



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

ADVISORY COUNCIL REGULAR MEETING

WEDNESDAY
MAY 12, 2004
10:00 A.M.

SEVENTH FLOOR
BOARD ROOM

AGENDA

CALL TO ORDER

Opening Comments
Roll Call

Elinor Blake, Chairperson
Clerk

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 Advisory Council 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.*

CONSENT CALENDAR

1. Approval of Minutes of March 10, 2004

PRESENTATION

2. Indoor Air Technical & Policy Issues: An Update for the BAAQMD Advisory Council

Jed Waldman, Ph.D., Chief, Indoor Air Quality Section, California Department of Health Services, will provide the Advisory Council with background on indoor air quality issues, including discussion of prominent contaminants, key agencies and governing regulations.

COMMITTEE REPORTS

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

Chairs Brazil
and Bedsworth

4. Report of the Public Health Committee Meetings of March 10 and April 19, 2004 Chair Weiner
5. Report of the Executive Committee Meeting of May 12, 2004 Chair Blake

OTHER BUSINESS

6. Report of the Executive Officer/APCO Jack Broadbent
7. Report of Advisory Council Chair Elinor Blake
8. Council Member Comments/Other Business

Council or staff members 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 their own activities, provide a reference to staff about factual information, request staff to report back at a subsequent meeting concerning any matter or take action to direct staff to place a matter of business on a future agenda.

9. Time and Place of Next Meeting

10:00 a.m., Wednesday, July 14, 2004, 939 Ellis Street, San Francisco, California 94109.

10. Adjournment

EB:jc

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

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- 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.

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

MAY 2004

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Advisory Council Executive Committee	Wednesday	12	9:00 a.m.	Room 716
Advisory Council Regular Meeting	Wednesday	12	10:00 a.m.	Board Room
Advisory Council Public Health Committee	Monday	12	12:30 p.m.	Room 716
Board of Directors Mobile Source Committee (Meets 2nd Thursday each Month) (CHANGED to May 20 th)	Thursday	13	9:30 a.m.	4 th Floor Conf. Room
Board of Directors Budget & Finance Committee (Meets 4 th Wednesday each Month)	Monday	17	9:45 a.m.	4 th Floor Conf. Room
Board of Directors Regular Meeting (Meets 1 st & 3 rd Wednesdays each Month)	Wednesday	19	9:45 a.m.	Board Room
Board of Directors Mobile Source Committee (Meets 2 nd Thursday each Month)	Thursday	20	9:30 a.m.	4 th Floor Conf. Room
Regional Agency Coordinating Committee Meeting (Meets 3 rd Friday every other Month)	Friday	21	1:30 p.m.	MTC 101 Eighth Street Oakland, CA 94607
Board of Directors Stationary Source Committee (Meets 4 th Monday every other Month)	Monday	24	9:30 a.m.	Board Room
Board of Directors Budget & Finance Committee (Meets 4th Wednesday each Month) – CHANGED TO MONDAY, MAY 17 TH -	Wednesday	26	9:45 a.m.	4 th Floor Conf. Room

JUNE 2004

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Advisory Council Air Quality Planning Committee (CHANGED to June 15 th)	Tuesday	1	9:30 a.m.	Board Room
Board of Directors Regular Meeting (Meets 1 st & 3 rd Wednesdays each Month)	Wednesday	2	9:45 a.m.	Board Room

(June 2004 Calendar continued on next page)

JUNE 2004 (Continued)

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Advisory Council Technical Committee	Thursday	3	9:30 a.m.	4 th Floor Conf. Room
Board of Directors Mobile Source Committee (Meets 2 nd Thursday each Month)	Thursday	10	9:30 a.m.	4 th Floor Conf. Room
Board of Directors Public Outreach Committee (Meets 2 nd Monday every other Month)	Monday	14	9:45 a.m.	4 th Floor Conf. Room
Advisory Council Air Quality Planning Committee	Tuesday	15	9:30 a.m.	Board Room
Board of Directors Regular Meeting (Meets 1 st & 3 rd Wednesdays each Month)	Wednesday	16	9:45 a.m.	Board Room
Board of Directors Budget & Finance Committee (Meets 4 th Wednesday each Month)	Wednesday	23	9:45 a.m.	4 th Floor Conf. Room
Board of Directors Executive Committee (Meets 5 th Wednesday of Months that have 5 Wednesdays)	Wednesday	30	9:45 a.m.	4 th Floor Conf. Room

JULY 2004

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Regular Meeting (Meets 1 st & 3 rd Wednesday of each Month)	Wednesday	7	9:45 a.m.	Board Room
Board of Directors Mobile Source Committee (Meets 2 nd Thursday each Month)	Thursday	8	9:30 a.m.	4 th Floor Conf. Room
Advisory Council Executive Committee	Wednesday	14	9:00 a.m.	Room 716
Advisory Council Regular Meeting	Wednesday	14	10:00 a.m.	Board Room
Advisory Council Public Health Committee	Monday	19	1:30 p.m.	Room 716
Board of Directors Regular Meeting (meets 1 st & 3 rd Wednesday of each Month)	Wednesday	21	9:45 a.m.	Board Room
Board of Directors Stationary Source Committee (Meets 4 th Monday every other Month)	Monday	26	9:30 a.m.	Board Room
Board of Directors Budget & Finance Committee (Meets 4 th Wednesday each Month)	Wednesday	28	9:45 a.m.	4 th Floor Conf. Room

MR:mr
5/5/04 (10:43 a.m.)
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Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109

DRAFT MINUTES

Advisory Council Regular Meeting
10:00 a.m., Wednesday, March 10, 2004

CALL TO ORDER: 10:10 a.m.

Opening Comments: Chairperson Blake. There were none.

Roll Call: Present: Elinor Blake, Chairperson, Sam Altshuler, P.E., Louise Bedsworth, Ph.D., Robert Bornstein, Ph.D., Jeffrey Bramlett, Harold Brazil, Pamela Chang, Irvin Dawid, Emily Drennen, Fred Glueck, William Hanna, Stan Hayes, John Holtzclaw, Ph.D., Norman A. Lopera, Jr. Kevin Shanahan, Victor Torreano, Linda Weiner, Brian Zamora.

Absent: Kraig Kurucz.

CONSENT CALENDAR:

1. Approval of Minutes of January 14, 2004: Mr. Zamora moved approval of the minutes; seconded by Dr. Bedsworth; carried unanimously.

PUBLIC COMMENT PERIOD: There were no public comments.

COMMITTEE REPORTS:

2. Report of the Air Quality Planning Committee Meeting of February 3, 2004. Mr. Brazil stated that the Committee met on February 3 and received a staff presentation on the District's review of over 370 pollution reduction strategies for possible inclusion in the update to the Ozone Attainment Plan (OAP). The Committee will soon provide comments to the District staff on the update to the OAP and will meet jointly with the Air Quality Planning Committee on April 6 to review further progress in control measure review. The Committee also discussed employee trip reduction, the relationship of District cost-effectiveness criteria for the Transportation Fund for Clean Air (TFCA) to pedestrian and bike facility improvements, the need for stricter emission standards for heavy-duty diesel engines, and the underestimation of mobile source emissions by current emission models. Later in the year, the Committee will review the Smog Check II program in California.

3. Report of the Public Health Committee Meeting of February 23, 2004. Ms. Weiner stated that the Committee met on February 23 and received presentations on cumulative risk assessment and the precautionary principle. These were provided by Amy Cohen and Ken Kloc of the Golden Gate University School of Law Environmental Law & Justice Clinic (ELJC), and Cindy Tuck of the California Council on Environmental and Economic Balance (CCEEB).

In the context of the District's pending rule-making on Toxics New Source Review (TNSR), the ELJC advocates cumulative over incremental risk assessment and a lower level of acceptable risk as a precautionary measure. CCEEB expressed its opposition to the further intervention of government regulation and argued that the precautionary principle was not workable in practice.

Ms. Weiner added that the District's executive management recently met with the ELJC and members of several East Bay and San Francisco communities with multiple sources of pollution. The outcome was that the District will implement a pilot program in one Bay Area community to develop data on cumulative risk. The Committee will develop recommendations by July.

Mr. Altshuler inquired if cumulative risk is defined as multiple exposures to an individual from different sources of the same pollutant or an individual's exposure to multiple pollutants in a cumulative manner, or a combination thereof, which would require a multiple chemical exposure matrix. Ms. Weiner replied that cumulative risk primarily refers to multiple sources.

Mr. Hayes observed that cumulative risk assessment contains many complex technical aspects and might be referred to the Technical Committee for review. Chairperson Blake stated that while the full Council would discuss the Committee reports at each Regular meeting, the Committee Chairs could consider whether to address the topic in the other Standing Committees as time permits.

4. **Report of the Technical Committee Meeting of February 24, 2004.** Dr. Bedsworth stated that the Committee met on February 24 and received a staff presentation on control measure review for the OAP. The Committee will meet jointly with the Air Quality Planning Committee on April 6 on further control measure review. The Committee's focus for the first half of the year will be the update to the OAP and starting in June mobile source emission inventory issues will be reviewed. The Committee will formulate comments on the District's ozone strategy document by October.
5. **Report of the Executive Committee Meeting of March 10, 2004.** Chairperson Blake stated that the Committee met this morning and discussed the work plan for the Standing Committees. The Committee also discussed a proposal from the Deputy Clerk on tracking the recommendations made by the Council to the Board and staff. The Deputy Clerk was directed to contact the new Advisory Council members to schedule a tour of the District facility some time after April 7.
6. **Applicant Selection Working Group Meeting of February 23, 2004.** Mr. Hayes stated that the Working Group screened seven applications, interviewed five candidates, and is recommending one candidate to the Board Executive Committee for appointment to the Council. The Executive Committee will meet on March 29. If approved, the recommendation will be given to the Board for consideration on April 7. Messrs. Hayes and Holtzclaw stated that staff did an outstanding job of advertising for this category and an excellent group of candidates applied. Chairperson Blake thanked Ms. Chang for her service on the Council and wished her well in her future endeavors.

PRESENTATION:

7. **The New York City Urban Atmospheric Observatory (UAO) and its Role in Emergency Planning: Lessons for the San Francisco Bay Area?** Chairperson Blake introduced Robert Bornstein, Ph.D., newly appointed to the Council in the "Colleges & Universities" category, a Professor of Meteorology at San Jose State University, Editor Emeritus of Atmospheric Environments Journal, a Fellow of the American Meteorological Association and three time Fulbright scholar.

Dr. Bornstein stated that the UAO project arose out of the tragic events of September 11, 2001 in New York City. The transport of toxic materials in an urban environment from the plumes filled with smoke and dust is a critical subject of study in air pollution meteorology. The UAO will be a permanent real-time facility that supports research in urban atmospheric science and also will provide a test bed for the development and validation of observational and modeling technologies for emergency response management and pollution releases due to earthquakes or accidents.

The real-time data that is essential to the issuance of evacuation instructions within 20-30 minutes will be forwarded to urban atmospheric models to which New York City emergency responders will have access. The Department of Homeland Security has provided significant funding for this system. Dr. Bornstein identified the many scientific, regulatory, government and private sector partners associated with this project and noted that he has been appointed its Chief Scientist.

The UAO will consider atmospheric activity (a) above rooftops over the city, (b) in neighborhoods, and (c) in between street canyons. Two tracer groups will provide additional data for both meso- and micro-scale models, which will in turn be used to develop simpler models that can be used in real-time. To evaluate heat islands and identify surface parameters the UAO will use a Geographical Information System (GIS) database with building permit data, as well as airborne radar measurements of building heights, and satellite data on land-use and vegetation. Additional thermal maps will show surface heat island characteristics based on data acquired from remote sensing.

Additional fixed and mobile mesonet sites will augment existing sites and provide boundary layer data for wind flows over rooftops. The data will be simulated by two models: one is a specialized urban version of Meteorological Model Version V (MM5) developed by former San Jose State University students and the other is the Regional Atmospheric Modeling System (RAMS). Dr. Bornstein showed slides of several monitoring sites in the City that will be used to obtain data for mapping wind and temperature fields. To determine upper boundary conditions, the models will incorporate radar data into the mesoscale models to assess rooftop flows and dispersion patterns and link them to smaller scale models that assess wind flow in the street canyons. Studies of the microscale will be longer-term and emphasize turbulence measurements in real-time. Staff from the Lawrence Berkeley Laboratory's indoor air quality program will assess the infusion of outdoor air into the indoor environment. The study of toxic releases in subway systems is also planned.

Safe, reliable and instantaneous communication is essential because cell phones did not work and telephone lines were down during the September 11 event. The UAO will set up a secure telecommunications network, with transmission linked to satellite via the Empire State and other buildings. Biochemical sensors will also be established at various points for providing emergency response information for police, fire and health department staff. Data must be provided based on wind flow patterns, chemical concentrations, proximate sources, urbanization modules, observations both surface and aloft, and all of this in real-time, to simple, efficient models which will process these data and predict wind direction and chemical concentrations. Smaller scale models have been developed that will provide for wind pattern analysis at the surface and along buildings.

Studies of flows of airborne materials through a building show eventual intrusion of toxic materials into a building. Flow patterns outside tall buildings can be complicated, and several different models will be used in the simulating patterns over and around buildings. For the first time, deep urban street canyons are being thoroughly analyzed. Using the most current technology, rapid response models will be developed to generate high-resolution data, reliable concentration and dosage estimates for guiding emergency response in event scenarios.

Noting that cities can significantly affect weather systems and prevent major fronts from passing over them, Dr. Bornstein displayed slides of converging weather fronts on the East Coast that resulted in confining pollutants to a narrow zone. In response to Mr. Dawid, he added that different aspects of the city affect temperature, wind, humidity and background synoptic conditions. During the summer, there are negative impacts on the poorer areas in the city. It is perhaps not an accident that climate and pollution are the worst in the poorer areas of a region.

In response to Mr. Glueck, Dr. Bornstein noted that street canyon turbulence models account for vehicular but not population movement. The sensors for biological radiation are funded separately in this program. The Office of Emergency Planning is now located under the Manhattan Bridge in a room with numerous computers connected with emergency responders. An additional goal will be to provide air emissions data to emergency responders in a useful and understandable format.

Mr. Shanahan inquired if the UAO can evaluate emissions in a street canyon from off-road diesel construction equipment, in order to assess whether emission controls lead to a measurable reduction of emissions. Dr. Bornstein stated the UAO is available for air quality analysis as well as emergency response. It found that due to a leaky transformer at Con Edison, significant amounts of SF-6 were in the atmosphere that could be used as a tracer. The UAO might use construction dust as a tracer. He offered to put Mr. Shanahan in contact with certain UAO staff on this issue.

Mr. Hayes inquired how this research might be applied to the Bay Area. Dr. Bornstein replied that the Bay Area has potential problem areas regarding earthquakes, the concentration of refineries in the Carquinez Strait, and bridge protection. Improvement in plume modeling tools for research and emergency response for toxic releases are needed to assess pollutant dispersion in complex topography. The best models should be used if there is a toxic release in a street canyon in San Francisco or San Jose. The District's air monitoring network is quite good and there is some linkage between the stations, but the data are not in real-time or linked to a central data management facility.

Peter Hess, Deputy APCO, noted that the complexity that Dr. Bornstein has demonstrated in these various models applies to the issue of cumulative risk assessment of toxics in a region, with regard to assessing many variables in inputs, data and boundary conditions. This may provide the basis for referring cumulative risk analysis for air toxics to the Technical Committee as well. He added that the stalling of a wind flow over a particular area might adversely affect it in terms of pollution concentrations. Convergent wind patterns may cause localized pollution build-up at San Martin and Livermore. Chairperson Blake noted that Contra Costa County has conducted a project with USEPA near the ConocoPhillips Refinery to develop air dispersion models.

Dr. Holtzclaw inquired if urban heat islands can also vent pollution from a city. Dr. Bornstein replied that this is possible depending upon the meteorological conditions. Project Heat in Texas is studying how the city of Houston affects thunderstorm frequency and will study this very topic.

OTHER BUSINESS:

- 8. Report of the Executive Officer/APCO:** Jack Broadbent stated that the District's OAP will serve as a Maintenance Plan for the federal one-hour standard and as a Triennial Update for the state standard. It contains measures to reduce volatile organic compounds (VOCs) and nitrogen oxide (NOx) that allow progress to be made toward attainment of the federal eight-hour ozone standard, for which the District is designated as non-attainment.

Mr. Hess stated the photochemical modeling for the OAP began a year and a half ago, and the Modeling Advisory Committee (MAC) was created to provide review in progress. The MAC includes Council members Holtzclaw, Brazil, Altshuler, and Bornstein, as well as representatives of other air districts in the state, industry, environmental groups and state and federal air pollution regulators. Five ozone episodes will be simulated for impacts within and downwind from the District. It appears that the model is currently under-predicting emissions, and therefore the model's inputs are being reviewed. According to a number of air districts, the state's Emission Factor Model (EMFAC) is under-predicting mobile source emissions. District staff has requested the Council to review the accuracy of the EMFAC model for heavy-duty diesel trucks and light-duty vehicles in particular for the relationship of estimates to atmospheric measurements.

Mr. Broadbent added that:

- the Board of Directors recently conducted two community tours. In Bayview-Hunters Point the Board received comments from the community expressing concerns about the impacts of emissions from stationary and mobile sources in the community. In West and East Oakland, the Board heard concerns relative to the cumulative impact of a variety of sources in that area, the demolition of Red Star Yeast and other sources near an elementary school.
- staff will bring its TNSR rule before the Board later this year, and is currently planning an assessment of the Bay Area to characterize localized exposures in different communities. As the plan develops, staff will be seeking the Advisory Council's input and review. Important programmatic paradigms for staff's work include the South Coast air district's MATES Study.
- this year staff will complete the five further study measures from the 2001 OAP.
- the District's budget for fiscal year 2004-05 is being developed. No major staffing changes are expected. The state budget process is being monitored since a good portion of the District's budget derives from property tax revenues. The Budget will be presented to the Board, referred to Committee in April and May, and presented back to the Board for adoption in June.

Noting the variety of particulate matter (PM) emissions from vehicles, Mr. Dawid requested staff identify off-road diesel emissions in its presentation to the Technical Committee on mobile sources. Mr. Hess replied that staff would discuss vehicle classes in terms of ozone production. Dr. Bedsworth noted that at the January Retreat the Committee discussed programs for vehicle scrapping and the retrofitting of high-emitting vehicles, and will consider this within a socially-conscious framework. Gary Kendall, Technical Division Director, noted that two-cycle diesel engines are high-emitting, and motorcycles, in particular, are difficult to retrofit with a catalytic converter. The technology of vehicle emission controls has been greatly advanced. Fuel economy and mileage must also be considered in addition to emission estimates from the tailpipe.

Mr. Broadbent added that the Lieber bill (SB 2863) proposes to remove the 30-year rolling exemption from the Smog Check Program. Through the Board Legislative Committee the District has supported this legislation. If the bill is adopted, an estimated seven tons per day of VOCs and NOx would be reduced statewide. Owners of classic cars are an animated advocacy group and contend that classic cars are not driven very far or often. Mr. Hess noted that the Advisory Council originally recommended legislation revoking the 30-year rolling exemption to the Board. This was the result of the work of the Air Quality Planning Committee, which worked diligently on this issue last year. Staff presented that recommendation to the Board Executive Committee, which, in turn, referred it to the Legislative Committee.

Ms. Drennen inquired how this legislation might impact lower income groups. Mr. Hess replied that the Council's consideration of this legislation included this particular issue and can be reviewed in the minutes from last year's meetings. Mr. Altshuler inquired as to advocacy for clean air vehicles and provision for green vehicle parking. Mr. Broadbent replied that AB 2683 would allow hybrid vehicles to have access to diamond lanes. However, some experts feel this could adversely impact carpool lanes given that 50,000 hybrid vehicles have been sold in the state.

9. Report of Advisory Council Chair: Chairperson Blake stated:

- the Council's 2004 work plan was presented to the Board in February of this year.
- the recommendation of the Applicant Selection Working Group for appointment to the Council's Architect category will be presented to the Board Executive Committee on March 29.
- the District is sponsoring the attendance of several Advisory Council members at the 97th Annual Air & Waste Management Association to be held in Indianapolis, Indiana this June.

10. Council Member Comments/Other Business: Ms. Weiner referred to a "Clean Air Champions Award" nominations form for an individual, agency or organization or business that has made a significant contribution to reducing air pollution, and encouraged Council members to submit their nomination.

Dr. Holtzclaw noted that he had e-mailed the Council members regarding legislation that proposes information on potentially hazardous chemicals at facilities be withheld from the public under the aegis of homeland security. The Department of Health Services is accepting comments on this proposed legislation until May 20. Ms. Weiner opined that it creates a dangerous precedent to cut off the public's voice in environmental security as the public has the greatest health risk from hazardous chemicals. Mr. Lopera replied that this legislation relates to the accessibility of such information through the Freedom of Information Act and aims to prevent a potential terrorist from gaining access to such information. It does not exempt a government agency from having to report such information, and all local police and fire departments can obtain it. This is a first attempt to address the issue of accessibility to hazardous chemical data and the proposal will likely evolve.

Dr. Bornstein observed that the UAO has not taken a close look at this proposal but he could report back to the Council on it. He also requested that this matter be referred to the Technical Committee. Mr. Broadbent stated that although this issue is not before the Board, staff would review it further and report back to the Advisory Council. Mr. Hayes requested that the Council consider the topic of environmental security as a matter for future review. Chairperson Blake stated that this request could be discussed at the next meeting of the Council's Executive Committee.

11. Time and Place of Next Meeting. 10:00 a.m., Wednesday, May 12, 2004, 939 Ellis Street, San Francisco, CA 94109.

12. Adjournment. The meeting was adjourned at 12:01 p.m.

James N. Corazza
Deputy Clerk of the Boards

AGENDA NO. 3

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

DRAFT MINUTES

Advisory Council Regular Meeting
Joint Meeting of the Technical and Air Quality Planning Committees
9:30 a.m., Tuesday, April 6, 2004

- 1. Call to Order – Roll Call.** Chairperson Brazil called the meeting to order at 9:32 a.m. Air Quality Planning Committee Members present: Harold Brazil, Chairperson; Irvin Dawid, Emily Drennen, Fred Glueck, John Holtzclaw, Ph.D., Kraig Kurucz, Kevin Shanahan. Technical Committee Members present: Louise Bedsworth, Ph.D., Sam Altshuler, P.E., Stan Hayes, John Holtzclaw, Ph.D., Norman A. Laper, Jr. Technical Committee Members absent: Robert Bornstein, Ph.D., William Hanna.
- 2. Public Comment Period.** There were none.
- 3. Approval of Minutes:**
 - A. Air Quality Planning Committee – February 3, 2004.** Mr. Kurucz moved approval of the minutes; seconded by Dr. Holtzclaw; carried unanimously.
 - B. Technical Committee – February 24, 2004.** Dr. Bedsworth requested that “feasible” be added after “technically” in the second bullet item of paragraph three on page two. Mr. Hayes requested that “may” replace “would” in line two of paragraph six on page three. Mr. Hayes moved approval of the minutes as corrected; seconded by Dr. Holtzclaw; carried, with Mr. Altshuler abstaining.
- 4. 2004 Ozone Strategy – Preliminary Control Measure Descriptions.** Henry Hilken, Air Quality Planning Manager, presented “Bay Area 2004 Ozone Strategy: Preliminary Draft Control Measure Descriptions.” The Strategy will address both state and federal air quality planning requirements and contains stationary, mobile and transportation control measures, as well as miscellaneous and further study measures. Input on over 400 measures initially reviewed was obtained from the Ozone Working Group, the public, other air districts, the members of the Board and Council, and previous air quality plans. Staff focused on mobile and stationary source measures that can be implemented through regulation, incentive and educational efforts. The Metropolitan Transportation Commission (MTC) has taken the lead on evaluating transportation control measures.

Dan Belik, Rule Development Manager, reviewed the preliminary stationary and mobile source measures in the Strategy, noting that those that concern boilers with 5-10 MMBTU/hr, large water heaters and stationary gas turbines will reduce the transport of nitrogen oxide (NO_x). Other measures emerged from the further study measures in the 2001 ozone plan and concern refinery flares, marine loading operations, organic liquid storage tanks, pressure relief devices, refinery wastewater systems and low emission vehicles.

Several additional draft stationary and mobile source measures considered feasible are under internal review and will be presented at the next meeting of the Ozone Working Group. These include gasoline bulk terminals and bulk plants, polyester resin operations, graphic arts operations, and model ordinances for green contracting and truck idling.

Mr. Hilken stated that the draft transportation control measures (TCMs) in the Strategy have been developed and evaluated in concert with MTC. Many were derived from the 2000 Clean Air Plan, and include voluntary employer based trip reduction, transit improvements in bus, rail and ferry service, improvements to transportation facilities, bicycle and pedestrian improvements, pricing and land-use strategies. TCMs that are still under development include regional and interregional rail service, youth transportation, freeway traffic management, trip reduction services, inter-mittent control measures, public education and clean air vehicle demonstration projects.

Potential further study measures include architectural coatings and solvents, back-up diesel generators, cooling water from coke cutting, cooling tower emissions, composting emissions, food product manufacturing/processing, free transit on Spare the Air days, glass melting furnaces, solvent limits based on reactivity, refinery wastewater ponds, and others.

Messrs. Hess, Hilken and Belik replied to questions from the Council members, as follows:

- a) The aggregate estimate of emission reductions from the draft stationary and mobile source measures in the Strategy are 4 tons per day (tpd) of reactive organic compounds (ROG) and 6 tpd of NOx. The baseline ROG emissions reduction from 2001 to 2006 is 121 tpd including California Air Resources Board (CARB) mobile source measures. Estimated emission reductions from the TCMs are not yet available. CARB is pursuing controls on emissions from off-road diesel engines and the emission reductions from these measures will increase. (Hayes)
- b) The Council's review of Urban Heat Islands and Smart Growth two years ago inspired the green contracting ordinance. Council members have participated with the staff in discussing these concepts with local governments. The TCM on local land-use development will provide a mechanism for further work on land-use issues. The Association of Bay Area Governments (ABAG) has adopted the projections based on the recent Smart Growth visioning process for the Bay Area. MTC will assess a transportation scenario that will be based on that Smart Growth vision for this region. (Dawid)
- c) The Strategy will account for emission reductions from the Enhanced Smog Check program. This grew out of a further study measure from the 2001 Ozone Plan. (Glueck)
- d) The low emission vehicle control measure focuses on obtaining reductions from on-road, medium and heavy-duty vehicles, and reflects the District's program work in the Transportation Fund for Clean Air (TFCA) and Carl Moyer programs. (Bedsworth)
- e) Staff welcomes Council assistance in being referred to the staff of the University of California at Berkeley that are associated with the forthcoming Transportation Alternative Study. This concerns establishing a program using Segway machines, bicycles and electric bicycles at the Pleasant Hill BART Station for use by employees at nearby businesses. Coordination with the East Bay Regional Park District in increasing the use of its 11,000 miles of bike trails to reduce vehicle traffic is also appreciated. (Lapera)

- f) The \$2 million in anticipated funding for City Car Share programs will be included in the Local Land-use Planning and Development TCM. The TFCA has funded City Car Share in Alameda County. City Car Share can be supported through funding, publicity, marketing, and working with cities to obtain more parking for new development. (Drennen)
- g) Ozone is a regional pollutant and reducing precursors in one area will have impacts elsewhere within the District. Some control measures also have local benefits. One future study measure will evaluate cumulative impacts of toxic air contaminants in a specific community. This proposal will be reviewed by the Public Health Committee. While the tools for conducting cumulative risk assessment are not yet available, there are efforts to develop these at both the state and federal levels. (Drennen)
- h) The Bay Area Alliance for Sustainable Development will meet on May 13 in Oakland and will address case studies of cities that have implemented Smart Growth. (Dawid)
- i) Notwithstanding the information that the Oakland Police department is sponsoring legislation that would require the operator of a motorized scooter have a driver's license, CARB has sole regulatory authority over motorized scooters. (Lapera)
- j) The District's Spare the Air Coordinator provides Spare the Air day guidelines and to participating employers and governments. The Clean Air Cities and Counties Program and the Clean Air Consortium also conduct outreach to local governments. Staff welcomes the suggestion to further such outreach to park and school districts. (Lapera)
- k) The control measure on spray booths addresses facilities with emissions that are close to the threshold above which Best Available Control Technology (BACT) is required. The number of companies using water-based technology in the South Coast AQMD is not known. The measure would accommodate low emission technologies. (Kurucz)
- l) Regarding the proposed doming of refinery liquid storage tank roofs, staff is currently discussing with the refineries as to how many tanks have the improved "zero gap" flat roof seals. These will be factored into future emission reduction estimates. Staff is acquiring data from the South Coast AQMD on refinery dome installation costs. (Kurucz)
- m) In accounting for the cost of enforcing a rule in the overall cost-effectiveness calculation, the District assesses cost estimates through discussions with internal working groups. Enforcement is continually refined and improved in its efficiency. (Shanahan)
- n) Regarding the enforcement and permitting burden associated with the control measure on small boilers, the suggestion that its implementation could take place through building code modification or a rule concerning new construction. Manufacturing standards that govern water heaters and central furnaces have gradually reduced emissions over time. The further suggestion that staff coordinate with building departments in the Bay Area to locate boilers greater with greater than 10 million BTUs would establish an additional mechanism for equipment identification. (Shanahan)
- o) The District's calculation method for forecasting Spare the Air days accounts for the negative effects of morning NO_x emissions. However, emission inventories may not be used to determine progress toward attainment. One of the episodes that will be addressed by the District's photochemical modeling will concern the weekday/weekend ozone effect. The recent backsliding experienced by the South Coast AQMD with regard to ozone attainment is likely due to a combination of diverse factors. (Altshuler)

- p) Social changes achieved through Smart Growth may increasingly constitute the future focus of emission reduction strategies. The most significant stationary control measures have already been adopted. CARB and the Environmental Protection Agency (EPA) need to achieve more reductions from off-road and on-road mobile sources. The Regional Agency Coordinating Committee, which is comprised of members of the Boards of the District, MTC and ABAG, will also address such regional planning issues. MTC's Regional Transportation Plan will examine a Smart Growth land-use scenario. The District, MTC and ABAG recently discussed commercial and residential parking requirements, as well as the possible development of an inventory of best practices for reference by planning staff. Some of these best practices are included in TCM No. 16. (Glueck)
- q) Staff will consider the suggestions to establish shuttle bus feeder service between the 22nd Street Caltrain Station to the 16th and 24th Street BART stations, and between the downtown Caltrain depot and one of the BART stations on Market Street; as well as to combine bike pool programs with station car programs at BART stations. (Drennen)
- r) The application of carpool and express bus lanes on freeways to bus only lanes in urban centers could be considered under the category of improved transit service. (Drennen)
- s) The suggestion to expand the Commuter Check program to lower income populations should be referred to MTC, with the assistance of Chairperson Brazil. (Drennen)
- t) The suggestion to establish 24-hour free transit for high-occupancy vehicles for the Bay Bridge is not new. However, the major incentive is to avoid queue time at the toll plaza rather than the toll. The District continues to evaluate various pricing strategies for the Bay Area bridges and has worked with Senator Perata on this issue. (Drennen)
- u) Parking pricing measures that would propose to derive a fee from each parking stall could be considered as an indirect source mitigation fee but would prove difficult to sell. The City of San Jose is looking into assessing impact fees for new development. (Dawid)
- v) The practice of European businesses of using bicycles and tricycles instead of trucks to deliver lightweight materials in downtown areas might be considered by United Parcel Service, Pedal Express in the East Bay, and San Francisco bike messengers. (Holtzclaw)
- w) Suggestions are welcome on staggering working hours to affect time of day emissions to reduce the buildup of ozone precursors that begins in the early morning. (Hayes)
- x) Staff will evaluate the provision of free parking by the City of San Jose to any hybrid vehicle purchased in San Jose, as well as the extent to which parking incentives may be derived from such programs for hybrid or alternative fuel vehicles. Staff also notes the observation that formaldehyde is more reactive than other organics, and NO₂ is more reactive than NO_x, and that the manufacture of natural gas over diesel bus fleets in China and India leads to fleets with less reactive exhaust emission profiles. (Altshuler)
- y) Financial incentives to reduce mobile source emissions are offered by the TFCA, and stationary source emissions reduced beyond a permit requirement or standard may be banked to offset emissions from future facility expansion. (Glueck)
- z) Staff agrees that diesel bus retrofit programs are likely to be considered by the Governor to be more of a job-oriented program for California than a clean air initiative, even if some of the incentive funding is provided through the Carl Moyer program. (Shanahan)

Chairperson Brazil called for public comment, and the following individuals came forward:

Kevin Buchan, Western States Petroleum Association, stated the discussions between the District and the refineries on the future study measures were constructive, and the refineries do not oppose the proposed rules. Further assessments are needed of the cost of controls and the emission inventory for the marine loading rule. The impact of doming a refinery tank on egress and entry during seal inspections also requires further evaluation. Emission estimates from pressure relief devices are based solely on events and not on daily emission averages. For the proposed wastewater treatment rule, the working group process was also successful.

Stephanie Corcoran, Chemical Engineer, Valero Refining Company, Benicia, stated that the emission estimate of 13.78 tpd from flares does not reflect current emission rates, which are now estimated for the refineries collectively at 0.5 tpd of non-methane hydrocarbons. Also, Bay Area refinery flare operating guidelines are consistent with guidelines provided by the American Petroleum Institute (API) and the recommendations of the American Society of Mechanical Engineers (ASME). The Occupational Safety & Health Administration (OSHA) recognizes that refinery flares are important devices for fire prevention and operational safety. The District should not consider adopting any control measure for flares that has not been approved by the API, ASME and OSHA.

Mr. Belik noted that the estimate of 13.78 tpd derives from the 2001 Ozone Plan. Staff agrees that over half of this tonnage has been eliminated, although the refinery estimate of half a ton per day has not been agreed upon. Staff is working to quantify those emissions. A lower baseline emission estimate will be included in the final iteration of the Ozone Strategy.

Mr. Altshuler urged that speciated gas stream data be obtained from refineries to identify and reduce the streams with the more reactive hydrocarbons, as well as those with the greatest amount of highly reactive NO_x constituents, such as NO, NO₂, formaldehyde and benzene.

5. **Committee Member Comments/Other Business.** Mr. Hayes requested that the cumulative risk assessment issue that is now before the Public Health Committee be referred to the Technical Committee as a discussion topic on the agenda for the next meeting. Mr. Kurucz made the same request for the agenda of the next Air Quality Planning Committee meeting. After discussion, Chairpersons Brazil and Bedsworth directed that this topic be placed as a discussion item on the next agendas for the meetings of their respective Committees.
6. **Time and Place of Next Meeting.** Technical Committee, 9:30 a.m., Thursday, June 3, 2004. Air Quality Planning Committee, 9:30 a.m., June 15, 2004, 939 Ellis Street, San Francisco, California 94109.
7. **Adjournment.** 12:30 p.m.

James N. Corazza
Deputy Clerk of the Boards

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

APPROVED MINUTES

Advisory Council Public Health Committee Meeting
12:30 p.m., Wednesday, March 10, 2004

1. **Call to Order – Roll Call.** 12:21 p.m. Quorum Present: Linda Weiner, Chairperson; Diane Bailey, Elinor Blake, Jeffrey Bramlett, Victor Torreano, Brian Zamora.
2. **Public Comment Period.** Dennis Bolt, Governmental Coordinator, Western States Petroleum Association, stated that last year the Committee had inquired if Bay Area refineries had data on refinery employee health. The Chevron refinery has three decades of cancer research data which could be provided in a presentation or mailed. Chairperson Weiner replied that these data can be reviewed when the Committee resumes its review of optical fence line monitoring.
3. **Approval of Minutes of February 23, 2003.** Mr. Torreano moved approval of the minutes; seconded by Mr. Zamora; carried unanimously.
4. **Committee Discussion of Presentations Given at its February 23, 2004 Meeting Regarding Cumulative Risk Assessment and the Precautionary Principle.** Chairperson Weiner stated that the Committee will be providing comments on the District's Toxics New Source Review (TNSR) rule. At the last meeting, Amy Cohen of the Golden Gate School of Law Environmental Justice Clinic (ELJC) provided recommendations on the TNSR program. The ELJC more recently discussed these with District executive management, and on March 24 the District will respond to the ELJC on the feasibility of their implementation. The District also plans to conduct a pilot study in a Bay Area high-risk community to obtain data on cumulative risk.

Mr. Bramlett noted that while the concept to not do more harm than good when implementing a new program is of long standing in the occupational, public health and medical professions, it is incorrect to suppose that this notion is not of interest to the business community. The National American Industrial Hygiene Association has a "Sustainability and Stewardship Work Group" with which such Bay Area companies as Gennentech and Kaiser Permanente are associated.

Chairperson Weiner called for public comment, and Mr. Bolt stated that recent newspaper articles have expressed concerns about how jobs are shifting to other states from California and overseas from the United States. California sends influential economic and investment signals in the United States and abroad, and the precautionary principle sends a negative message. Lack of education and poverty pose the greatest public health risks, and these are at issue in the current business climate in California. Advisory Committees must broadly address issues beyond a single policy and evaluate societal costs. Cal/EPA will address how precaution might be exercised in regulation, and the business community can be a part of this process. Cumulative risk assessment is a different issue and the business community supports the research to ensure that this type of analysis is correctly conducted.

Lowering the District's stationary risk threshold levels and stationary source emission standards—which are the most stringent in the world—conflicts with Smart Growth strategies to site affordable housing near transit hubs and attract the investment and development of business in the community. The California Air Resources Board (CARB) estimates that 85% of the cancer risk from particulate matter (PM) derives from mobile rather than stationary sources. Socio-economic improvements and health improvements are also linked.

Chairperson Weiner responded that Smart Growth is not incompatible with the precautionary principle, and data have not been presented confirming that the exodus of businesses from the Bay Area is occurring. Health studies of low-income areas with multiple stationary and mobile sources show disproportionately high incidences of respiratory disease. The Committee's charge was not to look at root causes but direct causes, and that poverty and poor education drive people to low-income neighborhoods saturated with multiple sources of air pollution, and that is what directly causes respiratory diseases. The precautionary principle suggests that since people continue to become ill, the burden should be shifted from the public to prove there is a problem to the permittee to prove there will not be a problem. Bay Area communities have recently become better organized, but the District also has limited resources. The Committee should develop recommendations that both arenas find workable.

Ms. Bailey expressed concern that current hazard indexes and cancer risk levels are too low, and repeated references to “sound science” can become a ploy to delay the implementation of cumulative risk assessment, for which analytical tools do exist. Chairperson Weiner added that there are multiple stationary sources in the high risk communities identified by the ELJC. Peter Hess, Deputy APCO noted that in these communities there are also numerous mobile sources such as ships, trains, and diesel truck traffic, for which emissions data must also be collected.

In reply to questions, Mr. Hess explained that staff responds to citizen complaints via inspector visits, conducting a source test, reviewing the emission inventory, conducting monitoring where necessary and contacting public health department staff. Mr. Zamora noted that while this approach addresses acute issues, the connection between the District and the medical community on chronic issues is unclear. It is difficult to make decisions in the absence of information. Support for the precautionary principle must derive from the medical, scientific, community and regulatory arenas, or it will find difficulty making progress toward adoption.

Ms. Bailey replied that there is sufficient data on the link between air pollution and health. The siting of new sources, and not moving existing ones, is at issue; and the District has control over the siting of new sources. The tools that now exist are sufficient to conduct cumulative risk assessment at the screening level. The Committee should consider recommending that benchmark levels be set at the level that triggers Best Available Control Technology (BACT).

Mr. Hess noted that major resources would be needed to subject the 2,500 annual permits issued by the District to cumulative risk assessment. Brian Bateman, Director of Engineering, added that policy questions are raised by re-setting benchmark concentrations for the permit process. While there are guidelines at the state level on assessing the significance of incremental risks for facilities, there are no guidelines on cumulative risks from new projects in a neighborhood. These would have to be set before the District could conduct cumulative risk assessment. Policy questions are raised by any redefinition of acceptable/unacceptable levels of risk. Unless and until the broad and significant policy issues have been addressed by all the stakeholders, it would be premature to incorporate cumulative risk assessment into the District's permit program. The Committee may wish to explore the policy implications and offer its advice.

Mr. Bateman added that the threshold for a new or modified source to install BACT is one in a million or greater for cancer risk. There is no specific limit for non-cancer effects although there is a project risk cap that must be kept under a hazard index of 1. In practice, emission levels for criteria pollutants to trigger BACT is 10 pounds per day, and for toxic chemicals the guidelines from the Office of Environmental Health Hazard Assessment (OEHHA) are tailored to each specific chemical. The level for requiring stringent controls is itself already based on a low level of risk because, once the controls are in place, the risk is greatly reduced. Permit conditions ensure compliance with emission control requirements. The ELJC is requesting a lowering of the facility incremental risk threshold by an order of magnitude, from 10 to 1 in a million. Lowering of the threshold from 10 to 1 in a million for gasoline dispensing facilities would prohibit the installation of any new gas station in the Bay Area.

Scott Lutz, Manager, Toxics Evaluation Section, stated that the cancer risk threshold for dry cleaners is 100 in a million and work is in process to reduce this risk to 10 in a million through the use of non-toxic chemicals and a prohibition of the use of perchloroethylene (perc). A state law recently passed will impose a tax on perc and fund the use of alternative chemicals.

Ms. Blake urged that the Committee keep apprised of the dialogue between District executive management and the communities. Ms. Bailey suggested the Committee also make recommendations on new sources near severely impacted neighborhoods. While the process between the District and environmental groups is encouraging, the District should become a leader pursuing cumulative risk assessment with the assistance of other agencies that are also reviewing this issue. Chairperson Weiner noted that the need to develop data on cumulative risk provides the basis for supporting the pilot program.

Mr. Bramlett observed that the discussion has developed along the lines of substantive extremes and that certain process matters are more at issue and require further discussion. Ms. Blake stated that the Committee's charge is to evaluate and make recommendations on the TNSR rule, which raises issues regarding cumulative risk assessment and the precautionary principle, along with the Cal/EPA EJ recommendations. She suggested the Committee craft a statement on cumulative risk assessment and the precautionary principle based on statements from the regulatory, business and environmental communities. Chairperson Weiner and Ms. Bailey offered to write the first draft. Mr. Hess added that staff would like to present the pilot program to the Committee for review and comment. It will be also presented on April 28, 2004 to the Board Budget & Finance Committee.

Chairperson Weiner stated at the next meeting the Committee will review (a) a draft statement on cumulative risk assessment and the precautionary principle, (b) the District's response to the ELJC recommendations on the TNSR rule-making, (c) the cumulative risk pilot program. In May and June the Committee can conduct further review of these items.

- 5. Report on the February 24, 2004 California Air Resources Board (CARB) Environmental Justice Stakeholders Meeting.** Ms. Bailey stated that CARB sponsors an EJ Stakeholders Group that has developed statewide complaint resolution protocols and a bi-lingual public participation guidebook. It most recently revised the air quality/land-use handbook that will make local planners more aware of the air quality impacts of land-use decisions. It will be submitted for adoption to CARB in May. The text is available at <http://www.arb.ca.gov/ch/aqhandbook.htm>.

Ms. Bailey added that Hotspots Analysis and Reporting Program (HARP) would provide on-line software for cumulative risk assessment. It is available to the public and was released at the end of last year. The other model is the Community Health Air Pollution Information System (CHAPIS). Mr. Hess noted that CHAPIS is being beta-tested and although its one kilometer grid resolution is detailed, it still lacks data on ships, trains and certain area sources.

Mr. Bateman noted that as a modeling tool used for cumulative risk assessment in a TNSR program, HARP lacks input data and must be populated with data on source description, emissions, facility boundary lines and proximate buildings. It also requires a text-based input as it lacks graphical interface and requires continual updating. HARP is also tied to a specific, and soon to be obsolete, Industrial Source Complex (ISC) air dispersion model.

Ms. Bailey replied that input files are available for current air dispersion models. HARP and CHAPIS render possible the switch from the ISC to a newer EPA air dispersion model. Mr. Bateman noted that source inputs for terrain and meteorology are not available and would have to be collected and developed. Mr. Hess added that resources must be balanced: inspectors that collect and follow-up on initial survey data cannot conduct inspections simultaneously. Perhaps this Committee can recommend a community to be studied. Mr. Bateman noted staff has estimated the cost for a cumulative risk study for the entire Bay Area. Chairperson Weiner replied that the ELJC has recommended that a single community be studied and could give a presentation on its community selection recommendation at a future Committee meeting.

Mr. Hayes offered to have the Technical Committee review the available tools for conducting cumulative risk. Ms. Blake suggested that he instead participate as a member of the public in meetings of the Public Health Committee, due to the Technical Committee's full schedule. Ms. Bailey added that she is trained to conduct air dispersion modeling and risk analysis and could contribute that expertise to the Committee.

6. **Discussion of Priorities for Committee Work Plan for 2004.** Chairperson Weiner noted that Mr. Bolt has offered to provide data on a Chevron study of the health of refinery workers and can provide a speaker. The Committee will also review indoor air quality this year. For guest speakers, Ms. Blake offered to invite Jed Waldman at the State Health Department, and Mr. Torreano offered to invite a National Energy Management Institute staff member. Chairperson Weiner added that the Committee will also identify communities affected by construction sites.
7. **Committee Member Comments/Other Business.** Mr. Bramlett stated that a Center for Disease Control study on asthma is available at www.cdc.gov/mmwrpreview/mmwr.html.
8. **Time and Place of Next Meeting.** 1:30 p.m., Monday, April 19, 2004, 939 Ellis Street, San Francisco, California 94109.
9. **Adjournment.** 2:02 p.m.

James N. Corazza
Deputy Clerk of the Boards

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

DRAFT MINUTES

Advisory Council Public Health Committee Meeting
12:30 p.m., Monday, April 19, 2004

- 1. Call to Order – Roll Call.** 1:35 p.m. Quorum Present: Linda Weiner, Chairperson; Diane Bailey, Elinor Blake, Jeffrey Bramlett, Victor Torreano. Absent: Brian Zamora.
- 2. Public Comment Period.** There were no public comments.
- 3. Approval of Minutes of March 10, 2004.** On page four, Ms. Blake requested the deletion of the last clause of line two in paragraph three; and the addition of “due to the Technical Committee’s full schedule” at the end of the second sentence in paragraph four. Ms. Bailey requested that “routinely conducts” replace “is trained to conduct” in the final sentence of paragraph four. Mr. Torreano moved approval of the minutes as amended; seconded by Ms. Blake; carried.
- 4. Proposed Community Risk Reduction Program.** Eric Stevenson, Air Monitoring Program Manager, presented “Community Risk Reduction Program.” He stated that \$500,000 from the general reserve has been allocated for this new program Fiscal Year 2004-05. Two new staff positions will be added in the Engineering and in Planning Divisions, respectively.

Air toxics monitoring began at the District in 1985 with five monitoring sites sponsored by the California Air Resources Board (CARB). The District began operating its own sites in 1986. The current toxics monitoring network includes three CARB sites and 18 District sites and measures such major gaseous toxics as benzene, 1,3 butadiene, perchlorethylene, and carbon tetrachloride. Approximately 80% of the total cancer risk in California, excluding the risk associated with diesel particulate matter (PM), is attributable to the above four gaseous toxics.

The air toxics risk that is attributable to the above four ambient toxics, excluding diesel PM, has dropped from 315 in a million in 1994 to 173 in a million in 2001. CARB estimates that statewide average risk attributable to diesel PM dropped from 900 in a million in 1990 to 510 in a million in 2000. These decreases are due to mobile, stationary and area source control measures, new vehicle emission standards, clean diesel fuel and cleaner burning gas. The latter reduced benzene by 50%. AB 2588, the District’s Toxics New Source Review program and Toxics Best Available Control Technology have also reduced air toxics risks. Alternative technologies available to dry cleaners and chrome platers have further reduced risk.

Air monitoring network data demonstrate a decrease in the coefficient of haze (COH). Data from stations in Concord show a decrease since 1990 that coincides with cleaner burning diesel fuel. A similar trend is evident at the Napa, Redwood City and the San Jose stations.

The program's technical foundation is based on the estimate that 3/4 of the statewide cancer risk from mobile sources comes from diesel PM. The main component of diesel PM is organic (OC) and elemental (EC) carbon. Using Carbon 14 dating, staff will analyze 16-24 PM₁₀ filters for fossil fuel and wood combusted carbon. These filters will contain samples from the weekday and weekend, as well as summer and winter, to account for variation in traffic density and season. As total EC varies with location, season and day of week, ambient EC measurements will be used as a relative indicator of diesel PM. Other carbon components of diesel PM will be analyzed using the PM emission inventory to assess the contribution of diesel PM to total carbon emissions. Desert Research Institute (DRI) will also analyze archived District PM filters to establish a baseline for EC and OC levels dating back to 1998. The District will begin regular EC/OC analysis for PM filter stations and will purchase an analyzer for this purpose.

The District will begin a pilot cumulative risk assessment program in selected areas. It will compare carbon emission inventory trends with trends in ambient measurements of COH, EC/OC filters and aethalometer data on black carbon. The latest generation of monitoring equipment can distinguish particulate size as well. Staff will take into account impacts on air quality from current control measures and those with future effective dates, and the impact of additional controls focused on reducing diesel PM emissions in impacted communities.

Using CARB modeling programs, staff will develop a one square kilometer gridded inventory for diesel PM for mobile, point and area sources. Subsequently, the District will develop a one square kilometer gridded emission inventory for all toxic emissions including diesel PM for mobile, point and area sources using source profiles and the District's emission inventory.

DRI will conduct EC/OC analysis of archived PM₁₀ filters for two Bay Area Children's Environmental Health Protection Program monitoring sites, as well as for PM₁₀ filters from the Bayview Hunters Point monitoring site. The one or two community locations most heavily impacted by toxic emissions will be monitored for one year for PM and toxics emissions to assess seasonal data variation. The District will then conduct risk assessment based on these data.

Targeted action plans include developing and implementing area-specific risk reduction measures. Some are incentive-based, such as diesel retrofits or replacements that will be funded by the Transportation For Clean Air, Carl Moyer or Proposition 40 funds. Others include working with fleet operators to reduce heavy-duty diesel usage, and with transit agencies and school districts to retrofit and replace school buses. Other approaches are regulatory and include working with CARB to establish heavy-duty diesel inspection stations, and with the California Highway Patrol to enforce the Vehicle Code on smoking heavy-duty vehicles. Low sulfur diesel fuel in 2007 will enable more effective emission control technology to be put in place. Other programs including working with cities counties and Caltrans to re-route traffic to ports away from routes through neighborhoods. Public outreach will be included by establishing an advisory committee that will include scientists, community groups, environmental groups, industry and port operators, and academicians. Community meetings on this process will then be held.

The legislative and regulatory agenda also includes further efforts to reduce toxic emissions from such area sources as dry cleaners and gas stations. The District is also trying to obtain legislative authority to regulate heavy-duty diesel fleets and trains.

In reply to questions from Committee members, Mr. Stevenson stated:

- The program will likely have results earlier—within two to three years after the analysis begins, rather than five.
- The diesel emissions under the District’s rather than CARB’s control are not fully defined. The District may affect diesel engine emissions only through incentive programs.
- Alternative project analysis occurs under the California Environmental Quality Act (CEQA).
- PM₁₀ filters generate higher flow rates and deposition levels than PM_{2.5} filters. Subsequent EC/OC analysis of the filters will allow for analysis of the fractions of smaller particles.
- There are more incentive programs geared toward mobile than stationary sources because the majority of risk derives from mobile sources.
- The placement of District air monitors is guided by regulations from the US Environmental Protection Agency (EPA). In future presentations on trends in ambient data from monitoring stations, information will be included on the distance of air monitors from freeways.
- Community involvement in monitor placement for the pilot program, review of risk assessment, and communication of information will be based on recent District approaches and will be used to select the most affected communities.

5. Proposed Air Toxics New Source Review Program. Brian Bateman, Engineering Division Director, presented “BAAQMD Proposed Air Toxics New Source Review Rule.” He stated that the Toxics New Source Review (TNSR) is a preconstruction permitting program for new and modified stationary sources that allows the District to create new emission standards within a permit as well as ensure compliance with existing limits. NSR exists for criteria pollutants and the applicability of requirements are based on emission levels. EPA’s Prevention of Significant Deterioration (PSD) program concerns criteria pollutants and is cumulative to the extent that it considers background levels for specific pollutants. If project impacts are below low significance levels, the project is not considered to contribute to an excess of an air quality standard, regardless of the existing background air quality.

TNSR has no specific state or federal mandate and is a local program within an air district. Emission applicability is health-risk based, and program requirements are based on health risk assessment. Risk management involves policy judgment as to whether a risk is significant. California’s risk assessment guidelines were developed in 1987 by an inter-agency group that included the air districts, CARB, and the Office of Environmental Health Hazard Assessment (OEHHA). The Air Toxics Hot Spots Program risk assessment guidelines were published in 1993 and were updated by OEHHA in 2003. EPA has largely similar health risk assessment guidelines, although the EPA guidelines are generally less health protective.

Risk management guidelines for permitting were issued by CARB in 1993. EPA’s risk management permitting guidelines are more concerned with risk management for EPA regulatory actions. Neither CARB nor EPA recommends “bright line” risk assessment in regulation due to uncertainties in risk assessment. At very low levels, risks may be deemed insignificant, while above such levels the risk manager may exercise discretionary judgment and consider a variety of factors in characterizing risk. The District’s TNSR program uses risk assessment procedures based on the State’s 1993 risk assessment guidelines with updated health effect values from OEHHA. The District assesses an applicant’s source emissions with reference to toxic trigger levels. If risk screening analysis is warranted, staff conducts air dispersion modeling to calculate exposure for residents and offsite workers. Pollutant effects are considered additive.

The District's risk management policy for permitting provides that, if all sources in a project do not have Toxics Best Available Control Technology (TBACT), the maximum lifetime cancer risk cannot exceed one in a million, and the maximum chronic non-cancer risk hazard index cannot exceed 1.0. If all the sources in a project do have TBACT, then the lifetime cancer risk is 10 in a million, and the non-cancer risk remains the same. If PERC dry cleaners have TBACT and also employ all feasible risk reduction measures, the maximum cancer may approach 100 in a million. During the energy crises several years ago, the District established a risk management policy that allowed the emissions during emergencies from back-up emergency generators to not be counted.

In 1999, the District conducted an average of 15 toxic risk screens per month and this increased to 50 per month in 2002 due to the elimination of exemptions for stand-by engines. The District is seeking to convert its toxics risk assessment policies and procedures into a rule. It will use the new OEHHA numbers for toxicity values and exposure assumptions. It will also establish a project risk limit for acute impacts at hazard index of 1.0, and a TBACT requirement for non-cancer hazard index of 0.2 as per CARB risk management guidelines. TBACT will be applicable at the source level and thus rendered consistent with criteria pollutant NSR. Staff proposes to eliminate the 100 in a million project cancer risk option for PERC dry cleaners since alternative technologies are now available.

Mr. Batemen distributed two documents: "Preliminary Response to Comments on BAAQMD Air Toxics NSR Draft Proposed Rule and Rule Amendments made by Golden Gate University Environmental Law & Justice Clinic (ELJC): BAAQMD Toxic Evaluation Section – November 2003" and "BAAQMD Staff & APCO Meeting – March 3, 2004: Some Suggestions for Addressing Cumulative Health Impacts & the Precautionary Principle in Toxics New Source Review (prepared by ELJC)." He reviewed the foregoing documents, stating as follows:

- a) It is not feasible to lower the acceptable risk levels by a factor of 10. No single gas station in the Bay Area can achieve an off-site exposure risk level of 1 in a million. Disagreement among stakeholders as to what constitutes an acceptable risk is unavoidable. Staff follows CARB and EPA guidelines for risk management.
- b) The use of community risk caps, based either on emissions from all sources of toxic air contaminants or only those from permitted stationary sources, requires detailed data on source emissions and nearby structures for modeling. From a policy standpoint, current guidelines on what constitutes a significant risk derive from incremental risk. Cumulative risk will be dealt with at the state level and staff will follow guideline development there.
- c) Health risk calculation from toxic air contaminants and cumulative effects from criteria pollutants should not be combined. The latter should be evaluated separately through the criteria pollutant NSR program.
- d) It is inappropriate to require TBACT for acute risks at a hazard index at 0.2. This level is appropriate for chronic health risks. Most sources on which the District focuses have routinely consistent emissions, which are more appropriately characterized as causing chronic exposures.
- e) The consideration of options for requiring less toxic compounds and technologies happens indirectly from risk-based District programs. However, the District has limited regulatory authority to require the use of specific compounds and technologies.

- f) CARB is already developing web-based emissions data for health risk maps.
- g) OEHHA's assumptions already resolve scientific uncertainty in favor of health protection.
- h) Public participation in permitting should indeed be meaningful but must also be balanced with other factors such as permit streamlining. Sources that now involve formal public comment for toxic permitting are those that are within 1,000 feet of a school site.
- i) Current CEQA exemptions from project risk are appropriate and should remain in place.
- j) Staff will continue to collaborate with CARB to collect data for cumulative health risks.
- k) The District will conduct a pilot program to evaluate cumulative risks in one neighborhood. It will start in one neighborhood with the evaluation of cumulative stationary source risk and compare it with the incremental risk to assess the difference between the two approaches.
- l) The District is using a one-kilometer gridded parcel for toxic emissions. This is similar to the study and assessment of air toxics risk in the South Coast AQMD. Assessing cumulative risk in actual settings is a higher priority than conducting hypothetical cumulative risk.
- m) The District is already converting gasoline dispensing facilities from area to point sources.
- n) The District's Community Risk Reduction Program is a result of efforts to develop new programs and goals to limit community health risks.
- o) It is too early to develop more stringent criteria for areas with higher health risks; nor is it known which areas these are. Health risk assessment should be consistently performed.

In response to Committee members' questions, Mr. Bateman noted:

- the extent to which a community risk cap is flexible also needs further policy evaluation.
- the District is scheduled to adopt the TNSR rule either late this year or early next year.
- CARB is considering making the South Coast AQMD rule on dry cleaner use of perchloroethylene into a statewide rule. If the District eliminates the 100 in a million risk threshold for dry cleaners with TBACT, this will accelerate the use of alternative technologies locally.

6. Discussion of Community Risk Reduction Program and Toxics New Source Review.

Chairperson Weiner noted that these will be discussed in detail at the next Committee meeting.

7. Committee Member Comments/Other Business. There were none.

8. Time and Place of Next Meeting. 12:30 p.m., Wednesday, May 12, 2004, 939 Ellis Street, San Francisco, California 94109.

9. Adjournment. 3:11 p.m.

James N. Corazza
Deputy Clerk of the Boards