

AIR CURRENTS

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Air District Works to Keep Air Clean during Energy Crisis

On Monday, March 26, at Air District headquarters in San Francisco, California's energy crisis literally hit home.

At 12:30 PM, a rolling blackout suddenly caused the lights, computers, and phones to fail. The lights came back on at 3 PM, but the computer and phone systems did not become fully operational again until the following morning.

And we weren't alone that day—thousands of businesses, homes, and schools in California experienced a similar electrical shutdown.

But blackouts won't be our biggest concern this summer. The energy crisis is likely to have serious consequences for air quality in the Bay Area. Because the Air District regulates power plants and other sources of energy, each of our functions—from permitting and enforcement to public outreach and planning—will be involved in the State's response to the power predicament.

Our role as a public agency will be to minimize the air quality impact as California struggles to maintain its power supply.

Governor's Executive Orders

Our actions will largely be guided by a series of Executive Orders issued by Governor Davis in February and March. These orders, which mandate the streamlining of the permit review process for power-related projects, and establish a statewide Emissions Offset Bank for new peaking power plants, among other things, have ensured that the power crisis plays out against the background of a complicated regulatory environment. The Air District will cooperate with both the California Air Resources Board

(CARB) and the California Energy Commission (CEC) in negotiating this terrain.

At their core, however, these Executive Orders require the Air District to continue to uphold all substantive environmental standards. And so far, with no relaxation of these standards, our air quality regulations have not stopped a single existing power plant from running, nor have they blocked the approval of a single new power plant in the region. From the start, we've made significant and diverse efforts to protect air quality while keeping the lights on.

Conservation

The cleanest and best option for California in the face of the energy crisis is electricity conservation. We strongly support major proposals from both Governor Davis and the California Legislature to substantially increase conservation measures, and we encourage each resident to do his or her part. Every



kilowatt hour saved is a kilowatt hour that does not have to be produced, thereby reducing air pollution.

New Power Plants

Increased conservation alone, however, will not bring California the energy security that we need. The Air District favors the creation of new, alternative

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Air District & Mirant Sign Pact to Keep Power On

In March, the Air District reached an agreement with Mirant Potrero, LLC, allowing them to extend the operating hours for their six power turbines at the Potrero Power Plant in San Francisco during expected upcoming peak demand periods.

This agreement is consistent with Governor Gray Davis's Executive Orders of February 8, 2001 (D-24-01) and March 2, 2001 (D-28-01), which require local air pollution districts to remove permit conditions that limit annual operating hours on peaking power plants in exchange for mitigation fees.

Under this agreement, the additional operating hours are restricted to specified power demand conditions, and the power generated is to be utilized within the state of California. The mitigation fees will be earmarked for clean air projects that offset the amount of emissions produced by the increase in operating hours at these peaking turbine units.

Power plants like Mirant's Potrero facility are called "peakers." These plants were not designed to run continuously, but rather to come on-line temporarily to offset peak power demands and to insure uninterrupted power in the case of emergencies such as earthquakes.

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Mirant

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In the case of Mirant's facility, the six turbines had been limited to 877 hours of operation per turbine per year. The Potrero peakers can generate 156 megawatts of power—enough to supply about 156,000 homes.

According to the March agreement, Mirant will pay a \$20,000 mitigation fee per ton of excess emissions of oxides of nitrogen (a precursor to the formation of smog), after they have surpassed their annual hourly limit. A \$400,000 preliminary deposit will be paid up front. These fees will be used to offset the excess emissions, by funding projects in the local community that will obtain comparable emissions reductions.

The agreement lasts for a period of one year, but may be terminated sooner if the Governor rescinds the State of Emergency he declared in January. It may also be extended by further agreement.

"The Air District worked with Mirant to achieve our goals—keeping the lights on and protecting air quality," said Ellen Garvey, Air District Executive Officer. "This is one of the first agreements of this type under the Governor's Executive Order," Garvey added. "It is new territory for the Air District and promises to be a model for other power plants in this category."

—Lucia Libretti

Energy

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power sources that rely on zero-pollution technologies like wind and solar energy. But we also recognize that California's energy demands in the next few years will require the construction of new natural gas plants outfitted with the most current, sophisticated emissions control technology.

The Bay Area currently has about 4,000 megawatts of fossil-fuel powered generating capacity. As we go to press, the Air District has already approved, or is in the process of reviewing, seven new natural gas power plants with a total additional capacity of over 4,500 megawatts of electricity.

Air District Collects Penalties from Chevron

In a settlement agreement this March, the Air District received \$242,500 in penalties from the Chevron Refinery in Richmond.

This settlement addressed three notices of violation issued to Chevron for their failure to comply with the most stringent regulation in the country concerning fugitive emissions from valves and connectors. These violations stemmed from Chevron's failure to inspect and repair leaking connectors as required.

In addition to the monetary fines, the agreement also requires Chevron to surrender two tons of volatile organic compound emission reduction credits (ERCs).

Emissions credits are generated when facilities clean up their processes or otherwise reduce their amount of emissions beyond the required permitted limits. This aspect of the settlement results in a net air quality benefit for the people of the San Francisco Bay Area, since this credit for two tons of pollutants will never be used.

The retirement of these ERCs is especially important as the Air District prepares for the upcoming summer ozone season. Organic emissions from leaking connectors contribute to ground-level ozone formation in the region's air.

"This settlement with Chevron is a clear victory for clean air," said Air Pollution Control Officer Ellen Garvey. "It sends a strong message that the Air District will not tolerate these types of violations."

—Luna Salaver

Projects that have already received approval include the Los Medanos and Delta Energy facilities in Pittsburg and the Metcalf Energy Center in San Jose. These plants have been able to secure the necessary emission offsets and meet our Best Available Control Technology (BACT) requirements.

New Peaking Plants

The Air District is also working closely with both the CEC and the Governor's Clean Energy Green Team—a group that includes the Air District's Executive Officer—to dramatically cut normal review times for new peaking units. These are smaller plants that operate at times of peak power demand.

The previously mentioned State Emissions Offset Bank was created by the Governor's Executive Order to protect air quality. New peaking power plants will purchase credits from this Offset Bank for their NOx emissions to prevent the creation of localized pollution hot spots.

Thus far, the Air District has issued a preliminary decision of compliance for a 50-megawatt plant at San Francisco Airport, the United Golden Gate project. In addition, a proposal by the Gilroy

Energy Center to build and operate a 135-megawatt peaking power plant in Gilroy has received a preliminary determination of compliance.

Extended Limits for Peaker Plants

In 1995, Air District regulations required existing power plants to install additional controls to reduce emissions of oxides of nitrogen (NOx). As an alternative, power plants were given the option of accepting limitations on their annual operating hours.

Some companies complied by installing Best Available Retrofit Control Technology (BARCT). A few peaker plants, which ordinarily don't operate for more than a few hundred hours a year, chose to avoid the initial costs of installing BARCT, and accepted the annual operating limits.

During the energy crisis, however, some of these peaker plants have been called upon to play a big role in supplying power to the region. In several instances, the Air District's flexibility and rapid response in working with these peaker plants to extend their operating hours has helped avert rolling blackouts.

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Bay Area Air Toxics Continue Steady Decline

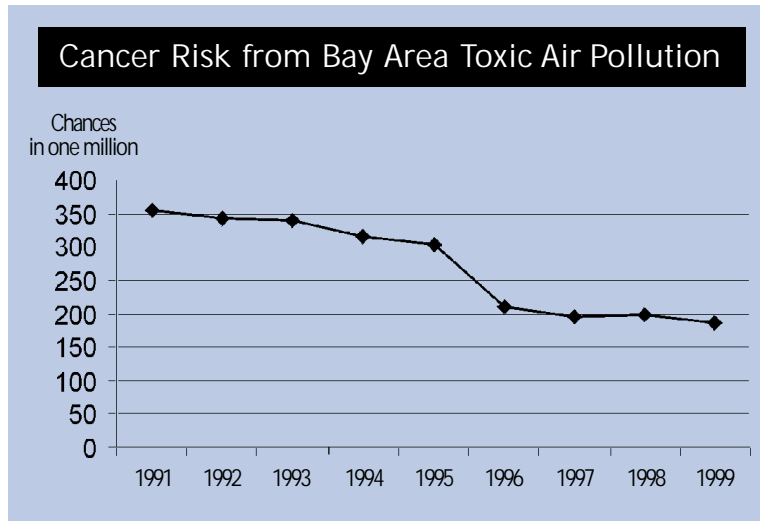
The Air District's latest report on toxic air pollutants shows a 47-percent decline in health risks from carcinogenic substances measured in the ambient air over the eight-year period ending in 1999.

The recently issued *Toxic Air Contaminant Control Program Annual Report 1999* summarizes data collected by the Air District's toxics control program, and measures the health risks from 12 major toxic air contaminants emitted by permitted facilities and motor vehicles. (See table below.)

In 1999, the total calculated cancer risk based on lifetime exposure to the average ambient concentrations of these 12 toxic air contaminants was 186 in one million. The risk was much greater in 1991, however—356 in one million. (By comparison, the overall lifetime risk of contracting cancer is approximately 333,000 in one million people.) These health risk assessments are based on a long-term, lifetime exposure of 24 hours per day, for 70 years, to a particular carcinogenic substance.

Of the 12 compounds studied, two by-products of the internal combustion engine—benzene and 1,3-butadiene—were by far the largest contributors to cancer risk (together constituting 62 percent of that risk). In the last eight years, the amount of benzene in the air has been reduced by 69 percent, and the amount of 1,3-butadiene by 39 percent. This reduction was due largely to the statewide conversion to reformulated gasoline in 1996.

However, there is growing evidence that indicates that exposure to particulate emissions from diesel-fueled engines—about 95 percent of which come from mobile sources, like trucks and buses—may result in cancer risks that



amount of specified toxic substances emitted from permitted stationary facilities and perform health risk assessments to ascertain cancer risks. As a part of the process, computer modeling was performed to determine how the substances

exceed those attributed to other measured toxic air contaminants. Based on California Air Resources Board estimates for the Bay Area in the year 2000, the average cancer risk associated with exposure to diesel particulates is about 450 in one million.

The Air District has had a toxic air contaminant evaluation process since 1987. In 1990, the California Legislature adopted AB2588, the Toxic "Hot Spots" and Assessment Act that further compelled air districts to inventory the

traveled in the air from the emitting facility and the level of impact they might have on surrounding communities.

This law directed each facility with a health risk greater than 10 in one million to notify local communities. In 1991, the first year of the risk assessment phase of the program, 30 facilities were identified with health risks above 10 in one million. The Air District implemented an aggressive toxic reduction plan, and today only one facility in the Bay Area is in this category—*Dow Chemical* in Pittsburg, with a health risk of 14 in a million. This facility has reduced its toxics emissions and is in the process of demonstrating that it should no longer be on the list.

Risk reduction measures have also been implemented for all dry cleaners, resulting in reduced exposure to perchloroethylene, a suspected human carcinogen, for those living or working near one of the nearly 1,000 facilities in the Bay Area.

"As the first air district in the state to implement a toxic air contaminant reduction plan in 1991, we are proud that our efforts have produced such dramatic results and we will continue to protect the health of our Bay Area residents," said Air District Executive Officer Ellen Garvey.

The 1999 Toxic Report is located on the Air District's web site at www.baaqmd.gov.

—Lucia Libretti

Cancer Risk from Average Concentrations of Toxic Air Contaminants Measured in the Bay Area in 1999	
GASES	CANCER RISK Chances in one million
1,3-Butadiene	65.7
Benzene	49.0
Carbon Tetrachloride	27.3
Formaldehyde	16.0
Perchloroethylene	4.5
Acetaldehyde	3.8
Methylene Chloride	2.3
Chloroform	0.3
Trichloroethylene	0.2
PARTICULATES	
Chromium (hexavalent)	15.6
Poly Aromatic Hydrocarbons	0.7
Nickel	0.7
TOTAL CANCER RISK	186

Five New Directors Named to Board

Five new members have recently been appointed to the Air District's Board of Directors. Due to a population increase, San Francisco gained a third Board position this year, bringing the Board to a full complement of 21 members. At press time, there is still one Board position to be filled, with San Francisco Supervisor Amos Brown's replacement yet to be determined.

Chris Daly

San Francisco City & County Supervisor Chris Daly was appointed to the Board on March 12. He fills the newly created San Francisco position. Mr. Daly was elected to the SF Board of Supervisors in 2000, representing District 6. Mr. Daly chairs the Public Utilities and Deregulation Committee, and serves on a variety of other committees and boards.

Mr. Daly works as an Affordable Housing Organizer, and is a member of the Adjunct Faculty of the New College of California. He was co-founder of *Mission Agenda* and the *Mission Anti-Displacement Coalition*, and is National Coordinator of *Empty the Shelter*.

Jerry Hill

San Mateo County Supervisor Jerry Hill was appointed to the Board on January 25, replacing Mike Nevin. Mr. Hill was elected to the Board of Supervisors in 1998, and serves on numerous affiliated committees and boards. Prior to his supervisorial stint, Mr. Hill served for seven years on the San Mateo City Council, and was Mayor of San Mateo in 1994. He served previously on the Air District's Board of Directors as a representative of the cities of San Mateo.

Mr. Hill belongs to a wide variety of community service organizations. He is a business owner and licensed commercial pilot. He holds a B.A. in History and Political Science from the University of California at Berkeley and a Lifetime Secondary Teaching Credential from San Francisco State University. Mr. Hill is a third-generation San Franciscan, who has lived in San Mateo County for the past 30 years. He lives with his wife Sky, and daughter Taryn.

Liz Kniss

Santa Clara County Supervisor Liz Kniss was appointed to the Board on December 12, 2000. She replaces Don Gage. Ms. Kniss has also served on the Palo Alto City Council, where she was a member of numerous committees and commissions, including the Santa Clara County Transportation Commission, and the League of California Cities Committee on Housing, Community, and Economic Development. Ms. Kniss has also spent previous terms as Palo Alto's Mayor.

Liz Kniss, continued

She is currently employed as Manager of Marketing & Communications at *Sun Microsystems Laboratories, Inc.* Ms. Kniss has a strong background in public administration, health care policy, and community service. She received a B.S., P.H.N. from Simmons College in Boston, and an M.P.A., Public and Health Care Policy, from California State University. She has done graduate work in Health Policy and Economics at the University of California, Berkeley. She and her husband have two daughters.

Nate Miley

Alameda County Supervisor Nate Miley takes Mary King's spot on the Board. He was appointed on January 9, 2001. Mr. Miley has been involved in community service his entire adult life. After finishing Law School at the University of Maryland in 1976, he moved to Oakland to work as a Jesuit Volunteer. He began his community involvement by taking a position with the *Oakland Community Organizations*.

In 1986, he created *United Seniors of Oakland and Alameda County* to advocate for better senior services, such as housing and transportation. Mr. Miley now serves as Executive Director of this organization. He was elected to the Oakland City Council in 1990, and served as the Chair of the Public Safety Committee. He is single father of two children and has lived in Oakland for more than 19 years.

Leland Yee

San Francisco City & County Supervisor Leland Yee was appointed to the Board on February 26. He replaces Michael Yaki. He was elected to his first term on the Board of Supervisors in 1996 and re-elected in 2000 to represent District 4. Mr. Yee serves on a variety of affiliated committees and boards. He is Chair of the Neighborhood Services and Parks Committee, and Vice-Chair of the Public Health and Environment Committee.

Mr. Yee works as a Child Psychologist, and chairs the Psychology Department at Lincoln University in San Francisco. He is also Chairman of the Council of Urban Board of Education, and a member of the SF Unified School District Board of Education.

Energy

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One of the Governor's Executive Orders requires local air districts to relieve peakers of permit conditions that restrict their hours of operation, in exchange for mitigation fees. The Air District accordingly negotiated an agreement with Mirant Potrero, LLC, that allows them to exceed their annual limits at their San Francisco plant, in return for mitigation fees that will be used to fund clean air projects in the region (see article in this issue).

The Air District has continued to contact peaking power plants in the Bay Area to offer assistance before annual caps are reached, and to work with their operators to address potential problems before they arise.

Standby Diesel Generators

Our greatest concern this summer is that increased reliance on diesel-fueled backup generators at facilities throughout the Bay Area will pose a significant threat to air quality.

Diesel backup generators can produce up to 600 times more NOx per kilowatt than centralized natural-gas generating facilities. And the hot summer days when rolling blackouts are most likely to occur—the days when businesses are forced to resort to their standby generators—are unfortunately also the days in which we are most likely to have smog problems.

Diesel particulate is also a designated toxic air contaminant, with major public health effects. CARB has estimated that running a single one-megawatt diesel engine for 250 hours this year would double the existing cancer risk from exposure to diesel fumes for residents living within one city block. And CARB already estimates that diesel fumes make up 70 percent of the statewide cancer risk from toxic substances in the air.

There are currently somewhere between 5,000 to 8,000 standby generators in the Bay Area, and predictions range from 260 hours to 1,100 hours of expected blackouts this summer.

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As a consequence, Air District staff are proposing changes to our backup generator rule. The proposed amendments would lower the permit exemption limit to 50 horsepower engines. All companies that own generators with engines that size or greater would be required to apply for a permit. Almost all of the existing backup generators are currently outside the permit system.

The proposed amendments would also require that new generators be equipped with air pollution controls to reduce their NOx emissions by 80 percent and their particulate emissions by 80-95 percent.

We also want to make sure that these engines run only during emergencies. Under the proposed rule changes, standby engines would only be allowed to operate while a blackout directly affects their host facilities. However, each backup engine would also be allowed to run 100 hours a year for testing.

The proposed backup generator rule is on our web site at www.baaqmd.gov. The Air District's Board of Directors will consider it for adoption in late June.

Standby generators are currently a hot political issue. Governor Davis is reportedly considering the issuance of a new Executive Order that would pay facilities for operating them during Stage 3 power alerts. We strongly oppose this proposal, which would encourage reliance on the dirtiest form of power generation.

Conclusion

California residents need a reliable supply of power *and* clean air to breathe. Unfortunately, the energy crisis will make it very challenging to reconcile these two goals this summer. At this point, it seems likely that the power shortage will have a significant, adverse effect on air quality. Backup diesel generators alone should make an appreciable contribution to the summer's NOx and particulates inventory.

At the Air District, it will be our job to mitigate this negative impact, and make sure its consequences last no longer than this blackout season and the energy crisis itself.

—Teresa Lee



At the Air District's January 17 Board Meeting, representatives of the following *Spare the Air 2000* award winners received recognition for their exemplary air quality programs: (left to right) the City of Livermore, the City & County of San Francisco, the City of San Jose, Santa Clara Family Health Plan, Intel, Sandia National Labs, and the City of Milpitas.

Recent Board Actions

January 17, 2001

RESOLUTION NO. 01-1

A Resolution Authorizing the Bay Area Air Quality Management District to Participate in the California Air Resources Board's Lower Emissions School Bus Program.

March 7, 2001

RESOLUTION NO. 01-2

A Resolution to Increase the District Budget for Fiscal Year 2000-01 for Increased State Subvention Grant Funds

RESOLUTION NO. 01-3

A Resolution to Transfer Funds Within the District Budget for Fiscal Year 2000-01 for the San Francisco Bay Area Regional Agency Smart Growth Project.

April 18, 2001

RESOLUTION NO. 01-4: Amendments

Approves a Negative Declaration Pursuant to CEQA for New Regulation 8, Rule 43—Surface Coating of Marine Vessels. Adopts Proposed Regulation 8, Rule 43—Surface Coating of Marine Vessels.

The amendments add an exemption to the rule to allow a public park or museum to use up to 55 gallons per year of non-complying coatings in order to maintain historic vessels. The amendments also delete outdated VOC limits and compliance dates to make the rule easier to read and understand.



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GENERAL BUSINESS/FAX
 415-771-6000/415-928-8560
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Newsletter Production

Teresa Lee, Director of
 Public Information

Aaron Richardson, Editor

PUBLIC HEARINGS

Wednesday, July 18

A public hearing is scheduled to begin at 9:30 AM in the 7th floor Conference Room, 939 Ellis Street, San Francisco, to review and discuss proposed amendments to:

Regulation 3, Fees, Schedule L: Asbestos Operations and Schedule Q: Aeration of Contaminated Soil and Removal of Underground Storage Tanks. This is the second of two hearings to consider proposed changes that would adjust all District fees and fee schedules by 4.4 percent (equal to the Consumer Price Index adjustment for the California Bay Area).

Wednesday, July 18

A public hearing is scheduled to begin at 9:30 AM at the Cathedral Hill Hotel, 1101 Van Ness Ave. (at Geary), San Francisco, to review and discuss **The San Francisco Bay Area 2001 Ozone Attainment Plan.**

This hearing will be conducted at a special joint meeting of the BAAQMD Board of Directors, the MTC Commission, and the ABAG Administrative Committee to discuss the proposed final plan to meet the one-hour national ambient air quality standard for ozone. At the close of the hearing, the three agencies will consider adopting the plan.

BAAQMD ACTIVITIES

ENFORCEMENT	JAN	FEB	MAR
Total Inspections	672	624	712
Complaints Processed	131	179	200
Violation Notices	175	103	98

LEGAL	JAN	FEB	MAR
Cases Resolved	17	63	123
Mutual Settlement	\$ 16,781	\$ 46,714	\$84,468
Civil Penalties	\$ 0	\$ 0	\$ 0

PERMIT SERVICES	JAN	FEB	MAR
Authorities to Construct Granted	24	26	23
Permits to Operate Granted	93	59	108

TECHNICAL	JAN	FEB	MAR
Highest Ozone AQI	30	37	49
Highest CO AQI	53	48	27
Highest Particulates AQI	78	32	35
State Ozone Excess Days	0	0	0
Source Tests	73	51	55

Pollutant values are expressed according to the Air Quality Index Scale: 0-50 Good; 51-100 Moderate; 101-150 Unhealthy for Sensitive Groups; 151-200 Unhealthy; 201-300 Very Unhealthy; Over-300 Hazardous. The District issues "Spare the Air" requests when air quality forecasts predict that concentrations of pollutants will exceed the national health standard (100 on the AQI scale).

YEAR TO DATE (04/30/01)	
State Ozone Violations	0
Federal Ozone Violations (8-Hour)	0
Federal Ozone Violations (1-Hour)	0
Carbon Monoxide Violations	0

DAILY AIR QUALITY	1-800-HELP-AIR
COMPLAINT LINE	1-800-334-ODOR
SMOKING VEHICLES	1-800-EXHAUST