

# AIR CURRENTS

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

## A Message from the Executive Officer

First of all, I would like to say how proud and excited I am to have been selected as Executive Officer for the Air District. I look forward to working with the management and staff of this agency to continue to improve air quality in our nine-county region, which is undoubtedly one of the most beautiful places on earth.

As you all know, the end of 2003 brought momentous changes to the government of our state, along with continuing economic problems. In the year ahead, along with the rest of California, we will



be monitoring the situation in Sacramento and, as that is further defined, taking steps to ensure the continued long-term financial health of our organization. Although we will be mindful of California's overall fiscal situation, it is

important that our efforts to protect air quality in the Bay Area not be compromised.

As I see it, our top priorities for this year include continuing to maintain and enhance the core elements of our programs and building upon our strengths as we move the agency forward to address a wide set of issues.

Over the past few decades, the Air District has made great strides in reducing pollution in the region, but there is obviously still work to be done. Last year's ozone season left us with three years of clean data for the federal one-hour standard. This data has been recognized by the EPA, and is the first step towards designating the Bay Area in attainment of the one-hour ozone standard. However, we are currently out of attainment for the federal eight-hour ozone standard, and must continue to find ways to reduce ozone levels for our own benefit as well as that of our downwind neighbors.

As a critical step in our efforts to meet the federal and state ambient air quality standards, we will be putting together a

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## Air District Board Tours SF Community

On January 7, 2004, the Air District participated in a "Community Environmental Tour" of San Francisco. Over twenty community residents and environmentalists joined fourteen Board members, the Air District's Executive Officer, senior Air District staff, and representatives from local government agencies as they boarded a bus to meet and listen to residents affected by air pollution.

The half-day tour, sponsored by the Air District and organized by Greenaction and other members of the Environmental Justice Air Quality Coalition, included stops in Bayview/

Hunters Point, Potrero Hill, and the Excelsior District. At each stop, residents told of their concerns and asked questions regarding air quality, pollution sources, and possible health effects on their community.

Board members listened intently as residents recounted their stories and reminded staff to consider the families directly impacted by the Air District's implementation of federal and state regulations and policies.

"The community requested that the Air District come out and hear from those who have been most affected by air

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### TOLL-FREE NUMBERS

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

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## Message

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new ozone strategy this year. I envision this to be a thoroughly comprehensive plan for the Bay Area, one that will enable the region to meet its air quality requirements. This strategy can be used to attain and maintain the respective ozone air quality standards. The development of the comprehensive attainment strategy has been underway for over a year and I encourage all those interested to participate in the planning process.

Another important component of our ozone reduction activities will be the continuing implementation of our further study measures for refineries, including the development of a brand new flare control regulation. These measures are the first of their kind in the country and represent a model for other air quality agencies.

I also expect the Air District to lead efforts to explore and develop innovative approaches to air pollution sources that have not as yet been controlled at the regional level. Two examples of these types of sources are marine vessels and locomotive operations. In such cases, we may not be able to adopt standards, but we can seek to obtain funding from the state and federal governments to help reduce particulate matter and oxide of nitrogen emissions from these sources.

This year, our key enforcement efforts will focus on continuing to provide the field presence to ensure that our enforcement program is equitable and deters non-compliance. I want to continue to concentrate our efforts on achieving emissions reductions. I am mindful that our inspectors are often the Air District representative in the community. As such, I want to continue to ensure that sufficient resources are provided to maintain that presence.

Our engineering department will devote significant resources in 2004 to preparing amendments to our Title V permits. I would like to congratulate the staff for their success at meeting their

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## Santa Clara Wood Smoke Rebate Campaign

During the fall of 2003, the Air District's Wood Smoke Rebate Program expanded significantly to encompass the whole of Santa Clara County. This program takes a novel approach to reducing particulate pollution from woodstoves and fireplaces, by offering as much as \$500 in rebates to Santa Clara County residents who replace an old wood-burning stove or traditional fireplace with a new natural-gas burning appliance and a new gas line.

This pilot program is believed to be one of the first of its kind. Funding is the result of an agreement between the Air District and the California Energy Commission, with Calpine Corporation and Silicon Valley Power. In order to construct new power-generating facilities in Santa Clara County, these companies provided funding as a way of offsetting the amount of emissions they will produce.

Wintertime emissions from wood burning are a major factor in local air quality. For example, particulate emissions from old woodstoves can be as high as 60 grams in one hour, compared to 0.07 grams per hour for a natural gas unit. Many cities in the South Bay have already adopted the Air District's Model Wood Smoke Ordinance as a way to lessen the high amounts of particulates and toxins associated with wood burning. The Santa Clara Wood Smoke Rebate Program will complement this effort and provide funding for up to 1,700 conversions to take place in the coming months. That would constitute a reduction in harmful particulate emissions each fall and winter of nearly 40 tons.



### REBATES AVAILABLE

- **\$300** to retrofit an existing fireplace by installing a new gas line and either a new log set or a new insert.
- **\$500** to replace an existing wood-burning stove or fireplace insert (1990 or older) with a new gas line and a new stove or insert. (Your old woodstove must be scrapped at Pick Your Part in Milpitas.)

*This rebate offer is only available for homes in Santa Clara County. You must install a new gas line in order to be eligible to receive a rebate. This offer is good for new purchases only. No retroactive rebates are available. Supplies are limited; rebates are offered on a first-come first-served basis.*

For more information, visit our website at [www.sparetheair.org/changeout.htm](http://www.sparetheair.org/changeout.htm).

*—Ralph Borrmann*

## Message

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December 1 deadline and getting all of our Title V permits completed. I believe this was a significant achievement and the culmination of several years' hard work. This year we will open up a few permits for enhancement, to bring them up to speed, and these changes will be a critical priority for our engineering staff.

Another major priority for this year and upcoming years will be the completion of our database conversion program. This conversion effort is critical in getting our permitting program onto a reliable system that will efficiently assist us in our engineering decisions.

This year, as ever, the Air District remains firmly committed to principles of environmental justice for the entire Bay Area. My vision for the agency involves the launch of an interdisciplinary effort to address localized community toxic exposures in the region. All elements of this effort will rest on a solid technical foundation, bolstered by strong regulatory and legislative initiatives. As part of this effort, I expect to be able to adjust the staff organization to highlight our community outreach program.

As part of this effort, I expect the Air District will need to place continued emphasis on diesel particulate exhaust, which has been estimated in some quarters to contribute up to 70 percent of the total risk from toxic air pollution in the region. I believe the removal of particulates from our most affected neighborhoods and communities will be a cornerstone priority for our agency in 2004.

For this reason, I anticipate expending more energy this year on specific communities in the Bay Area—such as West Oakland, Bayview-Hunters Point, East Palo Alto, Richmond, and Pittsburgh/Antioch—which are dominated by the impact of diesel truck traffic as well as a concentrated set of stationary sources.

This year staff will bring an Air Toxics New Source Review regulation to the



Air District Executive Officer Jack Broadbent addresses assembled community members at the Hunters View Apartments (photo: Teresa Lee)

## Tours

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pollution," said Jack Broadbent, the Air District's Executive Officer. "We are committed to the principles of Environmental Justice and, as the agency responsible for protecting air quality throughout the Bay Area, we place a very high value on community input."

Communities for a Better Environment (CBE) acted as lead presenters at the first stop, Mirant Corporation's Potrero Power Plant; Greenaction and local residents presented at the tour's second stop, the Hunters View Housing Projects on Middle Point Road overlooking PG&E's Hunters Point Power Plant on Evans Avenue; and finally, the Chinese Progressive Association represented the

community at the San Francisco Community School, roughly one block from a Shell Oil station at Mission and Silver. This group had opposed a permit that would have allowed the station to increase throughput.

This event was the third of several tours that the Board of Directors has participated in. Previous tours included oil refineries, tank farms, pesticide plants, toxic incinerators, and other potentially hazardous facilities in Contra Costa County (Richmond, Rodeo, and Crockett) and the Peninsula (East Palo Alto).

At press time, another tour was scheduled to be held in Oakland on February 18. For more information about the tours, contact Darrell Waller, Community Outreach Coordinator, at 415-749-4987 or [dwaller@baaqmd.gov](mailto:dwaller@baaqmd.gov).

—Darrell Waller

Board of Directors for their consideration. This rule would formalize our current risk management policy for new and modified sources, and include some changes that will make our program consistent with the latest health risk assessment guidelines. Last year we held a series of workshops and community meetings to discuss these issues, and I anticipate that the proposed regulation

will go before our Board of Directors sometime during the latter half of the year.

In summary, then, this is a year in which I hope to see us build on our continued success at reducing ozone concentrations, while exploring new approaches to address uncontrolled sources. At the same time, I would like the agency to shift more attention to

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# A Visit to the San Francisco Air Monitoring Station

To get to the Air District's San Francisco Air Monitoring Station, you pass through a gateway shrouded with colorful bougainvillea vines and step into a sleepy courtyard in the flatlands below Potrero Hill. It's a calm, tranquil place, a cozy small-office park for design firms and architects, that belies the hivelike buzz of electronic information-gathering activity that goes on behind one of its nondescript doors.

But, we've come to the right spot. It's here, and in the 32 other monitoring sites deployed at various locations throughout the Bay Area, that the regional air pollution "battlefront" is mapped out; it's here that critical data is basically snatched out of thin air for use in the ongoing campaign to control unhealthy emissions and safeguard public health.

The Air District's station operator, Bob Schusteritsch, meets us at the door. He explains that the San Francisco monitoring station is no run-of-the-mill facility. It's considered to be a 24-hour continuous "full" station, which means that it has office space and a full assortment of air monitoring and sampling equipment for measuring the ambient air concentrations of several air pollutants around the clock.

Bob has been with the agency for twelve years (although all this time in California hasn't mellowed his distinctive Long Island accent). He tells us that only thirteen of the ambient air monitoring stations in the nine Bay Area counties are actually "full" stations like this one. The rest are smaller stations recording measurements for one or two pollutants. But all 33 of these monitoring stations are maintained by a sturdy crew of just ten station operators. This means that Bob wears his travelling shoes to work: he makes the rounds each week at assigned satellite stations in other Bay Area locations to ensure that things are up to speed.

The Air District's air monitoring network has been in operation for more than 40 years now. It debuted in 1962 with six stations, including one at a different San Francisco location. In 1974, the network expanded to over 20 stations, and the SF station was relocated to its current Potrero Hill site.

The current San Francisco location was chosen for a variety of reasons, taking into account population density, the proximity of major pollution sources, and the nearness of transportation corridors.



Bob Schusteritsch, Air Quality Instrument Specialist II, makes a data entry in an instrument log book. (photo: Ralph Borrmann)

The federal EPA has developed siting guidelines for air monitoring networks, and the Air District refers to these in determining monitoring locations. Above all, it's important that the data collected at these stations meet EPA standards for accurate and representative sampling.

By way of explanation, Bob begins to elaborate on a bewildering variety of acronyms and terms, such as SLAMS versus NAMS, neighborhood versus middle-scale, NAAQS's, etc., but we're impatient to get a first-hand view, so we cut him short with a request to see the interior of the station.

Once inside, we find three rooms. First, there's a workroom with benches and tools where Bob repairs instruments. At the far end of this room, an open door leads to an office equipped with a computer, a fax machine, and printing equipment. Its furnishings are austere—the only hints of color are provided by highlighter marks decorating the myriad charts hung upon the wall. In here, Bob tracks the air quality data collected by the instruments at this station, and calls up measurements from several other stations,

via computer. In some ways it's like a telegraph office, communicating with the ether.

But the quiet order of this "communications center" disappears as soon as we open the door to the instrument room. Here, at first glance, it seems like we've stumbled into some mad

scientist's laboratory, filled with the oddball props of a 1950s B-movie. There's a haphazard array of devices, adorned with a welter of tapes and rollers; a jumble of knobs, wires, chart recorders, tubing, and metal boxes, set against the loud droning of pumps and the constant humming and whirring of motors and spools. Closer inspection reveals an occasional stray wire held in place with masking tape. At any moment, you half expect Vincent Price to come cackling around the corner clutching a test tube.

Instead, we're greeted by the much more benign presence of Bob's supervisor, Stan Yamaichi. He explains, despite our initial impressions, that this is state of the art air monitoring equipment. Stan's a native Californian, who's been with the Air District for 25 years. He tells us that some of these monitoring instruments can cost as much as \$20,000 apiece. They're extremely delicate, and, among other things, must be maintained within a narrow temperature range. Bob is responsible for the day-to-day operation of these devices, performing preventative maintenance and minor repairs as necessary and ensuring the integrity of the station's data.

The air sampling equipment here at the San Francisco station measures concentrations of ozone, carbon monoxide, PM 2.5 and PM 10 particulate matter, oxides of nitrogen, hydrocarbons, sulfur dioxide, dioxins, and several other pollutants, including a range of toxic air contaminants. The ambient air to be sampled is drawn in through a long continuous tube, called the sample probe, that extends through the ceiling to the roof.

Bob and Stan then invite us up for a rooftop view, to see where this whole monitoring process begins. It's a low roof, covered with an assortment of spires, all spindly and pointy, and one large central tower. The effect is something like a pirate radio station gone berserk. Only these "antennas" aren't tuning in radio waves: "Everything's drawing in air," Bob explains. "It's all about drawing in air in one form or another, one volume or another." These slender devices are all basically vacuums, he explains, continually capturing air either for the samplers downstairs or for the particulate monitors here on the rooftop.

In a sense, then, it's up here that the unseen comes into view, and something of vast significance begins to be made out of what looks at first like nothing at all. It's here at this monitoring station, and in others like it throughout the Bay Area, that the air gives up its secrets, inaugurating a complex process that leads from measurement to planning and modeling and to the development of regulations and policies. Without the information compiled at these stations, the Bay Area's



Stan Yamaichi, Supervising Air Quality Instrument Specialist, stands beside the main sample probe. (photo: Ralph Borrmann)

progress in meeting state and federal air quality standards could not be evaluated, and the Air District's effectiveness at controlling pollution would be nearly impossible to gauge.

"Data collection is used to help determine control strategies," Stan tells us. "We're here to monitor air quality in the Bay Area network," he says, "and the data we collect goes to determine whether or not we're in attainment. The data is

used for research and planning and ascertaining whether or not we've made progress."

In other words, the information collected here and in the other Bay Area monitoring stations is absolutely essential to the air quality control efforts of the Air District.

Still, despite the importance of his efforts, there's something a little lonely about the station operator's workaday existence, in his solitary outpost on the air pollution frontier. It's a life of routine, spent busily pouring over esoteric data, and sometimes thanklessly making sure this vast information-gathering apparatus runs smoothly and efficiently.

"Everybody seems to think that these boxes just spit out a number: No maintenance, no calibrations, everything runs by itself," Bob explains. "But it's complex. We're hard-working individuals. It's our job to keep this whole network running."

So next time you take a deep breath, you might spare a thought for Bob and Stan and their fellow air monitoring staff, working hard to decipher the vital messages written invisibly in the air around us, before it disappears into our lungs.

—Aaron Richardson

## Message

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particulate pollution, specifically as it may unduly affect certain communities within our jurisdiction.

Before I close, I would like to mention once again how happy I am to join the Air District family. From the start, it has been clear to me that we have a roster of strongly qualified employees possessing unique skills and an unquestioned commitment to our air quality mission. In many ways these are uncertain times, but our role is well-defined and of tremendous importance. I hope, under my guidance this year, that the agency will accomplish things in which we can take great pride together.

—Jack Broadbent



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## A&WMA's 97th Annual CONFERENCE & EXHIBITION

### Sustainable Development: Gearing Up for the Challenge! Indianapolis, Indiana June 22-25, 2004

The Air & Waste Management Association's 97th Annual Conference & Exhibition will be held on June 22-25, 2004, in Indianapolis, Indiana. This year's theme is *Sustainable Development: Gearing Up for the Challenge!* The conference will provide cutting-edge content relating to this important global concept.

The conference will feature:

- 31 technical tracks with educational sessions.
- Keynote speaker, James E. Rogers, Chairman, President, and Chief Executive Officer of Cinergy Corporation, who will lead a lively panel discussion on this year's theme — *Sustainable Development—What is Sustainable Development, What are the Challenges, Where Do We Need to Go, and How Do We Get There?*
- Nobel Laureate, Dr. Mario J. Molina, and Dr. Luisa T. Molina from the Massachusetts Institute of Technology will participate in the Critical Review on Megacities and Atmospheric Pollution.
- An exhibit hall featuring hundreds of companies showcasing the latest in environmental products and services.
- A conference-within-the-conference, the 6th International Urban Air Quality Forum, which will focus on integrated particulate matter pollution management, urban air quality sustainability, and air quality and urban/transportation planning.

This year's Annual Conference & Exhibition promises unmatched opportunities for professionals from the public, private, and academic sectors to share emerging challenges, unique insights, and proven solutions for protecting our resources and our livelihood.

Register now to take advantage of early bird savings at [www.awma.org/ACE2004/](http://www.awma.org/ACE2004/). For comments and questions, e-mail [info@awma.org](mailto:info@awma.org) or call (412) 232-3444.