



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

BOARD OF DIRECTORS
STATIONARY SOURCE COMMITTEE MEETING

COMMITTEE MEMBERS

JOHN GIOIA - CHAIRPERSON
TOM BATES
SCOTT HAGGERTY
NATE MILEY
JIM SPERING

JOHN AVALOS - VICE CHAIRPERSON
CAROLE GROOM
ERIC MAR
MARY PIEPHO

MONDAY
SEPTEMBER 16, 2013
10:30 A.M.

7th FLOOR BOARD ROOM
939 ELLIS STREET
SAN FRANCISCO, CA 94109

AGENDA

1. **CALL TO ORDER - ROLL CALL**
2. **PUBLIC COMMENT PERIOD** (*Public Comment on Non-Agenda Items Pursuant to Government Code § 54954.3*) Members of the public are afforded the opportunity to speak on any agenda item. All agendas for regular meetings are posted at Air District headquarters, 939 Ellis Street, San Francisco, CA, and on the Air District's website www.baaqmd.gov at least 72 hours in advance of a regular meeting. At the beginning of the regular meeting agenda, an opportunity is also provided for the public to speak on any subject within the Board's authority. Speakers will be limited to three (3) minutes each.
3. **APPROVAL OF MINUTES OF MAY 20, 2013**
4. **PROPOSED AMENDMENTS TO REGULATION 9, RULE 10: NO_x AND CO FROM BOILERS, STEAM GENERATORS AND PROCESS HEATERS IN PETROLEUM REFINERIES**
H. Hilken/4642
hhilken@baaqmd.gov

The Committee will receive a report on proposed amendments to Regulation 9, Rule 10 which limits nitrogen oxides (NO_x) and carbon monoxide (CO) emissions from boilers, steam generators and process heaters operating in petroleum refineries.

5. **COMPREHENSIVE LOCAL ENERGY PICTURE**
B. Bateman/4653
bbateman@baaqmd.gov

Staff will provide an overview of energy use and production, and associated greenhouse gas emissions, including trends and projections. Data will be provided on a worldwide basis, and also for the United States, California, and the Bay Area.

6. **RULE EFFECTIVENESS STUDY**

Staff will provide an overview of the Compliance and Enforcement Division's Compliance Assurance Program highlighting two recent Rule Effectiveness Studies.

W. Kino/4789
wkino@baaqmd.gov

7. COMMITTEE MEMBER COMMENTS/OTHER BUSINESS

Any member of the Board, or its staff, on his or her own initiative or in response to questions posed by the public, may: ask a question for clarification, make a brief announcement or report on his or her own activities, provide a reference to staff regarding factual information, request staff to report back at a subsequent meeting concerning any matter or take action to direct staff to place a matter of business on a future agenda. (Gov't Code § 54954.2).

8. TIME AND PLACE OF NEXT MEETING - Monday, October 21, 2013, Bay Area Air Quality Management District Office, 939 Ellis Street, San Francisco, California 94109 at 10:30 a.m.

9. ADJOURNMENT

**CONTACT THE CLERK OF THE BOARDS
939 ELLIS STREET SF, CA 94109**

**(415) 749-5073
FAX: (415) 928-8560
BAAQMD homepage:
www.baaqmd.gov**

- To submit written comments on an agenda item in advance of the meeting.
- To request, in advance of the meeting, to be placed on the list to testify on an agenda item.
- To request special accommodations for those persons with disabilities notification to the Executive Office should be given at least 3 working days prior to the date of the meeting, so that arrangements can be made accordingly.

Any writing relating to an open session item on this Agenda that is distributed to all, or a majority of all, members of the body to which this Agenda relates shall be made available at the Air District's headquarters at 939 Ellis Street, San Francisco, CA 94109, at the time such writing is made available to all, or a majority of all, members of that body.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
939 ELLIS STREET, SAN FRANCISCO, CALIFORNIA 94109
FOR QUESTIONS PLEASE CALL (415) 749-5016 or (415) 749-4941

EXECUTIVE OFFICE:
MONTHLY CALENDAR OF AIR DISTRICT MEETINGS

SEPTEMBER 2013

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Advisory Council Regular Meeting <i>(Meets on the 2nd Wednesday of each Month)</i>	Wednesday	11	9:00 a.m.	Board Room
Board of Directors Climate Protection Committee <i>(Meets 3rd Thursday of every other month)</i> - CANCELLED	Thursday	12	9:30 a.m.	4 th Floor Conf. Room
Board of Directors Executive Committee <i>(Meets on the 3rd Monday of each Month)</i> - CANCELLED AND RESCHEDULED TO MONDAY, SEPTEMBER 9, 2013 AT 9:30 A.M.	Monday	16	9:30 a.m.	4 th Floor Conf. Room
Board of Directors Stationary Source Committee <i>(Meets on the 3rd Monday of each Month)</i>	Monday	16	10:30 a.m.	Board Room
Board of Directors Regular Meeting <i>(Meets on the 1st & 3rd Wednesday of each Month)</i> - CANCELLED	Wednesday	18	9:45 a.m.	Board Room
Board of Directors Public Outreach Committee <i>(At the Call of the Chair)</i> - CANCELLED	Thursday	19	9:30 a.m.	4 th Floor Conf. Room
Board of Directors Climate Protection Committee <i>(Meets on the 3rd Thursday every other month)</i> CANCELLED & RESCHEDULED TO THURSDAY, SEPTEMBER 12, 2013 AT 9:30 A.M.	Thursday	19	9:30 a.m.	4 th Floor Conf. Room
Board of Directors Budget & Finance Committee <i>(Meets on the 4th Wednesday of each Month)</i> - CANCELLED AND RESCHEDULED TO MONDAY, SEPTEMBER 9, 2013 AT 11:00 A.M.	Wednesday	25	9:30 a.m.	4 th Floor Conf. Room <u>And via videoconference at Santa Rosa Junior College Doyle Library, Room 4243 1501 Mendocino Avenue Santa Rosa, CA</u>
Board of Directors Mobile Source Committee <i>(Meets on the 4th Thursday of each Month)</i>	Thursday	26	9:30 a.m.	4 th Floor Conf. Room

OCTOBER 2013

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Regular Meeting <i>(Meets on the 1st & 3rd Wednesday of each Month)</i> - CANCELLED	Wednesday	2	9:45 a.m.	Board Room
Advisory Council Regular Meeting <i>(Meets on the 2nd Wednesday of each Month)</i>	Wednesday	9	9:00 a.m.	Board Room

OCTOBER 2013

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Regular Meeting <i>(Meets on the 1st & 3rd Wednesday of each Month)</i>	Wednesday	16	9:45 a.m.	Board Room
Board of Directors Executive Committee <i>(Meets on the 3rd Monday of each Month)</i>	Monday	21	9:30 a.m.	4 th Floor Conf. Room
Board of Directors Stationary Source Committee <i>(Meets on the 3rd Monday of each Month)</i>	Monday	21	10:30 a.m.	Board Room
Board of Directors Budget & Finance Committee <i>(Meets on the 4th Wednesday of each Month)</i>	Wednesday	23	9:30 a.m.	4 th Floor Conf. Room
				<u>And via videoconference at</u> Santa Rosa Junior College Doyle Library, Room 4243 1501 Mendocino Avenue Santa Rosa, CA
Board of Directors Mobile Source Committee <i>(Meets on the 4th Thursday of each Month)</i>	Thursday	24	9:30 a.m.	Board Room
Board of Directors Public Outreach Committee <i>(At the Call of the Chair)</i>	Thursday	31	9:30 a.m.	4 th Floor Conf. Room

NOVEMBER 2013

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Regular Meeting <i>(Meets on the 1st & 3rd Wednesday of each Month)</i>	Wednesday	6	9:45 a.m.	Board Room
Advisory Council Regular Meeting <i>(Meets on the 2nd Wednesday of each Month)</i>	Wednesday	13	9:00 a.m.	Board Room
Board of Directors Executive Committee <i>(Meets on the 3rd Monday of each Month)</i>	Monday	18	9:30 a.m.	4 th Floor Conf. Room
Board of Directors Stationary Source Committee <i>(Meets on the 3rd Monday of each Month)</i>	Monday	18	10:30 a.m.	Board Room
Board of Directors Regular Meeting <i>(Meets on the 1st & 3rd Wednesday of each Month)</i>	Wednesday	20	9:45 a.m.	Board Room
Board of Directors Climate Protection Committee <i>(Meets 3rd Thursday of every other month)</i>	Thursday	21	9:30 a.m.	4 th Floor Conf. Room
Board of Directors Budget & Finance Committee <i>(Meets on the 4th Wednesday of each Month)</i>	Wednesday	27	9:30 a.m.	4 th Floor Conf. Room
				<u>And via videoconference at</u> Santa Rosa Junior College Doyle Library, Room 4243 1501 Mendocino Avenue Santa Rosa, CA
Board of Directors Mobile Source Committee <i>(Meets on the 4th Thursday of each Month)</i>	Thursday	28	9:30 a.m.	Board Room

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson John Gioia and Members
of the Stationary Source Committee

From: Jack P. Broadbent
Executive Officer/Air Pollution Control Officer

Date: August 30, 2013

Re: Approval of the Minutes of May 20, 2013

RECOMMENDED ACTION

Approve attached draft minutes of the Stationary Source Committee meeting of May 20, 2013.

DISCUSSION

Attached for your review and approval are the draft minutes of the Stationary Source Committee meeting on May 20, 2013.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Sean Gallagher
Reviewed by: Rex Sanders

Attachment

Bay Area Air Quality Management District
939 Ellis Street
San Francisco, California 94109
(415) 749-5073

DRAFT MINUTES

Summary of Board of Directors
Stationary Source Committee Meeting
Monday, May 20, 2013

1. Call to Order – Roll Call

Committee Chairperson John Gioia called the meeting to order at 10:33 a.m.

Present: Committee Chairperson John Gioia; and Directors Tom Bates, Carole Groom, Scott Haggerty, Eric Mar, Nate Miley, Mary Piepho and James Sperring.

Absent: Vice Chairperson John Avalos.

Also Present: Board of Directors Chairperson Ash Kalra.

2. Public Comment Period: None.

3. Approval of Minutes of March 18, 2013

Committee Comments: None.

Public Comments: None.

Committee Action: Director Haggerty made a motion to approve the Minutes of March 18, 2013; Director Bates seconded; and the motion carried unanimously.

4. Update on the Development of Regulation 12, Rule 15: Petroleum Refining Emissions Tracking

Jack Broadbent, Executive Officer/Air Pollution Control Officer (APCO), introduced Brian Bateman, Health & Science Officer, who gave the staff presentation Update on Petroleum Refining Emissions Tracking Rule, including a review of the purpose of the proposed rule, descriptions of the proposed rule as it relates to emissions tracking, emissions reductions and air monitoring, a look at baseline and ongoing emissions inventories, a public workshop summary and steps remaining in the rule development process.

Committee Comments:

Committee Chairperson Gioia asked when staff responses to comments received in the public workshops would be available, which question was answered by Mr. Bateman.

Director Piepho noted the Air District is addressing a possible, rather than actual, issue and asked for staff to consider the cost/benefit scale going forward and asked, regarding slide #7, Description of Draft Rule: Air Monitoring, about the composition of the Expert Panel, whose meeting is being scheduled for July 11, 2013, which questions were answered by Mr. Broadbent and Eric Stevenson, Director of Technical Services. Committee Chairperson Gioia, Director Piepho and staff discussed the need for industry representation on the Expert Panel.

Director Piepho asked why this rule is needed now and about the outcome if no rule is put in place at this time, while urging caution to include all stakeholders.

Director Groom said that after the Richmond refinery incident there appeared to be agreement that better monitoring is necessary and efforts should begin immediately in this regard.

Public Comments:

Diane Bailey, Natural Resources Defense Council, addressed the Committee in support of the proposed rule.

Greg Karras, Communities for a Better Environment (CBE), addressed the Committee in support of the proposed rule.

Rhoda Fry addressed the Committee in support of the proposed rule and to encourage an expansion of its application.

Guy Bjerke, Western States Petroleum Association, addressed the Committee neutrally, agreeing that there is a need to improve reporting and monitoring practices but disagreeing with the notion that additional regulations are the proper way to achieve the improvements.

Committee Chairperson Gioia recalled his conversations with industry representatives regarding gaps in the monitoring capabilities of the Air District, noted this rule is an effort at establishing a baseline, and suggested the intent of the rule has been misunderstood.

NOTED PRESENT: Director Mar was noted present at 11:08 a.m.

Mr. Broadbent explained how refineries are currently regulated and monitored by the Air District, as compared with the common practice by other air districts.

Director Spering tied his comments to those of Director Piepho and asked for more information regarding the mechanics of the rule, which was provided by Mr. Broadbent. Director Spering requested a spreadsheet from staff which shows, by category, how refineries are regulated currently and which agency is responsible for each category and another spreadsheet of the same nature, as generated by regulated industry.

Committee Chairperson Gioia noted that the rule is not targeting crude oil slates but instead trying to modify the approach to monitoring because of anticipated changes in slates and that if best safety is the goal and all the involved agencies are regulating different facets of production, then there is a need for a comprehensive view of operations to capture any areas that might be missed.

Committee Action: None; informational only.

5. Update on Regulation 9 Rule 13: Nitrogen Oxides Particulate Matter and Toxic Air Contaminants from Portland Cement Manufacturing

Ms. Roggenkamp introduced Robert Cave, Senior Air Quality Specialist of Planning, Rules & Research, who gave the staff presentation Update on Regulation 9, Rule 13: Nitrogen Oxides, Particulate Matter, and Toxic Air Contaminants from Portland Cement Manufacturing, including background, emissions reductions under regulation, comparison of standards, overview of emissions control and options for further control, estimated costs to meet District and Federal standards, summary of Breathe California study, compliance status report for Lehigh Southwest Cement Company (Lehigh) and conclusion.

Director Miley asked, regarding slide #1, Update on Regulation 9, Rule 13: Nitrogen Oxides, Particulate Matter, and Toxic Air Contaminants from Portland Cement Manufacturing, about the location of the facility, which question was answered by Mr. Cave.

Director Haggerty asked for more information on Portland cement, which was provided by Mr. Cave.

Mr. Cave concluded the presentation.

Public Comments:

Gary Latshaw, Sierra Club, provided written material and addressed the Committee regarding the need for enhanced emissions mitigation equipment and about the measurements provided in the Health Risk Assessment regarding the Lehigh facility.

Tim Brand, Bay Area for Clean Environment, provided written material and addressed the Committee in gratitude for its past regulatory efforts in this area and to request that the Air District impose a requirement for a central emissions stack at the Lehigh facility.

Rhoda Fry addressed the Committee regarding the ability of Lehigh to further mitigate emissions at its facility and to request that the Air District impose a requirement for a central emissions stack at the Lehigh facility.

Bill Almon, Quarry No, addressed the Committee regarding the ongoing concern about particulate matter levels at the Lehigh facility and to note the significant contribution of their diesel truck fleet to the same.

Roger Lin, CBE, addressed the Committee regarding refinery-wide nitrogen oxides limits and in opposition to the draft rule in its current form.

Committee Comments:

Director Piepho requested that staff explore the possibility of a retrofit program for the Lehigh diesel fleet, similar to that done with Port of Oakland trucks.

Board Chairperson Kalra and staff discussed the stack modification plan and related issues at the Lehigh facility. Board Chairperson Kalra requested a staff report detailing how the additional emissions mitigation measures being discussed can be financed and to develop a plan on their implementation, all of which is to be included in the 2014 review that staff was directed to conduct at the time the rule was initially adopted.

Director Piepho asked for further clarification on the past, current and proposed state of the emissions stacks at the Lehigh facility, which information was provided by Messrs. Cave and Broadbent.

Director Groom expressed her support for Board Chairperson Kalra’s request for the development of a plan for future action.

Committee Action: None; informational only.

6. **Committee Member Comments/Other Business:** None.
7. **Time and Place of Next Meeting:** Monday, June 17, 2013, Bay Area Air Quality Management District Headquarters, 939 Ellis Street, San Francisco, California, 94109 at 10:30 a.m.
8. **Adjournment:** The meeting adjourned at 11:59 a.m.

Sean Gallagher
Clerk of the Boards

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson John Gioia and Members
of the Stationary Source Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: September 3, 2013

Re: Proposed Amendments to Regulation 9, Rule 10: NO_x and CO from Boilers, Steam
Generators and Process Heaters in Petroleum Refineries

RECOMMENDED ACTION:

None; receive and file.

BACKGROUND

Regulation 9, Rule 10 (Regulation 9-10) limits nitrogen oxides (NO_x) and carbon monoxide (CO) emissions from boilers, steam generators and process heaters operating in petroleum refineries. This regulation was adopted on September 16, 1992 and last amended on December 15, 2010 to implement Control Measure SSM 10 in the 2010 Clean Air Plan.

Regulation 9, Rule 10 includes a refinery-wide, average NO_x emission limit for most heaters that were permitted prior to 1994, and includes source-specific NO_x limits for the remaining pre-1994 heaters that are classified as CO boilers. These limits have reduced refinery heater NO_x emissions by as much as 26 tons per day, which is the largest NO_x reduction attributable to a single Air District NO_x rule.

During the rule development process that led up to the 2010 amendments, refinery operators and Air District staff discussed possible Regulation 9, Rule 10 amendments that would incentivize replacement of older, less efficient heaters. Replacement of older heaters is desirable because new heaters have significantly lower NO_x emissions than the allowable limit in Regulation 9, Rule 10, as well as better energy efficiency, resulting in lower carbon dioxide (CO₂) emissions. CO₂ reductions will be necessary to meet State AB32 requirements.

Subsequent to the 2010 amendments, Air District staff has been consulting with refinery operators to develop a heater replacement incentive provision. Staff has also proposed amendments to improve the enforceability of the rule and collect information for future rule development. Staff is preparing amendments for a public hearing.

DISCUSSION

Staff will provide the Committee with the following information:

- A description of affected equipment and their emissions;
- Background on current rule requirements;
- Proposed amendments to Regulation 9, Rule 10;
- Rule development process to date; and
- Remaining steps to a public hearing.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Julian Elliot
Reviewed by: Henry Hilken

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson John Gioia and Members
of the Stationary Source Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: September 3, 2013

Re: Overview of Energy Issues

RECOMMENDED ACTION

None; receive and file.

BACKGROUND

On August 7, 2013, the Board of Directors considered and adopted a resolution in opposition to the issuance of a Presidential Permit for the Keystone XL pipeline project. This pipeline would be used to transport “oil sands” produced in the northeastern portion of the Province of Alberta, Canada, as well as crude oil produced in Montana and North Dakota, to a terminal in Nebraska that would allow for transport in other pipelines to refineries in the Gulf Coast area. The adopted resolution indicated that denying a permit for the project would take a positive stand for addressing climate change concerns and avoid public health impacts associated with increased refining of oil sands.

Discussions that occurred in consideration of this resolution led staff to conclude that additional background information would be beneficial in future policy considerations related to the production and use of energy. At the Stationary Source Committee meeting on September 16, 2013, staff will provide an overview of energy issues, including energy production and use with trends and projections (with an air pollution focus on carbon dioxide (CO₂) emissions that contribute to climate change). Information will be summarized on a worldwide basis, for the United States, for California, and for the Bay Area.

DISCUSSION

At the heart of modern society is an economy driven by energy use. Current worldwide energy consumption is about 10 times higher than it was 100 years ago, due both to population expansion and significant growth in per capita energy use. The rise in energy consumption is primarily from increased use of fossil fuels. Coal supplanted wood as the world’s largest energy source before the end of the 19th century, and the use of oil and natural gas increased dramatically after World War II. Currently, fossil fuels provide an estimated 83 percent of worldwide energy use.

The production, distribution, and use of fossil fuels accounts for the majority of many types of air pollutant emissions. Despite the significant increase in fossil fuel use that has occurred over time, air pollution control programs in the United States (and in many other developed countries) have made substantial improvements in air quality in terms of the pollutants that are regulated to protect public health (i.e., criteria pollutants and toxic air contaminants). Most of this progress can be attributed to the use of air pollution control methods that have become progressively more effective in reducing emissions due to technological improvements.

This is not the case for CO₂, the primary greenhouse gas responsible for climate change, which has much more recently become a subject of concern, and for which cost-effective “add-on” control technologies generally have not yet been developed. Strategies for reducing CO₂ emissions generally focus on “pollution prevention” measures that involve reducing the consumption of fossil fuels through energy conservation and efficiency measures, switching to fossil fuels with lower carbon intensities (e.g., natural gas rather than coal), or switching to alternative energy sources (e.g., renewables).

Over the last 30 years, growth in worldwide energy use (and CO₂ emissions) has been most significant in developing countries driven by strong economic growth and expanding populations. For example, energy use in China increased by more than 500% since 1980, while energy use in the United States increased by about 20% over this same time period. (China is now the world’s largest energy consuming country, with 70% of that nation’s energy use coming from coal use). The industrial sector is the largest consumer of energy on a worldwide basis (52% of total energy use), and the transportation sector is the second largest (26% of total energy use). Over the next 30 years, world energy consumption is projected to increase by over 50% from current levels (based on a “business-as usual” scenario that assumes existing laws, regulations and policies that affect energy use stay in effect). About 85% of this projected increase in worldwide energy use is expected to occur in developing countries.

In the United States, energy use is expected to increase by less than 10% over the next 30 years, and CO₂ emissions are expected to decrease (based on a “business-as usual” scenario), despite an expected population increase of over 25%. The U.S. has seen an improvement (decline) in per capita energy use since about the year 2000, and this trend is expected to continue throughout the projection period. The decline in energy use per capita is brought about largely by gains in vehicle and appliance efficiency standards. Currently, the industrial sector is the U.S.’s largest consumer of energy (31% of total energy use), but this is followed closely by the transportation sector (28% of total energy use).

Developments in non-conventional oil and gas production (and in particular the use of horizontal drilling and hydraulic fracturing technologies in shale formations) have begun to have a significant effect on energy production in the United States (and some other countries). From 2008 to 2012, crude oil production in the U.S. increased by 30%, and natural gas production increased by 20%. Further production increases are expected, particularly for natural gas for which production is expected to increase by over 50% from current levels over the next 30 years.

In California, per capita energy consumption is one-third lower than the U.S. average, due in part to climate and demographic factors, but also because of strong energy efficiency programs for

appliances and buildings. The transportation sector is California's largest consumer of energy (38% of total energy use), followed by the industrial, commercial and residential sectors (23%, 20%, and 19% of total energy use, respectively). Petroleum (used mostly in the transportation sector) is California's largest energy source (61% of total energy use), and although most crude oil used in the State is imported, about 38% is produced from in-state oil wells. California crude oil production has been gradually declining since about 1985, but there has been growing interest in development of the extensive shale oil resources in the Monterey Formation, and some exploration activities are underway.

The Global Warming Solutions Act of 2006 (AB 32) has a goal of reducing CO₂ (and other GHG) emissions in California back to 1990 levels by 2020. Meeting this goal will likely put California well ahead of the rest of the country in terms of reducing energy-related CO₂ emissions (energy-related CO₂ emissions in the U.S. are projected to be about 8% higher than 1990 levels by 2020, assuming existing laws, regulations and policies continue to be in effect).

In the Bay Area, five counties have oil or gas production wells. Natural gas production is most significant, with output (primarily from the Rio Vista gas field) representing about 3% of the State's total production in 2011. Renewable energy has been growing rapidly in the Bay Area, and renewable energy production now collectively exceeds energy produced from Bay Area oil and gas wells. This includes wind energy (most notably from the Altamont Pass Wind Farm and, more recently, the Shiloh Wind Power Plant in Solano County), solar energy, and biofuels energy (e.g., landfill gas-to-energy). (Significant geothermal energy is also produced in northern Sonoma County, but this is outside of BAAQMD jurisdiction).

Electrical generation from the use of fossil fuels in the Bay Area has been evolving over the last several decades. First, all of these power plants (other than one peaking plant in Oakland that is rarely used) now use natural gas exclusively. Second, with the exception of one remaining facility in Pittsburg, the older boiler-based power plants in the Bay Area have been shut-down. Five smaller petroleum-coke fueled power plants in Contra Costa County have also recently been shut down. The lost electrical generating capacity resulting from the shut-down of older plants has largely been replaced with the addition of new, more energy efficient, turbine-based power plants that can more quickly be dispatched based on changing power needs. In addition, the Bay Area has also seen the addition of many smaller "distributed energy" plants that provide on-site power without electrical transmission system energy losses.

Bay Area refineries produce transportation fuels, lubricating oil, petrochemical feed stocks, asphalt, and other petroleum-based products, and in doing so are also major energy users. Nearly all of the fuel used at these refineries is natural gas or refinery gas (a mixture of gases generated during the refining process). The energy-related CO₂ emissions from the five Bay Area refineries, along with energy-related CO₂ emissions from other Bay Area industries including fossil-fueled power plants, result in the industrial sector being a somewhat larger source of CO₂ emissions than the transportation sector in the Bay Area.

Refineries periodically make changes to their facilities for various purposes including modernizing operations, adapting to changing business conditions, and complying with changing regulatory requirements including more stringent fuel standards. The Air District evaluates the

air quality impacts of changes at refineries that involve new or modified equipment through pre-construction permit review, and is developing a new Petroleum Refining Emissions Tracking rule to provide further regulatory mechanisms for ensuring that any significant emissions increases are properly mitigated.

BUDGET CONSIDERATIONS/FINANCIAL IMPACT

None.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Brian Bateman
Reviewed by: Jean Roggenkamp

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson John Gioia and Members
of the Stationary Source Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: September 16, 2013

Re: Report on the Compliance Assurance Program's Rule Effectiveness Studies

RECOMMENDED ACTION

None; receive and file.

BACKGROUND

The Compliance and Enforcement Division is comprised of three programs: Enforcement, Compliance Assistance and Operations, and Compliance Assurance. The Enforcement Program consists of activities designed to respond when non-compliance is discovered. The Compliance Assistance and Operations Program provide industry, the public and staff with tools to promote awareness and compliance with air quality requirements. The Compliance Assurance Program consists of programs to ensure facilities operate and maintain compliance.

As part of the Compliance Assurance Program, staff conducts rule effectiveness studies to determine the effectiveness of new or existing rules and regulations, to ascertain the compliance rate of sources, to ensure emission reductions are achieved and to provide consistent understanding of District Rules and Regulations for industry.

DISCUSSION

In this report, staff will provide the Committee with an overview of the Compliance and Enforcement Division's Compliance Assurance Program highlighting two recent Rule Effectiveness Studies.

BUDGET CONSIDERATIONS/FINANCIAL IMPACT

None.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Wayne Kino
Reviewed by: Jeffrey McKay