

# AIR CURRENTS

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

## Air District Asks Public to Limit Wood Burning

The Bay Area's winter *Spare the Air Tonight* season began on November 14, 2005, and will continue through February 17, 2006.

This represents an expansion of the season by two weeks, in order to coincide with the time of year when a combination of weather conditions and increased wood burning can result in seriously impaired air quality.

During this season, the Air District will issue *Spare the Air Tonight* advisories when unhealthy levels of air pollution are predicted. Advisories will be issued at 10 AM for the same day through midnight. On these *Spare the Air* nights, the Air District will ask the public to refrain



from burning wood in their fireplaces and woodstoves, and to drive less.

### PM<sub>2.5</sub>

In the wintertime, cooler temperatures and reduced sunlight limit ground-level

ozone pollution problems. But light winds and reduced vertical mixing, combined with wood burning, especially around holidays, can lead to high concentrations of particulate matter (PM). Peak periods usually occur between sunset and morning hours.

Fine particulate matter, defined as particulates 2.5 microns or smaller (PM<sub>2.5</sub>), is the pollutant of greatest concern in the winter. PM<sub>2.5</sub> can be trapped in the lungs

for years, causing respiratory problems such as bronchitis, aggravating pre-existing conditions such as asthma, and leading to other serious health issues—including earlier mortality for people with cardiopulmonary disease.

Residential wood burning and motor vehicle traffic are major sources of PM<sub>2.5</sub> in the Bay Area.

### Air Quality Standards

The federal Clean Air Act, last amended in 1990, requires the U.S. EPA to set *National Ambient Air Quality Standards* for pollutants considered harmful to public health and the environment. Accordingly, the EPA Office of Air Quality Planning and Standards has set national standards for six pollutants—known as “criteria pollutants”—including particulate matter.

The Bay Area has met the national standard for particulate matter 10 microns and smaller (PM<sub>10</sub>) as well as the stricter 24-hour national standard for PM<sub>2.5</sub>, which is a subset of PM<sub>10</sub> also known as

—continued on page 9

## Air District Passes Landmark Flare Rule

On July 20, 2005, the Air District's Board of Directors passed the first rule in the nation to reduce the amount of flaring at petroleum refineries.

Refinery flares are safety devices that burn off gases during upsets and emergencies. Some flares serve as emission control mechanisms. Flaring also takes place during plant maintenance operations that include shutting down or restoring units, and they occur when refinery processes produce more gas than can be used to fuel refinery operations. The purpose of the Air District's new refinery rule—which comes after several years of consultation with government, industry, community groups, and the

general public—is to reduce all pollutants by minimizing all flaring.

*Regulation 12, Rule 12, Flares at Petroleum Refineries* requires each refinery to develop a Flare Minimization Plan (FMP). This plan must include: (a) a technical description of each flare and of the upstream equipment and processes that send gas to the flare; (b) a description of the equipment and procedures installed within the last five years to reduce flaring; (c) a description of any equipment or procedures that the refinery owner or operator plans to install to reduce flaring; and (d) an evaluation and schedule for future implementation of all feasible flare prevention measures.

—continued on page 5



### 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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# Free Morning Commute Program Ends 2005 Spare the Air Season Comes to a Clean Close

The summer 2005 smog season came to an official close on October 14. For the first time ever, only one *Spare the Air* advisory was called, on July 26. Continuing a recent trend towards cleaner air, the Bay Area had just one excess of the national eight-hour average air quality standard for ozone this past summer, and only nine excesses of the state one-hour average ozone standard.

The past year brought some momentous changes to the national and state ozone air quality standards, as the federal government revoked the national one-hour standard, and the state of California established an eight-hour ozone standard. The Bay Area exceeded this new California eight-hour standard just nine times in 2005.

In the summer of 2005, the Air District partnered with the Metropolitan Transportation Commission (MTC) and regional transit agencies to expand the Free Morning Commute program on *Spare the Air* days. For the first time, free morning commutes were offered on 21 regional transit systems on *Spare the Air* weekdays, with Bay Area commuters able to take advantage of the program when the *Spare the Air* advisory was issued for July 26. The 2005 Free Morning Commute program officially ended with the *Spare the Air* summer season on October 14 as well.

Increased signage and publicity related to the Free Morning Commute program this summer helped spread the *Spare the Air* message to the public. According to surveys taken after the July 26 *Spare the Air* advisory, the public reduced air pollution by increasing overall transit ridership in the region by almost seven percent. According to MTC, the estimated vehicle miles reduced by commuters taking advantage of the free morning commute was about 64,270 miles, or the equivalent of driving between San Francisco to Los Angeles 85

## 2005 Days over National Ozone Standard

Air District	Days
Bay Area	1
Sacramento	35
San Joaquin	72
South Coast	84

As in recent years, air quality in the Bay Area in 2005 compared favorably with that of other major urban air basins in California.

times. In addition, over seven percent of Bay Area drivers claimed that they reduced normal driving that day by at least one trip.

This season, registration for AirAlerts—the e-mail notification system

that gives 24-hour advance notice of *Spare the Air* days—also reached an all-time high of over 31,200 individuals.

The Air District initiated the *Spare the Air* program in 1991. Its goal has been to protect public health by letting residents know when poor air quality is expected. The program asks residents to reduce polluting activities on *Spare the Air* days, and warns them to limit their own exposure to unhealthy air.

*Spare the Air* days are announced when ozone concentrations approach the national eight-hour standard. These advisories are issued through the media, the employer notification network, CALTrans message signs, AirAlert e-mails, the Air District's 1-(800) HELP AIR telephone line, and the [www.sparetheair.org](http://www.sparetheair.org) website.

—Aaron Richardson

## Air District Adopts Ozone Strategy

On January 4, 2006, the Air District's Board of Directors approved the *Bay Area 2005 Ozone Strategy* and the accompanying *Environmental Impact Report (EIR)*. This strategy was developed by Air District staff in cooperation with the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG).

The *Ozone Strategy* is a road map showing how the San Francisco Bay Area will achieve compliance with the California one-hour air quality standard for ozone as expeditiously as practicable, and how the region will reduce transport of ozone and ozone precursors to neighboring air basins. The *EIR* examines potential secondary adverse environmental impacts that might result from implementation of control measures included in the *2005 Ozone Strategy*.

Ozone levels—as measured by peak concentrations and the number of days over the State one-hour ozone standard—have declined substantially as a result of aggressive programs by the Air District, MTC, and our regional, state, and federal partners. This represents great progress in improving public health conditions for Bay Area residents. The *2005 Ozone Strategy* provides useful background information on topics including the Bay Area's emission inventory, historical ozone trends, and the implementation status of past control measures.

However, there is still a need for continued improvement to meet the State one-hour ozone standard. Accordingly, the *Ozone Strategy* describes how the Bay Area will fulfill California Clean Air Act (CCAA) planning requirements for the

—continued on page 5

# Air District Adopts Toxics New Source Review Rule

In June 2005, following extensive public meetings and detailed technical work, the Air District's Board of Directors adopted *Regulation 2, Rule 5: New Source Review of Toxic Air Contaminants*.

This new rule codifies and updates the policies and procedures under which the Air District had previously administered its Air Toxics New Source Review (NSR) Program. Passed with a series of associated amendments to other Air District regulations and to the Manual of Procedures, it represents the culmination of several years of hard work.

## Toxics NSR Program

The Air District's Toxics NSR Program was established in 1987 and applies to industrial and commercial facilities that

emit toxic air contaminants (TACs). TACs are pollutants that can cause serious illness or death, or pose other potential hazards to human health.

The Toxics NSR Program requires facilities to undergo a permit review before constructing new facilities or modifying existing ones. The goal of the program is to prevent significant increases in public health risk that might result from projects involving new or modified sources of toxic air contaminants. It also aims to reduce health risk by requiring facilities to update their existing emission controls when they modify or replace older, more highly polluting sources.

The Toxics NSR Program requirements are based on health risk assess-

ments, which analyze health risks for individuals potentially affected by toxic emissions. The Air District's program uses a health risk assessment methodology that was specifically developed for air pollution control programs in California. This methodology is outlined in state health risk assessment guidance documents.

Following these guidelines, Air District staff complete a basic health risk assessment, also known as a health risk screening analysis (HRSA), as part of the permit evaluation process for any proposed project with toxic emissions over specified levels.

These HRSAs are analyses of the potential public health risk due to toxic emissions from a given project, using computer-modeled estimates of atmospheric dispersion. Estimates of public exposure, cancer risk, and hazard indices—which are measures of non-cancer risk—are made for individuals at the residential or off-site work locations where they would be most highly exposed. If results of the HRSA indicate that the project does not comply with the applicable standards, an applicant may submit a more refined health risk assessment using more site-specific information.

Depending on the results of the HRSA, the Air District may require facilities to install or implement a set of pollution controls referred to as Best Available Control Technology for Toxics (TBACT). This might be a piece of equipment, or an operational procedure, that constitutes the highest level of emission control that has been successfully achieved in practice for a particular kind of pollution source, or that has been determined to be technologically feasible and cost-effective by the Air District. The District also limits the project risk due to residual emissions that remain after the use of TBACT to ensure that a proposed

## Air District Reducing PM Emissions

In 2003, the California Legislature enacted Senate Bill 656 (SB 656) to reduce public exposure to fine particulate matter. SB 656 required the California Air Resources Board (ARB), in consultation with local air districts, to develop a list of the most readily available, feasible, and cost-effective particulate matter control measures based on rules, regulations, and programs existing in California as of January 1, 2004. The goal of SB 656 is to make progress toward attainment of State and national  $PM_{10}$  and  $PM_{2.5}$  standards. High PM levels can aggravate asthma and cause bronchitis, decreased lung function and premature death.

ARB compiled a list of measures that are being implemented by California air districts to address PM emissions. Air District staff compared each of the control measures on ARB's list to existing Air District rules, regulations, and programs to determine the extent to which identical or equivalent control measures are already being implemented by the District, and how additional PM emission reductions could be achieved.

The staff evaluation found that most of the measures on the ARB list are either already being implemented in the Bay Area, or are included as control measures in the Ozone Strategy recently adopted by the District. Two measures were proposed for rulemaking: a new rule limiting emissions from commercial charbroiling, and amendments to existing rules to further reduce emissions from stationary and portable internal combustion engines. The Air District is also enhancing programs to reduce wood smoke emissions. We have lowered the threshold for calling Spare the Air Tonight advisories and have expanded our outreach to cities and counties, media, and the public on the health effects of wood smoke and strategies to reduce wood burning. For more information on PM, visit [www.baaqmd.gov/pln/pm/](http://www.baaqmd.gov/pln/pm/).

—Dave Vintze

—continued on page 7

# Air District Awards \$12.4 Million in TFCA Grants

In November, the Air District's Board of Directors approved grant awards for a total of \$12.4 million from the Transportation Fund for Clean Air (TFCA) Regional Fund program.

These funds were allocated to 52 projects designed to reduce emissions from motor vehicles, the largest source of air pollution in the Bay Area. Over the life of these projects, an estimated 351 tons of smog-forming gases and small particle pollution will be removed from the air we breathe, along with 48,541 tons of carbon dioxide, a greenhouse gas.

TFCA funds are generated by a four-dollar surcharge on motor vehicle registration fees in the nine Bay Area counties within the Air District's jurisdiction. Revenue collected from this surcharge is distributed mainly through two channels. Forty percent is allocated to the region's nine county congestion management agencies for disbursement to eligible projects, as the TFCA County Program Manager Fund. The Air District distributes most of the remaining sixty percent, known as the TFCA Regional Fund, to eligible projects proposed by eligible project sponsors. A portion of the sixty percent of the TFCA revenue is also used to fund emission-reduction programs administered by the Air District.

The TFCA Regional Fund must be used for the implementation of projects that reduce motor vehicle emissions, consistent with the 1988 California Clean Air Act and the *Bay Area Clean Air Plan*. Only public agencies have been eligible to receive the grants, but in some cases they could apply on behalf of private agencies that provide certain essential transportation-related public services, such as shuttles, taxis, refuse trucks, etc.

TFCA grant awards are offered on a competitive basis. The most important criterion in the determination of grant awards is the cost-effectiveness of the proposed projects; additional criteria

FY 2005/06 TFCA Regional Fund Applications Recommended for Funding by Project Type			
Project Type	No. of Projects	TFCA Amount	Percent of Total
Reducing Existing Diesel Emissions	10	\$ 3,081,070	24.8%
Shuttle Programs	8	2,345,177	18.9
Shuttle Buses – Natural Gas	2	1,486,340	11.9
Repower – Natural Gas	4	1,353,300	10.9
Bicycle Projects	15	1,327,910	10.7
Ridesharing Projects	5	1,299,816	10.4
Smart Growth Projects	4	1,008,248	8.1
Low-Emission Heavy-Duty Vehicles	1	400,000	3.2
Arterial Management Projects	2	121,000	1.0
Clean Fuel School Buses	1	12,500	0.1
<b>Totals</b>	<b>52</b>	<b>\$12,435,361</b>	<b>100.0%</b>

include other project attributes, compliance with clean air policies and programs, benefits to disadvantaged communities, and promotion of alternative transportation modes.

The allocation of TFCA funds by project type for fiscal year 2005/2006 is shown in a chart to the xxx (show chart). The most heavily funded project types in this funding cycle were diesel emission-reduction projects, with a 25 percent fund allocation, followed by shuttle programs, with a 19 percent fund allocation.

Since 1992, when the Air District began issuing grants under the TFCA Regional Fund program, over \$190 million has been allocated to more than 600 projects around the Bay Area. It is estimated that these projects have reduced over 20,000 tons of emissions of particulate matter and ozone precursors.

Information about the next funding cycle will be available in the spring of 2006 on the Air District's [www.baaqmd.gov](http://www.baaqmd.gov) website or via e-mail at [grants@baaqmd.gov](mailto:grants@baaqmd.gov). You can also call (415) 749-4994 to request an application form and related information. Public

agencies should apply directly to the Air District. All TFCA grant applications are evaluated, scored, and ranked using criteria approved by the Air District's Board of Directors. Projects are funded in the order of ranking.

In addition to the TFCA County Program Manager Fund and Regional Fund grants, a portion of the TFCA funds are earmarked for programs administered by the Air District, including the following:

- The Spare the Air Program, which advises the public when air quality is poor and asks for cooperation in limiting polluting behaviors such as driving.
- The Smoking Vehicle Program, which encourages motorists to report vehicles with excessive exhaust to 1-800-EXHAUST or [www.800exhaust.org](http://www.800exhaust.org).
- The Vehicle Buy Back Program, which offers Bay Area residents \$650 to buy and scrap eligible 1985 and older vehicles, which are high-emitters.
- The Vehicle Incentive Program, which offers public agencies grants to acquire low-emission light-duty alternative fuel vehicles.

—continued on page 5

## Changes to the 2006/2007 TFCA Funding Cycle

Section 44241 of the Health and Safety Code, which codifies the TFCA funding parameters, was recently amended by Assembly Bill (AB) 694 (Chan). As a result, there will be a series of changes to the 2006/2007 TFCA Regional Fund funding cycle. The main changes are summarized below.

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- The implementation of vehicle-based projects that reduce mobile source emissions—including, but not limited to, engine re-powers, engine retrofits, fleet modernization, alternative fuels, and advanced technology—was added to the list of projects and programs that can be funded by TFCA.
- Private entities were included as eligible to apply for TFCA funds, but only for the implementation of the vehicle-based projects previously mentioned, under conditions to be approved by the Air District's Board of Directors.
- To maximize emission reductions and public health benefits, the Air District's Board of Directors must approve cost-effectiveness criteria that eligible projects must comply with in order to be funded by TFCA.
- Any remaining TFCA County Program Manager funds that are not fully allocated within six months of the annual formal approval by the Air District of the Congestion Management Agency's expenditure plans must be allocated to eligible projects by the Air District.

—Juan Ortellado

## Flares

*continued from page 1*

All five Bay Area refineries are required to submit their FMP by August 1, 2006. After November 1, 2006, no flaring will be allowed unless that activity is consistent with an approved FMP. Each FMP must be updated annually and will be available for public review and comment.

In addition to the FMP, the new rule requires refineries to notify the Air District immediately any time that a significant volume of gas (500,000 standard cubic feet per day or more) is flared, and to investigate and report to the District the reasons for flaring events. The report must indicate whether the flaring was consistent with the FMP and describe the measures implemented to prevent recurrence. Annual reports must also be submitted for lesser volumes of gas

(under 500,000 standard cubic feet per day) combusted in a flare if sulfur dioxide emissions are greater than 500 pounds per day.

This regulation applies to 21 flares located at the five Bay Area refineries, which together constitute nearly 40 percent of California's refining capacity, with the potential to process 33 million gallons of crude oil a day.

The compliance costs for the new rule are estimated to be as low as \$1.4 million up to \$10.6 million for refineries that have to make significant equipment upgrades. There may be financial benefits to this rule, however, as the District expects that some gases that are currently vented to flares will be recovered for use in the refinery process.

This first-of-its-kind rule builds on the Air District's flare monitoring regulation, *Regulation 12, Rule 11*, that was passed in June of 2003. The flare monitoring rule

## TFCA

*continued from page 4*

For more information about the TFCA and other grant programs administered by the Air District, contact Juan Ortellado, at (415) 749-5183, or visit the Air District's website at [www.baaqmd.gov](http://www.baaqmd.gov) and look under "Grants & Incentives."

—Aaron Richardson

## Ozone Strategy

*continued from page 2*

State one-hour ozone standard and transport mitigation requirements through the proposed control strategy. The strategy aims to reduce emissions of ozone-forming pollutants from transportation sources, industrial facilities, commercial processes, and other sources.

The Air District presented and sought comments on the *Draft 2005 Ozone Strategy* and *Draft EIR* at two public meetings in October 2005. Written comments on the *Draft Ozone Strategy* were accepted until November 9, 2005 and on the *Draft EIR* until November 21, 2005. More information on the Bay Area Ozone Planning process is available online at [www.baaqmd.gov/pln/plans/ozone](http://www.baaqmd.gov/pln/plans/ozone).

—Suzanne Bourguignon

required refineries to monitor the volume and composition of their flare gases, calculate emissions, state the reason for flaring volumes of gas greater than one-million standard cubic feet per day and actions taken to prevent recurrence, and report these to the Air District. As a result of controls installed and procedures implemented since passage of this flare monitoring regulation, it is estimated that flare emissions from the Bay Area refineries have dropped from 8 tons per day to 2 tons per day of total organic compounds.

For a copy of *Regulation 12, Rule 12*, visit the Air District's website at [www.baaqmd.gov](http://www.baaqmd.gov).

—Aaron Richardson w/ Alex Ezersky

# Air District Honors 2005 Clean Air Champions

At the September 21, 2005, Board of Directors meeting in San Francisco, the Air District honored the 2005 Clean Air Champions for their activities on behalf of clean air. Along with the American Lung Association, RIDES for Bay Area Commuters, and the U.S. EPA, the Air District selected these individuals for their exceptional efforts to create a healthier environment.

The 2005 Clean Air Champions have been actively working in their local communities to reduce air pollution and improve public health. This year's winners are:

## Steven Moss

Steven Moss has succeeded in building community consensus around environmental issues in San Francisco's Bayview and Potrero neighborhoods. In his community work, Moss founded the San Francisco Community Power Cooperative as a way to actively and constructively reduce air pollution. The SF Power Co-Op has enrolled 2,000 businesses and residences as paid members. Employing Bayview-Hunters Point residents, it has installed energy-saving devices into thousands of homes and businesses in the neighborhood. And, while these residents reduce their own energy consumption, the SF Power Co-Op also provides them with the information that they need to advocate for closing power plants and reducing reliance on fossil fuels.

"I've always worked on the policy side of the environment," explains Steven. "The SF Power Co-Op is a way to work within a community and make real changes that we can see."

## Jannat A. Muhammad

There is good news in Richmond: the air is getting cleaner, thanks, in part, to Clean Air Champion Jannat A. Muhammad. A public health advocate and volunteer for 30 years, Jannat has been instrumental in changing community behavior through her many outreach and public education programs.



2005 Clean Air Champions (left to right): Maria Luz Torre, Jannat Muhammed, Steven Moss, and Joan Spencer.

Through the Neighborhood House project, Jannat rallies community support to address the issues of pesticides and fine particle air pollution, which have contributed to poor health in the North Richmond area. She has helped to establish the Asthma and Diesel Coalition, and was instrumental in surveying the impact of toxic air pollution on neighborhood children. "There is growing concern about how environmental pollution affects the health of our residents, and, in particular, the health of our children," explains Jannat. "I believe that by working together, we can bring about the changes necessary to make our community a better and healthier place for us all."

## Joan Spencer

"I do it one person at a time, one day at a time," explains Clean Air Champion Joan Spencer, a tireless respiratory therapist from Gilroy. Several years ago, Joan began questioning why so many of her patients were experiencing asthma and lung cancer. She concluded that it was partly due to poor local air quality in

Gilroy and the South Bay. She jumped into action, and has been unstoppable ever since.

In the last few years, Joan has advocated for solar energy in new housing and schools, pushed for trails for bikers and walkers, helped the city pass a woodburning ordinance, and lobbied for clean air legislation at the state level. Whether she's sitting on the Parks and Recreation Commission, or waiting in line at the grocery store, she never stops spread-

ing the word about pollution and ways to clean up the air.

## Maria Luz Torre

Many San Francisco school kids will have a healthier ride to school this fall, thanks in part to the work of Clean Air Champion Maria Luz Torre and her team of parents at Asthma Relief for Kids (ARK). As a community organizer over the last ten years for Parent Voices in San Francisco, Maria grew concerned about the large numbers of kids with asthma in certain neighborhoods. So she formed ARK, a team of parents of kids with asthma.

—continued on page 7

# Air District Holds 50th Anniversary Air Quality Symposium

On June 20, 2005, the Air District celebrated its 50th Anniversary by holding a symposium on air quality at the Yerba Buena Center for the Arts in San Francisco. A distinguished group of attendees from local government agencies, energy companies, health advocacy groups, law firms, industry, and other private companies convened to hear an illustrious panel of speakers celebrate the organization's past accomplishments and offer a preview of the air quality challenges Bay Area regulators and residents will face in the 50 years ahead.

The event was held from 11 AM until 4 PM, and included a lunch served in the Yerba Buena Center's Forum Auditorium. The morning session was themed, "Looking Back: 50 years of air quality progress in the Bay Area and successful partnerships for a healthy and vibrant region." Introductory greetings were

offered by Marland Townsend, Chairperson of the Air District's Board of Directors in 2005.

Former San Francisco Mayor Willie Brown, Jr., delivered the welcome address, speaking about California's long tradition of leading the way on air quality issues. Mayor Brown also asked past and present members of the Air District's Board of Directors, Advisory Council, and Hearing Board who were in attendance to stand, and personally thanked them for their work over the years on behalf of the public and the environment.

KCBS Morning Anchor Stan Bunger, who acted as master of ceremonies throughout the event, then offered a lively presentation, with video clips and archival photos, highlighting some of the Air District's major achievements in cleaning up Bay Area air pollution. The Air District's Executive Officer, Jack P.

Broadbent, closed the morning session with brief remarks, and the attendees then took a short break at the Center's tented east garden.

The theme for the afternoon session was "Looking Ahead: Climate change and the future of the Bay Area and beyond 2005-2055." Stanford University Professor Dr. Stephen Schneider, one of the world's foremost climate scientists, opened with a 45-minute presentation offering a quick overview of climate change basics and its projected effects on California and the Bay Area. Dr. Schneider made five recommendations for action: (1) increasing debate and discussion; (2) beginning with things we should already be doing such as conserving energy; (3) addressing the public health issues involved—fire, heat effects, asthma, increased ozone and particulate pollution—in a cost-effective way;

—continued on page 8

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## Champions

*continued from page 6*

Last year, Maria and her ARK team worked on a campaign to reduce diesel emissions from the 250 school buses serving San Francisco's 10,000 school kids. Their efforts included countless hours of research, meetings with school officials and clean air technology experts, a signature campaign, and presentations about the hazards of diesel particulates in school buses. In the end, their hard work paid off—the San Francisco School Board passed a resolution setting clean air standards for its school bus vendors, and the clean-up begins this coming school year. This is the first resolution of its kind in the Bay Area. "We have to provide the healthiest possible environment for kids on their way to and from school, and these are very toxic fumes," Torre said. "They're a hazard to all kids, but especially to those with asthma."

—Luna Salaver

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## Toxics Rule

*continued from page 3*

project will not significantly increase health risks for any individual in the surrounding community.

### New Rule

The new rule codifies the Air District's Toxics NSR policy and procedures, and includes updates and enhancements to the key provisions of the previous program.

The TAC emission thresholds at which an HRSA is required are listed in Table 2-5-1 of *Regulation 2, Rule 5*. For projects requiring an HRSA, the Air District estimates cancer risk and hazard indices for each new and modified source of TACs and for the total project. The hazard index is a measure of potential non-cancer health effects.

The most significant changes to the previous policy are as follows:

1) All permitted sources are now limited to an overall project cancer risk of 10.0 in one million. The new rule removes a previous special health risk limit (cancer risk of 100 in a million) for dry cleaners. Perchloroethylene has traditionally been the industry standard chemical solvent for dry cleaners. However, many dry cleaners are choosing to switch to less-toxic, non-perchloroethylene alternatives.

2) Under the previous policy, TBACT was required for all sources within a project that resulted in a project cancer risk greater than 1.0 in one million. The new rule changes the TBACT requirement from a project basis to a source basis. This means that TBACT is required for only those sources within a project that individually result in a cancer risk greater than 1.0 in a million.

—continued on page 8

# Symposium

*continued from page 7*

(4) mitigating impacts on the most vulnerable and reducing the cost burden on low-income residents; and (5) urging government to adopt a long-term perspective as we consider the effects on our children and grandchildren.

Following Dr. Schneider's presentation, California Business, Transportation, and Housing Secretary Sunne McPeak gave the afternoon address, applauding the Air District for its accomplishments over the past 50 years, and challenging local government agencies and industry to work together on land-use, housing, transportation, and energy issues that will impact climate change. Secretary McPeak then joined Dr. Schneider in a Q&A session on climate change open to all participants.

The keynote address was delivered by Christine Todd Whitman, ex-governor of New Jersey, and former administrator of the U.S. Environmental Protection Agency. Governor Whitman thanked the Air District for her invitation and congratulated the agency for its 50 years of accomplishments. She then noted that

California set the benchmark for auto emission standards and is now at the forefront of limiting greenhouse gas emissions from motor vehicles. She stressed the importance of good science in developing public policy, and discussed the influence of public/private partnerships in catalyzing change, and in taking advantage of economic opportunities presented by sound environmental policies.

Above all, Governor Whitman emphasized that everyone must take personal responsibility for the environment, as our choices as voters and consumers and homeowners can, along with environmental organizations and community stakeholders, push policy-makers and the business community into action. By the same token, progressive policy and business practices can drive change that motivates or "pulls" the public. She ended her speech by noting how Bay Area and California and national leadership can all combine to drive solutions to urgent environmental problems like climate change.

The Air District's Executive Officer Jack P. Broadbent then offered closing remarks in which he thanked Governor

Whitman and the prior set of esteemed speakers. He also expressed his gratitude to the public and private sponsors of the event, including anchor sponsors the Metropolitan Transportation Commission (MTC) and Chevron, for their role in the symposium's success.

In closing, Broadbent re-affirmed how important it is for individuals and organizations to take responsibility for addressing environmental issues like climate change. He urged further policy development in tackling land-use and transportation issues to promote livable communities in the Bay Area, and he enumerated several initiatives the Air District would be undertaking in the future to address such air quality concerns as diesel pollution, wood smoke, and the promotion of clean fuels and individual clean air choices.

Finally, he urged all of the symposium attendees to keep the momentum going from the stimulating discussion they had just heard, as they come to terms with the environmental challenges the Bay Area will face from rising energy consumption, population growth, economic growth, and climate change in the coming 50 years.

—Aaron Richardson

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# Toxics

*continued from page 7*

3) Under the previous policy, the overall project chronic non-cancer health risk limit was set at a hazard index of 1.0. The new rule also adds a TBACT requirement for sources with a chronic non-cancer health risk greater than a hazard index of 0.20.

4) Under previous policy, HRSAs evaluated only the health risks for *chronic*, or long-term, exposure to toxic emissions. The new rule requires the additional evaluation of health risks from *acute*, or short-term, exposures, setting an overall project risk limit at an acute hazard index of 1.0.

5) The new rule updates toxicity values and exposure assessment procedures to conform to updated state health risk assessment guidelines (primarily the Office of Environmental Health and Hazard Assessment's *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessment*).

To summarize: Under the new rule, TBACT is required for any new or modified source of TACs, where the source risk is a cancer risk greater than 1.0 in one million or a chronic hazard index greater than 0.20. The new rule limits overall project risk to a cancer risk of 10.0 in one million, a chronic hazard index of 1.0, and an acute hazard index of 1.0.

Due to increases in the quantity and complexity of HRSAs resulting from these changes, permit fees have also been increased for applications that require site-specific HRSAs.

## Public Meetings

The Air District held a series of workshops to discuss proposed initial versions of this rule. Workshops were held at the Air District office in San Francisco, and at community locations in Richmond, Oakland, San Francisco, and East Palo Alto. Staff received and considered comments in order to clarify and resolve issues.

—continued on page 9



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## Toxics

*continued from page 8*

A revised proposal was prepared and a public workshop was held in April 2005 to discuss issues with various stakeholders, leading to another round of revision prior to final adoption of the new rule in June 2005.

The Air District prepared an Environmental Impact Report (EIR) under the California Environmental Quality Act to evaluate the potential environmental impacts associated with this new regulation. The EIR indicated that the requirement that new and modified dry cleaners meet the project risk limits might result in increased emissions of ozone precursors, as dry cleaners switch from perchloroethylene to less-toxic cleaning compounds containing VOCs. However, the health benefits associated with decreased exposure to perchloroethylene provide an overriding consideration to any potential increases of ozone precursor emissions.

For more information about the Air District's Toxics NSR Program, visit the District's website at [www.baaqmd.gov](http://www.baaqmd.gov). To view *Regulation 2, Rule 5*, check the website under "Rules & Regulations." For more information about the Air District's Air Toxics Program, look under "Programs."

—Aaron Richardson w/ Scott Lutz & Daphne Chong

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## Spare the Air Tonight

*continued from page 1*

"fine particulates." However, the region is out of attainment for more stringent California standards for both  $PM_{10}$  and  $PM_{2.5}$ .

In December of 2005, the EPA proposed a lower 24-hour  $PM_{2.5}$  standard, and a new 24-hour standard for "coarse particulates," or  $PM_{10-2.5}$ . The agency will take comments in the spring of 2006 and is expected to issue the final rule in September.

This winter, the Air District will issue *Spare the Air Tonight* advisories when the 24-hour average  $PM_{2.5}$  concentration is expected to reach 55 micrograms per cubic meter ( $55 \mu\text{g}/\text{m}^3$ ). This concentration equates to 130 on the Air Quality Index (AQI), and is in the range at which air quality becomes unhealthy for sensitive groups—small children, people with respiratory or heart ailments, and the elderly.

The AQI is a system that translates pollution concentrations into easy-to-understand categories that tell you how healthy or unhealthy the air is to breathe. For more information about the AQI, please see our *Spare the Air* website at [www.sparetheair.org](http://www.sparetheair.org).

### The Role of Weather

Just as it does in the summer, weather plays a prominent role in wintertime air pollution. But unlike summer smog that peaks in the late afternoon, wintertime pollution is highest at night and in the early morning hours. On winter evenings, the ground cools the air close to the earth, which can become trapped beneath a layer of warmer air, forming a shallow temperature inversion. When there is no wind or rainy weather to dissipate pollutants, they can accumulate under this inversion layer and reach unhealthy levels.

### Wood Burning

On an average winter day in the Bay Area, a significant percentage of particulate pollution comes from wood smoke. On some nights in certain areas, it can be the major source of  $PM_{2.5}$ . Wood burning also generates carbon monoxide and toxic air pollutants such as benzene and dioxin.

As part of the *Spare the Air Tonight* program, the Air District encourages Bay Area residents to replace their fireplaces or woodstoves with gas models. A traditional wood-burning fireplace emits almost one half-pound of particulate pollution on a given evening. In contrast,

a gas fireplace eliminates more than 99 percent of this pollution and is six to nine times more energy-efficient. Some fireplaces even have a negative efficiency, as they draw warm air out of the house and up the chimney.

Residents can ask their local governments to adopt a version of the Air District's Model Wood Smoke Ordinance. It has been implemented in 40 cities and 8 counties in the Bay Area since it was first drafted in 1998 (for a list of areas that have passed a version of the ordinance, visit the Air District's website at [www.baaqmd.gov](http://www.baaqmd.gov) and look under "Divisions/Offices" and "Public Information and Outreach."). The ordinance does not ban wood burning, but instead requires that any fireplaces or wood stoves installed in new housing be EPA-certified or be natural gas or pellet-fueled appliances. The ordinance also covers any remodeling that involves fireplaces in existing homes.

In Santa Clara County, the Air District also administers the Wood Smoke Changeout Program, which offers rebates to Santa Clara County residents who convert their wood burning appliances to natural gas. For more information about this program, see [www.sparetheair.org/changeout.htm](http://www.sparetheair.org/changeout.htm).

The Air District asks residents to refrain from burning wood altogether when *Spare the Air Tonight* advisories are announced. To learn when a *Spare the Air Tonight* advisory is issued, call the 1-800-HELP AIR air quality forecast phone line, or visit the Air District's [www.sparetheair.org](http://www.sparetheair.org) website, where you can also sign up to be notified by e-mail AirAlerts.

—Aaron Richardson



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## Air District DAPCO Peter Hess Elected A&WMA President

On January 1, 2006, Peter Hess, Deputy Air Pollution Control Officer (DAPCO) for the Air District, became President of the Air and Waste Management Association (A&WMA). A DAPCO since 1979, Hess currently coordinates the Air District's permitting and compliance and enforcement activities.

As A&WMA President, Hess will oversee this nonpartisan, nonprofit organization made up of 9,000 environmental professionals from 65 countries, and will work to maintain A&WMA's neutral forum for technology exchange, professional development, networking opportunities, public education, and outreach.

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Planning for the Future:  
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Meeting the challenge of climate change will require collaborative approaches that recognize the links between advanced energy technologies and their potential for reducing emissions. This conference will address these links, as well as emerging federal and state initiatives and their global implications. The conference will examine new U.S. energy legislation, the "Gleneagles Plan of Action" (G8), the new Asia-Pacific Partnership on Clean Development and Climate, and various state climate action plans.

The conference will provide an opportunity to review various state initiatives, protocols and greenhouse gas registries. Additionally, emerging international standards to address inventories will be presented.

For registration information, call A&WMA at 1-412-232-3444, or visit the conference website at [www.awma.org/events/confs/GLOBAL/climateprelim.pdf](http://www.awma.org/events/confs/GLOBAL/climateprelim.pdf).