

AIR CURRENTS

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Carl Moyer Program Awards \$5 Million for Diesel Engine Clean-Up

The Air District's Board of Directors has approved over \$5 million in grants for 26 projects aimed at cleaning up heavy-duty diesel engines in the Bay Area.

This funding is being provided through the Carl Moyer Program and covers the incremental costs of purchasing lower-emission heavy-duty engines.

Heavy-duty diesel engines are a significant source of oxides of nitrogen and particulate matter pollution. The former is a major category of smog-forming gas, and the latter has recently been designated as a toxic air contaminant by the California Air Resources Board. The grants should result in a net emission reduction of 295 tons of oxides of nitrogen and 14 tons of particulate matter emissions per year.

Heavy-duty diesel engines typically have a long service life. Although a set of stringent standards for new engines has been adopted, it will be many years before existing engines are naturally phased out and new ones phased in. Providing financial incentives to retrofit or replace existing engines will greatly accelerate the emission reduction benefits from these new standards.

"The Carl Moyer Program provides financial incentives to encourage a vehicle or equipment operator to use cleaner engines," stated Air District Executive Officer Ellen Garvey. "We find that engine retrofits and engine replacements are very cost-effective for many projects."

The expected emission reductions from these projects will come from retrofitting one tugboat engine, and replacing the existing high-polluting engines on seven tug boats, seven ferry boats, two off-road vehicles, one fishing vessel, and one utility boat. A complete list of the project sponsors and the award allocations for the program can be found on the Air District's website: www.baaqmd.gov.

—Lucia Libretti

2000 Bay Area
Air Pollution
Summary
inside

2001 Spare the Air Campaign Urges Energy Conservation

Since 1991, the Air District has asked Bay Area residents to "Spare the Air" by curtailing smog-producing activities on those days when ground-level ozone concentrations are expected to reach unhealthy levels.

Residents are informed through local media, personal e-mail, and employer networks to reduce driving, avoid using certain household products, and refrain from other polluting activities.

But the *Spare the Air* message takes on new urgency this summer during California's energy crisis. Above and beyond our usual concerns about pollution from cars and industrial sources, the Air District is worried this summer about the predicted impact of toxic emissions from standby diesel generators.

"The Air District suspects that there are three to five thousand diesel generators in the Bay Area," said Ellen Garvey Air District Executive Officer. "If that's so, during a rolling blackout situation, firing up those dirty diesels can add up to 10 tons of pollutants in a day."

Considering that all the existing power plants together put out 18 tons of pollutants in a summer's day, this added tonnage would be a grave detriment to Bay Area air quality.

The Air District often calls *Spare the Air* days when temperatures hit record-breaking numbers, since heat and sunlight contribute to the formation of ozone. Unfortunately, these are the same days in which power grids are stressed to address cooling needs, and thus the same days when rolling blackouts occur and standby generators get switched on.

As a consequence, the Air District has added energy conservation to this year's *Spare the Air* messages. For important energy-saving suggestions, see our website at www.baaqmd.gov/energysavings.

The 2001 *Spare the Air* season began on June 4 and will run until October 12. By the end of June, the Bay Area had already experienced three days over the federal 8-hour standard, no exceedences of the federal one-hour standard, and nine days of exceedences of the more stringent state one-hour standard.

To register for *Spare the Air* notification by personal e-mail, to view an animated map of daily ozone formation in your county, or to receive other useful air quality tips, visit www.sparetheair.org.

—Luna Salaver



BIKE TO WORK DAY—Air District employees Joe Steinberger, Mary Romaidis, Dave Burch, Robert Cave, and Duncan Campbell pedaled to work on May 17 in support of this national campaign to promote clean commute options. Bike-riding is the perfect commute alternative, since it produces no pollutant or greenhouse gas emissions, involves no fossil fuel consumption, and provides good, healthy exercise. Joe and Dave ride their bikes to work every day.

Air District Considers BUG Controls

This summer, just like any other, hot weather will bring out the BUGs. Only this year, the nastiest BUGs around will be diesel-fueled Back-Up Generators, and it will take more than fly swatters and RAID cans to keep them from fouling our air.

Back-Up Generators, or BUGs, are small, dirty electric generators designed to supply power in the rare event of earthquakes or other emergencies. Unfortunately, they've proliferated like gnats in this long, hot summer of energy shortages and rolling blackouts, and there is evidence that more and more companies are relying on them in times of grid stress to meet their energy needs.

There are estimated to be around 5,000 of these standby diesel generators in the Bay Area, and each one may produce up to 600 times more oxides of nitrogen (NOx) per kilowatt than the large natural-gas plants that are the mainstays of California's power infrastructure.

Particulate emissions from diesel engines are already estimated to account for about 70 percent of the statewide cancer risk from air pollution.

To keep these BUGS under control, the Air District is considering a series of changes to our standby generator rules.

On Wednesday, June 20, the District's Board of Directors conducted a public hearing to discuss these proposed amendments to our Regulation 2, Rule 1: General Requirements, and Regulation 9, Rule 8: Nitrogen Oxides and Carbon Monoxide from Stationary Internal Combustion Engines.

The proposed amendments will:

- Eliminate the permit exemption for emergency standby engines.
- Clarify the circumstances under which existing emergency standby engines may be used without triggering New Source Review
- Clarify the restrictions which apply to existing emergency standby engines converted to discretionary use.

The Board discussed the proposed language but did not take final action at the hearing on June 20. A public hearing for the Board to adopt revisions to these

Lawn Mower Buyback Ends

The Air District's Spring 2001 Lawn Mower Buyback Program drew to a close on April 28. Six local waste management agencies joined with the Air District to provide \$100 rebates to residents who exchanged their old gas-powered lawn mowers for new air-pollution-free electric ones.

Over the course of the program, many residents became aware of the environmental benefits of clean technologies. They learned how to produce less air pollution and solid waste, and make more efficient use of energy resources. These messages were conveyed through cable television and radio coverage of the campaign, as well as newspaper ads, in-store displays, bill inserts, brochures, and internet postings.

In all, 1,244 old gas mowers were exchanged and recycled for pollution-free models. This will remove over 50 tons of pollutants annually from our air, including 5 tons of volatile organic compounds and 46 tons of carbon monoxide.

Lawn Mowers Exchanged SPRING 2001

Alameda County	304
Contra Costa County	225
Napa County	88
Santa Clara County	278
Solano County	221
Sonoma County	128
Total	1,244

—Ralph Borrmann

regulations was scheduled for August 1, 2001.

For more information about the proposed standby generator amendments, check the Air District website at: www.baaqmd.gov/ruledev/notices.htm.

—Aaron Richardson

BAY AREA AIR POLLUTION SUMMARY — 2000

—See notes of explanation
on back of this page

MONITORING STATIONS	OZONE				CARBON MONOXIDE			NITROGEN DIOXIDE			SULFUR DIOXIDE			PM ₁₀									
	Max 1-Hr	Nat Days	Cal Days	3-Yr Avg*	Max 8-Hr	Nat Days	3-Yr Avg**	Max 1-Hr	Max 8-Hr	Nat/Cal Days	Max 1-Hr	Ann Avg	Nat/Cal Days	Max 24-Hr	Ann Avg	Nat/Cal Days	Ann Geo Mean	Ann Avg	Max 24-Hr	Nat Days***	Cal Days***		
North Counties	(pphm)				(pphm)			(ppm)			(pphm)			(ppb)			(µg/m ³)						
Napa	8	0	0	0.3	6	0	6.9	4.7	2.8	0	5	1.2	0	-	-	-	14.7	16.2	45	0	0		
San Rafael	7	0	0	0.0	6	0	5.0	4.2	2.3	0	6	1.6	0	-	-	-	18.2	19.5	40	0	0		
Santa Rosa	8	0	0	0.0	6	0	5.5	4.5	3.1	0	5	1.3	0	-	-	-	15.9	17.5	46	0	0		
Vallejo	8	0	0	0.0	6	0	6.1	6.5	5.1	0	6	1.3	0	5	1.5	0	13.0	15.0	53	0	1		
Coast & Central Bay																							
Oakland	7	0	0	0.0	5	0	4.1	5.4	3.4	0	-	-	-	-	-	-	-	-	-	-	-		
San Francisco	6	0	0	0.0	4	0	4.4	5.5	3.2	0	7	2.0	0	8	2.4	0	21.7	24.0	63	0	2		
San Pablo	8	0	0	0.0	7	0	4.7	2.8	1.9	0	7	1.4	0	7	2.0	0	-	-	-	-	-		
Eastern District																							
Bethel Island	12	0	1	0.3	9	1	8.4	2.3	1.5	0	4	1.0	0	7	1.6	0	17.5	20.0	62	0	1		
Concord	14	1	2	1.7	9	1	8.4	4.5	2.7	0	7	1.6	0	4	1.6	0	16.2	17.8	54	0	1		
Crockett	-	-	-	-	-	-	-	-	-	-	-	-	-	24	2.5	0	-	-	-	-	-		
Fairfield	10	0	1	0.3	8	0	8.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Livermore	15	2	7	3.3	11	2	8.7	4.5	2.7	0	7	1.7	0	-	-	-	19.4	21.8	71	0	2		
Martinez	-	-	-	-	-	-	-	-	-	-	-	-	-	5	1.1	0	-	-	-	-	-		
Pittsburg	11	0	1	0.0	8	0	7.2	4.9	2.7	0	5	1.3	0	7	1.7	0	13.9	16.4	56	0	2		
South Central Bay																							
Fremont	10	0	2	0.3	8	0	6.3	4.6	2.7	0	8	2.0	0	-	-	-	19.4	21.5	58	0	1		
Hayward	11	0	1	0.0	8	0	6.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Mountain View ¹	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Redwood City	8	0	0	0.0	6	0	4.7	9.8	4.4	0	7	1.8	0	-	-	-	19.1	21.2	53	0	1		
San Leandro	10	0	1	0.0	6	0	5.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Santa Clara Valley																							
Gilroy ¹	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Los Gatos	8	0	0	0.3	7	0	7.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
San Jose, 4th Street	7	0	0	0.3	6	0	6.2	8.4	6.3	0	11	2.5	0	-	-	-	23.8	26.7	76	0	7		
San Jose East	10	0	1	0.3	7	0	6.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
San Jose, Tully Road	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18.4	21.5	69	0	2		
San Martin	11	0	4	1.3	10	1	8.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Total Bay Area Days over Standard	3		12		4			0			0			0			0					7	
¹ Out of service in 2000 (see Notes on back)	*Average number of days of exceedence (see Notes on back)				**Average of the fourth highest concentration (see Notes on back)												***PM ₁₀ measurements are based on a one in every six days sampling schedule, for a total of approximately 60 samples per year.						

NOTES

The annual Bay Area Air Pollution Summary summarizes measurements for the national and California time-averaged pollutant standards.

The national eight-hour average ozone standard, proposed in 1997, was remanded by the US Supreme Court to EPA in April 2001 pending the development of a new ozone implementation policy.

The Mountain View station was closed on November 30, 1999. It was replaced by a new monitoring station in Sunnyvale in 2001. The Gilroy station was closed for the year 2000 due to construction activity, but was reactivated in 2001.

Explanation of Terms

State and national excesses occur when pollutant concentrations surpass the indicated standards, with values in most cases rounded to the same number of decimal places.

MAX HR / MAX 8-HR / MAX 24-HR

The highest average contaminant concentration over a one-hour period, an eight-hour period, or a 24-hour period.

NAT DAYS

The number of days during the year for which the monitoring station recorded contaminant concentration levels in excess of the national standard.

CAL DAYS

The number of days during the year for which the station recorded contaminant levels in excess of the California standard.

3-YR AVG (1-hr ozone standard)

The average number of days per year in excess of the national ozone standard, based on the most recent three-year period. *An average higher than 1.0 means the region will be considered out of attainment by the EPA.*

3-YR AVG (8-hr ozone standard)

The average of the fourth highest 8-hour average ozone concentration for each monitoring station, based on the most recent three-year period. *A concentration greater than 8.5 means that the region will be considered out of attainment by the EPA.*

ANN AVG

The yearly average (arithmetic mean) of the readings taken at a given monitoring station.

ANN GEO MEAN

The annual geometric mean concentration level (used for PM₁₀). The geometric mean of *n* positive numbers is the *n*th root of their product.

PM₁₀

Particulate matter ten microns or smaller in size. PM₁₀ measurements are based on a one in every six days sampling schedule, for a total of approximately 60 samples per year.

TOTAL BAY AREA DAYS OVER STANDARD is not a sum of excesses at individual stations, but rather of the number of days for which excesses occurred at any one or more stations.

HEALTH-BASED AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Std	National Std
Ozone	1 Hour	9 pphm	12 pphm
	8 Hour	—	8 pphm
Carbon Monoxide	1 Hour	20 ppm	35 ppm
	8 Hour	9.0 ppm	9 ppm
Nitrogen Dioxide	1 Hour	25 pphm	—
	Annual	—	5.3 pphm
Sulfur Dioxide	24 Hour	40 ppb	140 ppb
	Annual	—	30 ppb
Particulates < 10 microns	24 Hour	50 µg/m ³	150 µg/m ³
	Annual	—	50 µg/m ³
	Annual Geometric Mean	30 µg/m ³	—

Concentrations | ppm parts per million | pphm parts per hundred million | ppb parts per billion | µg/m³ micrograms per cubic meter

TEN-YEAR BAY AREA AIR QUALITY SUMMARY

YEAR	OZONE			CARBON MONOXIDE				Nitrogen Dioxide	Sulfur Dioxide		PM ₁₀	
	1-Hr Nat	Cal	8-Hr* Nat	1-Hr Nat	Cal	8-Hr Nat	Cal	1-Hr Cal	24-Hr Nat	Cal	24-Hr Nat**	Cal**
1991	2	23	-	0	0	4	5	0	0	0	2	18
1992	2	23	-	0	0	0	0	0	0	0	0	18
1993	3	19	-	0	0	0	0	0	0	0	0	10
1994	2	13	-	0	0	0	0	0	0	0	0	9
1995	11	28	-	0	0	0	0	0	0	0	0	7
1996	8	34	-	0	0	0	0	0	0	0	0	3
1997	0	8	-	0	0	0	0	0	0	0	0	4
1998	8	29	16	0	0	0	0	0	0	0	0	5
1999	3	20	9	0	0	0	0	0	0	0	0	12
2000	3	12	4	0	0	0	0	0	0	0	0	7

*EPA proposed the 8-Hr standard in mid-1997 and it was remanded by the Supreme Court in 2001.

**PM₁₀ measurements are based on a one in every six days sampling schedule, for a total of approximately 60 samples per year.

Vehicle Buyback Program Scraps its 10,000th Old Car

On June 28, the Air District's Vehicle Buyback Program scrapped its 10,000th clunker. Since the program began taking these older vehicles off the road in 1996, about 1,500 tons of pollutants has been removed from the air.

The District's Vehicle Buyback program purchases and scraps older automobiles that lack modern emission control

systems and therefore produce more air pollution than newer cars. The program is completely voluntary and pays participating owners of eligible autos \$500 for their vehicles.

For each automobile that is scrapped, 200 to 440 pounds of air pollutants is removed from the air.

Among these air pollutants are reactive organic gases and oxides of nitrogen. These chemicals combine in heat and sunlight to form ground-level ozone, the main ingredient in smog.

Scrapping cars also reduces airborne particulate matter, which is gaining increased recognition for its contribution to respiratory diseases and its ability to

cause cancer. All of these air pollutants are known to aggravate cardiovascular and respiratory illnesses, contributing to bronchitis, emphysema, asthma, nausea, headaches, eye irritation and dizziness.

"Older vehicles are targeted in this program because even well-maintained older vehicles have significantly higher air emissions than most newer models.

Older vehicles, especially 1973 and older vehicles which are now exempt from the SMOG Check program, can legally operate with air pollutant emissions that are 5 to more than 50 times as much as new cars," stated Air Pollution Control Officer Ellen Garvey.

The Vehicle Buyback Program is funded through the Air District's *Transportation Fund for Clean Air*. This fund allocates a \$4 surcharge on Bay Area motor vehicle registration fees to projects that reduce emissions from motor vehicles. To qualify for the Vehicle Buyback Program, a vehicle must be in operating condition and have been registered in the nine-county Bay Area for the past two years.

—Lucia Libretti



Program Coordinator Joe Steinberger talks with reporters during a press conference at the Pick Your Part scrapyards in San Francisco.



New Director Appointed to Board

Tony Hall

San Francisco City & County Supervisor Tony Hall was appointed to the Air District's Board of Directors on June 15, replacing Amos Brown. Mr. Hall was elected to the SF Board of Supervisors in 2000, representing District 7. He is a member of the Transportation Authority, and is Vice-Chair of both the Neighborhood Services and Parks Committee and the Rules Committee. Mr. Hall is also a Representative on the Association of Bay Area Governments and the Peninsula Corridor Study Joint Powers Board.

Mr. Hall has been an employee of the City & County of San Francisco for over 25 years, working in seven departments in all three branches of city government. He also works as a professional entertainer. Mr. Hall's community and civic activities are extensive, comprising stints on the Mayor's Criminal Justice Citizen Advisory Council, the Homelessness Advisory Task Force, the Drug Task Force, and the Citizen Advisory Task Force, among other duties.

This appointment brings the Board to a full complement of 21 members. San Francisco gained a third Board position this year, due to an increase in population.

Published bimonthly
B.A.A.Q.M.D.
 939 Ellis Street
 San Francisco, CA 94109

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COMMUNITY MEETINGS

The Air District has scheduled a series of community meetings to take input from interested members of the public on the Bay Area's Ozone Attainment Plan.

- East Palo Alto** — Thursday, August 23
- Richmond** — Saturday, August 25
- San Francisco** — Monday, August 27
- San Jose** — Tuesday, August 28
- Livermore** — Wednesday, August 29
- Vallejo** — Thursday, August 30

Anyone can attend. For more information, including exact times and locations, see our website at www.baaqmd.gov



Support Green Businesses in Contra Costa County

Local auto repair shops and printers are doing their part to protect the environment.

Working with the **Contra Costa Green Business Program**—a unique collaboration between government, residents, and business—numerous shops have voluntarily implemented the required conservation practices and meet all the environmental criteria for becoming a **certified Green Business**.

Please support their efforts and commitment with your patronage. To get a list of **certified Green Businesses**—or to become one yourself—visit www.greenbiz.abag.ca.gov for more info. You can also call (925) 646-2286 or e-mail rbwaite@hsd.co.contra-costa.ca.us.

BAAQMD ACTIVITIES

	APR	MAY
ENFORCEMENT		
Total Inspections	550	820
Complaints Processed	206	251
Violation Notices	89	101

LEGAL		
Cases Resolved	119	Information not currently available
Mutual Settlement	\$ 79,386	
Civil Penalties	\$ 242,500	\$ 0

PERMIT SERVICES		
Authorities to Construct Granted	30	28
Permits to Operate Granted	74	74

TECHNICAL		
Highest Ozone AQI	51	116
Highest CO AQI	20	20
Highest Particulates AQI	29	51
State Ozone Excess Days	0	4
Source Tests	45	73

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	(06/30/01)
State Ozone Exceedences	9
Federal Ozone Exceedences (8-Hour)	3
Federal Ozone Exceedences (1-Hour)	0
Carbon Monoxide Exceedences	0

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