

Bay Area Air Quality Management District
375 Beale Street, Suite 600
San Francisco, CA 94105
(415) 749-5073

APPROVED MINUTES

Advisory Council Regular Meeting
Monday, April 25, 2016

Note: An audio recording of the meeting is available on the website of the Bay Area Air Quality Management District at <http://www.baaqmd.gov/about-the-air-district/advisory-council/agendasreports>

1. CALL TO ORDER

Advisory Council (Council) Member Stan Hayes called the meeting to order at 9:05 a.m.

Roll Call:

Present: Council Chair Hayes, Council Vice Chair Kleinman, and Members: Professor Borenstein, Ms. Doduc, Dr. Harley, Dr. Lipman, and Dr. Long.

Absent: None.

Also Present: Cupertino Councilman Rod Sinks, Board of Directors (Board) Liaison.

Opening Comments: Chair Hayes thanked Council Members, District staff, and presenters for attending, and remarked that the Council was very interested in the upcoming presentations. He also gave an overview of the agenda

2. APPROVAL OF THE MINUTES OF DECEMBER 3, 2015 AND FEBRUARY 3, 2016

Vice Chair Kleinman made a motion, seconded by Member Harley, to approve the minutes of December 3, 2015; and the motion carried by the following vote of the Council:

AYES: Harley, Hayes, Kleinman, and Lipman.
NOES: None.
ABSTAIN: Borenstein and Doduc.
ABSENT: Long.

Member Harley made a motion, seconded by Member Borenstein, to approve the minutes of February 3, 2016; and the motion carried by the following vote of the Council:

AYES: Borenstein, Hayes, Harley, Kleinman, and Lipman.
NOES: None.

ABSTAIN: Doduc.
ABSENT: Long.

3. WELCOME

Jack Broadbent, Executive Officer/Air Pollution Control Officer, noted the District's recent rulemakings that are directed at refineries and the implementation of the Air Quality Management Plan, all of which raise the issue of the efficacy of greenhouse gas (GHG) caps for local refineries. Mr. Broadbent explained that, upon receiving presentations from a variety of organizations that were invited to give input on the topic, the Advisory Council would be asked to deliberate on the efficacy of numeric caps on GHGs from Bay Area refineries and give input to the Board of Directors in June 2016.

4. PUBLIC COMMENT ON AGENDA MATTERS

No requests received.

5. PRESENTATION ON CRUDE SLATE AT LOCAL REFINERIES

Chair Hayes introduced Gordon Schremp, Senior Fuels Specialist for the California Energy Commission, who gave the presentation *California Refinery Overview and San Francisco Bay Area Crude Oil Slate*, including: transportation fuel infrastructure overview; western states are more isolated than the rest of the US; California refineries; San Francisco Bay Area refineries and activity; Crude oil sources at San Francisco Bay Area refineries; refineries and process units; refineries must maintain balance; and crude oil variability poses a challenge.

Council Comments:

The Council and staff discussed which refineries are not connected to pipelines; the possible future decline of crude oil production in the San Joaquin Valley; the export destinations of Bay Area-made refined products; and the balance of California Air Resources Board (CARB) transportation fuel in relation to Environmental Protection Agency (EPA) transportation fuel.

Presentation Continued:

Mr. Schremp continued the presentations with slides including: crude oil slate; Crude oil properties (2006-2015); Distillation profile- crude oil yields vary; annual and monthly crude oil properties in 2015; variability of crude oil on the west coast; refiners blend crude oil; importance of blending; and crude oil carbon intensity (non-California sources).

Council Comments Continued:

The Council and staff discussed estimated differences in GHG emissions based on the processing of lighter or heavier crudes; the increase of Sulfur in crude oil; volume weighted carbon intensities for California sources compared to higher carbon intensity (CI) outliers; the increase in crude by rail projects that is to be approved over time; and speculation whether or not

California facilities will be able to meet the growing demand for crude oil supply sources outside of the United States.

NOTED PRESENT: Member Long was noted present at 10:14 a.m.

6. PRESENTATION ON LOW CARBON FUEL STANDARD (OUT OF ORDER, ITEM 7)

Chair Hayes introduced Sam Wade, Transportation Fuels Branch Chief for the California Air Resources Board, who gave the presentation *Low Carbon Fuel Standard (LCFS)*, including: what is the low carbon fuel standard; LCFS objectives; how does LCFS work, over-compliance has created a large credit bank; volumes of low carbon fuels continue to grow; advanced fuels contributing a growing share of LCFS credits; outline; and California average crude oil incremental deficit provision.

Council Comments:

The Council and staff discussed the legal challenges to re-adoption of the program, and whether or not the required statewide ten percent reduction by 2020 in the CI of transportation fuels has changed since the program's original inception; the carbon intensity of grams per mega joule (MJ) of tailpipe emissions within the lifecycle of emissions associated with California Reformulated Gasoline Blendstock for Oxygenate Blending (CARBOB); the process by which CI is assessed and valued; the fact that this program does not include a provision that would automatically adjust it downward over time if the CI improved, and CARB's ability to detect potential trends towards increases in CI; carbon capture and storage; how fugitive emissions are addressed by the program; whether or not CARB plans to incorporate the Aliso Canyon gas leak into the LCFS and the associated mitigation plan which is publicly available; and the economic analysis of the program.

Presentation Continued:

Mr. Wade continued the presentation with slides including: California crude slate: 2010-2014; credits for producing crude using innovative methods; refinery investment credit; and renewable hydrogen refinery credit.

Council Comments Continued:

The Council and staff discussed the LCFS credit eligibility in the event of refinery equipment shutdown or improvement in efficiency; the shift in opportunities for refineries to be eligible for LCFS credits; and the effect that the large credit bank, due to over-compliance, will have on CARB's CI reduction goals.

7. PERSPECTIVES ON EFFICACY OF GREENHOUSE GAS (GHG) CAPS FOR LOCAL REFINERIES (ITEM 6)

Chair Hayes explained that four groups had been invited to present their perspectives on this topic prior to the Council's deliberation. Invitees included: Communities for a Better Environment, 350 Bay Area, the Western States Petroleum Association, and the California Council for Environmental and Economic Balance.

Communities for a Better Environment (CBE)

Greg Karras gave the presentation *Bay Area Refinery “Caps” Proposal: Rule 12-16*, including: introduction; environmental setting; goals to attain by 2050; a request that the Air District refrain from committing to new capital for tar sands oil infrastructure; fuel cycle GHG footprint based on the properties of feedstock oils used; the signal of pricing policies dependent upon the locations of oil sources and markets; refinery feedstock quality impacts, mechanisms, scale, and the prediction of emission impacts of a new oil feedstock at the refinery level which may require more detailed data; key trends; and Bay Area refiners’ exports compared to other west coast refining centers.

Council Comments:

The Council, staff, and presenters discussed: the difference between proposing an overall mass cap and proposing mass emission limits; the absence of facility-wide limits for any particular pollutant at the refineries; the Air District’s protocol for adopting and amending command and control regulations on processes at refineries and imposing limits on processes and equipment to comply with new source review limits; leakage resulting from emission reduction; a detailed explanation of CBE’s proposed cap of GHGs at the current level; and the inapplicability of LCFS and Cap and Trade when exporting fuel out of California.

The meeting was adjourned for lunch at 12:18 p.m. The meeting reconvened at 1:08 p.m.

Western States Petroleum Association (WSPA) and California Council for Environmental and Economic Balance (CCEEB)

Chair Hayes introduced Bill Quinn, Vice President of CCEEB, who stated that WSPA and CCEEB agreed to combine their presentations into one that would be given by Gary Rubenstein, Senior Partner at Sierra Research. The presentation *The Efficacy of Greenhouse Gas Emission Caps at Local Refineries* included a discussion on what problem are we trying to solve; effective policy making; effect on fuel demand; and fuel costs and the possibility of local shortages.

Council Comments:

The Council, staff, and presenters discussed: reduced local capacity resulting in decreased excess capacity for exporting gasoline from the Bay Area refineries, rather than resulting in increased imports from elsewhere in California and outside the state with accompanying higher transportation costs and emissions; the resiliency of the transportation fuel market in its current form, elasticity of demand, and the lack of gasoline price control in California.

Presentation Continued:

Mr. Rubenstein continued the presentation with slides including: reduced efficiency of Cap and Trade; an inefficiency example: combustion vs. refining of transportation fuels, which he claimed produced no reduction in statewide GHG emissions; impact of a refinery outage on gasoline supply sources; no reductions in other/local pollutants; and conclusions.

NOTED PRESENT: Board Liaison Sinks was noted present at 2:10 p.m.

Council Comments Continued:

The Council, staff, and presenters discussed how a refinery's compliance with LCFS mandates may affect GHG emissions; credits and benefits associated with the crude provision of the LCFS; how statewide CI value that exceeds the threshold for all refiners would result in incremental deficits; how a refinery may theoretically re-optimize or change its behavior if a cap on GHG emissions was imposed; export trends in the Bay Area; projections of tar sands in the Bay Area; the possibility of changing the blends to lower carbon mixes and improving the carbon emission profile; how a GHG emissions cap on refineries may affect the Cap and Trade market; a list of local recommendations written by CARB that will achieve GHG reductions in lieu of imposing a cap on refineries; challenges of meeting AB32 goals by 2020; and the labeling of one particular industrial sector as the largest stationary source of GHG emissions, when other human behaviors and sources generate to GHG emissions.

8. COUNCIL DELIBERATION

The Council deliberated on the efficacy of GHG caps for local refineries, considering information provided to date.

The deliberation included the following principles:

- Fairness is important but make sure the measures work
- Make sure global GHG emissions are actually reduced/Beware of leakage
- Appeals to leadership need to be grounded in plausible pathways
- Needs to be alignment between goals and methods
- CARB is not addressing fugitive emissions in the climate regulatory framework
- The possibility of controlling the crude source to address GHG is not included in the low carbon fuel standard (LCFS)
- Rely on Air District tools for toxics and criteria pollutants
- Regulatory landscape is complicated; regulations should be complementary and non-conflicting
- Co-benefits justify GHG caps only if criteria pollutants cannot be monitored and controlled directly
- Evaluate the effectiveness of GHG reduction options
- Increase GHG emission monitoring of FCC units; more real data is needed (consider CARB's monitoring methods)
- Integrated top-down monitoring of refineries is needed

The deliberation included the following conclusions:

- The proposals for a cap were made to address real problems and issues, but it is less clear that a cap would be the best way to address those real problems and issues.
- We heard two points in support of a GHG cap. The first was co-pollutants, which should be addressed directly. The second was GHG reductions, which only matter globally, and it remains unclear whether this intervention would reduce global GHG emissions.

- For co-pollutants, regulations on flare gas, flare stacks, FCC, process boilers and heaters, and cokers are excellent foci for air pollution control
- Evaluate the effectiveness of GHG reductions more systematically
- The District has a role to play in collaborating with CARB to develop a climate regulatory approach to fugitive methane emissions
- We should explore ways and means to encourage or require the refining industry to reduce GHG emissions by methods other than including a cap – must reduce global emissions and should be methods beyond those already incorporated by CARB
- The majority of the Advisory Council is not convinced that facility-level caps on GHG emissions will be effective in mitigating climate change.

The Council and staff discussed: the possibility of the Board taking a formal position on what CARB should be doing statewide, as opposed to just locally; leakage minimization and preparedness; potential future presentations on Energy Information Administration data regarding how much trade occurs and market variations over time as evidence for nationwide leakage and on how CARB deals with fugitive emissions; and the Air District's four options for combustion emissions reductions at refineries that will be introduced at the June 1, 2016 Stationary Source Committee meeting, their evaluation criteria, and scheduling the Advisory Council's review of these four options.

The deliberation was publicly transcribed by the Clerk of the Boards and will be finalized by staff for the Council's review before it is submitted to the Board of Directors.

OTHER BUSINESS

9. PUBLIC COMMENT ON NON-AGENDA MATTERS

None requests received.

10. COUNCIL MEMBER COMMENTS / OTHER BUSINESS

Chair Hayes announced that the Air and Waste Management Association's 109th Annual Conference will be held from June 20-23, 2016 in New Orleans, LA, and Advisory Council members who wish to attend need to let District staff know.

11. TIME AND PLACE OF NEXT MEETING:

At the call of the Chairperson.

12. ADJOURNMENT

The meeting adjourned at 4:38 p.m.

MS/ Marcy Hiratzka

Marcy Hiratzka
Clerk of the Boards