AGENDA: 3

Bay Area Air Quality Management District
939 Ellis Street
San Francisco, California 94109
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APPROVED MINUTES

Summary of Board of Directors
Stationary Source Committee Meeting
Thursday, May 5, 2011
9:30 a.m.

1. Call to Order: Chairperson Gayle B. Uilkema called the meeting to order at 9:30 a.m.

Roll Call**:** Present: Chairperson Gayle B. Uilkema, Vice Chairperson John Gioia, Directors David Hudson, Carol Klatt, Johanna Partin and Jim Spering. Directors John Avalos, Susan Garner and Eric Mar arrived after the roll call.

Absent: None

Also Present: Board Chairperson Tom Bates

2. Public Comment Period: Chair Uilkema opened the Public Comment Period, and seeing no one come forward, she closed the comment period.

3. Approval of Minutes of March 3, 2011

Committee Action: Director Klatt moved to approve the minutes of March 3, 2011. The motion was seconded by Director Hudson and carried unanimously without opposition.

4. Status Report on Greenhouse Gas Tailoring

Brian Bateman, Director of Engineering, presented the staff report. In April 2, 2007, the Supreme Court ruled on Massachusetts v. United States Environmental Protection Agency (EPA), which states that greenhouse gases (GHG) are air pollutants, and the EPA may regulate their emission. EPA must determine whether or not emissions of GHGs cause, or contribute to, air pollution which may endanger public health or welfare. On December 15, 2009 the EPA issued "endangerment" and "cause or contribute" findings. On April 1, 2010, the first EPA rule established emission standards for GHGs for 2012 to 2016 model year light duty vehicles. January 2, 2011 is the first day that 2012 model year vehicles may legally be sold in the United States and GHGs became "regulated air pollutants" under the Clean Air Act.

The Clean Air Act has permit programs for facilities that are "major sources" of regulated air pollutants.

There are two types of permits:

1) Prevention of Significant Deterioration (PSD) permits: which are preconstruction permits, that are determined on a case-by-case basis of Best Available Control Technology

(BACT), air quality impact analysis and additional impacts analysis (visibility, soils, and vegetation); and

2) Title V permits: these are operating permits that identify applicable emission standards and compliance provisions for a facility; they require semi-annual monitoring and compliance reports, in addition to public notification and public comments.

The Clean Air Act defines a major source as a facility with the potential to emit more than 100 tons per year of any regulated air pollutant.

For PSD permits, the threshold is 250 tons per year for certain facility types. For hazardous air pollutants (HAPs), the major source thresholds are 10 tons per year of any single HAP, or 25 tons per year of a combination of HAPs. Major sources include power plants and larger manufacturing plants (e.g., petroleum products, chemicals, cement, glass, steel, motor vehicles).

There was a need for tailoring this rule. Many small facilities, such as schools, hospitals restaurants and small farms, emit GHGs above the Clean Air Act major source thresholds.

The estimated number of permits required nationally would be increased over 140 times for PSD permits and over 500 times for Title V permits. The new "tailoring rule" from EPA now redefines a "major source" of GHGs using more appropriate emissions thresholds than the Clean Air Act thresholds.

The tailoring rule was adopted by EPA on May 13, 2010 and states that a facility is defined as a major source of GHGs if it has the potential to emit more than 100,000 tons per year (CO_2 equivalents).

For PSD, a major modification is a project that increases GHGs by more than 75,000 tons per year. This would include power plants, refineries, chemical plants and landfills.

On March 20, 2011, the EPA announced that it is deferring GHG permitting requirements for carbon dioxide (CO2) emissions from biomass combustion and decomposition of biologically-based material typically found in wastewater treatment, landfills, biomass-to-energy and livestock management.

The Air District requires no immediate changes needed to implement the tailoring rule. Mr. Bateman confirmed that there would be notification to landfills.

A three step phase-in program was established:

- Step 1: January 2, 2011, for sources currently subject to PSD or Title V permit programs (based on emissions other than GHGs)
- Step 2: July 1, 2011, for sources not currently subject to PSD or Title V permit programs but which exceed the new GHG thresholds
- Step 3: April 30, 2016, for smaller facilities based on an EPA rulemaking to be finalized in 2015

To date, the Air District has received two permit applications that may require PSD permits based on GHGs.

43 existing facilities have been identified that may require Title V permits due to GHG emissions. These facilities were notified in December 2010. The five GWF Power Plants will

require Title V permits. 8 of the 43 facilities have since been determined to be non-major based on refined potential-to-emit determinations. The remaining 30 facilities will likely need synthetic minor operation permits (SMOPS), which will limit a facility's potential-to-emit to stay below the major source thresholds.

Many lawsuits have been filed over the tailoring rule. The Obama Administration and many lawmakers have indicated their preference for regulating GHGs through enabling climate change legislation. All major proposed climate protection bills have included preemption on regulation of GHGs under the Clean Air Act.

EPA has begun development of New Source Performance Standards (NSPS) for GHGs which will go into effect by November 10, 2012 for petroleum refineries; and by May 26, 2012 for power plants. EPA will also issue emission guidelines for existing power plants.

Committee Comments:

Vice Chair Gioia asked about the chart on slide 5 of the presentation, confirming that it represented national numbers of PSD and Title V permits. The tailoring rule has a different standard; is it known how many additional permits will be required nationally with the tailoring rule in effect?

Mr. Bateman responded that there could be an additional 200 to 300 PSD permits, and an additional 5,000 – 10,000 Title V permits, per year, nationally. Most climate bills have preemption, although none have been approved yet. Other states are refining their estimates. Cap and trade is the most likely outcome.

Vice Chair Gioia asked about the nature of the lawsuits filed against the tailoring rule.

District Counsel Brian Bunger stated that there are approximately 85 separate petitions; filed by industry, regional government, states, and environmental groups. The suits span the entire range of possibilities, and they challenge every element of the rule. There was an effort to have the tailoring rule stayed, but it was rejected by the court.

Director Partin asked how the rules will effect biogas facilities and co-generation facilities and what amount of discretion does the Air District have regarding this?

Mr. Bateman said the portion of biogas operations that was biogenic would not be considered under this rule. Any combustion of fossil fuels would be measured. In the Bay Area these types of emissions would be considered biogenic C02 and exempt from the rule: landfill gas, sewage treatment gas, agriculture waste gas, ethanol derived from natural sources, and portions of biodiesel fuels. EPA has requirements, and they issue guidelines. We act on behalf of EPA and consult with them regarding rule interpretation.

Director Hudson confirmed that the Air District doesn't have to make many changes. He also stated concerns about tailoring, enabling legislation, and changes that could come in from the federal level and change what we are doing. Renewable energy companies are growing; we need to design rules that do not make it harder for them.

Mr. Bateman said that the biogenic carbon dioxide deferral will promote renewable energy projects, because they are not subject to these requirements. Some projects have other subsidies.

Director Hudson requested that this item be referred to the Climate Protection Committee, and Chair Uilkema agreed.

Committee Action: No action, informational item only.

5. Status Report on Proposed Bay Area Power Plants

Mr. Bateman presented the staff report to the Committee. A chart showing 30 years of energy consumption in California, noted a recent dip for the recession, but a continual upward trend. The increase is from population growth. California's per capita consumption has remained steady while the nation's rate increased.

In 2009 renewable energy sources provided almost 12% of the electricity. Large hydro facilities (over 30 megawatts and above) provided an additional 9.2%

California's Renewable Portfolio Standard (RPS) requires utilities and electric service providers to increase procurement of renewable energy sources to reach 20% by 2010 and 33% by 2020 (SBX1 2, Signed by the Governor April 12, 2011).

Renewables include geothermal, wind, biomass, biogas (e.g., landfill and digester gas), small hydroelectric, solar, fuel cells (using renewable fuels) and tidal current / ocean wave technology.

A survey of Bay Area power plants, in the nine-county area, that have a peak output of 0.1-megawatt (MW) or more are shown in chart below:

Type	Number	MW online	Percent of total MW
Fossil fuel	59	10,008	83.2%
Geothermal	11	1,160	9.6%
Wind	25	800	6.6%
Waste-to-energy	16	52	0.4%
Hydroelectric	3	16	0.1%
Total	114	12,036	100%

In addition to these there are thousands of smaller "distributed energy" plants, all over the Air District, including reciprocating engine, micro-turbine, photovoltaic, and fuel cell. A lot of these are small co-generation facilities that service individual buildings of groups of buildings.

Chair Bates asked if the Air District looked at the environmental impacts of waste to energy projects. Mr. Bateman responded that this is considered to be biomass and is renewable. The plants in the Bay Area in this category are subject to Air District rules and regulations, and go through the review process. Most of these are newer plants. They are regulated.

There are ten large solar projects that have been fully permitted by The California Energy Commission (CEC). All are in the south east desert areas. There are two more big solar projects under review.

Chair Bates asked about the 33% threshold, and if it took into account energy conservation. Mr. Bateman responded that 33% of the energy that the utility delivers needs to be renewable, lower consumption would lower the total amount.

Director Spering asked whether the 33% of renewables represented energy produced in State or used in the State. Mr. Bateman said it is energy that is used in California.

Mr. Bateman noted that one of the Bay Area's fossil fuel plants, the Potrero Power Plant, a utility boiler plant, has recently shut down.

The process for reviewing and approving power plant permits in California is different than for other sources and it requires the Air District to work closely with the CEC.

The CEC has the responsibility for licensing thermal power plants 50-MW and larger. The CEC's permitting process is a certified regulatory program under CEQA and the CEC's license subsumes all requirements of state, regional, or local agencies otherwise required for a new plant.

The Air District's process is to issue a Preliminary Determination of Compliance (PDOC), hold a public comment period, issue the Final Determination of Compliance (FDOC), and issue an Authority to Construct if the CEC license includes all District-recommended permit conditions. Federal Prevention of Significant Deterioration (PSD) permits have additional processing.

The proposed large Bay Area power plants are dispatchable, natural gas-fired turbine-based plants. There are two types of turbine based plants; simple-cycle and combined-cycle, which includes a heat recovery steam generator and a steam turbine.

The Best Available Control Technology (BACT) for the proposed plants includes exclusive use of natural gas fuel, automated combustion controls, Selective Catalytic Reduction (SCR) with 2 to 2½ ppm nitrogen oxides (NOx), and oxidation catalyst with 2 ppm carbon monoxide (CO).

The tailoring rule requires PSD permits to include BACT determination for GHG emissions effective July 1, 2011. Natural gas has the lowest GHG emissions of any fossil fuel. All the major plants will have GHG emissions over the threshold. BACT determinations are going to focus on energy efficiency and fuel use.

Director Hudson asked a question about fuel oil. Mr. Bateman stated that in the overall picture there aren't many plants using fuel oil, and we don't have fuel oil issues.

The CEC has begun addressing climate change impacts as CEQA lead agency. Natural gas has lowest GHG emissions of any fossil fuel. New plants will have high energy efficiencies and will displace power produced from higher emitting existing plants leading to a reduction in GHG emissions from what would otherwise occur. Dispatchable gas fired plants are needed to support renewables.

Mr. Bateman listed the proposed projects and their statuses:

Contra Costa County:

- Marsh Landing Generating Station
  - Unincorporated Antioch
  - 760-MW simple cycle
  - Fully permitted, construction recently began

- Willow Pass Generating Station
  - Pittsburg
  - 550-MW combined cycle
  - Permit process "on-hold" due to applicant request

- Oakley Generating Station
  - Oakley
  - 624-MW combined cycle
  - CEC Siting Committee has recommended approval

Alameda County:

- Russell City Energy Center
  - Hayward
  - 600-MW combined cycle
  - Fully permitted, under construction
- Mariposa Energy Project
  - Northeastern Alameda County
  - 200-MW simple cycle
  - CEC Siting Committee recommended approval

Santa Clara County:

- Los Esteros Critical Energy Facility – Phase 2
  - San Jose
  - Phase 1: Simple cycle plant began operating in 2003
  - Phase 2: 320-MW combined cycle (conversion from 180-MW simple cycle)
  - Fully permitted; construction expected to begin this month

Public Comment: Chair Uilkema opened the public comment period.

Shana Lazaro, a Staff Attorney at Communities for a Better Environment, appreciated the update on the projects. She stated that she felt like the slides used in the presentation were outdated. She stated that she did not believe that when PG&E meets the renewable requirement, the 6 new power plants would be needed, and instead would contribute more pollutants. She requested that the Board exercise their permitting authority.

Paul Seger, resident of Oakley, says he is the loudest opponent to the power plants in his area. He is active in the community and is concerned about asthma in children. Mr. Seger hoped that the Air District would use a science-based approach and find a way to work with health agencies. He requested that health surveys be taken before and after the power plant is built. The people in his area are often not heard. He strongly urges the Air District to work with Contra Costa County Health Department.

Committee Actions: None, information item only.

Director Partin requested that a presentation from the CEC about their energy efficiency targets would be helpful. She was surprised that six new power plants are going in with all the renewables being created.

Director Gioia and Mr. Bateman discussed the consumption numbers, and Mr. Bateman will follow up with updated statistics for the Committee members.

Director Hudson noted that on hot days consumption goes up. He thought that incentives for business should be based on efficiency. There will be an increased need for power with increased popularity of electric vehicles and lawn mowers.

Director Garner asked about the emissions burden to neighboring areas, noting that they are close to CARE communities.

Mr. Bateman responded that sources are monitored and cumulative impacts are reviewed. The CEC is addressing whether GHG thresholds will be imposed on the six power plants.

Chair Bates asked if we applied our CEQA guidelines, would these plants be permitted. Mr. Bunger answered that the purpose of the CEQA thresholds and guidelines is to provide guidance to lead agencies on whether the requirement to prepare an Environmental Impact Report (EIR) has been triggered. For all of these facilities an EIR equivalent document would be prepared.

Director Mar requested that the slides be updated where needed and expressed concern about neighborhood impacts in areas of new power plants.

Mr. Bateman said that additional data on consumption will be gathered and given to Committee members. Mr. Bateman stated that information about neighborhood impacts would be included in the Air District's permit evaluations. The CEC is the CEQA lead agency, and the CEC staff report would contain information about a broad range of environmental impacts, including health impacts.

Director Uilkema closed Item # 5, and returned to Item # 2 on the agenda. She opened the Public Comment Period to accommodate a speaker who was out of the room earlier in the meeting.

Ms. Rosina Roybal, program director for the Bay Area Environmental Health Collaborative, appeared before the Committee and requested that the metal melting rule be released without further delay. Ms. Roybal was referred to Deputy Air Pollution Control Officer Jean Roggenkamp for follow-up.

6. Advanced Thermal Imaging Camera Technology Utilized in the Compliance Assurance Program

Director of Compliance and Enforcement Kelly Wee introduced Simon Winer, Senior Air Quality Inspector, who presented the staff report.

Mr. Winer gave the informational presentation about the Forward Looking Infrared Camera (FLIR) and the uses for this technology in enforcement and monitoring,

The infra-red camera allows us to see otherwise invisible pollution. The camera can be used to reduce emissions, enforce existing regulations and help facilitate changes in operating procedures. Video demonstrations of the cameras were shown. Major leaks are displayed as a vapor fume in an infra-red image, showing emissions that are invisible to the eye.

Mr. Winer went over several examples of the camera's capabilities, showing photos and videos from places where the camera has been used.

Mr. Winer touched on key points about the FLIR camera:

- Allows staff to see invisible air pollution (Volatile Organics)
- Need good background and contrast for a quality image
- Results are qualitative
- Very effective on inaccessible equipment
- Helps to reduce emissions that contribute to summer ozone and that contain toxic air contaminants

Director Gioia asked if any of the examples of releases would have been detected by monitoring. Mr. Winer stated that the examples shown would not have been detected on perimeter monitors.

Director Garner inquired about the cost of the camera and asked if Notices of Violation (NOV) could be issued using only the camera evidence? In terms of the NOV and cost recovery, does a camera like this pay for itself?

Mr. Winer responded that the camera cost about $80,000.

Mr. Bunger said Staff would follow up with another instrument to measure the quantity of the release. Businesses are obligated to provide access. It is an extremely valuable screening tool to identify problems. We have funds from permit fees and penalties.

Mr. Wee explained that surplus penalty funds have been used, with Board approval, to purchase specialty equipment and advanced screening tools.

Chair Uilkema requested that the presentation be shown to the entire Board at a future meeting.

Mr. Winer said he was available to present this to the Board. He also stated that the camera is a powerful tool, and enables the Air District to communicate visually with a whole industry. He can show the video, and the plume, to workers upon a barge and the result would be very effective.

Director Spering stated that he prefers that the camera be used as a tool to help businesses. It needs to be portrayed well, and policies created for use of the camera. He would like the camera technology to have a good reputation.

Director Hudson liked the closing remarks about showing permit holders the benefits and doesn't want this to become an expensive hammer, but rather a valuable educational tool.

7. Committee Member Comments/Other Business:

Chair Uilkema announced that a demonstration for the production systems and software will be held at the next meeting on July 7, 2011.

Director Hudson requested support for SB 582 (Emmerson), a bill co-sponsored by the Air District to enhance commute benefit policies.

Director Mar inquired about the metal melting rule and Ms. Roggenkamp stated that it is coming back to the committee, after a workshop in June.

8. Time and Place of Next Meeting: 9:30 a.m. on July 7, 2011, 939 Ellis Street, San Francisco, CA 94109.

9. Adjournment: Meeting adjourned at 11:33 a.m.

/S/ Kris Perez Krow

Kris Perez Krow
Clerk of the Boards