

Comment Letters via Electronic Mail

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Gregory,

As per our phone conversation earlier here is some background and proposed language for Reg 11 Rule 10.

Air Liquide owns and operated two facilities co-located with refineries in the Bay Area. We have a plant that makes hydrogen for the Phillips 66 refinery and another that recovers CO₂ from the Tesoro refinery. Our concern is that both could be lumped in as "refineries" under the proposed Reg 11-10 and required to monitor their cooling towers for hydrocarbons.

Our Rodeo hydrogen plant operates one cooling tower at 3500 gpm. It principally cools lube oil and syngas (a mixture of H₂, CO, CO₂, with ~5% CH₄ and no C₂ or greater hydrocarbons). Using the methodology and the EPA emission factor cited in the staff report for 11-10 of 0.7 lbs HC per MMgal, it has the potential to emit 0.64 tons per year with an annualized cost of compliance of \$171,000 per ton using option 1. This is about two orders of magnitude greater than the mean cost effectiveness for the five refineries. This source is already regulated under condition 23414 of our Title V permit and required to sample monthly for hydrocarbons and thrice weekly for chlorine as an indicator of hydrocarbons.

Our Martinez CO₂ plant on the Tesoro refinery recovers CO₂ from Tesoro's SMR, purifies, cools and compresses it to make liquid CO₂ and dry ice. The product goes to food and beverage as well as industrial uses. We own one cooling tower located adjacent to our booster compressor at Tesoro's SMR to cool CO₂ and lube oil. From there the product is piped about one mile to our facility. The plant has a cooling tower that services heat exchangers containing anhydrous ammonia, CO₂, and lube oil. I do not have flow information on these two towers.

It is our position that these should not be regulated under the proposed Regulation 11 Rule 10 merely because they are co-located with refineries since there is little potential for ROG release from them and the cost of compliance would be astronomical as compared to the intended audience. The definition of "Petroleum Refinery" at 11-10-206 could be construed to include our plants as support facilities. We ask that language be inserted to exclude facilities such as these from the regulation. Below I have written suggested language.

11-10-206 Petroleum Refinery: An establishment... *Excluded are hydrogen production and carbon dioxide recovery facilities owned and operated by third parties not engaged in the refining of crude oil provided that the cooling systems are separate from those used in refining operations.*

Thanks,

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Eric Kleinschmidt
Senior Environmental Specialist
Air Liquide US
(925)808-2606

PLEASE exercise common sense when considering the proposed refinery rules.

Rule 11-10 would impose millions of dollars in unnecessary compliance costs on refiners for cooling tower monitoring, when those towers already monitored under existing EPA regulations. Simply conforming BAAQMD rules to the EPA regulations could save refiners millions, save refinery jobs and keep costs down for consumers, without any backsliding in environmental protections.

The issue here is not the need for regulations on refineries; the issue is the **need for common sense** and cost - effectiveness when developing those regulations.

Please consider this as you review these rules for adoption.

Carla Virga
430 S. George Washington Blvd.
Yuba City, CA 95993

I would agree that this proposed change is indeed highly substantive. A move from an automated pollution detection system to canisters makes little sense in terms of capturing pollution events. When we were given canisters, they were a failure. Somebody needs to be there to identify an odor (if the pollutant has an odor). If somebody is actually there to witness the event they have to be near enough to the equipment to capture the odor. Pollution events can be ephemeral, they are subject to winds, and can be difficult to capture.

Our canisters were apparently not capable of accurately capturing and/or preserving most pollutants, especially at low levels. Even if the canisters were deployed quickly enough, actually captured pollutants, and the levels were high enough to read, the next questions is whether they would get to the lab quickly enough? We were told that certain pollutants would degrade in a certain time period. Yet, the canisters needed to be shipped across the state to be analyzed. The shipping process might or might not occur quickly enough depending on when the sample was taken, who was available to process and ship it, etc. Many times it took at least 3 or more days to arrive at the lab.

After people receive negative results one or two times -- when they know there is an event because they are smelling it -- their faith in the system declines and they do not bother to take samples any more.

A canister capture system is inherently inferior to an automated system. If canisters were *added* to the current system, as an additional source of information, the change would be non-substantive. As currently proposed, this is a disservice to the citizens of Richmond and a very surprising action by the BAAQMD. At the very least, the proposal should be addressed correctly, as a substantive and significant change that will likely have the effect of allowing most pollution events to go unrecorded.

Danielle Fugere
President

As You Sow

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United States Environmental
Protection Agency
Region IX
75 Hawthorne Street
San Francisco, CA 94105-3901

November 23, 2015

Transmittal of EPA Rule Review Comments

To: Gregory Nudd, Bay Area Air Quality Management District
gnudd@baaqmd.gov

Carol Sutkus, California Air Resources Board
csutkus@arb.ca.gov

From: Andrew Steckel, Rulemaking Office Chief
steckel.andrew@epa.gov

Re: BAAQMD Regulation 6-5, 8-18, 9-14, 11-10, 12-15 and 12-16

We are providing comments based on our preliminary review of the draft rule identified above. Please direct any questions about our comments to me at (415) 947-4115, Christine Vineyard at (415) 947-4125, or Jim Shears at (213) 244-1810.

Rule 6.5 Fluidized Catalytic Cracking Units (FCCUs)

6-5-112 – Limited Exemption, Emissions during Startup or Shutdown Periods - This section is inconsistent with the CAA section 302(k) requirement that SIPs contain emission limitations that “limit the quantity, rate, or concentration of emissions of air pollutants on a continuous basis,” as discussed in EPA’s June 12, 2015 rulemaking regarding excess emissions during start-up, shutdown and malfunction.

6-5-301 – Fluidized Catalytic Cracking Unit (FCCU) Emission Limits - South Coast AQMD Rule 1105.1 averages emission limits over 60 consecutive minutes. Please consider this averaging time instead of a daily average.

Rules 8-18 – Equipment Leaks; 9-14 – Petroleum Coke Calcining Operations; 11-10 – Hexavalent Chromium from All Cooling Towers and Total Hydrocarbon Emissions from Petroleum Refinery Cooling Towers; 12-15 – Petroleum Refining Emission Tracking; and 12-16 – Petroleum Refinery Emissions Limits and Risk Thresholds

Based on our review of the draft rules identified above, we have no comments at this time.

Hi Greg –

My concerns regarding the 8-18 (Fugitive Emissions) Draft Rule proposal include:

- Outreach information that exclusively mentions the 4 Refinery rule and targets just those stakeholders. However, our small Chemical Plant and maybe others are affected by 8-18 and without any outreach and associated engagement. For example, I received no notice from the District regarding public meetings (despite one Permit Engineer's representation of a one-off email to the contrary) and the update below only came to my attention via a forwarding email from Kathy Wheeler at the Martinez Refinery. Also noted is that the associated Staff report continues to address only Refineries and contains no information regarding the potential effects of this rule chemical plants and other applicable non-Refinery assets.
- By deleting the Limited Exemption – Initial Boiling Point, any organic liquid would be in scope and beyond the target of Heavy Liquid Service in Refineries. For us this adds pure Lube Oil and a non-Volatile C-20 Olefin (raw material) and a non-volatile liquid catalyst product to the mix. I'm not sure I see the point of having to measure something that's probably not there and isn't really a "Heavy Oil" to begin with.
- We have just over 1000 valves which at 0.15% is 1.6, rounded up to 2 valves for non-repairables. Under the proposal of 1 connector counts as 2 valves, we're basically "One and Done". I'm not sure Refinery Math with a huge number of components works for smaller Chemical Plant facilities. A number of our connectors are also not easily reached either through height or being insulated. I'm not sure how I should approach these, especially the insulated ones.

Please note that although the Martinez Catalyst Plant is a Shell facility, we are not the Refinery, but an independently managed Catalyst manufacturing plant, covering 50 employees and 15 acres. No Refinery streams are present or processed at our Plant. We also have a sister Catalyst Manufacturing facility located in nearby Pittsburg/Bay Point (under the Criterion name).

All of these concerns were previously communicated to you at the BAAQMD via electronic mail on 9/11/2015.

Thank You

Eric

Eric Brink
HSSE Advisor
Shell Chemical LP – Martinez Catalyst Plant

Dear Mr. Nudd:

I am writing to express my concerns about the proposed refinery rules currently under consideration by the District.

The California Air Resources Board has recommended that regional air districts NOT mandate facility-specific greenhouse gas emissions limits at the local level as these emissions are being addressed statewide as part of AB 32. Proposals to impose additional limits are therefore unnecessary and should be rejected.

With respect to Rule 8-18, I disagree with the removal of the low-level leakage repair provision. This rule goes too far and could lead to refinery unit shutdowns, which would disrupt fuel supplies and impact fuel prices at the pump. The repair provision should be reinstated.

Rule 9-14 appears to be unnecessary, since the Bay Area District is already in attainment with federal sulfur dioxide rules, and should be rejected.

Rule 11-10 is likewise unnecessary since cooling towers are already monitored under existing US EPA rules. This rule would impose millions of dollars in unnecessary compliance costs when merely incorporating the US EPA requirement as an option would be sufficient.

Finally, overly-burdensome rules will have severe negative impacts on oil industry jobs and revenues here in the Bay Area. Those impacts should be given serious consideration during deliberations on adoption of the rules as currently proposed.

Thank you for your consideration.

Janet Benaquisto

To whom this may concern:

"Bay Area Air Quality Management District have made some minor changes to three of the proposed Refinery Emission Reduction Strategy rules. ***These changes are intended to clarify the intent of the rules and are not substantive.***"

The changes were described as ***non-substantive***, so the changes proposed should be non-significant. If this were the case I would not be commenting.

The replacement of automated gas chromatographs which can track real-time emission levels and help track the sources based on wind direction and concentration "rose" is not easy if you are not intending to degrade the quality of the detections.

The real time automated gas chromatographs allow sampling time resolution including wind direction which is totally lost with canisters. The canisters are after-the-fact samplers, seldom catching the releases if you look at the history of canister detections and odor complaints, judging the differences as actually done within the BAAQMD.

Within the last 2 weeks I have personally notified the district of sulfur compounds released in Richmond, thought to be from General Chemical due to the wind rose and concentration. Another two incidents with BTEX releases, and one ammonia detection at unhealthy levels at the playground of the school yard being monitored.

None of these detections would have been possible with canisters deployed after-the fact.

How are canisters then not a degradation of the quality of monitoring... and ***highly significant***, not insignificant (non-substantive) as stated.

If there is a lesser choice in the quality of the proposed monitoring that impacts the communities right to know negatively I am positive there will be a huge reaction by the public, as well as various environmental groups.

I am still waiting to see what the Compliance division have done with my complaints and documentation of the violations which I provided a couple weeks ago. Certainly there is enough time to see the violations on the monitors by now, as I was able to do it "real time".

Jay

Jay Gunkelman
Chief Science Officer
Brain Science International
510-724-2680

Greg Nudd
Air Program Manager
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, California 94109

Mr. Nudd:

I received an email from the Coalition of Energy Users that the Bay Area Air Quality Management District was considering regulations that would restrict GHG emissions n spot sources such as refineries in the San Francisco Bay Area.

I urge the District not to adopt such rules. GHG emissions limitations, if effective at all to mitigate global warming, should be adopted at the statewide or national level. Limits on GHG in the SF area would clearly have no effect on global warming, but would result in increased costs to businesses and consumers.

I am a CPA in Stockton California. I have no connection to any refinery or any business with an interest in this regulation. I attended and participated in almost all of the City of Stockton's Climate Action Plan Advisory meetings; several conferences, classes and lectures about GHG emissions and global warming; I have read most of the IPCC reports including the technical reports. At the levels of emission restrictions proposed for the SF area, the effect on global warming would be imperceptible. I am aware of no credible scientific argument that contradicts that conclusion.

Thank you.

Ned Leiba
Leiba & Bowers, CPAs
305 North El Dorado Street, Suite 302
Stockton, California, 95202
209 948-9119 (Fax: 209 948-1621)

Greg Nudd
Air Program Manager
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, California 94109

Dear Mr. Nudd:

I am writing to express my concerns regarding the proposed refinery rules currently under consideration by the District.

The California Air Resources Board has recommended that regional air districts NOT mandate facility-specific greenhouse gas emissions limits at the local level as these emissions are being addressed statewide as part of AB 32. Proposals to impose additional limits are therefore unnecessary and should be rejected. In all my years in environmental engineering I have seen nothing but unnecessary problems and expense when multiple jurisdictions rush ahead of one another to create regulations on the same or similar sources or pollutants. I encourage the District to take a position to stand down on the issue of potentially duplicate regulations.

With respect to Rule 8-18, I disagree with the removal of the low-level leakage repair provision. In my opinion, this proposed rule change goes too far and could lead to refinery unit shutdowns, which would disrupt fuel supplies and impact fuel prices at the pump. The repair provision should be reinstated.

Additionally, Rule 9-14 appears to be unnecessary, since the Bay Area District is already in attainment with federal sulfur dioxide rules, and should be rejected.

Rule 11-10 is likewise unnecessary since cooling towers are already monitored under existing US EPA rules. This rule would impose millions of dollars in unnecessary compliance costs when merely incorporating the US EPA requirement as an option would be sufficient.

Finally, overly-burdensome rules will have severe negative impacts on oil industry jobs and revenues here in the Bay Area, and will also have an overly negative impact on the poor in the Bay Area, since they pay a higher proportion in fuel and transportation expense. Those impacts should be given serious consideration during deliberations on adoption of the rules as currently proposed.

Thank you for your consideration of my comments.

Best Regards,

Randy E. Frazier, P.E., C.A.P.P

November 23, 2015

Mr. Greg Nudd
Air Program Manager
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, California 94109

Dear Mr. Nudd:

I am writing to share some serious concerns about the proposed regulations. Any rules that impose additional costs on fuel producers have a direct impact on fuel costs, jobs and government revenues. These regulations are no different.

A good example of this relates to the establishment of refinery-specific greenhouse gas emissions limits. In a recent letter to the Districts Chief Executive Officer, the California Air Resources Board specifically recommended against local districts adopting facility-specific GHG emissions limits because GHGs are being controlled statewide as part of AB 32. CARB cautioned that adopting local limits could result in increasing the cost of statewide GHG emissions reductions and shifting business activity to outside the local jurisdiction – all this while failing to reduce statewide GHG emissions and increasing GHG emissions outside of the local jurisdiction.

Another example of added costs is the removal of the low-level leakage repair provision in Rule 8-18. This could lead to refinery unit shutdowns, which could disrupt fuel supplies and add to diesel fuel and gasoline costs. This increase in costs puts jobs at risk as employers will be forced to choose between paying for energy and paying for labor. Higher costs and fewer employees also translate to lower government revenues. The repair provision should be reinstated.

Finally, Rule 11-10 would impose millions of dollars in unnecessary compliance costs on refiners for cooling tower monitoring, when those towers already monitored under existing EPA regulations. Simply conforming BAAQMD rules to the EPA regulations could save refiners millions, save refinery jobs and keep costs down for consumers, without any backsliding in environmental protections.

The issue here is not the need for regulations on refineries; the issue is the need for common sense and cost-effectiveness when developing those regulations. Please consider this as you review these rules for adoption.

Yours truly,

Richard Warnock
25551 Rocky Beach Lane
Dana Point, CA 92629

Greg

Here's our comments on your ruling. Sorry last minute.

I hope you have a pleasant holiday...I can use the break.

Mr. Greg Nudd,

Siemens request reconsideration of Section 304.2 of proposed Rule 10: Hexavalent Chromium from All Cooling Towers and Total Hydrocarbon Emissions from Petroleum Refinery Cooling Towers. Section 304.2 states:

304.2 Install a continuous hydrocarbon analyzer(s) at each cooling tower return line(s), and/or at each heat exchanger exit line(s) prior to exposure to air to demonstrate compliance with the leak action level in Subsection 11-10-204.2 (6 ppmv in the stripped air). The owner/operator shall ensure that the continuous hydrocarbon analyzer(s) is capable of taking at least 4 measurements every hour (96 measurements per day);

Use of a "hydrocarbon analyzer" provides a single hydrocarbon concentration measurement and yields no information of the specific hydrocarbon species present. In contrast, a speciation measurement of the sample could provide the following benefits:

- Provide specific information regarding the hydrocarbon content of the emitted VOC's, thus providing values to be used for calculation of Green House Gas CO₂e and pollutant discharge impacts for air and water.
- Assist in troubleshooting sources of leakage
- Identify leakage around emergency dump valves on a hydrogen net gas compressor
- Identify leaking safety relief valves on a crude tower
- Identify over-sized restriction orifices on a nitrogen line

We propose that a requirement for speciation would better serve the goals of the BAAQMD as well as the refinery, and a Sparger equipped with a Gas Chromatograph, or other measurement device capable of speciation, should be considered for this measurement.

Thanks for your consideration.

JCombs
Siemens Industry

Jerry Combs, PhD
Business Development - Environmental/Chemical/Pharmaceutical

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Mr. Greg Nudd
Air Program Manager
Bay Area Air Quality Management District
939 Ellis St.
San Francisco, CA 94109

RE: Refinery emission rulemaking and CEQA negative declaration

23 November 2015

Dear Mr. Nudd:

As a citizen of Oakland, with business in Berkeley, and as a person who breathes (and a person with asthma), I want to go on record in support of strong regulation of particulate pollution from refineries and associated facilities in the Bay Area.

As a person concerned about the future of the planet, I also support strong regulation of greenhouse gasses and other pollutants that contribute to human-caused climate change.

I have been receiving the District's e-mail alerts for a number of years. It is quite noticeable that air quality has declined over that period, with more "moderate" days and more Spare the Air days, especially with regard to particulates. During that period I have also noticed an increase in my own experience of asthmatic reaction. There is little doubt that air pollution is contributing to this, if not the main or sole cause.

I have changed my own behavior, getting rid of my automobile and stopping use of my fireplace. I can't see what more I can personally do to decrease my own contributions to local air pollution. Major polluters, particularly Bay Area refineries, must do more to reverse the decline of air pollution.

I encourage BAAQMD to adopt the strongest rules to control emissions at refinery sites and associated facilities.

Yours,

Steve Freedkin
2512 Telegraph Ave. #274
Berkeley, CA 94704-2918