



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

ADVISORY COUNCIL AIR QUALITY PLANNING COMMITTEE

COMMITTEE MEMBERS

HAROLD BRAZIL, CHAIRPERSON
EMILY DRENNEN
JOHN HOLTZCLAW, PH.D.
KEVIN SHANAHAN

IRVIN DAWID
FRED GLUECK
KRAIG KURUCZ

TUESDAY
AUGUST 3, 2004

ROOM 716
1:30 P.M.

1. **Call to Order – Roll Call**
2. **Public Comment Period**

Public Comment on Non-Agenda Items, Pursuant to Government Code Section 54954.3. The public has the opportunity to speak on any agenda item. All agendas for Committee meetings are posted at the District, 939 Ellis Street, San Francisco, at least 72 hours before a meeting. At the beginning of the meeting, an opportunity is also provided for the public to speak on any subject within the Committee's purview. Speakers are limited to five minutes each.

3. **Approval of Minutes of June 15, 2004**
4. **District's Ozone Control Strategy**

The Committee will discuss the development of the District's Ozone Control Strategy and consider adopting recommendations for submittal to the Advisory Council at its September 8, 2004 Regular Meeting.

5. **Committee Member Comments/Other Business**

Committee members, or staff, on their 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 on any matter or take action to direct staff to place a matter of business on a future agenda.

6. **Time and Place of Next Meeting**

9:30 a.m., Tuesday, October 12, 2004, 939 Ellis Street, San Francisco, CA 94109.

8. Adjournment

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

(415) 749-4965
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 Clerk's Office should be given in a timely manner, so that arrangements can be made accordingly.

HB:jc

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
939 ELLIS STREET, SAN FRANCISCO, CALIFORNIA 94109
(415) 771-6000

CLERK OF THE BOARDS OFFICE:
MONTHLY CALENDAR OF DISTRICT MEETINGS

JULY 2004

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Stationary Source Committee <i>(Meets 4th Monday every other Month)</i> - CANCELLED	Monday	26	9:30 a.m.	Board Room
Board of Directors Budget & Finance Committee <i>(Meets 4th Wednesday each Month)</i> - CANCELLED	Wednesday	28	9:45 a.m.	4 th Floor Conf. Room

AUGUST 2004

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Advisory Council Air Quality Planning Committee	Tuesday	3	1:30 p.m.	Room 716
Board of Directors Regular Meeting <i>(Meets 1st & 3rd Wednesday of each Month)</i> - CANCELLED	Wednesday	4	9:45 a.m.	Board Room
Board of Directors Budget & Finance Committee <i>(Meets 4th Wednesday each Month)</i>	Wednesday	4	9:45 a.m.	4 th Floor Conf. Room
Advisory Council Technical Committee	Wednesday	4	1:30 p.m.	4 th Floor Conf. Room
Board of Directors Public Outreach Committee <i>(Meets 2nd Monday every other Month)</i> - CANCELLED	Monday	9	9:45 a.m.	4 th Floor Conf. Room
Advisory Council Public Health Committee	Monday	9	1:30 p.m.	Room 716
Board of Directors Mobile Source Committee <i>(Meets 2nd Thursday each Month)</i> - CANCELLED	Thursday	12	9:30 a.m.	4 th Floor Conf. Room
Board of Directors Regular Meeting <i>(Meets 1st & 3rd Wednesday of each Month)</i> - CANCELLED	Wednesday	18	9:45 a.m.	Board Room
Board of Directors Budget & Finance Committee <i>(Meets 4th Wednesday each Month)</i>	Wednesday	25	9:45 a.m.	4 th Floor Conf. Room

SEPTEMBER 2004

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Regular Meeting <i>(Meets 1st & 3rd Wednesday of each Month)</i> - CANCELLED	Wednesday	1	9:45 a.m.	Board Room
Advisory Council Executive Committee	Wednesday	8	9:00 a.m.	Room 716
Advisory Council Regular Meeting	Wednesday	8	10:00 a.m.	Board Room
Advisory Council Public Health Committee	Wednesday	8	12:30 p.m.	Room 716
Board of Directors Mobile Source Committee <i>(Meets 2nd Thursday each Month)</i>	Thursday	9	9:30 a.m.	4 th Floor Conf. Room
Board of Directors Public Outreach Committee <i>(Meets 2nd Monday every other Month)</i>	Monday	13	9:45 a.m.	4 th Floor Conf. Room
Board of Directors Regular Meeting <i>(Meets 1st & 3rd Wednesday of each Month)</i>	Wednesday	15	9:45 a.m.	Board Room
Regional Agency Coordinating Committee – (RACC)	Friday	17	1:30 p.m.	<u>Location:</u> MTC 101 – 8 th St. Oakland, CA 94607
Board of Directors Budget & Finance Committee <i>(Meets 4th Wednesday each Month)</i>	Wednesday	22	9:45 a.m.	4 th Floor Conf. Room
Board of Directors Stationary Source Committee <i>(Meets 4th Monday every other Month)</i>	Monday	27	9:30 a.m.	Board Room
Board of Directors Executive Committee <i>(Meets 5th Wednesday of Months that have 5 Wednesdays)</i>	Wednesday	29	9:30 a.m.	4 th Floor Conf. Room

MR:hl
7/22/04 (3:05 p.m.)
P/Library/Calendar/Moncal

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

DRAFT MINUTES

Advisory Council
Air Quality Planning Committee Meeting
9:00 a.m., Tuesday, June 15, 2004

1. Call to Order – Roll Call. 9:40 a.m. Quorum Present: Harold Brazil, Chairperson, Irvin Dawid, Fred Glueck, John Holtzclaw, Ph.D., Kraig Kurucz, Kevin Shanahan. Absent: Emily Drennen.

2. Public Comment Period. There were none.

3. Approval of April 6, 2004 Minutes of the Joint Meeting of the Air Quality Planning and Technical Committees.

Mr. Dawid requested that at the top of Page 3, item (f) \$2 million should be changed to \$2.5 million; insert the word “Regional Measure 2 (RM2)” between the words “anticipated” and “funding”. The first sentence of item (f) should be changed to read as follows: City Car Share Program received \$2.5 million in anticipated RM2 funding. City Car Share Programs will be included in the Local Land Use Planning and Development TCM. This funding is not specified in TCM15.

On Page 4, item (u), add the word “Regional” before the word “Parking”, and add “by the Air District” after the word “administered”.

Mr. Glueck moved approval of the April 6, 2004 minutes, as amended; seconded by Mr. Shanahan; carried unanimously.

4. District’s Ozone Control Strategy.

Staff provided an update on control measure development for the District’s 2004 Ozone Strategy. Henry Hilken, Air Quality Planning Manager, commenced the presentation with an introduction and stated that Joseph Steinberger, Senior Environmental Planner, and Dan Belik, Rules Development Manager, will present some of the elements of the 2004 Ozone Strategy.

Mr. Hilken noted that a couple of significant events occurred since the discussions at the last Joint Meeting of the Technical and Planning Committees held April 6, 2004: (1) On April 1, 2004 the Environmental Protection Agency (EPA) made a final finding of attainment for the 1-hour national ozone standard. Based on monitoring data from 2001, 2002 and 2003, the Bay Area has attained the national 1-hour ozone standard. This does not mean that the Bay Area has been redesignated as an attainment area; there will be a redesignation process and a maintenance plan that must be developed in order to be officially redesignated as an attainment area. As part of that action, EPA also approved the relevant elements from the 2001 Ozone Attainment Plan. (2) On April 15, 2004, U.S. EPA deemed the Bay Area to be a non-attainment area for the national 8-hour ozone standard. The national 8-hour ozone standard is considered to be more health protective than the 1-hour standard, therefore, EPA is shifting over from the 1-hour standard to the 8-hour standard. The first

half of the implementation guidelines are available and the second half are expected in the Summer, 2004. The 1-hour standard will be revoked in June 2005. Bay Area is a marginal nonattainment area, which is basically the cleanest of any of the nonattainment areas for the 8-hour standard. The 1-hour exceedances are usually seen in Livermore, but San Martin in the South Bay has been a problem site for the 8-hour standard. The District will not have to provide an extensive attainment plan as a marginal area, but will have to provide EPA with certain elements, such as an emissions inventory, and a demonstration that the permitting program meets the applicable requirements. For the California Clean Air Act, the District is required to update the State Clean Air Plan every three years and the District has done that in 1991, 1994, 1997, and 2000. For the state standard, the District must show continued progress towards the state 1-hour ozone standard and address transport mitigation requirements.

Mr. Hilken noted that another element of the 2004 Ozone Strategy is the redesignation request and maintenance plan and the District is combining them into one single ozone attainment document. The national element will be the formal request to EPA to redesignate the District as an attainment area for the 1-hour standard, and a maintenance plan will show continued attainment of that standard.

Other elements of the Ozone Strategy that will apply to the national planning requirements that are not required at this point are: (1) the interagency consultation procedures and (2) Transportation Control Measure (TCM) substitution process. These are elements that the Metropolitan Transportation Commission (MTC) has proposed for making some minor revisions to the interagency consultation procedures with respect to transportation conformity, and processes for future possible substitutions of TCMs in the State Implementation Plan (SIP). These can be done at any time but since the District is going through the SIP process currently, MTC and the Air District agreed that this is a logical time to include these items in the SIP submittal to ARB and EPA. Since the District is a marginal nonattainment area for the 8-hour standard, the District does not have to submit an attainment plan. The main document that must be submitted at this point in time is an emission inventory.

Mr. Hilken described the various types of Control Measures proposed in the 2004 Ozone Strategy:

- **Stationary source measures** – that are implemented through revisions and amendments to District Rules for various stationary and commercial sources like oil refineries
- **Mobile source measures** – which seek to reduce emissions from motor vehicles by the incentive programs to get more clean fuel vehicles on the roads
- **Transportation control measures** – which are aimed at reducing motor vehicle use, vehicle trips and vehicle miles traveled; for example, car pooling, transit, bike pedestrian type programs.
- **Further study measures** – these are not part of the formal control strategy yet, but are preliminary evaluations that meet some of the evaluation criteria. During the planning period staff will be reviewing these measures further to see if they are technologically feasible and cost effective. Many of the further study measures from the 2001 Ozone Attainment Plan are being developed by the District as rules, such as the stationary source measures – the refinery waste water rule that will be brought to the Board of Directors for adoption shortly, and some of the other refinery measures that will also be adopted as rules.

Mr. Hilken explained that staff explored a wide range of potential control measures over a year ago and evaluated them for technical feasibility, cost effectiveness and significant emission reductions. Staff selected a limited number of control measures that met the criteria for inclusion in the draft of the Ozone Strategy. Various agencies and stakeholders provided input to staff during the evaluation process.

Mr. Hilken explained the following Draft Transportation Control Measures (TCMs):

- Voluntary employer based trip reduction programs
- Local and area-wide bus service
- Regional rail service
- Interregional rail service
- Access to ferries and rail
- Ferry Service
- Carpool/express bus lanes on freeways
- Bicycle access and facilities
- Youth transportation (includes clean fuel school buses)
- Freeway traffic management
- Arterial management
- Transit use incentives
- Carpool/vanpool services
- Local land use planning and development strategies
- Public education/intermittent controls
- Demonstration projects (includes clean air vehicles)
- Transportation pricing reform
- Pedestrian access and facilities
- Traffic calming

Mr. Hilken informed the Committee that staff worked closely with MTC on these measures. Since 1991 there have been a wide range of TCMs in the state Clean Air Plan and the national Ozone Plan.

Mr. Steinberger explained three Mobile Source Measures:

Diesel Equipment Idling Ordinance: The District would develop a model ordinance and encourage local government agencies to adopt and enforce it. This ordinance would limit heavy-duty diesel equipment (heavy-duty trucks, buses and construction equipment) to idling no more than five minutes. Predominantly this would effect their operations at warehouses, distribution centers, port terminals, truck stops and rest areas. Much of this equipment already has the potential to have their engines turned off after five minutes of idling because they have computers installed in most of the modern heavy-duty on-road vehicles. The other equipment would require operators to manually turn them off after five minutes. There is a savings of \$1,600 in fuel costs and \$2,000 in maintenance costs to the operators; additionally, there would be a reduction in NOx emissions, toxic air contaminants and particulate matter.

Green Contracting Ordinance: The District would draft a model ordinance for local government agencies to adopt and implement. When local government agencies contract with private

contractors, this ordinance would encourage them to give the private contractors some preferential considerations if they operate low emission fleets, use alternative fuels, encourage ride-sharing at their businesses and respond to Spare the Air Days by taking recommended action to reduce pollution.

Low Emission Vehicle Incentives: This measure encourages the use of low emission vehicles through the Transportation Fund for Clean Air (TFCA) program, Carl Moyer program and other grant programs that the District operates. In the enabling legislation for the TFCA program, there are certain eligible categories, and to fund those it is necessary that they also be included in a Clean Air Plan to attain the federal and/or state standards. Therefore, the District is incorporating this measure into an attainment plan so that the funding can continue. Mr. Steinberger explained that all the above measures are providing incentives for cleaner burning engines, fuels and/or exhaust treatment devices, for both on-road and off-road equipment of all weight classes.

Mr. Belik provided information on the following Stationary Source Measures and Further Study Measures:

STATIONARY SOURCE MEASURES:

Industrial – Commercial Processes

- Auto Refinishing
- Graphic Arts Operations
- High Emitting Spray Booths
- Polyester Resin Operations
- Wood Products Coating

Combustion Processes

- Boilers Rated Between 5 and 10 MM BTU/hr
- Large Water Heaters and Small Boilers
- Stationary Gas Turbines

Petroleum Products Production and Distribution

- Flares
- Gasoline Bulk Terminals and Plants
- Marine Loading Operations
- Organic Liquid Storage Tanks
- Pressure Relief Devices
- Wastewater Systems

FURTHER STUDY MEASURES:

Staff identified a number of measures that require further study to determine whether they are viable. Staff will analyze the further study measures for cost-effectiveness, technical feasibility and other factors to determine whether they are feasible for future air quality strategies. Potential further study measures include the following:

STATIONARY SOURCE FURTHER STUDY MEASURES:

Industrial – Commercial Processes

- Adhesives and Sealants
- Architectural Coatings
- Commercial Charbroilers
- Composting Operations
- Food Product Manufacturing and Processing
- Livestock Waste
- Limitations on Solvents Based On Relative Reactivity
- Solvent Cleaning and Degreasing

Petroleum Products Production and Distribution

- Emissions From Cooling Towers
- Refinery Wastewater Treatment Systems
- Vacuum Trucks
- Valves and Flanges
- Wastewater From Coke-Cutting Operations

Combustion Processes

- BackUp Diesel Generators / Cumulative Risk
- NO_x Reductions From Glass Melting Furnaces
- Stationary Internal Combustion Engines

Mr. Belik explained that a number of these projects are on-going; some of these have already been adopted in the South Coast or the San Joaquin Valley, particularly regulations affecting commercial charboilers, composting operations and livestock waste. Field staff has noted that some of the dairies in Sonoma County seem to be in compliance with one of the compliance options that has already been adopted in the South Coast rules. Staff has had extensive discussions with other air districts and the California Air Resources Board (CARB) on a couple of other further study measures, particularly Adhesives and Sealants and Solvent Cleaning and Degreasing. Staff is looking into the issue of reconciling inventories. A lot of adhesives are used in architectural applications and because these are not permitted sources, it is difficult to obtain the necessary information in the same way that information is obtained from every permitted facility each year. Therefore, staff has had to use adjusted industry data for the Bay Area.

Regarding the Glass Melting Furnaces further study measure, Mr. Belik noted that since the sole remaining gas-fired glass melting plant in the Bay Area is complying with strict Best Available Control Technology (BACT) limits already, this may not need to be a further study measure since it is already being implemented.

Mr. Belik also provided information on the following Further Study Measures for Mobile and Transportation Sources:

MOBILE SOURCE FURTHER STUDY MEASURES

- Encourage Use of Biodiesel Fuel
- Mitigation Fee Program for Federal Sources

TRANSPORTATION CONTROL MEASURES

- Indirect Source Mitigation Program
- Free Transit on Spare the Air Days

Mr. Belik discussed the following next steps for the development and final adoption of the Draft 2004 Ozone Strategy:

- Continue developing draft control measures and further study measures
- Prepare draft 2004 Ozone Strategy by July 2004
- Prepare draft environmental impact report
- Public review and comment during latter part of the Summer, 2004
- Prepare final 2004 Ozone Strategy and EIR
- Board adoption in the Fall, 2004

Staff will consider extensive public input, and conduct further analysis, as necessary, in order to develop the proposed control measures and further study measures for inclusion in the Draft 2004 Ozone Strategy. The Draft 2004 Ozone Strategy will be available for public review in Summer, 2004.

Messrs. Belik, Hilken and Steinberger responded to Committee members' questions and comments as follows:

- a) Mr. Glueck inquired if the District has any jurisdiction over foreign ships and issues with regard to marine loading. Mr. Belik stated that the District adopted a marine loading regulation in 1989 that reduced emissions by very large amounts. This regulation was very controversial at that time and jurisdiction was an issue when the original rule was adopted. The District had reviewed the legal jurisdiction carefully and there were some questions raised about regulations regarding "housekeeping emissions" - purging marine tank vessels out in the Bay. The District believes that it is on very firm legal ground and that it does have regulatory authority to regulate emissions. However, there are several things that the District cannot regulate such as safety issues.
- b) Mr. Glueck inquired whether any studies have been done to determine if there is more benefit with the reduction in idling time versus the constant start-ups and shut down. Mr. Steinberger responded that there could be some disbenefit if vehicles were frequently turned on and off, but if turned off for longer periods, the benefits outweigh the disbenefits. Mr. Steinberger has not seen any research on it; he would look into this to find out some additional definitive answers. Mr. Shanahan offered to help the District gather data on this issue.
- c) Several members wondered as to why five minutes for the idling time was selected versus it being one minute. Mr. Steinberger explained that local areas in many different states have adopted these measures, and the Air Resources Board (ARB) is also currently working on a

similar measure. The ARB informed Mr. Steinberger that the five-minute idling allows for recommended manufacturer cool down times.

Mr. Steinberger stated that the District is only developing a model Diesel Equipment Idling Ordinance and Green Contracting Ordinance, and that local government agencies can rewrite the ordinances prior to adoption. The implementation might be the same as a local traffic ordinance. Mr. Shanahan opined that the various agencies would probably rely upon the District for the science of this study so that they feel that they are on solid ground as they move forward with this matter. The District might have the potential of providing useful data to do a more beneficial program with a tighter idling time limit.

- d) Mr. Hilken explained how the District's process works in developing control measures. He stated that presently these are only control measure descriptions, and if and when the Board of Directors adopts the Ozone Strategy, there is then a second step where the staff will conduct a more extensive and detailed study on them; additionally, technical work groups will meet and workshops will be conducted to develop the details. This process will be followed for the Mobile Source Measures when additional data would be collected on some of the questions raised by the Committee today. Staff would certainly want to look at any data or information that Committee members might have to contribute in the development process of the measures.

Based on Mr. Hilken's explanation of the process, Mr. Glueck felt that the Committee members' questions and concerns could be addressed at the appropriate time during the development process of the control measures.

- e) In response to an inquiry from Mr. Kurucz, Mr. Steinberger stated that there is currently one regulation for buses at schools to turn off their engines as soon as they arrive at the school, and they cannot start them up more than one minute before they depart. He was not aware of the specific details of other measures that were adopted in other parts of the country.

Mr. Dawid stated that diesel hybrids (heavy-duty), as opposed to gas hybrids, are not really low emission vehicles, and therefore, inquired as to how these could be categorized as Mobile Control Measures since low emission vehicle incentives come under this category of control measures. He wondered if the diesel hybrids could obtain a special designation as a mobile source control measure since he would like to see some incentives given to them. While pending legislation AB2628 rewards hybrid owners by allowing them to use the HOV lanes, hybrids provide a greater benefit in stop-and-go city traffic where there is a lot of idling. He feels that a mobile source measure could take advantage of the hybrid idling issue as well as its low emission vehicle status. Mr. Hilken responded that staff could certainly look into this to see what the emission reductions are from hybrid vehicles.

Mr. Dawid presented to staff, for their review, a copy of a letter dated May 25, 2004 from Governor Schwarzenegger on the recent campaign of "Flex Your Power...at the Pump" which requests all agencies to adopt fuel-efficient operations.

- g) Mr. Shanahan inquired if it was possible for the District to measure the benefit in air quality when free transit on BART is provided to the public on the five Spare the Air weekdays. Mr. Hilken stated that monitoring the program for its cost effectiveness will be an important point. Part of the funds that MTC is providing will go towards paying BART for that service; for marketing the program to get the word out to the public that free transit is available; and for

monitoring it by counting the ridership on those Spare the Air Days when free BART fares were provided. Mr. Hilken explained that people have to get to the BART station on their own. The transit bus fares are not part of the free part of the program. Last year, LAVTA provided free transit on Spare the Air days and they are, once again, offering it this year. Mr. Hilken pointed out that there have been a couple of similar programs in previous years that have been reflected in TCM16. Additionally, there are further study measures for free transit on Spare the Air days that could have a broader application, depending on their cost effectiveness. Free transit is a good incentive that could increase ridership; however, it can also be very expensive. These types of demonstration programs will provide a lot of information on their cost effectiveness and to determine whether they deserve broader applications.

Mr. Dawid wanted to know if this is under a further study measure. Mr. Hilken stated that the District has done free transit on Spare the Air Day programs on VTA, LAVTA and BART. A certain amount of free transit on Spare the Air is in TCM16. However, the further study measure is looking at a broader application for it. Mr. Dawid recommended that he would like the Air District to consider broadening that further study measure to include disincentives as well as incentives.

- h) Dr. Holtzclaw inquired if CARB has come up with a regulation requiring reflashing of the older engines. Mr. Steinberger responded that CARB was considering a regulation to have engines reflashed to reduce NOx emission but operators could have their engines reflashed if they were required to comply with a model ordinance for idling. These would be two separate requirements.
- i) Dr. Holtzclaw wanted to know the status on back-up diesel generators. Mr. Belik explained that this Further Study Measure actually relates to the study and design of cumulative impact analysis that was brought up in the context of back-up diesel generators. It studies cumulative impacts in certain communities, and the District is moving forward in attempting to do that. There is a proposal to include funds in the District's budget to do some monitoring in certain communities and to move this project forward. It will evolve into planning and a rule development cycle at some point in time.
- j) Mr. Glueck inquired if staff was aware of any national studies that have been conducted with regard to the effects of free transit ridership. Mr. Hilken stated that he is not aware of any such studies and not much data is available. It would be one of the things that staff would have to research in a further study measure. Other regions have offered free transit, to some extent, on their version of Spare the Air days. The monitoring is not quite as sophisticated as the program itself, and very often monitoring is not funded. Mr. Dawid pointed out that Caltrain offered free train service during the last two weekends, and it was very popular. A program such as this should be monitored to find out the ridership.
- k) Mr. Kuruz noted that the pricing requirements were still listed in the control measures. He questioned whether those worked, and whether the District was able to access any data that indicated that there was a decrease in gasoline sales; also, if the prices are increased, what might be the reduction in consumption. In comparing today's prices to those of a year ago, might provide information on purchase patterns and their effectiveness. Mr. Hilken stated that this issue came up at the last Ozone Working Group, and MTC had responded that, as high as the gas prices are, they are very inelastic; people are generally willing to pay that extra cost, but logically there has to be some cut off point. Dr. Holtzclaw suggested that it might be more

effective in getting people to use more fuel-efficient cars in the long term. Mr. Dawid stated that there is already an indication that the waiting list for hybrid car purchases is up to a year.

- l) Mr. Kurucz asked what the difference was between the further study measure for stationary internal combustion engines and back-up diesel generators. Mr. Belik explained that there are some control proposals and other Districts have some for stationary internal combustion engines. They typically tend to be of a much greater size - the types of engines used in water districts and landfills that are fired by methane gas. There are a lot of stationary internal combustion engines that do not run all the time; for example, in the Central Valley there are agricultural pumps that do not run constantly. In this district there are a few prime pumps that run all the time. There is also some work done by the Air Resources Board as a toxics control measure; they adopt Air Toxic Control Measures (ATCM) that become effective statewide. Hence, for diesel particulate matter they have adopted an ATCM for spark-fired engines and they are also working on one for compression-fired engines. These may be drivers, to an extent, that the further regulation may not really be necessary. Basically, back-up diesel generators, generally, are smaller.

Mr. Kurucz stated that he was aware that ARB was working on some of these measures. However, with respect to back-up generators and ozone, he wanted to know if staff had any data on the amount of pounds per day. Mr. Belik responded that he did not have good data available. One of the problems in areas such as this is creating the inventory. The District does not require permits on small back-up generators, even though it requires them on some of the larger ones. There are many small back-up generators in use, many owned by cities and counties; some are used very infrequently and for many of them the emissions are less than one pound per day. Therefore, trying to create an inventory for any kind of intermittent source is difficult.

Mr. Shanahan stated that in his business they had looked at the emergency stand-by generators; the other internal combustion engines that they deal with are water pumps. On the standby generators, in terms of ozone, it is more of a particulate matter health issue; if one of those is located near a school, for example, there is the issue of particulate matter, and the NO_x component is a non-issue because it is so small. Mr. Kurucz inquired that if this was not included as an ozone strategy, and yet was still adopted, would that preclude the District from taking credit for the emission reductions of the NO_x component. Mr. Belik stated that the District could take the credit.

- m) Chairperson Brazil requested staff to describe the indirect source mitigation program. Mr. Hilken explained that there a lot of programs in TCM15 to promote Smart Growth that have more land use development near transit and in town centers, but this further study measure looks at a permitting or a fee program such as what San Joaquin Valley Unified Air Pollution Control District is looking at. San Joaquin has had some workshops on a proposed regulation to impose fees on land use development, and using those fees to buy mitigation programs, such as transit improvements and non-mobile mitigation strategies like agricultural pumps. The Air District and most other districts in the State are going to watch very closely what San Joaquin Valley eventually does, to see if there might be a need for similar programs in this district.
- n) Mr. Dawid wanted to know if San Joaquin Valley differentiates between an inner city development and a green field development. Mr. Hilken stated that they have proposed setting the fees in such a manner that would encourage smarter development patterns. Mr. Dawid

opined that many no-growth advocates felt that there should be a differentiation between the different types of growth. Dr. Holtzclaw opined that the various fees will ultimately add up to an incomplete carbon tax rather than just passing a carbon tax to begin with, and giving an incentive right at the beginning for being more fuel-efficient.

- o) In response to Mr. Shanahan's inquiry as to whether large employers were targeted by providing tickets to their employees for the free transit on BART during the five Spare the Air days program, Mr. Hilken explained that this is something that staff would look at in a further study measure – whether it should be offered throughout the entire region or targeted to certain corridors. This is a first step and this program will provide additional useful information for fine-tuning it for the future.
- p) Mr. Dawid expressed his concerns regarding the heavy emphasis that is put on TCM4 (Improve Regional Rail Service), TCM5 (Improve Access to Rail and Ferries) and TCM6 (Improve Inter-Regional Rail Service); meanwhile buses are all lumped together into one TCM called Local and Area-wide Bus Service. If there is an interest to make a shift in mobile patterns, then buses must start commanding more than they are being viewed in the current Ozone Strategy. Mr. Dawid noted that San Joaquin has a subscription bus service that is very competitive with ACE, and is very effective. He suggested that the District start differentiating the different types of buses and reflect this by giving equal consideration in TCMs to buses.

Dr. Holzclaw stated that he felt that this had been already done to some extent. TCM5 indirectly refers primarily to buses. Mr. Hilken stated that the regional express bus program is included in TCM3.

Chairperson Brazil stated that he would refer all the comments received at today's meeting to the full Advisory Council, along with the strategy document.

5. Update on Networkcar Remote Emissions Demonstration Project.

Ryan Glancy, Marketing Manager, Networkcar, San Diego, California, provided the Committee with an update on the results of the Networkcar demonstration project of remote emissions monitoring devices in taxi cab, paratransit and other specialty fleets.

He covered the following topics in his presentation:

Who is Networkcar?

- Founded in 1999 and located in San Diego, California
- Owned by the Reynolds and Reynolds Company since December 2002
- Leading provider of wireless telematics solutions for:
 - Consumers
 - Fleets
 - Remote Air Quality Programs

Remote Emissions Program History:

- 5 year program is funded by a Carl Moyer clean air grant through ARB – Emission Reduction Credit Program
- Program is currently in its second year
- Program to monitor and reduce NOx in 1000 paratransit vehicles was launched in 2002

Program Goals:

- Explore the viability of remote emissions – monitoring as an emissions reduction method
- Main focus is on the reduction of NO_x
- Program also reduces hydrocarbons (HC) and carbon monoxide (CO) emissions at no additional cost

How the Program Works – Technology:

- Networkcar dynamically measures and reports the status of a vehicle's emission system to effectively control oxides of nitrogen (NO_x), hydrocarbons (HC), and carbon monoxide (CO)
- The device transmits this data over a conventional wireless network to an Internet-based computer system

How the Program Works – Benefits:

- Failing vehicles that would otherwise continue to drive in a heavily polluting condition are dynamically detected and reported
- Without this monitoring, non-compliant taxicabs can drive unchecked while emitting excess NO_x into the environment; these levels persist even though the vehicle appears to function properly
- With the proposed system in place, polluting vehicles are quickly identified and repaired to reduce the amount of excess pollutants

Why Monitor Vehicles in the Clean Fleets Program?

- On-going CARB program with taxicab fleets
- Taxicabs drive average of 58,000 miles/year
- Taxicabs fail visual I/M emissions tests 28% of the time for being non-conforming
- Problems with tampering with MIL light are seen 9% of the time in visual inspections

Clean Fleets Program:

CARB performed laboratory testing to determine the levels of NO_x reductions when the check engine light is on in the vehicle and then after post-repair. Based on their testing, it showed that there is a reduction of half a gram per mile of NO_x by bringing that vehicle back into compliance.

Mr. Glancy explained that the two predecessors to this program are high mileage vehicles and a high likelihood that they go out of compliance very quickly.

Emissions Credit Reduction Program Status:

- Only available technology to monitor real-time diagnostic, emissions, and Diagnostic Trouble Codes (DTC) data
- Currently deployed and operational in over 1,000 vehicles in California (Carl Moyer Grant)
- Currently 830 vehicles in Los Angeles; 120 vehicles in Oakland at the Oakland Airport
- Failing vehicles are flagged in real time
- 14 days allocated to repair vehicle
- Program is voluntary; Networkcar does not “police”. Follow-up and enforcement is not part of the company's goals within the program
- Data can be analyzed to detect fraud (e.g. unplugged unit)

Grant Award:

Networkcar was awarded a grant for \$1,625,000 to deploy remote emissions-monitoring devices on 1,000 taxicabs for a period of five years. On an annual basis, in the first two years, there was a reduction of 46 tons of NOx, resulting in 92 tons to date. During a five-year period, 50 tons of NOx are reduced on an annual basis, resulting in a total of 250 tons. The reason that it scales up is because the higher mileage vehicles tend to have more problems and go out of compliance on a larger scale.

Program Savings To Date:

Mr. Glancy reported that 62 tons of NOx were reduced to date, during a period of two years. It is projected that by the end of the five-year period of the program, a total of 155 tons of NOx will be reduced. Together with other incentive-based measures, the Moyer Program has the potential to reduce NOx emissions, and can do so cost effectively for between \$5,000 and \$12,000 per ton. By comparison, controls on stationary sources cost between \$10,000 and \$20,000 per ton. The technology is very affordable and there are ways to bring the cost down considerably in the future.

Mr. Glancy further explained that the taxicabs in Oakland are higher mileage taxicabs. In Los Angeles the paratransit vehicles were included in the sample set of vehicles; therefore, there is a lower annual mileage on those vehicles. To date, the program is also seeing an average annual mileage of about 42,000 for the 1,000 taxicabs. Mr. Glancy stated that most of the data presented today are on an aggregate basis, and that they are compiling more data for Oakland. This information will be published in the next quarterly report for CARB due next week.

Mr. Glancy reported that Networkcar pays for a pre-repair smog check to obtain real data that can be correlated to the CARB laboratory tests for the half a gram of NOx per mile. A very small percentage of the cabs are actually getting the pre-repair smog check. The idea is to get the cab repaired because the goal of the program is to reduce NOx. The cab company has to pay for their own repairs and Networkcar then pays for a post-smog repair. This data is then used to correlate it back to the modeled numbers that CARB had done in their laboratory. They have had a difficult time collecting repair data costs. The technology automatically detects when the vehicle comes back into repair, the presence of the DTC going away, the trouble code associated with the problem; the MIL light going off and the check engine light going off. This indicates that the vehicle is back into compliance.

Mr. Dawid inquired if any taxicabs around the country had switched to hybrids. He understood that in New York they are switching to hybrids; the major incentive to do this is not air quality but fuel-savings. Because of the heavy stop-and-go traffic, unlike this program, there is a real incentive for the cab owners and fleet owners that are trying to switch to the hybrids. Mr. Glancy stated that he was not aware of any information on this. Mr. Dawid requested that this information be included in the packet for the Committee's next meeting in August 2004.

Mr. Shanahan inquired if cab companies were deriving any value from the Global Positioning System (GPS) system and whether they had a more effective way to dispatch their fleet. Mr. Glancy explained that this grant was rolled out pre-GPS technology integrated into Networkcar's technology. These are only diagnostic units and do not contain a GPS location-related modular piece. There is a large return on investment for the fleets regarding the use of the GPS data, the diagnostics, and the air quality-related return on investment. There might be a way to combine these to provide incentives for fleets to purchase the product if they propose to keep those vehicles within compliance. Mr. Shanahan stated that if these could be combined with some incentives,

then the cost per ton could be reduced significantly. Mr. Glancy reported that the Bureau of Automotive Repairs (BAR) has a continuous testing pilot program which is more of a consumer-related program where they allow the fleets to enroll their vehicles in those programs and this allows the fleet to be exempt from the annual smog check that they are required to do, as long as they keep the vehicle within compliance. The BAR program is very similar to this type of program. The only incentive for the fleet is the \$60 to \$70 for the smog check; there is a larger related benefit on the air quality and the NOx reductions.

Before and After Emissions Data:

Mr. Glancy presented a table that showed data from some of the 1,000 cabs in the program along with the percentage of improvement on each of the particulates – NO, HC and CO. He also presented the laboratory testing data from CARB. The table indicates that the Before and After data received to date correlates with the Proposed Model data.

Assumptions Made for the Calculations:

- Analyze each DTC and the corresponding number of days MIL is “On” (when vehicle is out of compliance)
- Assume that without Networkcar program, vehicle would drive on average for six months with MIL “On”
- Assume average “before and after” emissions data based on CARB laboratory testing
- Use average “before and after” emissions data to calculate total NOx reduction

Differences in Proposal vs Program to Date:

Mr. Glancy explained the proposed versus program to date data. At the assumed 70,000 annual mileages for vehicles in the program, 102 tons of NOx would have been reduced to date at a cost of \$6,373. Based on the data received from Oakland, they are seeing an average of 56,000 annual mileage for the Oakland cabs. This would reduce the cost per ton significantly. During the last six months there has been a reduction of 2.5 tons of NOx specific to the 120 cabs in Oakland. Non-compliant vehicles are repaired within 30 days.

Average Days Before Repair:

There is a lot of variance based upon the actual cab company and how they are voluntarily reacting to this program. Some cab companies remain in the program for 30 days; others remain for approximately three months. There is a three months’ savings on the NOx versus the five months of savings. If the ratio can be reduced to 30 days, there will be a higher correlation with the cost per ton and the reduction in NOx on these vehicles.

Program Enforcement:

- Networkcar’s technology quickly identifies and monitors out of compliance vehicles
- Goal is to quickly identify non-compliance and to persuade prompt repair of vehicle
- The main program issue to date has been the enforcement of the quick repair of identified polluting vehicles. Networkcar does not police
- Bay Area program launched in October 2003 at Oakland Airport

Specifics of the Bay Area Program:

- In October 2003 all of the taxis operating at the Oakland Airport, 42 companies in all, were enrolled in the ERCF facilitated by Networkcar
- Each company is monitored for safety and proper functioning by the Oakland City Police

- The vehicles that are operating at the airport with a MIL light on for 30 or more days are subject to having their Medallion (City and Airport taxi operating certification) revoked by the Oakland Police Department until the vehicle is operating in adequate condition
- The Port of Oakland authorizes revocation of the taxi operating privileges at the airport when each taxi is non-compliant
- Roughly five or more notices are issued every week to violating taxis
- Currently there have been taxi companies repairing their vehicles, yet the smog check information has not been returned as frequent
- The goal of the pilot at Oakland airport is to quantify a substantial reduction in emissions from high mileage vehicles and possibly expand into the taxis operating in the City of Oakland

Summary:

- Remote Emissions-Monitoring can return significant NOx reductions
- Cost per ton saved directly correlates to annual mileage of the vehicle and time of repair
- Technology is cost effective for NOx reduction
- Enforcement at Oakland Airport is reducing repair time

The cost per unit is \$500, including labor, and \$15 per month for the service.

Mr. Kurucz inquired if there was any information available on the enforcement activity that is actually being done by the officers. Mr. Glancy stated that he did not have any data available on this.

Mr. Glueck inquired about the reliability of the monitoring equipment. Mr. Glancy responded that it is very good. The satellite-based piece is GPS-related technology. Regarding the transmission of the data, a terrestrial network is used; it is a data-only network and it does not compete with voice traffic. There is also a feature called store and forward within the unit. If the vehicle drives into intermittent cellular coverage, it stores the information when it comes back and transmits that information back when it is out of coverage.

Mr. Glueck requested information on Networkcar's diesel applications.

Recommendations:

Mr. Glancy recommended the Committee: a) help educate stationary sources in the district on the availability of this mobile source technology, and b) implement an enforcement rule to persuade timely vehicle repairs identified by this technology within the district.

6. Committee Member Comments/Other Business.

Mr. Dawid stated that, at the Committee's August meeting, he would like to receive a report from Tom Addison, Advanced Projects Advisor, on the bills pending in legislation, specifically on the status of Senate Bill 849 and the reasons as to why the Association of Bay Area Governments (ABAG) opposed it. Mr. Dawid briefly provided an overview of SB 849 to the Committee. He felt that it was very important for the Advisory Council to understand the greater concept of regional planning in the Bay Area. He was concerned that ABAG objected to the Air District's incorporation into the Joint Policy Committee, and would like to have a better understanding of why they objected to the Air District's participation.

- 7. Time and Place of Next Meeting.** 9:30 a.m., Tuesday, August 3, 2004, 939 Ellis Street, San Francisco, CA 94109.
- 8. Adjournment.** 11:45 a.m.

Neel Advani
Deputy Clerk of the Boards

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

July 27, 2004

To: Air Quality Planning Committee
From: Harold Brazil, Chairperson
Re: Comments on District's Ozone Control Strategy

Committee member Holtzclaw has submitted the following comment for Committee consideration:

I would support a resolution supporting the staff's proposed Ozone control strategy.

Under TCMs, I would like to have added a program to encourage, support and possibly fund promoting community planning by city planning departments to develop specific plans. These planning charettes would bring planners, architects and local residents together to develop specific plans to guide development around transit stations and along major transit corridors. This effort could be in conjunction with MTC, which is initiating such an effort.

Committee member Kurucz has submitted the following comment for Committee consideration:

I think we should have a general comment approving the work of the staff.

The Advisory Council agrees that the District staff has selected appropriate measures for review and adoption as control measures or further study measures.

We have the following line items that we further wish to comment on in the plan:

Control of back up emergency generators appears to result in very slight reduction of ozone from a source that is associated with particulate matter and toxic air contaminants. We advise that BAAQMD not include this as an ozone FSM at this time, but BAAQMD should capture any ozone precursor savings as a result of the PM or TAC regulations.

The Advisory Council agrees that the District staff has selected appropriate measures as transportation control measures.

The Advisory Council agrees that the District staff has selected appropriate measures from other Districts for review and adoption as control measures or further study measures.

At the August 3 Committee meeting, we will discuss these comments as well as those offered by Committee members in discussion in formulating our recommendations on the District's Ozone Control Strategy.

:jc