

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson John J. Bauters and Members
of the Finance and Administration Committee

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

Date: October 17, 2023

Re: Hearing Board Quarterly Report: July – September 2023

RECOMMENDED ACTION

None; receive and file.

DISCUSSION

This report covers the third calendar quarter (July – September) of 2023, *as well as the first half of October 2023.*

- Held two hearings;
- Processed five orders: and
- Collected a total of \$13,876.00 in Hearing Board filing and/or appearance fees

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

Docket: 3742 – Tesla, Inc. – Appeal from Denial of Permit Application #31706, Issued May 17, 20 (This report captures activity slightly extending into Quarter 3 for this docket.)

Location: Alameda County; City of Fremont

Regulation(s): Regulation 2, Rule 2, Section 301 (Permits, New Source Review, Best Available Control Technology Requirement); and Regulation 2, Rule 5, Section 301 (Permits, New Source Review of Toxic Air Contaminants, Best Available Control Technology for Toxics Requirement).

Synopsis: Appellant operates an automotive manufacturing facility, and within the facility is the South Paint Shop Body Line.

From Appellant:

The South Paint Shop Body Line is designed with an interlock between production and its abatement system, which consists of six thermal oxidizers. When an abatement device (i.e., thermal oxidizer) is not operating, the interlock is engaged and all production in the affected units stops. New parts are not introduced into the affected units and no new paint is sprayed.

When a shutdown is unplanned, the VOC-laden air is vented differently for ovens and booths. The ovens are vented through the cooling, but still hot, thermal oxidizers. The booths, on the other hand, must purge through a bypass. This is done for safety reasons. It eliminates the possibility of an explosion caused by contact of VOC-laden air with hot surfaces in the thermal oxidizer. The danger of an explosion is present because VOC concentrations within the thermal oxidizer could increase if the combustion air supply (which dilutes the incoming VOC-laden stream when the thermal oxidizer is operating) is cut off by an unplanned shutdown. The bypass eliminates this danger by preventing contact between VOC-laden air and ignition sources. This danger is present in the booths, but not the ovens, because VOC concentrations in the booth exhaust are normally higher than the oven exhaust. As illustrated below, emissions during these bypass events do not exceed any TAC trigger levels in District Regulation 2-5.

On April 21, 2022, Tesla submitted an application to revise one condition in the operating permit for the SPS Body Line. Specifically, Tesla sought to revise Permit Condition 27161, Part 15, which currently states: “The owner/operator of A-30192, A-1007, A-30180, A-30181, A-30182, and A-30183 shall ensure that the POC/NPOC emissions from S-1002, S-1007, S-4036, S-4037, S-4038, S-4039, and S-4041 are abated at all times of operation by the properly installed, properly operated, and properly maintained Thermal Oxidizers A-1002, A-1007, A-30180, A-30181, A-30182, and A-30183, respectively.”

Tesla’s requested revision was to add, “ In the event of an unplanned shutdown of the South Paint Sources (S-1001, S-1002, S-1005, S-1007, S-4033, S-4034, S-4035, A-4036, S-4037, S-4038, S-4039, S-4040, S-4041, and S-4042) or Abatement device4s (A-30192, A-1007, A-30180, A-30181, A-30182, and A-30183), the owner/operator shall calculate emissions from such events and include these emissions for the purposes of determining compliance with Part 2. For the purposes of determining compliance with the twelve-month emission limits of Part 2, an unplanned shutdown or outage will not result in immediate violation of Part 2 or Part 15a, when the owner/operator would have otherwise complied, had the unplanned shutdown not occurred.

Nearly 10 months after Application 31706 was deemed complete and 7 months past APCO’s regulatory deadline, APCO denied Tesla’s application, stating that “Application 31706, as submitted, would violate federal law and will not meet Air District Best Available Control Technology requirements set forth in Air District Regulation 2-2-301 and Best Available Control Technology for Toxics in Air District Regulation 2-5-301.” Id. Oddly, in the year from when Application 31706 was submitted and receipt of the District’s permit decision denying Application 31706, the District never raised questions about BACT applicability to Tesla.

The Denial should be reversed. First, the revision Tesla requested in Application 31706 does not constitute a permit modification under the District’s rules. This in turn rendered much of the APCO’s evaluation of Application 31706 unnecessary, let alone intrinsically flawed as factors were considered that do not apply to Tesla’s request. Specifically, the Denial is justified solely³ by an alleged failure to comply with BACT and/or TBACT; however, the BACT and TBACT requirements are only triggered by a permit modification. Second, even if Application 31706 is a modification, BACT and TBACT are not triggered. The District made inaccurate presumptions that erroneously inflated the potential to emit. the methodologies employed and calculations made by the District were erroneous. The District used a methodology that Tesla is unable to validate. Further, it conflicts with the methodology developed by the District during permit discussions, which would not trigger BACT or TBACT. Even under a conservative mass balance

approach, BACT and TBACT are not triggered. Third, even if the requested revision was subject to BACT or TBACT (which Tesla disputes), operation of the equipment as proposed in the Application would comply with BACT and TBACT. The District's BACT/TBACT analysis did not provide any evidence that any existing similar facility is subject to, and in continuous compliance with, a requirement to operate a thermal oxidizer during unplanned shutdown of an automobile spray booth or oven. In the absence of such evidence, the requirement to use such equipment cannot be deemed "achieved in practice." Furthermore, the District did not perform the technological and economic feasibility analysis necessary to support a BACT determination that is not "achieved in practice." Therefore, because the Denial is justified solely by an incorrect conclusion that the application would fail to comply with BACT and/or TBACT, the Denial should be reversed. In addition, the APCO used different standards to evaluate Tesla. It did not adhere to the District's own long-standing processes and procedures when determining whether to grant the requested permit revision. By circumventing its processes, inappropriate assumptions were made, leading to incorrect conclusions about available BACT. Further, the APCO's suggestion in the Denial that Tesla can avail itself of the District's process in exercising enforcement discretion is a red herring. It is inappropriate to expect a permittee to rely on discretionary measures that are inherently subject to arbitrary application. As a permittee, Tesla is entitled to predictable standards against which the permittee and the District will be measured, which is what Tesla requested by submitting Application 31706.

Tesla requests that the Hearing Board reverse the Denial and issue the permit revision as requested in the application, or with appropriate revisions to the text to achieve the objectives of the application (to include unplanned shutdown events in the authorized operation).

Fees collected this quarter: \$9,256.00 for second (evidentiary) hearing collected on October 2, 2023, in Quarter 3. A pro forma hearing was held in August, and the fee for that was captured in the Hearing Board Quarterly Report for Quarter 2.

Status: Appeal filed by Appellant on June 20, 2023; Notice of Hearings filed on June 29, 2023 (Pro Forma Hearing on August 8, 2023 and Evidentiary Hearing on September 5, 2023); Pro Forma Hearing held on August 8, 2023; Order for Schedule of Pre-Hearing Actions filed on August 10, 2023; Notice of Continued (Evidentiary) Hearing filed on August 23, 2023; Revised Order for Schedule of Pre-Hearing Actions filed on September 1, 2023; all required pre-evidentiary hearing items submitted by parties to the Clerk of the Boards by September 22, 2023; evidentiary hearing held on October 3, 2023; Order Denying Appeal filed on October 10, 2023.

THE HEARING BOARD ORDERED:

The Appeal from denial of Permit Application #31706 is denied and the existing permit provisions remain unchanged.

Docket: 3743 – Air Pollution Control Officer (APCO) vs. Valero Refining Company – California – Accusation of Violation of Regulation 8-28 and Request for Order for Abatement

Location: Solano County; City of Benicia

Regulation(s): Regulation 8, Rule 28 (Organic Compounds, Episodic Releases from Pressure Relief Devices at Refineries and Chemical Plants)

Synopsis: The Respondent (Valero) operates the Benicia petroleum refinery located at 3400 East Second Street in Benicia, California. The refinery has the capacity to process up to approximately 165,000 barrels of crude oil per day. The refinery processes crude oil through a series of complex operations to produce refined petroleum products such as gasoline and diesel fuel that are sold to the market. The APCO sought an Order for Abatement against Valero to address ongoing, long-standing violations of Air District Regulation 8-28-304.2, which resulted in illegal unabated emissions of harmful organic compounds from eight Pressure Relief Devices (“PRDs”) at the Hydrogen Compressor Unit at the refinery. The Respondent failed to take the appropriate, legally mandated actions to install emissions control equipment on these PRDs to prevent the organic compounds from being emitted into the atmosphere, despite knowing for years—in some cases, more than a decade—that the emission controls were required by Rule 304.2. Therefore, the APCO respectfully requested that the Hearing Board issue an Order for Abatement requiring the Respondent to cease operations at the Hydrogen Compressor Unit until such time as it routes all the affected PRDs to appropriate controls and achieves full compliance with Air District Rule 304.2.

Fees collected this quarter: N/A

Status: Accusation and Statement to Respondent filed by Complainant on August 10, 2023; Accusation Certificate of Service filed by Complainant on August 14, 2023; Respondent’s Notice of Defense filed on August 24, 2023; Notice of Hearing filed on August 28; hearing scheduled for October 24, 2023; Complainant requested withdrawal of accusation and request for order for abatement on October 11, 2023; Order for Dismissal filed on October 12, 2023 (The APCO requested the withdrawal because the Respondent had routed the pressure relief devices at issue in the accusation to a satisfactory disposal system and was back in compliance with Air District Regulation 8-28-304.2, thereby mooting the accusation.)

THE HEARING BOARD ORDERED:

the Accusation dismissed and all future hearings are canceled.

Docket: 3744 – Chevron Products Company – Request for Emergency Variance

Location: Contra Costa County; City of Richmond

Regulation(s): Regulation 2 Rule 1, Section 307 (Permits, General Requirements, Failure to Meet Permit Conditions); Regulation 2, Rule 6, Section 307 (Permits, Major Facility Review, Non-Compliance); and Permit Condition #11066, Parts 7A, 7A4, and 7A5.

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 Applicant:

Processing of crude oil consists of four basic steps: distillation, extraction, conversion, and treating. A key method of conversion involves the use of a Fluid Catalytic Cracking Unit ("FCCU"). The FCCU (Source S-4285) uses a high-temperature catalyst to split ("crack") heavy gas oil into lighter hydrocarbon molecules, including gasoline. Gradually, the catalyst surface becomes coated with carbonaceous material (coke), at which point the spent catalyst is sent to the regenerator for the coke to be combusted. Combustion in the regenerator results in emissions of particulate matter (PM). The Facility's FCCU has a Title V throughput limit of 90,000 bbl/day. To abate these PM emissions, the Facility uses an electrostatic precipitator (ESP). An ESP uses electrical energy to ionize the particles and then cause them to be drawn out of the exhaust gas stream and on to collection plates, after which they are disposed of. The Facility's permit requires the Facility to energize its ESP at all times the FCCU is operating except during periods of maintenance or servicing. See Permit Condition #11066 (PC #11066), Part 7A, 7A4, and 7A5.

On September 20, 2023 at approximately 7:36 am, the FCCU tripped offline, i.e., stopped processing feed, as a result of an unexpected and sudden reduction in feed from the upstream TKC Plant (Source S-4253), which hydrotreats the FCCU feed. This precipitated a subsequent surge in feed from the TKC Plant, which caused the Distributed Control System ("DCS") to automatically cut all feed to the FCCU, putting it into "hot standby" ("safe park") mode, and automatically deenergized the ESP. The FCCU remained in "hot standby" ("safe park") mode, i.e., without introduction of feed, for the duration of September 20, although unsuccessful efforts were made to reintroduce feed around 6:00 PM. Feed was successfully introduced at 8:31 AM on September 21, however stable operations have not yet been achieved at the time of this application, and the ESP remains deenergized per process safety protocol. Accordingly, the Applicant requests variance relief to permit the Facility to deenergize the ESP during hot standby and startup until the FCCU achieves stable operations of approximately 30,000 barrels per day, which is the rate consistent with the criteria provided by AFPM for safely energizing an ESP abating emissions from an FCCU.

Energizing the ESP while the FCCU is operated in hot standby and startup would pose serious safety risks, risking hydrocarbon carryover and a potential catastrophic explosion. Importantly, the ESP is functioning properly, so as soon as the FCCU achieves stable operations, which could occur within the next 24-96 hours, Applicant will immediately reenergize the ESP. Accordingly, the emergency variance will only last a brief period of time, after which emissions will again be abated by the ESP.

Without this emergency variance, Applicant will not be able to continue operating the FCCU in hot standby mode and subsequently reintroduce feed into it in accordance with best safety practices, but would instead need to completely shut down the FCCU, which would result in a significant and costly bottleneck in production of gasoline delivered to the Northern California fuels market.

Production from the FCCU results in approximately 2,600,000 gallons of gasoline products delivered to the Northern California fuel market per day. This reduced production would result in a significant decline in the available regional supply of gasoline and a consequent increase in the price of gasoline.

Additionally, shutting down the FCCU completely and subsequently restarting it would result in greater emissions during the subsequent restart event, as it would take significantly longer (up to days or weeks) to achieve stable operations.

Requested Period of Variance: September 20, 2023 at 4:10 pm - September 27, 2023 at 7:36 am

Estimated Excess Emissions: (provided by the Applicant)

Pollutant	Net Emissions After Mitigation (lbs/day or Opacity %)
PM₁₀	1640 lb/day
PM_{2.5}	1415 lb/day
Opacity	65 (max opacity)
NO_x	248 lb/day
CO	2370 lb/day
SO₂	1423 lb/day

Fees collected this quarter: \$2,310.00

Status: Application for Emergency Variance filed by Applicant on September 21, 2023; Air District Staff Response filed on September 28, 2023; Hearing Board Response filed on October 2, 2023; Order Denying Emergency Variance filed on October 2, 2023.

THE HEARING BOARD ORDERED:

The Application for Emergency Variance from Air District Permit Conditions #7A, 7A4,7A5; Regulation 2, Rule 1, Section 307; and Regulation 2, Rule 6, Section 307 is denied.

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
H₂S	23.5 pounds total, 10.0 pounds per highest day

Fees collected this quarter: \$2,310.00 (collected on October 2, 2023, in Quarter 3)

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 11, 2023; Order Granting Emergency Variance still forthcoming at the time this report was written.

Docket: 3746 – APCO vs. Martin Marietta Materials, Inc. – Accusation of Violation of Regulation 2-1-302 and Request for Conditional Order for Abatement

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. Air District staff got so far as to develop and issue an initial permit evaluation, including draft permit conditions designed to ensure compliance with applicable air quality requirements. However, Lehigh Hanson and subsequently Martin Marietta have repeatedly changed their plans for the Facility's operation, which has prevented the Air District from completing the evaluation. Each time changes have been made, Air District staff have had to restart their evaluation because all calculations and analyses must be redone, just as if a new permit application were submitted. This has resulted in significant delays in permit processing, which has now stretched out over several years.

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. But Martin Marietta needs to commit to a final plan for the site and see it through, and it needs to be subject to a final compliance deadline to require it to do so. The APCO respectfully requests that the Hearing Board issue a Conditional Order for Abatement to establish such a deadline. Only a legally enforceable compliance schedule will effectively prevent Respondent from further changing its plans and causing additional, unnecessary delays. In addition, Martin Marietta should be required to comply with interim operating conditions to ensure that its operations comply with applicable emissions standards and related requirements to protect public health while it is coming into compliance with Regulation 2-1-302. Imposing such conditions will ensure that the Facility's operations comply with Air District regulations and are protective of public health.

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; pre-hearing conference scheduled for October 17, 2023 (hearing date not yet scheduled.)

Respectfully submitted,

/s/ Valerie J. Armento

Valerie J. Armento, Esq.
Chair, Hearing Board

Prepared by: Marcy Hiratzka
Reviewed by: Vanessa Johnson