BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Memorandum

To: Chairperson Davina Hurt and Members of the Finance and Administration Committee

From: Chairperson Valerie J. Armento, Esq., and Members of the Hearing Board

Date: March 5, 2024

Re: Hearing Board Quarterly Report: October – December 2023

RECOMMENDED ACTION

None; receive and file.

DISCUSSION

This report covers the fourth calendar quarter (October – December) of 2023.

- Held zero hearings (held two pre-hearing conferences);
- Processed three orders: and
- Collected a total of $16,186.00 in Hearing Board filing fees

Below is a detail of Hearing Board activity during the same period:

Docket: 3745 – Silicon Valley Clean Water– Request for Emergency Variance

Location: San Mateo County; City of Redwood City

Regulation(s): Regulation 2 Rule 1, Section 307 (Permits, General Requirements, Failure to Meet Permit Conditions); Regulation 9, Rule 2, Section 301 (Inorganic Gaseous Pollutants, Hydrogen Sulfide, Limitations on Hydrogen Sulfide); and Permit Condition #26966, Parts 1, 3, 5.

Synopsis: The Applicant owns and operates a regional wastewater treatment plant within Redwood City.

From Applicant:

Fan #1 for Scrubber A-23 catastrophically failed and sent broken pieces of fan and fiberglass casing off of the SVCW property. SVCW personnel discovered the failure immediately after it occurred on Sunday, 9/24/23 at approximately 11 :00 AM.

Scrubber A-23 continued to operate with back-up Fan #2, but there was a 1-hour period where a portion of the Fan #2 exhaust was being diverted through the damaged Fan #1 before SVCW personnel could correct this problem.

SVCW reduced the Fan #2 speed to 60% beginning at 8:30 PM on 9/24/23 out of concern that Fan #2 could experience a failure similar to Fan #1. SVCW ultimately shut off Fan #2 at 7:50 AM on Monday 9/25/23 due to safety concerns.

The Fan #1 failure is currently under review by the fan manufacturer. No cause has been determined, but Fan #2 has been thoroughly inspected by the manufacturer and determined to be sound. Fan #2 returned to service at 7:00 AM on Wednesday, 9/27/23 at a reduced 75% load. SVCW has confirmed that the system is operating at a negative pressure at this reduced load, such that no uncontrolled emissions are escaping from the system. The circumstances leading to the need for this Emergency Variance were the result of a sudden and unforeseen failure of a new piece of air pollution control equipment the blower fan for the A-23 Packed Bed Scrubber. This failure was not the result of improper maintenance because the fan had been operating for only 19 days. This unforeseen failure resulted in the shutdown of back-up Fan #2 out of concern that whatever defect or condition that caused Fan #1 to catastrophically fail could also cause Fan #2 to similarly fail.

Requested Period of Variance: September 25, 2023 at 7:00 am to October 24, 2023 at 7:00 am

Estimated Excess Emissions: (provided by Applicant)

Pollutant	Net Emissions After Mitigation (lbs/day or Opacity%)
NPCO (methane)	10.6 pounds total, 4.1 pounds per highest day
POC	15.7 pounds total, 6.0 pounds per highest day
H_2S	23.5 pounds total, 10.0 pounds per highest day

Fees collected this quarter: $2,310 in filing fees. (Excess emission fees are still being calculated and considered by the parties.)

Status: Application for Emergency Variance filed by Applicant on September 28, 2023; Air District Staff Response filed on October 5, 2023; Hearing Board Response filed on October 17, 2023; Order Granting Emergency Variance filed on October 17, 2023.

THE HEARING BOARD ORDERED:

An Emergency Variance from Air District Regulations: ATC No. 29273, Permit Condition #26966, Parts 1, 3, and 5; BAAQMD Reg 2-1-307, Failure to Meet Permit Conditions; and BAAQMD Reg 9-2-301, Limitations on Hydrogen Sulfide, is hereby granted from September 25, 2023, at 12:00 AM, to October 24, 2023, at 11:59 PM. However, Permit Condition #26966, Sections 3 and 5, remains in effect and enforceable during the variance period when A23 and blower fan #2 are operational.

Docket: 3746 – APCO vs. Martin Marietta Materials, Inc. – Accusation of Violation of Regulation 2-1-302 and Request for Conditional Order for Abatement *(Actions pertaining to this docket that extend into February 2024 are captured in this report.)*

Location: San Francisco County; City of San Francisco

Regulation(s): Regulation 2 Rule 1, Section 302 (Permits, General Requirements, Permit to Operate)

Synopsis: Respondent operates an unpermitted sand yard located at Pier 92 at 480 Amador Street in San Francisco (hereinafter "Facility" or "Pier 92"), on land owned by and leased from the Port of San Francisco.

From the APCO:

The Facility receives sand dredged from the San Francisco Bay, washes it, and stores it in stockpiles for sale to customers. The Facility's operations result in emissions of air pollutants, including particulate matter and respirable crystalline silica. These are constituents of the sand that the Facility handles, and they can pose a threat to public health if they become airborne and are emitted into the air and the surrounding community in quantities exceeding applicable regulatory limits.

Until 2017, the Facility operated subject to an exemption from the Air District's permitting requirements. This exemption provides that certain sand transfer operations do not need an Air District permit if the sand maintains a sufficient moisture level. Keeping the sand adequately wetted prevents particulate matter and crystalline silica from being emitted in quantities that would cause significant public health impacts. The Air District does not require a permit for the exempt operations, as long as they maintain a sufficient moisture content, given the low potential for significant air quality and public health impacts.

In June 2017, the Air District discovered that the sand was not being kept sufficiently wetted to satisfy the requirements for an exemption. At that point, the Facility required an operating permit under Air District Regulation 2-1-302.1 Ongoing operations after that point were, and have been, in violation of Regulation 2-1-302.

The Facility's then-owner, Lehigh Hanson, Inc., applied for a permit in August 2017, and Air District staff have been evaluating the application since that time—initially with Lehigh Hanson, and more recently with Martin Marietta, which acquired the Facility in October of 2021.

Most recently, in July 2023, Martin Marietta proposed reconstructing the Facility completely and replacing the existing operation with a new, state-of-the-art facility. Replacing the current Facility with an upgraded facility will provide better protections for the community, a laudable goal.

The APCO seeks a Conditional Order of Abatement and compliance with interim operating conditions.

Fees collected this quarter: N/A

Status: Accusation filed by Complainant on October 3, 2023; Accusation Certificate of Service filed by Complainant on October 4 and 5, 2023; on October 4, 2023, Complainant requested pre-hearing conference with both parties and Hearing Board Chair; first pre-hearing conference held on October 17, 2024; on October 16, 2024, Respondent requested that the Hearing Board grant Respondent an additional 90 days (but no later than 20 working days before any scheduled hearing) to file its Notice of Defense (this was granted); second pre-hearing conference held on November 28, 2023; on February 8, 2024, parties filed joint status update and request for hearing date; Notice of Hearing (scheduled for April 16, 2024) filed and issued on February 15, 2024.

Dockets: 3741 (Berkeley Landfill – Request for Regular Variance) & 3747 – APCO vs. Berkeley Landfill – Accusation of Violation of Regulation 8-34-301.1 and Request for Order of Abatement *(Actions pertaining to this docket that extend into February 2024 are captured in this report.)*

NOTE: Docket 3741 (application for Regular Variance) was filed by the Applicant on May 30, 2023, and a hearing date was postponed multiple times. The hearing still had not occurred by December 31, 2023. 168 days after the filing of the Applicant's variance application, the Air District filed Docket 3747 (accusation and request for Order of Abatement), on November 14, 2023, pertaining to the same operations and equipment as Docket 3741. The APCO requested that both dockets be heard together and the Hearing Board Chair agreed to do so. (Hearing held on January 23 and then February 6, 2024.)

Location: Alameda County; City of Berkeley

Regulation(s): Regulation 8, Rule 34, Section 301.1 & 113.2 (Organic Compounds, Solid Waste Disposal Sites, Landfill Gas Collection and Emission Control System Requirements)

Synopsis: The Berkeley Landfill, which has been closed since 1983, is currently developed as a City park known as Cesar Chavez Park, and is undergoing post-closure monitoring and maintenance through various programs administered by CalRecycle, San Francisco Bay Regional Water Quality Control Board, and the Air District. The City of Berkeley (Applicant) owns and operates Berkeley Landfill.

From Berkeley Landfill's Variance Application (Docket 3741):

The Landfill's GCCS collects landfill gas (LFG) from all areas of the landfill and sends it to a flare station where the LFG is combusted within an enclosed flare. The Landfill, which was constructed on reclaimed tidelands of San Francisco Bay, began receiving waste in 1961 and continued operations until 1983.

The GCCS for the site was installed and became operational in 1988. In March 2009, the City petitioned for a Less than Continuous (LTC) Operation allowance for the GCCS. The petition was approved on April 30, 2009 and was repeatedly renewed on a 3-year cycle until the installation of a new, smaller flare was completed in May 2019. As the Landfill was operating on a LTC basis historically, there has not been a concern of exceeding the requirements of Air District Regulation 8, Rule 34, Part 113.2, which allows for up to 240 hours of inspection and maintenance downtime of the GCCS. In 2022, a petition for the continued LTC operation status at the Landfill was

submitted to the Air District's Permitting Division. Upon multiple information requests from the Air District for additional data and the Landfill providing said additional data, the Landfill decided to withdraw the petition as the Air District's Permitting Division believed massive upgrades were required on the wellfield before they would re-grant the LTC operation status.

In 2015/2016, the City performed extensive below grade LFG vertical extraction well component upgrades (including lateral pipelines, valves, test ports and security access vaults) and replacements at the Landfill. Therefore, the City believes that no wells require additional repairs at this time, as the LFG composition and generation volume is representative of the age of the landfill and waste placed within.

As the 2022 petition for LTC was not granted by the Air District and subsequently withdrawn by the City, going into 2023, the Landfill was required to utilize the downtime hours as allotted by 8-34-113.2 for qualifying events per Air District Compliance Advisory issued in November 2018. As 2023 commenced, there were two issues which caused GCCS downtime to accrue at an unexpected rate, the first being thermocouple failure, and the second being heavy precipitation.

The GCCS will continue to operate, but it is unknown what event(s) could occur which may trigger additional downtime. As noted above, the depleted LFG available for recovery make it difficult to maintain continuous operation at the flare.

Requested Period of Variance: May 26, 2023 to December 31, 2023.

Estimated Excess Emissions: (From the Applicant) *There have been no excess emissions at the Landfill, up to the present as some downtime is allowed up to 240 hours of downtime within a calendar year per the rule and Air District guidance. As it is not known the amount of downtime which may be required for the remainder of the year, we have conservatively estimated potential emissions based on the results of the 2022 source test at the flare, the historical flow rates and the methane concentrations in 2023. The tons per year were based on a conservative estimate of 240 hours of downtime beyond the original 240 hours of allotted downtime per 8-34-113.2.*

Table 1. Estimated Excess Emissions (provide by Applicant)

Emissions	Lb/day	Tons/year
Volatile Organic Compounds (VOC)	0.87	0.0043
Non-Methane Organic Compounds	0.89	0.0045
Hazardous Air Pollutants	0.05	0.0003

Emissions estimates are based on proposed operation of 24 hours/day and 240 hours/year
From Air District's Accusation (Docket 3747):

The Air District seeks an Abatement Order to require testing for possible offsite migration of landfill gas; locate, repair, and operate lost landfill gas collection wells; repair leaks; and implement better inspection, repair and monitoring of Respondent's flare and Landfill Gas Collection and Control System (GCCS), including landfill gas collection wells and other piping. These measures are all necessary to reduce emissions of landfill gas to the atmosphere.

The APCO seeks an Order of Abatement against Berkeley Landfill to address ongoing, repeated violations of Air District Regulation ("Reg.") 8-34-301. l, California Code of Regulations ("CCR") Title 17, Section 95464(b)(l)(A), part of 17 CCR Sections 95460-94476, the State Landfill Methane Rule ("State LMR"), and its Permit Condition ("P/C") 1826, Part 3, each of which require continuous operation of the Landfill's GCCS. Air District Regulation 8-34 is a federally enforceable regulation. Those violations have resulted in illegal unabated emissions of harmful landfill gas at the Berkeley Landfill.

Berkeley Landfill is a closed landfill owned by the City of Berkeley (the "City") and currently developed as Cesar Chavez Park. The Landfill has been closed, i.e. not accepting any new solid waste, since 1983. As part of required post-closure operations, the Landfill operates a GCCS, which collects landfill gas from the decomposing material in the Landfill and combusts it in an enclosed flare. The Landfill has contracted with SCS Engineers ("SCS") for the operation and maintenance of the Landfill and its GCCS and for compliance monitoring and measures necessary to comply with Air District and CA Regulations.

Landfill Gas ("LFG") is comprised of Methane which is a potent greenhouse gas, Carbon Monoxide ("CO"), Non-methane Organic Compounds ("NMOC"), Toxic Air Contaminants ("TACs"), and other compounds which can be emitted when the Gas Collection System ("GCS") and flare are not operated continuously and when there are leaks of landfill gas from the landfill surface and/or from GCCS components. In fact, the Air District has determined that Berkeley Landfill is not operating its GCCS continuously, which results in illegal emissions to atmosphere.

BERKELEY LANDFILL IS OPERATING IN VIOLATION OF THE REQUIREMENT THAT IT CONTINUOUSLY OPERATE ITS GAS COLLECTION SYSTEM.

The Air District seeks an abatement order prohibiting the Berkeley Landfill from violating Reg. 301.1, its Permit Condition 1826, and the State LMR section 95464(b)(1)(A) and requiring that it takes a series of actions designed to bring the operations into compliance. These compliance actions include:

a. *locating, repairing, and confirming all landfill gas collection wells required by the Landfill's Permit to Operate are collecting landfill gas;*
b. *repairing LFG leaks;*
c. *inspecting, repairing, and, if necessary, submitting a permit application to modify its GCS to optimize LFG collection and minimize air (oxygen) intrusion;*
d. *collecting and testing methane gas at all offsite monitoring probes to determine whether or not it is LFG from the Berkeley Landfill;*
e. *contracting the flare manufacturer to inspect and properly service the Landfill' s onsite flare; and conducting a site-wide drone survey to detect LFG leaks to aid in GCS repair and possibly identify the offsite gas migration pathway*

Fees collected this quarter (for Docket 3741, which was a variance): $0

Status of Docket 3741 (variance): Application for Regular Variance filed by Applicant on May 3, 2023; Application for (additional) Interim Variance filed by Applicant on June 6, 2023 (explanation letter filed on June 7, 2023); Notice of Hearings filed on June 7, 2023 (hearing date of June 27 for interim variance and August 1, 2023 for regular variance); Request to Withdraw

Interim Variance Application (by Applicant) and subsequent Order for Dismissal of Interim Variance Application filed on June 21, 2023; request for continuance of Regular Variance hearing by Applicant filed July 11, 2023; Notice of Continued Hearing filed on July 14, 2023 (new hearing date of September 19, 2023); joint request for continuance of Regular Variance hearing submitted August 28, 2023; Notice of Continued Hearing filed on August 30, 2023 (new hearing date of November 7, 2023); joint request for continuance of Regular Variance hearing submitted October 18, 2023; Notice of Continued Hearing filed on October 23, 2023 (new hearing date of December 5, 2023); Applicant filed Opening Brief and Motion to Permit Amendment to Variance Application on November 30 2023 (Hearing Board Chair granted this request); Air District submitted Opposition to Regular Variance on January 20, 2024 (rejected by Hearing Board); Applicant submitted Objection to Air District's Opposition to Regular Variance and Request to Strike from the Record on January 21, 2024 (rejected by Hearing Board); Air District submitted Opposition to Motion to Strike from the Record on January 22, 2024 (rejected by Hearing Board); first day of hearing held on January 23, 2024; Notice of Continued Hearing (additional date of February 6, 2024) filed and issued on January 25, 2024; second (and final) day of hearing held February 6, 2024; Order Denying Regular Variance filed February 16, 2024.

HEARING BOARD ORDERED:

Based on the record before it, the HEARING BOARD does not find that Applicant has established that the relevant conditions are beyond Applicant's reasonable control, as required by Health and Safety Code Section 42352, subdivision (a)(2). The Application for Regular Variance, as amended, from the provisions BAAQMD Regulation 8, Rule 34, Sections 113.2 and 301.1, PTO Condition 1826, Part 3, and/or for approval to operate the GCCS less than continuously pursuant to BAAQMD Regulation 8, Rule 34, Section 404, is hereby DENIED.

Status of Docket 3747 (accusation): Accusation filed by Complainant on November 14, 2023; Notice of Hearing (combining Dockets 3741 & 3747 on same day of December 5, 2023) filed and issued on November 27, 2023; request for continuance of combined Regular variance and accusation hearings submitted by Applicant (within Applicant's Notice of Defense) on November 28, 2023; Complainant filed Response to the Applicant's Notice of Defense on November 29, 2023; Notice of Continued Hearing (combining Dockets 3741 & 3747 on same day new date of January 23, 2024) filed and issued on November 30, 2023; Complainant submitted [Proposed] Findings and Decision for an Order of Abatement on January 19, 2024 (rejected by Hearing Board); first day of hearing held on January 23, 2024; Notice of Continued Hearing (additional date of February 6, 2024) filed and issued on January 25, 2024; second (and final) day of hearing held February 6, 2024; Findings and Decision for Conditional Order of Abatement filed February 16, 2024

HEARING BOARD ORDERED:

Respondent to immediately cease and desist from operating Respondent's closed Landfill in a manner that violates Air District Reg. 8-34-301. l or that violates the Landfill's P/C 1826, which require both the continuous operation of its landfill gas (LFG) collection system, consisting of 42 vertical wells, 2 horizontal collectors, 14 trench collectors, and the proper maintenance of and continuous operation of Flare A-4 combusting the collected LFG at a temperature of at least 1,400 degrees Fahrenheit, unless and until the Air District determines compliance action conditions and

increments of progress as set forth in 11 conditions have been met. (Detailed order is available on Hearing Board webpage.)

Docket: 3748 – Chevron Products Company – Request for Emergency Variance

Location: Contra Costa County; City of Richmond

Regulation(s): Permit Conditions #24136, Parts 83, 87, 88; Regulation 2, Rule 1, Section 307 (Permits, General Requirements, Failure to Meet Permit Conditions); and Regulation 2, Rule 6, Section 307 (Permits, Major Facility Review, Non-Compliance)

Synopsis: Chevron Products Company, a division of Chevron U.S.A. Inc., (the "Applicant") operates the Richmond Refinery (the "Facility"), located in Richmond, California. The Facility is an oil refinery, processing crude oils and other feedstocks into refined petroleum products, primarily transportation fuels.

From the Applicant:

The Facility has three Sulfur Recovery Units (SRUs) (Sources S-4227, S-4228, and S-4229), which recover elemental sulfur from the hydrogen sulfide acid gas (H2S) feed. For each of SRUs 1 and 2 (Sources S-4227 and S-4228), Chevron operates the only Wet Electrostatic Precipitators (WESPs) in the District (A-120 and A-121, respectively). This novel technology for the petroleum refining industry was installed as part of the Refinery Modernization Project to achieve best achievable control technology (BACT) for the SRUs for emissions of particulate matter (PM) and sulfuric acid mist (H2SO4).

Subsequent to permitting of the Refinery Modernization Project, Chevron learned that operating the WESPs in unstable conditions, such as startup, shutdown, or low oxygen scenarios, including hot standby, can lead to sparking, fire/explosion hazards, and damage to the equipment. During startup, shutdown, hot standby and other low-oxygen operating modes, the acid gas feed to the SRU is replaced with a feed of natural gas (CH4). Because the vapors routed through the WESP under these circumstances are no longer diluted by products from the acid reactions, there is an increased likelihood that the WESP reaches its lower explosive limit and causes a safety hazard. However, permit condition (PC) #24136, Parts 83, 84, 87, 88, and 95 of the Facility's Major Facility Review (Title V) Permit require that the Applicant (1) shall abate each of the SRUs with its associated "properly installed, properly maintained, and properly operated" and "fully charged" WESP "at all times of operation of" each SRU and (2) "shall not exceed" the relevant emission limits in Parts 84, 88, 90, 92, and 95.

At approximately 12:30 pm on November 14, 2023, acid gas feed to the SRUs precipitously declined due to an upstream loss of both hydrogen trains, which is currently believed to have been caused by an accidental arcing of a mounting screw on a Universal Input/Output (UIO) cabinet during a hydrogen plant reliability-related project described in more detail below. This caused all instrumentation within the cabinet to go to its respective design failsafe condition, which resulted in both hydrogen trains tripping.

Refinery units that consume hydrogen immediately began to reduce feed, which resulted in a significant reduction in acid gas feed to the SRUs. Because the volume of acid gas feed that was being produced by upstream consumers of hydrogen was not enough to sustain all three SRUs and SRU 3 has the greatest turn-down capability (i.e., the lowest minimum feed rate), the operator of the SRUs cut feed to SRUs 1 and 2. As a consequence, both SRUs 1 and 2 (S-4227 and S-4228) are currently operating on natural gas feed, with their respective WESPs (A-121 and A-122) deenergized.

The Applicant requests variance relief to permit the Facility to keep the WESPs deenergized due to safety risks, until the acid gas feed is reintroduced and stable operations are achieved. It is expected that the acid gas feed will be introduced in the next few days, and stable operations will be achieved in approximately three to seven days. Accordingly, emergency variance relief is only needed until then, after which the Facility will be in compliance with the requirements.

Requested Period of Variance: November 15, 2023 to November 24, 2023 at 11:59 p.m.

Estimated Excess Emissions: (From the Applicant)

Pollutant — **Net Emissions After Mitigation (lbs/day or Opacity %)**

PM, H2SO4

	SRU1 PM	SRU2 PM	SRU1 H2SO4	SRU2 H2SO4
	LBS/HR	LBS/HR	LBS/HR	LBS/HR
Max[1]	1.578	1.409	1.617	1.021
Limit[2]	0.504	0.450	0.673	0.425
Net[3]	1.074	0.959	0.944	0.596

Fees collected this quarter: $2,310.00

Status: Application for Emergency Variance filed by Applicant on November 15, 2023; Air District Staff Response filed on November 21, 2023; Hearing Board Response filed on November 28, 2023; Order Denying Emergency Variance filed on November 28, 2023.

HEARING BOARD ORDERED:

Applicant requested an emergency variance period of November 14, 2023 to November 24, 2023. Excess emissions were estimated by the Applicant. The Applicant determined this event to be accidental. Air District staff concurs this event was operator error, but was foreseeable and avoidable. The event does not meet the EPA definition of malfunction. The Applicant does not meet the good cause standard for an issuance of an Emergency Variance. There was no clear evidence that non-compliance was unforeseeable and no clear evidence that the violation was beyond the Applicant's reasonable control. The Application for Emergency Variance from Air District Permit Conditions #24136, Part 83; #24136, Part 87; #24136, Part 88; Regulation 2, Rule 1, Section 307; and Regulation 2, Rule 6, Section 307, is hereby denied.

Docket: 3749 – Chevron Products Company – Request for Emergency Variance

Location: Contra Costa County; City of Richmond

Regulation(s): Permit Conditions #24136, Parts 83, 87, 88; Regulation 2, Rule 1, Section 307 (Permits, General Requirements, Failure to Meet Permit Conditions); and Regulation 2, Rule 6, Section 307 (Permits, Major Facility Review, Non-Compliance)

Synopsis: Chevron Products Company, a division of Chevron U.S.A. Inc., (the "Applicant") operates the Richmond Refinery (the "Facility"), located in Richmond, California. The Facility is an oil refinery, processing crude oils and other feedstocks into refined petroleum products, primarily transportation fuels.

From the Applicant:

The Facility has three Sulfur Recovery Units (SRUs) (Sources S-4227, S-4228, and S-4229), which recover elemental sulfur from the hydrogen sulfide acid gas (H2S) feed. For each of SRUs 1 and 2 (Sources S-4227 and S-4228), Chevron operates the only Wet Electrostatic Precipitators (WESPs) in the District (A-120 and A-121, respectively). This novel technology for the petroleum refining industry was installed as part of the Refinery Modernization Project to achieve best achievable control technology (BACT) for the SRUs for emissions of particulate matter (PM) and sulfuric acid mist (H2SO4).

Subsequent to permitting of the Refinery Modernization Project, Chevron learned that operating the WESPs in unstable conditions, such as startup, shutdown, or low oxygen scenarios, including hot standby, can lead to sparking, fire/explosion hazards, and damage to the equipment. During startup, shutdown, hot standby and other low-oxygen operating modes, the acid gas feed to the SRU is replaced with a feed of natural gas (CH4). Because the vapors routed through the WESP under these circumstances are no longer diluted by products from the acid reactions, there is an increased likelihood that the WESP reaches its lower explosive limit and causes a safety hazard. However, permit condition (PC) #24136, Parts 83, 84, 87, 88, and 95 of the Facility's Major Facility Review (Title V) Permit require that the Applicant (1) shall abate each of the SRUs with its associated "properly installed, properly maintained, and properly operated" and "fully charged" WESP "at all times of operation of" each SRU and (2) "shall not exceed" the relevant emission limits in Parts 84, 88, 90, 92, and 95.

At approximately 11:30am on November 27, the 115kV Electrical Line 1 that feeds Substations 2 and 4 tripped open. This caused a loss of transformers TX-12 Bank and TX-3 Bank. This caused both Substations 2 and 4 to go to single-line electrical feed. It is currently unknown why this occurred, but the system is designed to operate without restriction while on single-line feed, so both substations were still operational and there was no resulting impact to the Facility at that time. At approximately 3:25pm, an electrical technician went to Substation 2 to investigate the loss of 115kV power from Transmission Line 1. He removed a plastic cover on auxiliary relay 94XA-3 for visual inspection. Shortly after the technician replaced the plastic cover, Utilities was notified that the Hydro processing Control Center ("HPCC") had lost power. The relay tripped, sending a signal to the 4 substation breakers to open, which resulted in a loss of power to the HPCC control house, Richmond lube oil plant ("RLOP"), H2 trains, H2 booster compressors,

and Power Center 7 in RLOP. As described in more detail below, it is currently unknown what caused the relay to trip and trigger the power outage.

The Refinery had to quickly shut down units that consume hydrogen, which resulted in a significant reduction in acid gas feed to the SRUs. Because the volume of acid gas feed that was being produced by upstream consumers of hydrogen was not enough to sustain all three SRUs and SRU 3 has the greatest turn-down capability, the operator of the SRUs cut feed to SRUs 1 and 2. As a consequence, both SRUs 1 and 2 (S-4227 and S-4228) are currently operating on natural gas feed, with their respective WESPs (A-121 and A-122) deenergized.

The Applicant requests variance relief to permit the Facility to keep the WESPs deenergized due to safety risks until the acid gas feed is reintroduced and stable operations are achieved. It is expected that the acid gas feed will be introduced in the next few days, and stable operations will be achieved in approximately seven to ten days. Accordingly, emergency variance relief is only needed until then, after which the Facility will be in compliance with the requirements.

Requested Period of Variance: November 28, 2023 to December 8, 2023 at 11:59 p.m.

Estimated Excess Emissions: (provided by Applicant)

Pollutant **Net Emissions After Mitigation (lbs/day or Opacity %)**

PM, H2SO4

	SRU1 PM	SRU2 PM	SRU1 H2SO4	SRU2 H2SO4
	LBS/HR	LBS/HR	LBS/HR	LBS/HR
Max[1]	1.578	1.409	1.617	1.021
Limit[2]	0.504	0.450	0.673	0.425
Net[3]	1.074	0.959	0.944	0.596

Fees collected this quarter: $2,310.00

Status: Application for Emergency Variance filed by Applicant on November 28, 2023; Air District Staff Response filed on December 1, 2023; Hearing Board Response filed on December 4, 2023; Order Denying Emergency Variance filed on December 4, 2023.

HEARING BOARD ORDERED:

The Applicant has not determined what caused the failure of Electrical Line l that feeds Substations 2 and 4, nor why the auxiliary relay tripped, but believes the relay trip was unforeseeable and beyond its reasonable control. Air District staff is unable to determine if this event was foreseeable. The loss of power resulted in the issuance of one public nuisance and three visible emissions violations. The Applicant does not meet the good cause standard for an issuance of an EV. There is no written program on how to care for and maintain the relays. There was no clear evidence that non-compliance was unforeseeable and no clear evidence that the violation was beyond the Applicant's reasonable control. The Application for Emergency Variance from Air District Permit Conditions #2413 6, Parts 83, 87, 88; Regulation 2, Rule 1, Section 307; and Regulation 2, Rule 6, Section 307, is hereby denied.

Docket: 3750 – FERMA Corporation – Request for Regular Variance *(Actions pertaining to this docket that extend into February 2024 are captured in this report.)*

Location: Santa Clara County; Moffett Federal Airfield

Regulation(s): Regulation 11 Rule 2 (Hazardous Pollutants, Asbestos demolition, Renovation, and Manufacturing)

Synopsis: The roof of a 200-foot-tall blimp hangar contains non-friable asbestos felt paper, and is in need of demolition to eliminate the risk of building collapse.

From Applicant:

Variance being sought for Regulation 11 Chapter 2 Regulation 303.4, for the non-friable ACM felt paper material sandwiched within the roof structure. Specifically, the statement that "such sections if elevated shall be carefully lowered to ground level, where they are to be abated in accordance with subsection 11-2-303.1 and/or 303.2." All other requirements within Regulation 11 Rule 2 will be followed.

NASA prepared an Environmental Assessment for this project to support the deconstruction of Hangar 3 to remedy its unsafe condition and eliminate the unacceptable structural hazard it poses. Since Planetary Ventures, LLC commenced leasing the Hangar in 2015, ongoing efforts to rehabilitate Hangar 3 have proven to be ineffective. Significant efforts have been undertaken to repair the damaged trusses yet it was not possible to keep up with the damage progression continuously advancing throughout the structure. While a temporary internal shoring and hydraulic jacking system is in place, the building is currently unsafe for occupancy and vulnerable to further damage and collapse, especially from seismic or high wind load events. The purpose of the project is to remedy this unsafe condition and eliminate an unacceptable structural hazard.

This project eliminates the risk of continued degradation or collapse of hangar 3 under normal or adverse conditions, thereby protecting life and property. Reference the included sections of the environmental assessment - Appendix A.1, A.3 & A.4 prepared by KPFF, the structural engineer of record. Overall, the hangar structure has existed well past its original design life. Varying levels of damage exist to the timber framing. The structure remains unsafe and is very vulnerable to further damage or partial collapse while left in its current un-repaired state. Based on structural engineer's professional opinion, the hangar is unsafe, should not be occupied and could become a potential site hazard from seismic and/or high wind forces. Structural investigations indicate that the structure is vulnerable to future collapse. Therefore, the removal of the asbestos roofing felt paper within "303.4 Removal in Units" regulation is unachievable. All roofing material will be off-hauled as asbestos containing material.

Removal will be implemented in accordance with the following; Once the area has been secured, the excavator will begin removing the hangar roof structure from the top. The machine will utilize a bucket and thumb along with a processor attachment. There will be a misting machine along with water attachments that are integrated into the excavator and utilized to constantly wet the point of impact to the hangar roof, satisfying subsection 11-2-303.1. The operator will use the

attachment to remove pieces of the roof letting them descend to the ground. During this descent there will be an abundance of water saturating the material as it makes its way to the ground. This water will all be contained and collected and run through an above ground treatment system prior to discharge. Once the material is on the ground, in accordance with subsection 11-2-303.4, the roofing material shall be kept adequately wetted at all times during demolition, during handing and during loading, and shall be sealed in leak-tight containers for transport as asbestos abatement waste to a disposal site.

Requested Period of Variance: March 2024 to March 2025

Estimated Excess Emissions: None by Applicant.

Fees collected this quarter: $9,256.00 in filing fees.

Status: Application for Regular Variance filed by Applicant on December 22, 2023; Notice of Hearing (hearing date of February 27, 2024) filed and issued on January 11, 2024; hearing held on February 27, 2024; Order Granting Regular Variance forthcoming.

Respectfully submitted,

/S/ Valerie J. Armento

Valerie J. Armento, Esq.
Chair, Hearing Board

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