

Bay Area Air Quality Management District  
939 Ellis Street  
San Francisco, CA 94109

Board of Directors Regular Meeting  
Wednesday, December 7, 2011  
9:45 a.m.

## **APPROVED MINUTES**

**CALL TO ORDER:** Chairperson Tom Bates called the Regular Meeting to order at 9:45 a.m.

**Pledge of Allegiance:** Director Brad Wagenknecht led the Pledge of Allegiance.

### **Roll Call:**

**Present:** Chairperson Tom Bates; Vice Chair John Gioia; and Directors Susan Gorin, Carole Groom, Scott Haggerty, Jennifer Hosterman, David Hudson, Carol Klatt, Nate Miley, Mark Ross, James Spering, Gayle B. Uilkema, Wagenknecht and Shirlee Zane. Vice Chair Ash Kalra; and Directors John Avalos, Susan Garner, Eric Mar, Liz Kniss and Ken Yeager arrived after the roll call.

**Absent:** Director Johanna Partin.

**PUBLIC COMMENT ON NON-AGENDA MATTERS:** Chairperson Bates opened the public comment period and the following individuals provided public comments regarding cogeneration unit installation at the Rosa Parks Apartments and public comment period:

Bradley Angel, Greenaction  
Deetje Boler

Jean Roggenkamp, Deputy Air Pollution Control Officer, stated there is a permit application for a cogeneration facility located at the Rosa Parks Apartments and that it is currently open for public comment. Ms. Roggenkamp stated that the public comment period closes on December 16, 2011, as originally noticed, and no decision has been made on the permit. She clarified that the Executive Officer/APCO decides when to issue a permit not the permit evaluator.

Chairperson Bates closed the public comment period at 10:00 a.m.

### **PROCLAMATION(S)/AWARDS**

*The Board of Directors recognized employees who have completed milestones of twenty-five (25), thirty (30), and thirty-five (35) years of service with the Air District during this second half of the calendar year.*

**CONSENT CALENDAR (Items 1-7):**

Chair Bates pulled Consent Calendar item number 7 for discussion after the Mobile Source Committee report.

1. Minutes of the November 16, 2011 Meeting.
2. Board Communications Received from November 16, 2011 through December 6, 2011.
3. Air District Personnel on Out-of-State Business Travel.
4. Proposed Regulatory Agenda for 2012.
5. Consideration of Authorization for Execution of Purchase Order in Excess of \$70,000 Pursuant to Administrative Code Division II Fiscal Policies and Procedures Section 4.3 Contract Limitations.
6. Adoption of Proposed Amendments to the Air District's Administrative Code Division II Fiscal Policies and Procedures – Section 4.4 Contracts with Minority Business Enterprises and Women's Enterprises and Section 4.6 Contracts.
7. Contractor Selection for the Port Drayage Truck Replacement Program.

**Board Action:** Director Wagenknecht made a motion to approve the modified Consent Calendar Items 1 through 6; Director Spring seconded the motion; which carried unanimously without objection.

**COMMITTEE REPORTS AND RECOMMENDATIONS**

**8. Report of the Mobile Source Meeting of November 28, 2011**  
**Chair: Scott Haggerty**

Director Haggerty reported that the Mobile Source Committee met on November 28, 2011 and approved the minutes of October 27, 2011.

The Committee received an update on 4 off-road equipment projects with proposed grant awards over \$100,000 and recommends the following:

Approve Carl Moyer Program projects with proposed grant awards over \$100,000; and authorize the Executive Officer/APCO to enter into agreements for the recommended Carl Moyer Program projects.

The Committee then received a report on the Fiscal Year Ending 2011 Transportation Fund for Clean Air Regional Fund Expenditures and Effectiveness. The Committee recommends the Board receive and file this report.

The Committee also received an update on a proposed Port Drayage Truck Replacement Program for Engine Model Year 2004 trucks and recommends the Board approve the following:

- The addition of Policy #32 to the FYE 2012 TFCA Regional Fund Policies to allow the replacement of model year 2004 drayage trucks as an eligible project type;
- The expenditure of \$1.04 million in TFCA Regional Fund monies to execute a program to replace model year 2004 port drayage trucks registered in the Bay Area;
- The Executive Officer/APCO to enter into all contracts and make all expenditures necessary to allocate the TFCA Regional Fund monies to eligible projects;
- Allow the Congestion Management Agencies to contribute their TFCA County Program Manager funds to the Air District's program to replace model year 2004 drayage trucks under Policy #3 of the current TFCA Program Manager Fund Policies; and
- The Executive Officer/APCO to accept and allocate funding from additional sources for the model year 2004 Drayage Truck Replacement Program.

The next meeting of the Mobile Source Committee will be at the call of the Chair.

**Board Action:** Director Haggerty made a motion to approve the report and recommendations of the Mobile Source Committee; Director Wagenknecht seconded the motion; which carried unanimously without objection.

Chair Bates said there was a lengthy discussion regarding whether the county Congestion Management Agencies (CMA) would contribute to this fund, and at this time no one has come forward. He also stated the recommendation is an appropriate one, given the circumstances.

Director Hudson stated he has spoken with his local CMA, and has a meeting scheduled to discuss this matter in detail.

**CONSENT CALENDAR (Item 7):**

7. Contractor Selection for the Port Drayage Truck Replacement Program.

**Board Action:** Director Wagenknecht made a motion to approve the Consent Calendar Item 7; Director Ross seconded the motion; which carried unanimously without objection.

**PRESENTATION**

**9. Continuation of the Overview of the Air District's Permit and Enforcement and Programs.**

Brian Bateman, Director of Compliance and Enforcement, provided the Board with an overview of the Air District's Permit and Enforcement programs. Mr. Bateman said on October 5, 2011 the following information was covered:

- Background
- Air quality permits
  - Authorities to Construct / Permits to Operate
  - Prevention of Significant Deterioration (PSD) permits
  - Title V permits
  - Equipment registrations

- Air Toxics Hot Spots Program
- Compliance Assistance Program

Mr. Bateman stated he would provide information on the various enforcement programs. Those programs include:

1. Inspection program
  - a. Complaint response
  - b. Incident response
2. Legal handling of violations
3. Hearing Board proceedings
4. Wood smoke program (covered at last Board meeting)
5. Open Burning program
6. Asbestos program
7. Mobile source enforcement program

Mr. Bateman said the inspection program is the core of the Air District's enforcement efforts. This includes 65 inspectors in the field with 17,000 individual sources of air pollution were inspected for compliance. Inspectors cover a specific geographic area with inspection lists of the facilities in the areas.

The inspection program includes:

- Compliance inspections
  - Area inspectors
  - Dedicated inspection groups
    - Gasoline Dispensing Facilities
- Investigations
  - Reportable compliance activities
  - Title V deviations
  - Complaint and incident response
- Enforcement actions
  - Notice to Comply (NTC), Notice of Violation (NOV)
- Inspector training

Mr. Bateman also said the Air District is unique as it has five large petroleum refineries in the Bay Area which include Chevron, Conoco-Phillips, Shell, Tesoro, and Valero. Mr. Bateman said inspectors are at these facilities on a full-time basis. In addition, rule audits are conducted with focus on a specific type of source. In addition, he said the Flare Minimization Program consists of the Board of Directors adoption of two Air District rules Regulation 12, Rules 11 and 12 which are for reporting of flaring events, and emissions associated with them. In addition reducing their flaring and minimize their flaring thru a process which involves Flare Minimization Plans (FMPs).

Benefits of this include reduction in flaring activity from all refineries, as the FMPs are a unique approach, and the FMPs are addressing the unique aspect of each facility in terms of flaring. It is also

a continuous improvement process and need to be updated annually. All significant flaring events are reported to the Air District, along with the reports of the emissions an explanation is required of what caused the flaring such as a casual report.

Mr. Bateman stated the Air District received over 2000 general complaints in 2010. Mr. Bateman said inspectors are out and responding in a timely manner. In addition, the Air District provides translation services to accommodate non-English languages.

He said after tickets are issued the following may occur:

- Civil penalties after source has returned to compliance
  - Settlement
  - Litigation
    - Small Claims Court
    - Superior Court
- Continuing non-compliance
  - Compliance Agreement
  - Abatement Order
  - Injunction

Mr. Bateman continued his presentation and provided a summary on Hearing Board Proceedings that include:

- Permit appeals
  - By permit holder
  - By third party
- Variances
- Abatement orders
- Permit revocations

He also provided a summary on the Open Burning Program which includes:

- Open burning is prohibited with some exceptions
  - Fire training
  - Agricultural burning
  - Range, forest, marsh, and wildlife vegetation management
- Requirements
  - Permissive burn days only
  - Prior notification
  - Acreage burning allocations
  - Smoke Management Plans

Mr. Bateman provided an overview of the Asbestos Program, and explained that it was widely used in many building materials between 1940 to 1980. The Air District has a rule that when buildings or other structures are demolished or renovated to try and minimize the emissions of asbestos into the air. Common examples of the types of materials are insulation on pipes, ceiling and floor tiles, wall board materials and roofing materials could have asbestos.

In addition the Asbestos Program includes Naturally-Occurring Asbestos (NOA). NOA covers the following:

- State Airborne Toxic Control Measure (ATCM) regulates NOA emissions from construction, grading, quarrying and surface mining sites that have NOA in soils or rock
- Requires Asbestos Dust Mitigation Plans (ADMPs) (~ 10 ADMPs submitted per yr.)

Mr. Bateman concluded his presentation with an overview of the Mobile Source Enforcement Program. The following information was provided.

- District has had a comprehensive Mobile Source Enforcement Program since 2009
  - Focuses on reducing diesel particulate matter emissions in CARE priority communities
  - CARB / BAAQMD Mobile Source Enforcement MOU
- Trucks: Drayage Truck Regulation, Commercial Vehicle Idling ATCM, Port Truck Terminal Idling requirements (AB 2650)
- Ships & Boats: Ocean-Going Vessel (OGV) – Fuel Sulfur, Ship Onboard Incineration, Commercial Harbor Craft
- Mobile Equipment: Portable Equipment Registration Program, Transport Refrigeration Units, Off-Road Construction Equipment, Mobile Cargo Handling Equipment
- Rail yards: Statewide MOU and BAAQMD Protocol

**Public Comments**: None.

**Board Member Comments**:

Director Hosterman thanked Mr. Bateman for his presentation. She asked about the quarries located between Pleasanton and Livermore and if there is measurable NOA as a result of their activity and the impact it has on the population in the valley. Mr. Bateman said there are pockets of serpentine materials in Alameda County but he is not aware of any quarry sites located in the area that are required to be covered by the ADMP.

Director Gorin said Santa Rosa and Sonoma County have buildings that may have asbestos. She wondered how many contractors are aware of the Asbestos Program, and if the program is an opt-in program. Mr. Bateman said asbestos abatement is an esoteric part of the contracting business, which requires specialized contractors that are needed to complete this type of work.

Director Mar asked what lessons the Air District has learned from the Lennar development. Mr. Bateman said the Air District has learned it is important to have a presence frequently to check the sites.

Director Zane asked hypothetically if a citizen requested to view an asbestos reading on a particular project or site, could this information be accessed via the Air District's website. Mr. Bateman said data is available. Mr. Bateman also said the Air District has prepared fact sheets for any given site or area that summarizes the compliance history and the results of the air monitoring data in total after the health risks have been calculated. The fact sheets have been presented to the Stationary Source Committee and are on the website.

Director Yeager said the relationship between CARB and the Air District must continue to improve, especially regarding AB 32 and SB 375. Mr. Bateman said the relationship has evolved. He believes that as CARB continues to adopt various rules where they see the need for a local enforcement presence, they will begin to better understand that the regional Air Districts have more resources for those types of things.

Chair Bates thanked Mr. Bateman for his presentation and found it to be quite helpful for the Board.

### 10. Advisory Council Report and Recommendations on Ultrafine Particles

Ken Blonski, Advisory Council Chairperson introduced and provided background of the three Advisory Council members who gave the presentation: Sam Altshuler, P.E., Dottie Vera-Weis, MD, MPH and Liza Lutzker, MPH.

Mr. Blonski also thanked staff for their support during this exploration of Ultrafine Particulate Matter (UFP).

Mr. Altshuler stated the roster of experts presenting to the Advisory Council included:

- Melanie Marty, PhD (AAQS overview)
- Susanne Hering, PhD (measurements)
- John Froines, PhD (health effects)
- Barbara Zielinska, PhD (mobile source emissions)
- Anthony Wexler, PhD (exposure and health impacts)
- Alberto Ayala, PhD (emissions and ARB research)
- Michael Kleinman, PhD (neurological and cardiopulmonary health impacts)

History of PM sizing and interest include:

Date	Measure	Diameter	Standard Exists
1950s	British Smoke Measurement	--	--
1960s	Total Suspended Particulate (TSP)	<50 µm (barely visible)	--
1986	PM10	<10 µm	YES
1997	PM2.5	<2.5 µm	YES
2000s	Ultrafine Particulate (UFP)	<0.1 µm	NO

He continued saying the nature of PM includes:

- Includes a variety of components with variable characteristics, such as black carbon (a contributor to climate change), mixtures of hydrocarbons, metals, and vapors
  - In contrast, other criteria air pollutants are homogenous: ozone, CO, NO<sub>2</sub>, SO<sub>2</sub>
- Many different sizes and shapes; acid or base
- Particles change size, shape, and state in the atmosphere (generally combining into larger particles)
- UFP has much higher surface area per weight than either PM<sub>2.5</sub> or PM<sub>10</sub>
- Source of nearly all UFP: combustion
  - Motor vehicle, train & ship engines; boilers; furnaces; water heaters; wood stoves & fireplaces; fireworks; cigarettes; etc.

Mr. Altshuler said one of the major sources of combustion is vehicle engines, as this often occurs near roadways. He also provided summary of the measurement of PM.

Ms. Vera Weis provided an overview of the health effects of UFP which include:

- Likely more potent in causing health effects than are larger PM
  - Smaller size: UFP travels deeper into the lungs, and easily enters cells and cellular components
  - Higher surface area: UFP carries many (possibly toxic) compounds into the lungs on its surface
- Causes acute and chronic health effects
- UFP reaches:
  - respiratory tract (via inhalation)
  - liver and heart (via blood)
  - brain (via olfactory nerve)

In addition, specific health effects may include:

- premature death
- respiratory disease, including asthma
- lung and other cancers
- cardiovascular disease
- adverse birth outcomes
- effects on the immune system
- neurotoxicity
  
- Not all UFP are created equal: health effects vary with composition (i.e., number is not all that matters)

Ms. Lutzker said this information will distill some of the emerging issues identified by the Advisory Council. The health effects are related to where the UFPs are coming from and their chemical characterization. She said unfortunately real time measurements are not possible and the ones that are possible are expensive.



In addition, UFP health effects fall off at about 100 meters from freeways. Other emerging issues include:

- Poor correlation between UFP number and PM 2.5 mass concentrations
- UFP can be emitted from engines as a result of engine lubricating-oil consumption and combustion
- High emitter (gross polluter) vehicles may contribute disproportionately to UFP emissions
- Indoor exposure to UFP can be equal to or greater than outdoor exposure to UFP

The Council Members concluded their presentation with the following recommendations:

#### Measurements

- Develop an UFP ambient monitoring strategy that considers number counts, size, and composition of the UFP; pay particular attention semi-volatile organics, metals, and toxins (PAHs)
- Perform short term, intensive studies as necessary, to identify hot spots for UFP, including highly impacted communities.
- Integrate UFP monitoring with EPA required ambient NO2 monitoring.

#### Emissions

- Develop a UFP emissions inventory (composition and number) for the Bay Area.
- Work with Bureau of Automotive Repair to:
  - modify the SMOG check program to identify vehicles that are lube oil burners (for repair or removal).
  - develop recommendations on how to reduce UFP emissions from lube oil (change interval, oil type...)
- Continue to promote the removal, replacement, or retrofit of high UFP emitting vehicles (diesel and gasoline).

#### Health

- Monitor and support ongoing health effects research related to UFP, paying particular attention to cardio-vascular, pulmonary, and neurological impacts, as well as cancer.
- Collaborate with the SCAQMD, ARB, and EPA in evaluating health effects from exposure to UFP and in disseminating the information to the public.
- Encourage health-effects research aimed at understanding the adverse health impacts of UFP exposure on sensitive populations, such as children, the elderly, and others with pre-existing medical conditions.

#### Policy

- Integrate UFP considerations into the PM2.5 reduction strategies planning process.
- Collaborate with ABAG and MTC to educate the public about the sources and hazards of UFP.
- Continue to promote the reduction of vehicle miles traveled within the Bay Area and the electrification (via batteries and hybrids) of the fleet.
- Monitor the Europeans in their approach to UFP standard settings.
- Collaborate with cities and counties to include UFP in developing Community Risk Reduction Plans.

## Education

- Educate decision makers about the hazards of UFP exposure to sensitive populations residing, recreating, and working near roadways (within 100 meters); important for schools, care centers for the young and old, and athletic fields in both existing and future facilities.
- Advise the public about exposure to UFP while driving, particularly in roadway tunnels, and the importance of vehicle cab air filters.
- Educate the public about indoor exposure.

## Staffing

- In considering these issues, the Air District would greatly benefit from the expertise of a Health Effects Officer, and hiring for this position should be raised in priority.

Chair Bates thanked the Advisory Council Members for their presentation and asked about their next steps. Ms. Roggenkamp said the Advisory Council has done an excellent job on all different aspects of UFP. Ms. Roggenkamp said the Air District does plan to recommend to the Advisory Council that they continue their focus on UFP because it is an emerging field. She said in terms of the Advisory Council's recommendations, staff is moving forward with an expenditure item for purchasing UFP counters. In addition, the Air District is in the midst of developing an emissions inventory for UFP.

In addition, Ms. Roggenkamp said the Air District will be considering UFP in the PM strategy that the Air District is developing. Ms. Roggenkamp also said the recommendation of a Health Effects Officer must be balanced with other staffing needs.

**Public Comments:** None.

## **Board Member Comments:**

Director Kniss suggested the Air District prioritize hiring a Health Effects Officer.

Director Kalra also agreed, and said the sooner the Air District fills the position, the better. Director Kalra asked for further clarification of old lube oil burner for vehicles, and wanted to know in terms what model year. Mr. Altshuler said oil consumption goes more with wear and how the vehicle is maintained.

Director Garner thanked the Council for their presentation and asked if South Coast shares their research information with other Air Districts. Ms. Roggenkamp said that South Coast's Health Officer has come to the Air District in the past. A Health Effects Officer takes research and translates it to help with policy development, approaches and communication with the public.

Director Zane supports making the Health Effects Officer position a priority.

## **PUBLIC COMMENT ON NON-AGENDA MATTERS**

None.

## OTHER BUSINESS

11. Report of the Executive Officer/APCO – Ms. Roggenkamp stated the Air District called its first Winter Spare the Air Alert, which started at midnight December 6, 2011 and will end at midnight December 7, 2011. On December 6, 2011 there was an exceedance. She continued saying the Air District is trying something new, recommending people do not burn as we see build up approach over a several day span.

Directors Ross and Kalra thanked staff for their excellent work.

12. Chairperson's Report – There will be a Special Board of Directors meeting on December 14, 2011 beginning at 10:30 a.m.
13. Date and Place of Next Meeting – Wednesday, December 14, 2011, at 939 Ellis Street, San Francisco, CA 94109, at 10:30 a.m.
14. Adjournment – Chair Bates adjourned the meeting at 11:30 a.m.

*IS/ Vanessa Johnson*

Vanessa Johnson  
Executive Secretary II