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Manager, Bay Area Region

VIA ELECTRONIC MAIL

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Mr. Gregory Nudd
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Manager, Rule Development Section
Bay Area Air Quality Management District (BAAQMD)
375 Beale Street
San Francisco, CA 94105

Subject: WSPA Comments on BAAQMD's Draft Project Description for Regulation 12, Rule 16 and Regulation 11, Rule 18

Dear Mr. Nudd:

The Western States Petroleum Association (WSPA) is a non-profit trade association representing twenty-six companies that explore for, produce, refine, transport and market petroleum, petroleum products, natural gas and other energy supplies in California, Arizona, Nevada, Oregon, and Washington. Our members in the Bay Area have operations and facilities regulated by the Bay Area Air Quality Management District (District). We appreciate this opportunity to comment on the District's draft project descriptions for Regulations 12-16 and 11-18.

Overall Comments

The California Environmental Quality Act ("CEQA") requires the District to appropriately consider the effects of any proposed regulation and to analyze the whole of the action. As WSPA has previously commented, it is quite difficult to keep up with the District's many descriptions and names for the proposed project which it has identified in documents as the Petroleum Refining Emissions Reduction Strategy (Project).

The District has identified a "suite of regulations" with the shared goal to reduce emissions from refineries (Regulations 6-5, 8-18, 9-14, 11-10, 12-16 and 11-18). The combined suite of regulations is part of the larger Project to reduce purported refinery emissions in the Bay Area by at least 20%. However, the District has not analyzed the cumulative impacts of these rules. The District needs to analyze the whole of the Project which also includes the additional

new or amended Project rules listed on their website that the District intends to propose. The District needs to clearly identify the project and then assess the whole of the project, including its cumulative impacts, and comply with CEQA.

DRAFT PROJECT DESCRIPTION FOR REGULATION 12-16

Planned Rule 12-16 Caps Are Illegal

WSPA's legal concerns with this planned rule have already been transmitted to the District separately.¹

Emissions Caps are Ineffective and Problematic

WSPA is concerned that Rule 12-16 is being driven by a non-governmental organization rather than originating from District Staff's scientific recommendation. Rather than developing regulations based on an unbiased and objective review of available data, the District is allowing a special interest group to set policy and detract from meaningful air quality improvements.

Beyond this, the proposed emissions caps are not an effective regulatory mechanism; they do not actually reduce emissions and therefore are difficult to justify as necessary to comply with ambient air quality standards. At the same time, the inflexibility of the limits they impose makes it difficult to calculate costs and benefits. Indeed, the proposed rule cannot even evaluate whether the specific limits are feasible at individual refineries, or the various economic and technological circumstances they face.

District Permits Already Limit Refinery Criteria Pollutants to Safe Levels

We are disappointed that the Project Description has ignored multiple comments made by WSPA on Regulation 12-16, and that it is being based solely on a proposal by Communities for a Better Environment (CBE).

Current District permits and New Source Review rules already prevent emissions from increasing to unsafe levels. The implication of CBE's proposal and the District's draft project description is that the District's traditional regulatory approach does not adequately protect public health despite the fact that the District's plans have resulted in substantive decreases in air emissions and improvements in air quality. The plans have also been repeatedly reviewed and approved by the U.S. Environmental Protection Agency (US EPA). The planned Rule 12-16 arbitrarily limits emissions now simply because a non-governmental organization made the request.

Pages 2 and 3 of the District's draft project description incorrectly implies that there are no facility-wide emissions limits for these pollutants. Refineries effectively have refinery-wide emissions limits through a combination of throughput limits, source-specific permit condition emissions limits, multi-source permit condition limits, local regulations (e.g. Reg 9-10), and federal regulations (e.g. NSPS, MACT).

¹ Marne S. Sussman (Pillsbury Winthrop Shaw Pittman LLP), letter to Honorable Chair Mar, and Members of the Board of Directors, Bay Area Air Quality Management District, "Re: Legal Issues Pertaining to Refinery Emission Cap Option for Proposed Regulation 12-16", July 19, 2016.

Caps Reduce Refinery Production Capacity With Existing Equipment

Refinery equipment was installed and permitted with multiple expected operating scenarios in mind. Numerous sources at each refinery have been evaluated as part of the District's Federally required New Source Review (NSR) program and have received valid permit limits on pollutant emissions and/or throughput rates. These limits reflect the maximum allowable operation of those sources which are often higher than current average rates.

This is because in proposing a project, refineries factor in fluctuations in business environments and abnormal process conditions into the design of the equipment. When refineries expend the capital to install the equipment and meet air regulatory permitting requirements, they are relying on that equipment to be able to operate up to their potential to emit (PTE) as planned and legally permitted.

The proposed Rule 12-16 caps refinery emissions to levels based on the past five years of emissions instead of the refinery's operating capacity, thus reducing the refinery's production capacity. Furthermore, the selection of the five-year baseline is arbitrary, failing to take into consideration the range of utilization refineries accommodated during and before the 2007-2009 years in recession. Even with installation of emission control technology, a refinery may not be able to operate at capacity because add-on control equipment often increases greenhouse gas emissions, which planned Rule 12-16 restricts.

There are several reasons that a refinery might need to make modifications that increase its PTE. These include but are not limited to the need to install new equipment to comply with future Federal or State fuel regulations which are typically for the purpose of reducing air emissions on a much larger scale. In the event CBE achieves its publicly stated goal of shutting down a refinery, the remaining refineries may need to increase capacity to ensure a reliable gasoline supply for California. The draft project description of Regulation 12-16 includes no consideration of these types of changes.

Additionally, the planned caps would cause some refineries to cut production immediately upon adoption of the rule. The project description indicates that the caps are intended to be at least 7% greater than past actual emissions. However, in some cases the caps are lower than recent annual emissions or within 7% of the emissions levels that BAAQMD has estimated for the refineries.

The planned PM10 emissions cap for Chevron is 526 tons per year in the project description, but Chevron was invoiced for 625 tons per year of PM10 emissions in calendar year 2014. Also, the planned NOx and SO2 caps for Chevron are 963 and 394 tons per year respectively, but the District invoiced Chevron for 956 tons of NOx and 426 tons of SO2 in calendar year 2012.

Caps Contradict Technical Analyses

To WSPA's knowledge, no air agency has ever placed an outright ban on increasing emissions from a facility above recent values. In fact, California law requires that districts with nonattainment areas establish a system by which increases in emissions at one facility can be "offset" by decreases in emissions at other facilities (H&SC 40709).

The District has its own detailed technical evaluation procedures that are used to ensure that any increases in actual emissions below the permit limits comply with all applicable air pollution regulatory requirements and not cause exceedances of ambient air quality standards.

CBE's rationale for Reg. 12-16 moves away from a technical approach to an approach based on perceptions, which WSPA opposes. The approach is contradictory to the development of air standards and the technical analyses that have historically been conducted by the District.

Local GHG Caps Are Not Expected To Benefit Global Climate Change

For GHGs, the District has not identified what benefit is to be achieved by localized "sub-regional" regulation of the refineries that are already subject to California's Cap and Trade Program; this is required per California's Health & Safety Code in order to promulgate a regulation.

Scientists, including District Staff, the District Advisory Council, and CARB have provided opinions that local GHG caps may not benefit global climate change.

District Staff presented the following consideration for local GHG caps:

- "Not a Local Problem: The principal GHG is carbon dioxide (CO₂), which is not a local health concern.
- Efficiency: May not ensure most efficient GHG emission reductions.
- Production Shift: May shift business activity to outside of air basin.
- Emission Leakage: May result in increases of GHG emissions in other part of the State or beyond.
- Overall: May not affect overall global level of GHG emissions."²

The District Advisory Council presented that they are "*not convinced*" that GHG caps would benefit global climate change. Mr. Richard Corey, California Air Resources Board Executive Officer, stated "*As we discussed, a local cap on Bay Area refinery emissions, which are already regulated by California's Cap-and-Trade Program, would not provide any additional GHG emissions reductions beyond the statewide cap.*"³

The Intergovernmental Panel on Climate Change (IPCC) pointed out that an analogous case of sub-national regulation of sources under a national cap-and-trade program would have no benefit:

"Consider the case where a cap-and-trade programme exists at the national level, and where a sub-national authority introduces a new policy intended to reduce its own (sub-national) emissions beyond what would result from the national programme alone. The sub-national jurisdiction's efforts might indeed yield reductions within that jurisdiction, but facilities in other sub-national jurisdictions covered by the cap-and-trade programme will now use these allowances leading to higher emissions in these jurisdictions completely compensating the abatement effort in the more stringent jurisdiction....The

² Eric Stevenson, "Five Point Action Plan to Address Refinery Emissions," Board of Directors Meeting, June 3, 2015, p.23.

³ Corey, Richard, September 17, 2015: Letter to Mr. Jack Broadbent, Bay Area Air Quality Management District.

national cap effectively prevents sub-national jurisdictions from achieving further emissions reductions [emphasis added].”⁴

Planned Caps Are Based On Inconsistent Inventory Methods

The proposed caps are based on inconsistent inventory methods for the selected baseline years. The emissions limits for each facility identified in Table 1 are identified as being based on reporting under ARB’s Mandatory Reporting program and “*the Facility’s annual emission inventory.*” The annual emission inventories for non-GHGs were not prepared by the Facility.

Those inventories were prepared by District engineers, and using different methods at the same facility during the baseline years. The methods are inconsistent with the methodology described in the draft Regulation 12-15 Emissions Inventory Guidelines currently under development by District staff, for the purpose of making inventory methods more accurate than the values reported in the project description and consistent between the refineries.

Cap Adjustments Do Not Include Changes in Emission Calculation Methods

The project description indicates that caps will be adjusted when monitoring methods change, but does not mention changes in emission calculation methods. As explained in the previous paragraph, calculation methods were inconsistent between the refineries and from year to year at the same refinery. Without final, documented emission calculation methods, a comparison of future emissions to baseline emissions would not provide an equal comparison.

Exceedance Timeframe Is Inconsistent with Other Annual Limits

The project description states that an exceedance of a cap would be considered a violation over the entire calendar year. This approach conflicts with the method the BAAQMD uses for estimating penalties with other annual limits. An emissions cap should not be considered as exceeded before the date that the limit was exceeded.

DRAFT PROJECT DESCRIPTION FOR REGULATION 11-18

Project Description is Inconsistent With Presentation to the Board

The Board of Directors provided direction to continue rulemaking on Rule 11-18 as proposed based on Staff’s presentation at the July 20 Board of Directors meeting. The project description materially changes Rule 11-18 by requiring that facilities with greater than 25 in one million (25/M) health risk reduce health risk to below 10 in one million (10/M) before facilities with health risk between 10/M and 25/M.

⁴ Somanathan E., T. Sterner, T. Sugiyama, D. Chimanikire, N.K. Dubash, J. Essandoh-Yeedu, S. Fifita, L. Goulder, A. Jaffe, X. Labandeira, S. Managi, C. Mitchell, J.P. Montero, F. Teng, and T. Zylitz, 2014: National and Sub-National Policies and Institutions. In: *Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Edenhofer, O., R. Pichs-Madruga, Y.Sokona, E. Farahani, S. Kadner, K. Seyboth, A. Adler, I. Baum, S. Brunner, P. Eickemeier, B. Kriemann, J. Savolainen, S., Schlömer, C. von Stechow, T. Zwickel and J.C. Mix (eds.)]. Cambridge University Press, United Kingdom and New York, NY, USA. p. 1180.

Rule Provides Immeasurably Small Improvement to Public Health

Section 1.1.2 identifies that “*Draft Rule 11-18...would ensure that emissions of [TACs] from existing facilities do not pose an unacceptable health risk to people living and working nearby*”.

Both the District and US EPA have passed numerous TAC regulations over many years for this same purpose. It is not clear why the District has chosen to reduce health risk approximately 30 fold now (from 100/M to 10/M while OEHHA health risk factors increased 3 to 6 times) or how the District reaches the conclusion that facility HRA results showing 10/M or 25/M lifetime cancer risk at the worst-case point of impact is the delineation between what is acceptable and unacceptable, especially given the fact that:

1. Actual lifetime cancer risk nationally is roughly 400,000/M (i.e., 40%).⁵
2. The California EPA “A Guide to Health Risk Assessment” states “The cancer risk from breathing current levels of pollutants in California’s ambient air over a 70-year lifetime is estimated to be 760 in one million”
3. The District’s own Community Air Risk Evaluation (CARE) study estimated that average background air quality in the Bay Area corresponds to lifetime cancer risk of approximately 510/M (and in some areas over 1,700/M), assuming decades of exposure to current background air pollutant concentrations (even though concentrations have been decreasing, and were four times higher in 1990).⁶
4. Facility HRA results are biased high, rather than being “best estimates”; i.e., OEHHA’s Guidance Manual for Preparation of HRAs⁷ notes that “...there is a great deal of uncertainty associated with the process of risk assessment....The assumptions used in these guidelines are designed to err on the side of health protection in order to avoid underestimation of risk to the public....**Risk estimates generated by an HRA should not be interpreted as the expected rates of disease in the exposed population but rather as estimate of potential for disease**, based on current knowledge and a number of assumptions....” (pp. 1-5 through 1-6).

Even if a facility HRA showed an impact of 100/M at the worst-case point, and even if that were a “best estimate” rather than an overestimate, the health impact of completely shutting down that facility would be so small that it could not be measured.

⁵ American Cancer Society, <http://www.cancer.org/cancer/cancerbasics/lifetime-probability-of-developing-or-dying-from-cancer>, accessed Sept. 1, 2016.

⁶ BAAQMD, “Improving Air Quality & Health in Bay Area Communities: Community Air Risk Evaluation Program Retrospective & Path Forward (2004 – 2013)”, April 2014, p. 3 and p. 18 identify average risks of 300-in-a-million and show risks in excess of 1000-in-a-million under the old OEHHA guidance; footnote 15 identifies that corresponding risks under the new OEHHA guidance are 70% higher).

⁷ OEHHA, “[Air Toxics Hot Spots Program Risk Assessment Guidelines – Guidance Manual for Preparation of Health Risk Assessments](http://oehha.ca.gov/air/hot_spots/hotspots2015.html)”, February 2015. Available from http://oehha.ca.gov/air/hot_spots/hotspots2015.html.

Health Risk Less than 10/M Is Likely Technically Infeasible

ARB expects that even very small sources such as standby diesel engines and gasoline dispensing facilities may not be able to meet District risk thresholds such as these under the new OEHHA HRA guidelines, and stated that:

“There may be situations where permit approval above the permitting risk threshold is appropriate. Factors considered could include, but are not limited to: source using TBACT; source supports essential goods or essential public services as determined by the Air Pollution Control Officer (APCO) or defined by the local District’s permitting policies, rules, or programs; significant portion of operation due to readiness testing or emergency use; or other District-specific considerations.”⁸

It is difficult to imagine why, if retail gasoline outlets are considered to “[support] essential goods or essential public services”, how Bay Area refineries, which are among the few and limited refineries that produce fuels to these California outlets would not also be considered to “[support] essential goods or essential public services” – or why facilities as large as refineries should be required to have smaller impacts than these other sources.

Compliance Schedule Is Overly Burdensome

The draft project description identifies that facilities whose HRAs show a risk of 25/M at the point of maximum impact need to reduce that risk to a level of 10/M earlier than facilities that need to make less significant adjustments.

This means that facilities requiring the most changes will have less time than facilities making minor changes. It is overly burdensome for the District to require first phase facilities to install Best Available Retrofit Control Technology for toxics (TBARCT) within three years of the rule becoming final. It would be more equitable for facilities with greater than 25/M health risk to first reduce health risk to less than 25/M, then all facilities reduce health risk to below 10/M.

Three years is likely to not be enough time to design and install TBARCT. Projects typically require three years to design and install for equipment that does not need a shutdown for installation. For facilities that need to install equipment during shutdown periods, the rule may force unnecessary shutdowns. The District could minimize emissions by allowing the equipment to be installed during the next scheduled shutdown rather than in three years.

Overall, the District is unnecessarily rushing the timing of this rule. It is not possible to complete an HRA without an emissions inventory. The District is still working on their draft emissions inventory guidelines for Rule 12-15. Refinery inventories using those guidelines are due June 2017. WSPA’s understanding is that ARB currently does not anticipate finalizing a revision of their “Emission Inventory Criteria and Guidelines” document (which is incorporated by reference into AB2588 regulations at 17 CCR 93300.5) until at least late 2017.

In addition, the District has not evaluated what the maximum impact will be from various refineries’ HRAs (i.e., including all sources that the District are requiring to be modeled, and using the District’s emissions inventory guidelines); staff have not determined how feasible the

⁸ Ibid., Appendix B (“Guidance for Permitting New and Modified Sources”), p. 31.

10/M and 25/M limits will be to achieve; nor do they wish to wait for the industrywide risk assessment guidelines that ARB will be preparing for standby diesel engines and gasoline dispensing facilities⁹ to see what reasonable expectations should be for the HRA results produced using the new OEHHA Guidelines.

Compliance Requirements May Be Overly Burdensome

The impacts of this rule will depend on how the District interprets the meaning of “TBARCT” and what constitutes a “significant” source of TACs. TBARCT should not be required for equipment that does not drive health risk.

We appreciate your consideration of our comments. If you have any questions, please contact me at your convenience.

Sincerely,



cc: BAAQMD Board of Directors
Jack Broadbent
Jean Roggenkamp

⁹ Page 42 of ARB’s “Risk Management Guidance for Stationary Sources of Air Toxics”, July 23, 2015, identified that these would be available in 2016, but WSPA’s current understanding is that these may not be available until 2017.