

AGENDA ITEM
CITY COUNCIL MEETING DATE – OCTOBER 22, 2019
WORKSHOP

TO : City Manager
FROM : Fire Chief
SUBJECT : **AIR MONITORING STUDY SESSION**

EXECUTIVE SUMMARY:

Air monitoring in the City of Benicia has greatly improved over the last year. During this study session, Fire Department staff will provide the City Council with an overview of current and future air monitoring programs in the City. Additionally, Bay Area Air Quality Management District (BAAQMD) staff will be available to present the City Council with an update on the district's efforts to improve air monitoring programs in the region, Valero Refinery staff will be available to address concerns with their air monitoring programs, and Benicia Community Air Monitoring Program (BCAMP) members will be available to provide an update on efforts to increase air monitoring in the community. The objective of the study session is to provide a comprehensive overview of air monitoring programs and provide a clear picture of efforts to continue to improve the quality of air monitoring in the community.

RECOMMENDATION:

Receive the presentation of current and future air monitoring programs in the City.

BUDGET INFORMATION:

Receiving the report has no impact to the budget.

BACKGROUND:

For many years, there have been discussions in Benicia about the need for a more robust air monitoring program. Both the Bay Area Air Quality Management District (BAAQMD) and the California Air Resources Board (CARB) are currently making advances in required air monitoring in our region. One advancement was a new regulation requiring Bay Area refineries, including the Valero Benicia Refinery, to implement fenceline air monitoring programs.

Valero's fenceline air monitoring plan was approved by BAAQMD on June 8, 2018, and Valero was given one year to complete the project. At the June 19, 2018 Benicia City Council meeting, the motion that passed included language that Valero complete installation of their fenceline air monitoring project in six months. Valero complied with the Council's direction and installed the

BAAQMD fenceline air monitors in the last half of 2018. These fenceline monitors have been operational through most of 2019, although a few issues have been identified.

BAAQMD Regulation 12, Rule 15

BAAQMD adopted Regulation 12, Rule 15, which included a requirement for fenceline air monitoring at Bay Area Refineries. Since then, BAAQMD has shown an understanding of the complex challenges of open path air monitoring, specifically with the monitoring of Hydrogen Sulfide (H₂S), and has subsequently extended the deadline for completion on multiple occasions.

Although H₂S was included as a Regulation 12, Rule 15, the monitoring of H₂S in open path systems is a new technology. The implementation of this technology has proven to have challenges with data accuracy and ambient atmosphere interferences. None of the Bay Area refineries have successfully implemented an H₂S open path system and therefore, the BAAQMD's implementation date for this system has been extended on multiple occasions.

On December 6, 2018, BAAQMD sent an "Air Monitoring Plan (AMP) – Notification of Extension for H₂S Monitoring Selection Submittal" (see Attachment 1). The letter extended the deadline to begin operation of H₂S monitoring to December 6, 2020.

On March 6, 2019, BAAQMD sent an "Air Monitoring Plan – Notification of Extension for H₂S Monitoring Selection Submittal" (see Attachment 2). The letter further extended the deadline to begin operation of H₂S monitoring to March 6, 2021.

On July 26, 2019, Eric Stevenson, Director of Meteorology and Measurement at BAAQMD, sent an email to Bay Area refineries (see Attachment 3), explaining that they are currently not certifying or recommending open path H₂S manufacturers until they have a better understanding of instrument capabilities and that they will provide updates in the future.

Portable Monitors

While fenceline and community air monitors are helpful in providing information to the public, emergency responders need a more versatile air monitoring solution. From an emergency response standpoint, the most important monitors are portable monitors located on fire department vehicles that can be quickly deployed in the field. This gives fire personnel real time data at specific locations, allowing for more informed decisions to be made. On January 22, 2019, Valero provided the City of Benicia Fire Department 6 portable air monitors. They included 2 ChemPro100i handheld gas and vapor detectors, 2 PpbRae 3000 air monitors, and 2 Aerocet 831 particulate matter air monitors. Fire Department staff completed extensive training on these monitors, placed them in service, and have since had the opportunity to utilize them in the field.

Benicia Community Air Monitoring Program (BCAMP)

As part of the Second Amendment to the Valero/Good Neighbor Steering Committee Agreement approved by Council on February 19, 2019, Valero agreed to provide \$460,000 to the Benicia Community Air Monitoring Program (BCAMP) for community air monitoring equipment. The funds are for the operation and management of the Benicia Community Air Monitoring Program ("BCAMP"), including an independently contracted expert air monitoring company for managing raw data collection, data analysis, maintenance of air monitoring equipment, and to provide related services, including operation of an educational public access website that

presents data being collected in real time and information on public health as related to ambient air quality. Additionally, to resolve a dispute over the custody, ownership, and operation of an existing air monitoring system and equipment, including a trailer and instrumentation, Valero agreed to deliver the system to a location identified by the Good Neighbor Steering Committee.

NEXT STEPS:

Staff will continue to work closely with BAAQMD, the Valero Benicia Refinery, and BCAMP personnel. The progress of H₂S monitoring will be tracked and any updated information will be shared with the community. The Public Information Bank of the City of Benicia website will contain the most current information related to air monitoring in Benicia.

ALTERNATIVE ACTIONS:

None.

General Plan	The overarching goal of the General Plan is Sustainability
	Goal 4.1: Make community health and safety a high priority for Benicia.
	Goal 4.9: Ensure clean air for Benicia residents.

Strategic Plan	Strategic Issue #1: Protecting Community Health and Safety
	Strategy #3: Provide a high state of preparedness for disasters/emergencies
	Strategy #5: Promote community and personal health
	Strategic Issue #2: Protecting and Enhancing the Environment
	Strategy #4: Protect air quality
	Strategic Issue #4: Strengthening Economic and Fiscal Conditions
	Strategy #4: Manage City finances prudently

CEQA Analysis	The proposed action is not a Project per Section 15378 of the California Environmental Quality Act (CEQA), because it will not result in either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment.
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ATTACHMENTS:

1. December 6, 2018 BAAQMD Letter
2. March 6, 2019 BAAQMD Letter
3. July 26, 2019 BAAQMD Email

*For more information contact: Josh Chadwick, Fire Chief
 Phone: 707.746.4275
 E-mail: jchadwick@ci.benicia.ca.us*



**BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT**

December 6, 2018

Kimberly Ronan
Manager, Environmental Engineering
Valero Refining Company – California, Benicia Refinery
3400 East Second Street
Benicia, CA 94572

**RE: Air Monitoring Plan – Notification of Extension for H₂S Monitoring
Selection Submittal**

Dear Ms. Ronan:

On June 8, 2018 the Bay Area Air Quality Management District (Air District) sent an Approval of Regulation 12, Rule 15 Air Monitoring Plan (AMP). The letter required the selection of an approach to H₂S monitoring within 6 months of the date of approval. This letter serves as a notification of an extension of that deadline and revises the timeline for submittal of the selection of H₂S monitoring method.

The Air District will allow an additional 3 months from the date of this letter for Valero to select an approach to monitoring H₂S and inform the District in writing of that selection. The District anticipates that a method for open path monitoring of H₂S will be validated in the next few months. To encourage the use of open path H₂S monitoring, the District will allow up to 2 years from the date of this letter to begin operation of such monitoring. Valero may request a deadline beyond two years beyond the date of this letter if it can show that additional time is needed due to factors beyond its control. If Valero instead chooses to use fixed measurements for H₂S monitoring using the EPA MACT siting procedures for benzene sampling at refineries, then such monitoring must be operational within one year of the date of this letter. Valero may request a deadline beyond one year if it can show that additional time is needed due to factors beyond its control. Valero's selection and implementation of H₂S monitoring will be reviewed as an element of AMP implementation. Failure to implement H₂S monitoring in a timely and adequate manner would be basis for withdrawal of approval.

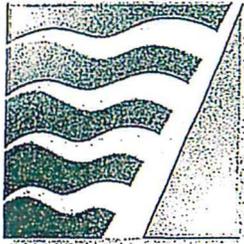
If you have any questions regarding this notification, please contact myself for compliance issues or Kate Hoag at 415-749-4619 for technical issues.

Sincerely,

Jack P. Broadbent
EXECUTIVE OFFICER/APCO

Connect with the
Bay Area Air District:





**BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT**

March 6, 2019

Kimberly Ronan
Manager, Environmental Engineering
Valero Refining Company – California, Benicia Refinery
3400 East Second Street
Benicia, CA 94572

**RE: Air Monitoring Plan – Notification of Extension for H₂S Monitoring
Selection Submittal**

ALAMEDA COUNTY
John J. Bauters
Pauline Russo Cutter
Scott Haggerty
Nate Miley

CONTRA COSTA COUNTY
John Gioia
David Hudson
(Chair)
Karen Mitchoff
Mark Ross

MARIN COUNTY
Katie Rice
(Vice Chair)

NAPA COUNTY
--Brad Wagenknecht

SAN FRANCISCO COUNTY
Hillary Ronen
Tyrone Jue
(SF Mayor's Appointee)

SAN MATEO COUNTY
David Canepa
Carole Groom
Doug Kim

SANTA CLARA COUNTY
Margaret Abe-Koga
Cindy Chavez
Liz Kniss
Rod G. Sinks
(Secretary)

SOLANO COUNTY
Pete Sanchez
James Spering

SONOMA COUNTY
Teresa Barrett
Shirlee Zane

Dear Ms. Ronan:

On December 6, 2018 the Bay Area Air Quality Management District (Air District) sent an Air Monitoring Plan (AMP) – Notification of Extension for H₂S Monitoring Selection Submittal. The letter extended the deadline and revised the timeline to allow an additional 3 months for the selection of an H₂S monitoring method.

This letter serves to further extend the deadline and revise the timeline to allow an additional 6 months from the date of this letter for Valero to select an approach to monitoring H₂S and inform the District in writing of that selection. The District anticipates that a method for open path monitoring of H₂S will be validated in the next few months. To encourage the use of open path H₂S monitoring, the District will allow up to 2 years from the date of this letter to begin operation of such monitoring. Valero may request a deadline beyond two years beyond the date of this letter if it can show that additional time is needed due to factors beyond its control. If Valero instead chooses to use fixed measurements for H₂S monitoring using the EPA MACT siting procedures for benzene sampling at refineries, then such monitoring must be operational within one year of the date of this letter. Valero may request a deadline beyond one year if it can show that additional time is needed due to factors beyond its control. Valero's selection and implementation of H₂S monitoring will be reviewed as an element of AMP implementation. Failure to implement H₂S monitoring in a timely and adequate manner would be basis for withdrawal of approval.

If you have any questions regarding this notification, please contact me for compliance issues or Jerry Bovee at 415-749-4601 for technical issues.

Sincerely,

Jack P. Broadbent
EXECUTIVE OFFICER/APCO

Connect with the
Bay Area Air District:



Valero Refining Company – California, Benicia Refinery March 6, 2019
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A handwritten signature in black ink, appearing to read 'Paul Grazzini', with a long horizontal flourish extending to the right.

Paul Grazzini
Air Quality Specialist
Compliance and Enforcement Division
(415)749-4783

Ronan, Kimberly A

From: Eric Stevenson <EStevenson@baaqmd.gov>
Sent: Friday, July 26, 2019 1:26 PM
To: Lee, Shawn (ShawnLee); Osterberg, Todd Eugene; gordon.johnson@shell.com; kathy.wheeler@shell.com; Bristol, Don A (DON.A.Bristol@p66.com); Zernickow, Daniel; JMChristman@Marathonpetroleum.com; Dreessen, Wilma J; Ronan, Kimberly A; Suhani, Iren; Bellanca, Sky (Sky.Bellanca2@valero.com)
Cc: Jerry Bovee
Subject: Update on TDL H2S Open Path Systems

Follow Up Flag: Follow up
Flag Status: Flagged

All –

We wanted to provide an update on where we are with regard to Tunable Diode Laser (TDL) H2S Open Path systems. While we are not “certifying” systems or recommending manufacturers, we are working with various manufacturers to better understand instrument capabilities. While we believe there are systems that may have the desired capabilities, we have yet to see documentation supporting those claims, though we hope this will occur in the near future. We intend to provide updates as we move forward so that we can all work towards a successful conclusion.

Please contact Jerry Bovee or Eric Stevenson if you have any questions.

Thanks!