTRODUCTION

On November 4, 2020, Petitioner, City of Santa Paula (hereinafter "the City" or "Petitioner"), filed petitions with this Hearing Board for interim and regular variances pursuant to California Health and Safety Code section 42350(a). The petitioner requested that the Hearing Board grant a regular variance from Air Pollution Control District (hereinafter "APCD" or the "District") Rule 29, Section C, Conditions on Permits - Violation of Permit Condition No. 14.

On November 16, 2020, a hearing on the petition for interim variance was held and the Hearing Board granted the variance, which was effective for 90 days or until a hearing for a regular variance could be held. The interim variance authorized the Petitioner to continue operating the Santa Paula WRF while the City designs, constructs and implements a new emissions control system to control the H<sub>2</sub>S emissions.

Petitioner requests a regular variance authorizing it to continue operating the Santa Paula WRF until the new control system is in place and is tested to demonstrate continued compliance with the H<sub>2</sub>S emission limit.

On February 12, 2021, a hearing on the petition for regular variance was conducted remotely via Zoom video conference and was streamed live at <http://vcapcd.org/agendas.htm> in response to the declared state and local emergencies due to the novel coronavirus in accordance with the California Governor's order to limit indoor operations. Keith Macias, Compliance Division Manager, and Ed Swede, Air Quality Engineer, represented the District. Petitioner was represented by Clete Saunier, Public Works Director, Paul Savage, Vice President of Operations of Veolia North America (Veolia), Norman Bigott, Regional Technical Director of Veolia (interim Chief Plant Operator), Mike Nunley, PE, Principal Engineer and Owner of MKN & Associates, and Chris Martin, PE of MKN & Associates, Consulting City Plant Coordinator. All persons, including the public, were given the opportunity to give testimony or make comment.

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The Hearing Board declared the hearing closed after receiving testimony and took the matter under submission for decision. The Hearing Board made the following findings of fact.

#### EQUIPMENT AND LOCATION

1. Petitioner is in the business of providing municipal services that include operating a wastewater treatment facility. The City owns Santa Paula WRF, located at 921 Calpipe Road, Santa Paula, California. The City's contract operator, Veolia North America (Veolia), operates Santa Paula WRF, which serves the City of Santa Paula.
2. The subject equipment consists of the Hawk System. The Operations at Santa Paula WRF are authorized by Permit to Operate No. 08044.
3. The Hawk System controls the H<sub>2</sub>S emissions from the treatment plant. APCD Permit to Operate No. 08044, Condition No. 14 sets an H<sub>2</sub>S emission limit of 1.2 ppmv for a 15-minute average.
4. Petitioner is requesting a variance to allow it to continue operating the water recycling facility with Hawk H<sub>2</sub>S emissions periodically exceeding the 15-minute average 1.2 ppmv permitted limit. During the variance it will design, construct, and implement a new emissions control system to maintain the H<sub>2</sub>S emissions within this permitted limit. After construction, Santa Paula WRF will demonstrate the new control systems continued

compliance with the emission limit by source testing and monthly emission reports as required in their Permit to Operate No. 08044.

### BACKGROUND

The facility is a wastewater treatment plant receiving water from the City of Santa Paula. The H<sub>2</sub>S emissions are produced from the anaerobic digestion of the raw sewage that enters and is treated by the plant. The wastewater facility produces odors, primarily from hydrogen sulfide, from sewage entering the plant. The facility has two separate odor control systems used to reduce H<sub>2</sub>S emissions. The first is an Aerisa ionized air system consisting of four units where the reduction of pollutants is achieved by generating enough ionized air to neutralize H<sub>2</sub>S. Three of the four Aerisa units treat H<sub>2</sub>S from the entrance of sewage to the plant and discharge through its own silo. The second system is a combination of the fourth Aerisa unit and a Hawk Radial Flow Activated Carbon Odor Control System Model 12000 (hereinafter "Hawk System") activated carbon scrubber that treats air from the solids handling building and is discharged through a second silo. The Hawk System is the subject of this Variance Petition. The Aerisa System was the subject of a previous Variance Petition that was heard by this Board on September 9, 2020 and is currently under a Regular Variance until September 13, 2021 (Order Granting Regular Variance is enclosed).

The Santa Paula WRF Hawk System experienced mechanical failure, allowing air to bypass treatment leading to violations of the 1.2 ppm H<sub>2</sub>S discharge limit. On September 17, 2020, the District issued Notice of Violation #24319 to Santa Paula WRF for eight violations of Permit Condition No. 14 for emission exceedances occurring between August 1, 2020 and September 9, 2020 when they were granted an Emergency Variance by the Chairman of this Hearing Board (Order Granting Emergency Variance is enclosed).

The Emergency Variance was granted to allow the Santa Paula WRF to make repairs to the system and expired on October 8, 2020. On October 3, 2020, the City disassembled and repaired the Hawk at a cost of about \$70,000, but the repairs failed almost immediately. The carbon that leaked out of the Hawk was replaced to help temporarily stabilize the system. The Santa Paula WRF contends that additional repair to the Hawk is not feasible.

An Interim Variance was granted by this Board on November 16, 2020 to allow the Santa Paula WRF to continue operating the water recycling facility with Hawk H<sub>2</sub>S emissions periodically exceeding the 15-minute average 1.2 ppmv permitted limit. During the variance it will design, construct, and implement a new emissions control system to maintain the H<sub>2</sub>S emissions within this permitted limit. (Order Granting Interim Variance is enclosed). The Interim Variance was to expire on February 14, 2021. A Regular Variance Hearing had to be held on or before the expiration date.

The City is implementing a project to replace the current emission control system (Aerisa and Hawk Systems) with a new biological odor control system. This system is expected to start operation late fall of 2021. Until then, the City's contract operator, Veolia, will monitor discharge H2S levels continuously, air flow monthly, and carbon levels biweekly to maintain best performance. If carbon level drops in the scrubber, it will be topped off to maintain best possible treatment. If the District directs, the City will install a rental carbon scrubber to replace the Hawk System until the new biological odor control system is in place. (See Findings of Fact, #5, below.)

#### RULE REQUIREMENTS AND VIOLATIONS

The operations at the facility are subject to California statutes and District Rules and Regulations. The following District Rules are applicable to this Regular Variance:

District Rule 29.C, Conditions on Permits, requires permit holders to comply with the conditions on their permits.

1. Condition No. 14 requires that: "The hydrogen sulfide (H2S) concentration at the outlet of the Hawk Radial Flow Activated Carbon Control System Model 12000 shall not exceed 1.2 ppmv averaged over fifteen (15) minutes. This condition is applied pursuant to Rule 51 and Rule 54."
2. On September 17, 2020, the District issued Notice of Violation #24319 to Santa Paula WRF for eight violations of Permit Condition No. 14 for emission exceedances occurring between August 1, 2020 and September 9, 2020 when they were granted an Emergency Variance by the Chairman of this Board. The Board granted an Interim Variance on November 16, 2020.
3. Santa Paula WRF has shown that operation of the facility will violate Permit Condition No. 14 until the problems have been corrected.

#### FINDINGS OF FACT

Pursuant to Health and Safety Code Section 42352 and District Rule 123, "Findings, Variance or Abatement Order," the following findings have been made:

1. The petitioner is, or will be, in violation of the following District Rule 29.C, Conditions on Permits, Permit to Operate No. 08044 Condition No. 14.

Condition No. 14 requires that the H<sub>2</sub>S concentration at the outlets of the Hawk System shall not exceed 1.2 ppmv averaged over fifteen (15) minutes. This permit condition is not being met. The Hawk System continues to exceed permitted limits.

2. Due to conditions beyond the reasonable control of the petitioner, requiring compliance would result in either (A) an arbitrary or unreasonable taking of property, or (B) the practical closing and elimination of a lawful business.

There is no alternative to operation of the Santa Paula WRF, and its closure would result in the discharge of untreated sewage presenting a hazard to public health. Cessation of operation of the Santa Paula WRF would be in violation of Division 7 of the California Water Code, California Regional Water Quality Control Board issued Waste Discharge Requirements Order R4-2018-002 requiring treatment of wastewater from the City of Santa Paula.

If petitioner is a public agency: Will immediate compliance impose an unreasonable burden on an essential public service?

Yes, continuous operation of the Santa Paula WRF is required to treat an average of 2 million gallons per day (MGD) of wastewater from the City of Santa Paula collection system serving a population of approximately 30,000. There is no alternative of routing wastewater to another treatment facility as the nearest treatment plant is over 9 miles away. Research into a temporary air treatment system indicates costs exceeding \$50,000. The temporary system would require at least 2 months to install. A permanent replacement system is under design and will require approximately 1 year to install.

Cessation of Santa Paula WRF operations may lead to greater H<sub>2</sub>S release, odor complaints, and discharge of untreated sewage to the environment. This would be in violation of Waste Discharge Requirements Order R4-2018-002 issued by the California Regional Water Quality Control Board under Division 7 of the California Water Code. California Health and Safety Code Section 42352(a)(2) includes "sewage treatment works" as an essential public service. The City is required to operate the Santa Paula WRF to treat wastewater for the public.

3. Closing the business or taking the property would be without a corresponding benefit in reducing air contaminants.

There is no alternative to the operation of the Santa Paula WRF, as its closure would result in the discharge of untreated sewage which would be a violation of water quality regulations. WRF has not been able to identify an alternative method of avoiding odor discharges. Cessation of Santa Paula WRF operation would lead to greater odor releases from the discharge of untreated sewage. Cessation of Santa Paula WRF operations may

result in greater odors and discharge of 2 million gallons per day (MGD) daily average (Rated for 4.5 MGD) of untreated sewage to the environment.

Cessation of operation would be in violation of Division 7 of the California Water Code, the California Regional Water Quality Control Board Los Angeles issued Waste Discharge Requirements Order R4-2018-002 requiring treatment of wastewater from the City of Santa Paula.

4. The applicant for the variance has given consideration to curtailing operations of the source in lieu of obtaining a variance

Curtailment is not feasible; this essential public service, wastewater treatment facility, and needs to operate 24 hours a day and 7 days a week. Due to this requirement curtailment was not considered.

5. During the period the variance is in effect, the applicant will reduce excess emissions to the maximum extent feasible.

The emissions control system will continue to be maintained and operated to its peak efficiency. Emergency variance was granted to allow time for repair. The City spent \$70,000 to repair the scrubber, but the repair failed. The scrubber continues to operate in compliance with H<sub>2</sub>S limits, but occasional exceedances are expected to occur in the future.

The scrubber will remain in operation. Carbon level will be checked at least biweekly and topped off when required to maintain the scrubber full. Air flow and H<sub>2</sub>S concentration will be monitored by an outside agency monthly. H<sub>2</sub>S discharge concentration will be measured by online instruments continuously. At District's discretion, if frequency of exceedances is excessive the City will proceed with installation of a rental GAC scrubber.

The District will consider the following criteria to determine the need for a rental GAC scrubber:

- a. Three (3) or more complaints verified by an inspector within any 24 consecutive hour period.
- b. If the average daily (not 15-minute) period H<sub>2</sub>S concentration exceeds the permit limit of 1.2 ppm H<sub>2</sub>S by > 10% for any consecutive 72-hour period.
- c. If the unit's design capacity is reduced to < 30% due to flow restrictions at any time.

- d. If the Hawk unit exceeds 10 ppm H<sub>2</sub>S at the point of discharge.

A continuous monitoring system has been implemented, and alerts are now available to the operator when level exceeds 1.0 ppm for a 15 min period and a high-high alarm at 1.2 ppm on the discharge of the Hawk scrubber (the permit limit is 1.2 ppm).

6. During the period the variance is in effect, the applicant 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.

A continuous monitoring system is in place, and alerts are now available to the operator when level exceeds 1.0 ppm for a 15 min period. In addition, an outside testing service will monitor air flow and H<sub>2</sub>S discharge level monthly. Reports from the continuous monitoring will be provided to VCAPCD biweekly, and the outside reports monthly. At District's discretion, if conditions listed in Section E. are encountered, the City will proceed with installation of a rental GAC scrubber.

7. A nuisance as defined in District Rule 51, Nuisance, is not expected to occur as a result of this variance.

Emissions will consist of odors, primarily low concentrations of hydrogen sulfide. Odors will have been treated and reduced to the extent possible and will not exceed toxic concentrations (OSHA allowed exposure Level for H<sub>2</sub>S is 10ppm over an 8-hour exposure). All odors will be diluted by ambient air before reaching significant populations.

During the variance, both odor control systems will continue to be maintained to full operational capacity and monitored for compliance. Emissions may continue similar to existing emissions. Emissions will consist of H<sub>2</sub>S which produces a rotten egg odor. Historically, in the last 7 years the emissions have not produced any odor complaints, and this is not expected to change in the future. The plant has been and is expected to remain in compliance about 85% of the time.

8. Continued operation is not likely to create an acute threat or hazard to public health or safety.

Emissions will consist of odors, primarily low concentrations of H<sub>2</sub>S, below toxic levels (OSHA allowed exposure Level for H<sub>2</sub>S is 10 ppm over an 8-hour exposure). H<sub>2</sub>S levels entering the system have been recorded to be as high as 30 ppm with discharge not exceeding 6 ppm. Odors will be treated before release to the maximum extent

possible and will be diluted by ambient air to mitigate the potential of odors reaching the nearest population.

Neither the facility nor the District have received any odor complaints while the facility has been out of compliance (or for the previous 7 years). It is anticipated that there will not be any odor issues for the surrounding community during the variance period based on this history.

9. The increments of progress specified in this Order are reasonable. The increments of progress allow the Petitioner to continue operating the Santa Paula WRF while designing, building, and implementing a new emission control system. They also allow the District to monitor the progress. The increments are expeditious as practicable. (H&SC 42362)

### CONCLUSIONS AND ORDER

NOW, THEREFORE, THE HEARING BOARD ORDERS that the City of Santa Paula is granted a Regular Variance from Rule 29, Section C, Conditions on Permits - Violation of Permit to Operate No. 08044, Condition No. 14, for Santa Paula WRF, to be effective starting February 12, 2021. This order will remain in effect from February 12, 2021, to February 11, 2022, or until the new emissions control system has been installed and proven to meet all District rules and permit conditions, whichever is sooner. This variance is subject to the following conditions:

THE PETITIONER SHALL:

### INCREMENTS OF PROGRESS

1. Maintain and operate the Hawk System and Aerisa System to control H2S emissions from the facility.
2. Continue to submit emission exceedance summaries and progress reports to the District by the close of business every other Friday (as measured from Petitioner's first such report on June 19, 2020) during the period of this Order. If a Friday is a holiday, the report shall be due on the following regular workday.
3. Request a Permit to Operate for the new system from the District by November 1, 2021.
4. Conduct a source test on the new emission control equipment by January 8, 2022.
5. Submit passing source test report to the District by January 31, 2022.
6. Final compliance achieved by February 11, 2022.



REPORTING REQUIREMENTS

1. The Petitioner shall provide written progress reports every other Friday to the District that include:
  - a. A summary of all emission exceedances and permit violations during the reporting period.
  - b. Include for any exclusion (emission exceedance) event, all maintenance (preventive and corrective) done to mitigate that event.
  - c. Supporting CEM emissions minute data in Excel format.
  - d. Increments of progress.

The first report was submitted on June 19, 2020 (required by Regular Variance Order #885). Subsequent reports are due by the close of business every other Friday thereafter during the period of this Order. If a Friday is a holiday, the report shall be due on the following regular workday. Reports may be submitted by mail or email.

2. No later than 5 days after the date for achievement of final compliance date in this Variance Order, the Petitioner shall notify the District of its compliance or non-compliance with the requirement.
3. All written submittals and notifications to the District pursuant to this Variance Order shall be made to Mr. Keith Macias (keith@vcapcd.org) and Mr. Ed Swede (ed@vcapcd.org) via email or by mail to the following address: Ventura County Air Pollution Control District, 669 County Square Drive, 2<sup>nd</sup> Floor, Ventura, CA 93003.

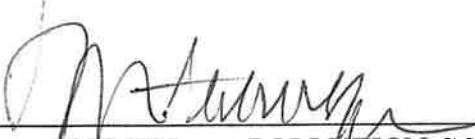
GENERAL

1. Except as provided in this Order, compliance with this Order shall not relieve Petitioner from liability under the District's Rules for any violation, thereof, and shall not preclude the District from pursuing remedies in accordance with the Health and Safety Code in the event of any violation.
2. The failure to abide by any condition of this decision and Order shall subject the party receiving the Variance to penalties set forth in Health and Safety Code Section 42402.
3. Each day during which a violation occurs is a separate offense.
4. Petitioner shall retain the obligation to comply with all other local, state, and federal regulations not specifically referenced in this Variance Order.
5. Petitioner shall pay the Hearing Board fees specified in District Rule 41.

Stephen C. Hurlock, Ph.D.                        AYE    

Kathleen Paulson, P.E.                        AYE    

Michael D. Stubblefield, Chair                AYE    

  
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VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT  
MICHAEL D. STUBBLEFIELD, HEARING BOARD CHAIR

February 12, 2021  
DATE