

## Kevin Oei

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**From:** Marilyn Bardet <(REDACTED)>  
**Sent:** Friday, December 16, 2022 6:27 AM  
**To:** CommentsP66RodeoRenewed  
**Subject:** Fwd: [BAAQMD Network] My comments on Rodeo Renewed Project Permitting with Requests for Permitting Conditions  
**Attachments:** Bardet Comments\_RodeoRenew-Permitting Conditions\_12.14.22.pdf; BCAMP\_lettr to BAAQMD\_Rule12-15\_J.Bovee\_12.5.22.pdf; Recommendations for Fenceline Monitoring Data Access Requirements, May 2022.pdf

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**CAUTION:** This email originated from outside of the BAAQMD network. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear BAAQMD,

I mistakenly sent my comments to Mr. Kupp at CoCo County. I had emailed them on Dec 14. Below you will find my submittal email, my Comment Letter and attachment, a pdf of Dr. Gwen Ottinger's "Recommendations for Fenceline Monitoring at Petrochemical Facilities"; also a pdf of recent letter sent from BCAMP board to Jerry Bovee at BAAQMD.

Although it is now one day beyond the deadline for submitting comments, I hope you will receive my comments and forgive my mistake in sending them to CoCo County.

Thank you for your consideration, with best wishes for your holidays.

Respectfully,

Marilyn Bardet  
Good Neighbor Steering Committee, Benicia  
Board member, Benicia Community Air Monitoring Program

Sent from my iPhone

Begin forwarded message:

**From:** Marilyn Bardet <(REDACTED)>  
**Date:** December 14, 2022 at 6:15:19 PM PST  
**To:** Gary Kupp <(REDACTED)>  
**Cc:** Jerry Bovee <jbovee@baaqmd.gov>, Kate Hoag <khoag@baaqmd.gov>, Gwen Ottinger <(REDACTED)>, Eric Stevenson <(REDACTED)>, Nancy Rieser <(REDACTED)>, JANET PYGEORGE <(REDACTED)>, Janet Callaghan <(REDACTED)>, Jay Gunkelman <(REDACTED)>, Constance Beutel <(REDACTED)>, Shoshana Wechsler <(REDACTED)>, David Lindsay <(REDACTED)>, BAAQMDCoalition <(REDACTED)>  
**Subject:** [BAAQMD Network] My comments on Rodeo Renewed Project Permitting with Requests for Permitting Conditions

Dear Mr. Kupp,

Please find my Comment Letter on conditions for permitting of the Rodeo Renewed Project, herein submitted.

Also attached are:

- letter addressed to the BAAQMD's Jerry Bovee on Reg 12-Rule15's performance standards for H2S fenceline monitoring systems—letter referenced in my comments;
- *"Recommendations for Fenceline Monitoring Requirements at Petrochemical Facilities"* by Dr. Gwen Ottinger, Drexel University, and Director of Fair Tech Collective.

Thank you very much for considering my comments and permit condition requests, with the supporting materials.

With wishes for your holidays, that you may stay safe and well!

Respectfully,

Marilyn Bardet

board member, Benicia Community Air Monitoring Program  
member, Good Neighbor Steering Committee, Benicia

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MARILYN J. BARDET

(REDACTED)

(REDACTED)

Dec 14, 2022

Gary Kupp, Senior Planner  
Contra Costa County  
Dept. of Conservation and Development, Community Development Division

delivered Dec 14 via email: (REDACTED)

**Subject:**

**Comments on Permitting Conditions: Phillips66 Rodeo Renewed Project**

Dear Mr. Kupp,

As a long-time resident of Benicia, I had previously submitted comments on the DEIR for the P66 Rodeo Renewed Project. I understand that the Project's FEIR was certified by the Board of Supervisors; however, before air permits are granted by BAAQMD, conditions should be adopted that are protective of the Rodeo community's health and safety that encourage public trust.

The following comments pertain to two recommended permitting conditions that address the issues of Air Quality, public health risks associated to Hydrogen Sulfide gas [H<sub>2</sub>S] and the need for accurate, reliable air monitoring to be provided at the Phillips66 fenceline and within the community.

At P66, the operations and activities of the conversion Project will present potential conditions for increases in H<sub>2</sub>S emissions—those conditions resulting from the varieties of plant- and animal-derived liquid fuels imported into P66 for the Project, and, as well, from the management and maintenance of quality assurance protocols for the transport, storage, pre-treatment and processing of those feedstocks. If those activities and processes are not well managed and maintained, it is foreseeable that there will be increases in fugitive emissions of H<sub>2</sub>S, leading to more community members' complaints of noxious odors indicating the presence of H<sub>2</sub>S in the air being breathed, with consequences to human health and well-being.

Because H<sub>2</sub>S is a potentially lethal neurotoxin, (as is benzene), it is imperative that the BAAQMD's Reg 12-Rule 15 be strictly enforced, and that performance standards for H<sub>2</sub>S fenceline monitoring systems meet all Rule 12-15 criteria, no later than January 1,2023, the deadline for compliance set by BAAQMD.

Currently, P66's fenceline system for H<sub>2</sub>S monitoring is unreliable and cannot meet performance standards set by Rule 12-15. Data cannot be trusted, and as such, for sake of public trust, enforcement by BAAQMD for compliance with Rule 12-15, for transparency and accuracy in data collection and data reporting is crucial. [Please see Attachment in email, letter sent to BAAQMD which supports Rule 12-15's enforcement of performance criteria for H<sub>2</sub>S fenceline monitors.]

**Request for Air Permitting Conditions:**

Air permitting conditions must address the health risk associated to daily and cumulative life-time exposures to low level concentrations of H<sub>2</sub>S as well as exposures to spiking releases of H<sub>2</sub>S that cross the fenceline; and if toxicological research does not yet show that human health is impacted from chronic and cumulative low level exposures to H<sub>2</sub>S, then the BAAQMD should invoke the **Precautionary Principle**<sup>1</sup> and thereby give the benefit of scientific doubt to the populations who live close to the refinery and breathe emissions of H<sub>2</sub>S likely to be mixed in a toxic soup with benzene and other air contaminants.

**(1)** By January 1, 2023, if P66 is unable to bring its H<sub>2</sub>S fenceline system into compliance with BAAQMD's Rule 12-15 performance criteria, then *P66 shall be required to replace the currently installed H<sub>2</sub>S system with an EPA-proven, advanced system that can reliably and accurately meet the District's performance criteria. All raw data must be accessible to the public on a dedicated website with data directly uploaded from the system; data must be independently verified by 3rd party in near real-time. Assessing community members' odor complaints should in the future be a function of the new fenceline technology, such that individual on-site investigation of odor complaints by BAAQMD could be curtailed or eliminated.*

**(2)** BAAQMD shall establish and operate a community-based air monitoring station within the Rodeo community; the systems installed will have advanced capabilities for lowest detection sampling for H<sub>2</sub>S, BTEX, PM<sub>10</sub> and PM<sub>2.5</sub>, black carbon, Ozone; systems will report raw data on a public access website in real time, 24/7, and be verifiable as accurate by independent 3rd party in close to real time.

I believe that Contra Costa County has a special obligation to serve the unincorporated town of Rodeo, whose people are constantly impacted by the presence of P66 in their midst. The Rodeo Renewed Project will not eliminate fugitive emissions problems, nor alter the fact of the community's continuing exposure to toxic gases. Having reliable fenceline monitoring with advanced capabilities for sampling H<sub>2</sub>S at low detection levels and with transparent raw data reporting means that "fixes" to problems identified through monitoring can be done in a timely manner, as called for.

Thank you for this opportunity to comment on permitting of the Rodeo Renewed Project.

Respectfully,

Marilyn Bardet

[ATTACHMENTS CONTAINED IN EMAIL CONTAINING THESE COMMENTS: please see pdf of letter to BAAQMD from board members of Benicia Community Air Monitoring Program; also "*Recommendations for Fenceline Monitoring Requirements at Petrochemical Facilities*" by Dr. Gwen Ottinger, Drexel University and Director, Fair Tech Collective]

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<sup>1</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1240435/pdf/ehp0109-000871.pdf>

page 3 M. Bardet

cc

Jerry Bovee, BAAQMD, Air Quality Engineering Manager

Kate Hoag, BAAQMD, Meteorological and Measurement Division

Gwen Ottinger, professor, Drexel University; Director, Fair Tech Collective

Eric Stevenson, Argos Scientific

Rodeo Community members:

Janet PyGeorge

Janet Callahan

Nancy Rieser, C.R.U.D.E.

Jay Gunkelman, scientist/neurology

Constance Beutel, Air Watch Bay Area Working Group; Good Neighbor Steering Comm, Benicia

Shoshana Wechsler, Sunflower Alliance

David Lindsay, Board Chair, Benicia Community Air Monitoring Program

BAAQMD Coalition

# BCAMP Benicia Community Air Monitoring Program

<(REDACTED)>

Reply to: <(REDACTED)> or  
Nancy Lund, BCAMP secretary <(REDACTED)>

December 5, 2022

Jerry Bovee, Air Quality Engineering Manager  
Meteorology and Measurement Division  
Bay Area Air Quality Management District  
375 Beale Street, San Francisco, CA 94105

to be delivered via email: [jbovee@baaqmd.gov](mailto:jbovee@baaqmd.gov)

Dear Jerry,

BCAMP board members greatly appreciate the several discussions we've had with you and your monitoring team this year to discuss the regulatory framework of Reg 12-Rule 15, the Refinery Emissions Tracking rule. We agree that upgrading Rule 12-15 is very necessary and long overdue. Following up, this letter outlines and explains our enthusiastic support for the updates your division has put forward – the eleven "Performance Criteria" (see below) associated with the installation and operation of the open-path H<sub>2</sub>S air monitoring systems to be installed at Bay Area refineries no later than January 1, 2023. We feel that the establishment of specific performance standards for fenceline monitoring equipment should be applied for all technologies associated with Rule 12-15 across all facilities' fenceline systems. We urge additional criteria to ensure transparency and reliable public access to fenceline systems' raw data.

From our perspective, the primary goal of Rule 12-15 must be to reduce fugitive emissions that impact the health and safety of people living near refineries and refinery-related facilities where fugitive toxic gases routinely escape from valves, compressors, other ground-level processing units, and storage tanks. Given uncertainties surrounding future operations and potential emissions at Phillips66 (Rodeo) and Marathon Refinery (Martinez) where biofuels conversion projects are in line for permitting, it is even more imperative that Rule 12-15 be strengthened to encourage public trust. Of mounting concern are human health risks associated with daily chronic exposures to low-level concentrations of fugitive gases such as cancer-causing benzene and the deadly, odorous neurotoxin, hydrogen sulfide (H<sub>2</sub>S), as well as VOC's and other regulated toxic air contaminants. These signature toxic gases mixing with PM<sub>2.5</sub> and airborne pollutants from other urban sources cumulatively diminish the quality of the air we breathe and compromise human respiratory, neural, and cardiac functions.

When Rule 12-15 was adopted, in December 2015, community expectations rose as these facilities were then being required to install and operate full perimeter fenceline monitoring systems for detecting fugitive emissions. However, over the past six years, the roll-out of these systems became a moving target and their performance record unreliable, with data reporting controlled exclusively by the facilities and their contractors. The establishment of technology-specific performance criteria established by the BAAQMD provides a critical step towards regaining public trust by providing a baseline for system performance. However, to fully regain public trust, the modification of Rule 12-15 to ensure that all the data generated by these systems is independently validated is critical for maintaining this trust.

We believe that an updated Rule 12-15 will strengthen District enforcement, provide regulatory transparency and objectivity, and facilitate prompt repairs identified by accurate emissions tracking at facilities. These upgrades will also benefit the heavy polluters in our midst, since doing timely repairs of leaky equipment saves "product" and supports regulatory compliance.

In the name of public trust, we especially call for Rule 12-15 to provide public access to raw data generated in real-time, 24/7, such that it be directly delivered to the BAAQMD and to the public simultaneously on fenceline monitoring websites. In addition, we request that the data be downloadable by the public, universities, research orgs and other public agencies across all platforms. [Please see Addendum, comment letter by Dr. Gwen Ottinger of Drexel University that sets specifics associated to ensuring wide, public access to raw data for varied purposes pertinent to human health.] As an example, the BAAQMD's eleven performance requirements for open-path TDL air monitoring systems provide the community with a set of minimally acceptable standards for this specific type of technology.

The BAAQMD's eleven Performance Criteria that represent updated monitoring performance standards are listed below:

1. Routine detection limit verification checks and confirmed detection limits which range from 3 to 25\* ppb H<sub>2</sub>S, depending on environmental and operational conditions, with an average integrated path detection limit of 15 ppb H<sub>2</sub>S.
2. A repeatable detection limit of 25 ppb at a light transmission less than 1%.
3. Path average measurement range of 3 to 5000 ppb H<sub>2</sub>S with an accuracy of 2% of reading and repeatability of 1% of reading.
4. Sealed gas cell, or equivalent, 3-point calibration checks performed quarterly at a minimum.
5. Audit bump checks performed at least monthly at a unique concentration that differs from the calibration checks.
6. Real time validation of TDL data using measurement of another common ambient air component, such as methane, water, or carbon monoxide if present in the spectra.
7. Detection limit quantification and verification performed continuously in real time, reported in near real time on the refinery fenceline monitoring website, and included in the quarterly reports along with the measurement data.
8. Signal intensity measured in real time and provided in the quarterly reports.
9. Raw spectral data files saved as single files and made available to the Air District upon request.
10. Documentation of quality assurance and quality control metrics and procedures fully documented in the AMP and integrated QAPP.
11. System operation and performance to be based on a standardized method, such as EPA Method TO-16, or a method developed by a credible standardization body, such as ASTM International or The International Organization for Standardization (ISO).

The community feels the workbook presented as an Addendum to this letter provides an excellent example of how this data can be presented. This information, which was generated by independent research tests, demonstrates that the Air Optics open path system for monitoring H<sub>2</sub>S can meet the performance

objectives set forth by the BAAQMD for the use of this technology as part of Rule 12-15. We request that all technologies have similar documentation presented to both the BAAQMD and the community before the installation occurs. In addition, we request that the BAAQMD modify Rule 12-15 to require all equipment have the same performance standards requirements. We truly feel this will help re-establish community trust in the data generated by the technologies in use as part of Rule 12-15.

As board members governing a wholly independent community-based monitoring station launched this year for educational and research purposes, we are learning from our contractor, Argos Scientific, about just such capabilities and advantages that advanced monitoring systems offer and that dovetail with the Air District's mission and regulatory duties.

Thank you very much for consideration of our comments that honor the responsibilities entrusted to you. We look forward to participating with the District to help update Rule 12-15.

Best wishes for your holidays, with cheers to your team from all of us at BCAMP.

Respectfully,

David Lindsay, president  
Kathy Kerridge, treasurer  
Nancy Lund, secretary  
Bart Sullivan, board member  
Marilyn Bardet, board member

cc

Steve Young, Mayor, City of Benicia  
Josh Chadwick, Fire Chief, City of Benicia  
Dr. Gwen Ottinger, associate professor, Drexel University; Director, Fair Tech Collective  
Ken Szutu, Citizen Air Monitoring Network  
BAAQMD Coalition & Air Watch Bay Area Working Group/Refinery Air Watch:  
    Constance Beutel  
    Nancy Rieser  
    Janet Callaghan  
    Janet Pygeorge  
    Jay Gunkelman  
    Charles Davidson  
Shoshana Wechsler, Sunflower Alliance  
Don Gamiles, Argos Scientific  
Eric Stevenson, Argos Scientific



## ADDENDUM

- (1) The excel spreadsheet, which is attached in the email that introduces this letter, provides information on the independent research and testing, conducted in 2021, on the Air Optics open path system for monitoring H<sub>2</sub>S. This document demonstrates that this system has the ability to meet all of the performance requirements set by the BAAQMD.

[PDF. excel spreadsheet “workbook” for Air Optics system test is attached in email Introducing BCAMP letter.]

- (2) Recommendations for Fenceline Monitoring Requirements at Petrochemical Facilities:  
*Designing regulation for transparent, reliable public access*

Letter from Dr. Gwen Ottinger, professor, Drexel University;  
Director, Fair Tech Collective <fairtechcollective.org>

“Recommendations” pdf is attached in email introducing BCAMP letter;

- (3) Earth Justice Report on fenceline monitoring, 2022, pdf , attached in email



# Recommendations for Fenceline Monitoring Requirements at Petrochemical Facilities

*Designing regulation for transparent, reliable public access*

[The Fair Tech Collective](#)

Drexel University  
Professor Gwen Ottinger, Director

## **Introduction**

Requirements for ambient air monitoring at petrochemical facility fencelines are increasingly prevalent as part of regulatory statutes, land use permits, and consent decrees. Communities have fought for these requirements as a means of securing their right to know what is in the air they are breathing. Fenceline monitoring requirements help create transparency about industrial emissions and have the potential to further scientific knowledge of the impacts of emissions on human health and the environment.

**Achieving these goals requires easy, consistent public access to the datasets produced by air monitoring. Fenceline monitoring requirements therefore need to do more than specify the data to be collected. They need also to offer guidelines for how those data are stored, maintained, and made available to potential users.**

## **Background**

The [Fair Tech Collective](#), an interdisciplinary research group based at Drexel University in Philadelphia, PA, has been working with fenceline monitoring data since 2015. Our goal has been to [make monitoring data more meaningful](#) for communities near oil refinery fencelines. To this end, we have [developed web-based tools](#) to enhance communities' ability to access and interact with monitoring data, in collaboration with refinery-adjacent communities in the San Francisco Bay Area. We have also created [innovative techniques for analyzing data](#).

Our success has been constrained by two key factors: (1) data are not available in standardized, interoperable formats, and (2) data quality is difficult to assess. Both of these constraints on meaningful public access could be addressed by requirements for fenceline monitoring that specify how data are to be provided to the public.

## **Recommendations**

Based on our experiences, we recommend that the following provisions be included in all requirements, new and existing, for fenceline monitoring.

### ***To ensure data quality***

- Raw spectral data from open-path sensing and gas chromatography should be made publicly available. This allows for the auditing of monitoring results and the identification of monitors that are not operating properly.
- Time and date values should be expressed in Coordinated Universal Time (UTC), using ISO-8601 standard formatting.



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- Metadata should accompany pollution measurements to allow data users to assess the contexts and quality of data collection. Relevant metadata include but are not limited to locations of monitors (latitude and longitude), detection limits, signal strength (for open path monitors), documentation of calibration and other quality control checks, and QA/QC plans.
- Data quality audits should be conducted routinely by trusted third parties. Funds for this work should be provided as part of the monitoring plan.

#### ***To ensure public access to data***

- REST APIs (application programming interfaces) should be provided for all data endpoints.
- APIs should be documented using a widely recognized standard such as OpenAPI.
- APIs should be public and open. Any measures instituted to prevent inauthentic requests should be designed in such a way that users need not ask permission of monitor operators or other entities to be able to access the data.
- APIs should be versioned, with ample notification provided to users when new versions are available or old versions phased out.
- Databases and their APIs should be optimized to minimize API latency when executing requests for data. Under most circumstances, users should not have to wait more than a few seconds for requested data to be delivered.
- Intuitive, ADA-compliant user interfaces should be created to enable individuals with no programming background to select and download data in .csv format.

#### ***To ensure long-term resilience of monitoring systems***

- Monitoring plans should specify measures for routine maintenance and periodic upgrades to monitoring systems.
- Monitoring plans should specify measures for maintenance and periodic upgrades to APIs and user interfaces.
- Monitoring data should be stored on a hosted cloud service (rather than local servers) to provide redundancy and protection against loss.
- Adequate resources should be allocated for maintenance and upgrades. These include not only funding but also appropriate expertise (e.g., experts in database and user interface design as well as experts in monitoring techniques).

#### ***To foster community understanding and engagement***

- Funding should be made available for affected communities and professional researchers to explore and analyze fenceline monitoring data, using methods that can shed light on community concerns.
- Regulators should facilitate discussions with affected communities about fenceline monitoring results. The purpose of these discussions should be to mobilize local knowledge to give context to data, collaboratively formulate questions for further investigation, and identify priorities for immediate action—not merely to instruct or reassure communities.

