

# AIR CURRENTS

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

## Spare the Air Awareness Up in 1999

Random telephone surveys conducted immediately following two of this year's *Spare the Air* days showed a significant increase in public awareness and an improved response to the 1999 campaign.

The surveys, conducted under the guidance of the environmental consulting firm ICF Kaiser, canvassed populations across the entire nine-county region. These surveys were designed to gauge the effectiveness of the program and to quantify resulting reductions in smog-forming emissions.

Promotional activities for *Spare the Air* increased in 1999, thanks to a Congestion Mitigation Air Quality grant the Air District received from the Metropolitan Transportation Commission. This funding allowed for more advertising and media coverage, improved links to TravInfo and RIDES, and greater assistance to employers. The added funding also enabled the Air District to enhance its survey campaign, expanding both the random telephone surveys and electronic surveys that polled the effectiveness of the employer program.

### Public Opinion Survey Highlights

- Overall awareness of the *Spare the Air* program increased from 72 percent in 1998 to 80 percent in 1999. This figure represents over four million adult residents of the Bay Area.
- Awareness of the specific days when *Spare the Air* advisories were issued

increased from 38 percent in 1998 to over 42 percent in 1999. Television and radio continued to be the most effective media for informing the public of an episode, followed by the changeable message signs posted by Caltrans.

- Of those who were aware of the *Spare the Air* advisory, 7 percent drove less, compared to 5.6 percent in 1998, showing a slight upward trend.
- Questions regarding consumer products and gasoline-powered lawn equipment showed that among qualifying respondents, 24 percent refrained from using consumer products and 33 percent curtailed use of gasoline-powered lawn equipment for air quality reasons—an improvement over 1998 responses.

Air District staff are still reviewing the draft analysis. When the report is finalized, emission reductions associated with the program will be calculated. These are expected to

*continued on page 2*

## 1999

### Ozone Season Summary

SPARE THE AIR DAYS	11
Federal 8-Hour Excess Days	9
Federal 1-Hour Excess Days	3
State 1-Hour Excess Days	20

Highest Eight-Hour Average  
**122 ppb** (July 12, Concord)

Highest One-Hour Average  
**156 ppb** (July 12, Concord)

## Ozone Season Exits in a Brown Shroud

October 1 marked the end of the Bay Area's ninth *Spare the Air* season. It is unusual for high ozone readings to occur past the end of September; nevertheless, two violations of the federal 8-hour standard were recorded on October 10 and 16, along with some of the dirtiest looking skies in recent memory.

What accounts for this aberration? Air chemistry experts are divided, but evidence points to a number of forest

fires raging outside the air basin. A large fire in Big Sur to the south was still unchecked after igniting in mid-September. To the north, forests were ablaze in the Trinity Alps and Lassen National Park, while smaller ones were burning just beyond District boundaries in Yolo and Solano counties.

Smog-forming compounds—generated chiefly from automobile use, industrial emissions, and evaporation from consumer products—undergo a photo-

chemical reaction that results in ground level ozone (smog). Hot summer days with little wind and more sunlight present the optimal condition for promoting the reaction.

In recent years, air scientists have also noted spikes of ozone concentrations recorded during periods when fire smoke passes through ozone monitoring instruments. The reason for this phenomenon is at present unclear and

*continued on page 2*

## *Spare the Air*

*continued from front page*

exceed the 1999 program goal of 6.1 tons per day of ozone precursors.

### **Other Highlights of the 1999 Campaign**

In addition to the increased measurement component, outreach for the *Spare the Air* program grew significantly in several areas.

- 1,250 employers registered to participate in the 1999 campaign, an increase of over 200 employers. Almost one million employees were notified in the workplace of *Spare the Air* advisories.
- Two television spots were produced to promote the use of transit and carpooling.
- Partnerships were initiated with transit agencies and promoters of special events to encourage transit use to Oakland A's and San Francisco Giants games, the Sausalito Arts Festival, the Pittsburg Seafood Festival, Six Flags Marine World, concerts held at the Concord Pavilion, and other events.
- Over \$65,000 was donated by business to the advertising cooperative to augment the advertising budget. Six transit agencies donated the advertising space on

wrapped *Spare the Air* buses for a minimum of three months. The promotion also included interior bus cards.

- Over 6,500 persons signed up for direct e-mail notification of *Spare the Air* days.
- 95 cities and counties joined the *Spare the Air* City and County campaign, a 30 percent increase over 1998 participation.

"We're very pleased with the response to this year's *Spare the Air* campaign," said the Air District's Executive Officer, Ellen Garvey "The effectiveness of *Spare the Air* is a positive sign that voluntary programs do work and are a valid strategy in our efforts toward reaching clean air standards."

—Teresa Lee

## Ozone Season

*continued from front page*

under investigation. Ozone is an extremely unstable molecule and easily breaks apart when colliding with other molecules, including ones commonly plentiful in smoke.

More bothersome than ozone to many residents was the brown air and ominous looking skies. Although none of

the Air District's fine particulate matter (PM<sub>10</sub>) monitors recorded numbers close to violating the PM<sub>10</sub> health standard, a combination of fire smoke above the breathing layer and a whiskey-colored haze made air quality appear to be worse than it actually was.

The whiskey haze created by nitrogen oxides (NOx) is often in evidence over the Bay and can appear quite concentrated even when ozone indexes are relatively low. The Air District monitors NOx, an ozone precursor, and has found that concentrations of the compound never reach unhealthy levels in the region.

During the first weeks of October many residents intermittently smelled smoke, causing them to doubt the accuracy of the District's PM<sub>10</sub> readings. Because the nose is such a sensitive "instrument" it is capable of detecting smoke long before there are enough particles to register as a health hazard.

Immediately outside the District, forest fires did result in unhealthy air quality. Fine particulate monitors in Northern Sonoma and Sacramento districts produced very high readings. A large tire fire, which started with a lightning strike near Westley on September 22 and for weeks sent black plumes into the skies over the San Joaquin Valley, left the Bay Area largely unaffected, as prevailing winds took the smoke in the opposite direction.

While clear skies are a sure sign of good air quality, the visibility factor by itself does not necessarily indicate unhealthy air. Many days of good air quality, for example, may also be days when residents in the south Bay see murky silver skies due not to pollution, but to the dispersal of fine water droplets that cause the light to scatter and the sky to appear less than clean.

Any discussion of health effects related to smoke must carry a caveat that in every population there are those who have acquired environmental sensitivities to select compounds. For these individuals exposure can be problematic at concentrations undetectable to the rest of the population.

—Ralph Borrmann

—Will Taylor

## Y2K OK: Air District Completes Y2K Testing

Most people have heard about the Year-2000 problem or Y2K bug. This refers to a potentially pervasive computer glitch, which may affect information systems throughout the world. The difficulty began when older computers were programmed only to make use of the last two digits of the year, and to assume the first two digits to be "19—". If uncorrected, this results in an inability to recognize dates belonging to the Year 2000 and beyond. In some cases, next year may be interpreted as 1900 and in others the results are unpredictable.

At the Air District, we recognize how very important it is for our computers and software to be Year-2000 compliant.

In order to ensure that our infrastructure is ready for this event, staff members have been working behind the scenes for the last several months in order to identify problems and correct them. The agency has completed its Year-2000 assessment and is currently completing the conversion and verification process. Timewarp tests (where computer clocks are set forward to dates in 2000) have been conducted and no significant date problems were discovered. The agency feels its computers are now prepared to move into the next millennium.

—Ralph Borrmann

# Two or Three Things—

“*Title V*”—the name alone has that ominous cadence so suggestive of bureaucracy at its most daunting. Strict, stern, and officious, it calls to mind countless pages of indecipherable regulatory text. Just reading it can cause your eyes to glaze over, a fine layer of dust to settle on your brain.

But don't be put off by the bureaucratic name game. *Title V* is actually intended to clarify the complex and often arcane air quality permitting process—by taking the jumble of overlapping, sometimes contradictory requirements in any number of competing federal, state, local, and territorial regulations and arranging them into one clean, comprehensive operating permit.

## Background to *Title V*

At the risk of oversimplifying, there are basically two kinds of air quality permits for facilities that emit pollutants to the air: *construction permits* and *operating permits*. In the past, the federal government required states primarily to issue *construction permits*, permits for businesses building new emission sources or modifying existing ones. These *construction permits* were required only in regions whose air quality failed to meet federal standards.

Many states and localities chose in addition to issue *operating permits*, in order to regulate the ongoing operations of facilities, after construction. Since *operating permit* characteristics were generally left to the discretion of the individual state and local governments issuing them, their requirements were about as uniform region-to-region as a patchwork quilt.

State and local *operating permits* usually also neglected to include a complete account of the applicable air quality regulations, leaving facilities to figure out their own overall compliance burden.

## What is a *Title V* Operating Permit?

Most of these problems were addressed in 1990, when Congress passed a new series of amendments to the Clean Air

Act (see [www.epa.gov/oar/caa/contents.html](http://www.epa.gov/oar/caa/contents.html)). The amendments incorporated into *Title V* of this Act require *all* state and local governments to develop and implement *operating permit* programs for major facilities, regardless of the air quality attainment status of each region. The EPA was granted authority to oversee these programs and in turn was charged with establishing some uniform minimum program guidelines.

This new federally enforceable *Title V* program streamlines the way federal, state, tribal, and local authorities regulate air pollution by consolidating all air

pollution control requirements into a single, summary *operating permit* document, one that covers all aspects of a source's year-to-year air pollution activities.

The EPA published guideline regulations for implementing its *Title V* permit program in 1992 (40 CFR Part 70, accessible from the EPA website at [www.epa.gov/epahome/rules.html](http://www.epa.gov/epahome/rules.html)). Although state and local governments remain in charge of issuing *Title V* *operating permits*, they must do so according to these federal guidelines.

## The BAAQMD and *Title V*

The *Title V* operating permit program administered by the BAAQMD is known as the *Major Facility Review* program. It is implemented by the Air District's Regulation 2, Rule 6. This regulation, originally passed in 1993, was recently updated in October of 1999. (The latest version can be found on the internet at [www.baaqmd.gov/regs/rg0206.pdf](http://www.baaqmd.gov/regs/rg0206.pdf).) The Air District also updated its Manual of Procedures, which guides businesses through the actual permit application process. (See [www.baaqmd.gov/mop/vol2/v2part3.pdf](http://www.baaqmd.gov/mop/vol2/v2part3.pdf) or call the District's Public

Information office at (415) 749-4900 for a copy.)

Under *Title V*, all major facilities in the Bay Area must apply for a *Major Facility Review* operating permit, regardless of any permits that may have been issued under previous Air District programs.

A major facility is defined by EPA as a facility with the *potential to emit* more than 100 tons per year of any regulated pollutant, 10 tons per year of any single pollutant on the EPA's hazardous air pollutant list (Section 112 (b) of the Clean Air Act), or 25 tons per year of any combination of hazardous pollutants.

*Potential to emit* is an important term, defined as a facility's maximum capacity to emit a pollutant, based on its physical structure and operational design. Facilities in the Bay Area can apply for a *Synthetic Minor Permit*, which essentially exempts them from *Title V* permitting requirements, by accepting limitations that lower their *potential to emit* below the major facility thresholds.

## Recent Changes

In October, the Air District made a series of changes to its *Title V Major Facility Review* regulations (see summary on page 4). Two of these changes involve the role of a facility's *potential to emit* in determining its permit status.

*continued on page 4*

# —You Should Know—

# —About *Title V*





## Title V

continued from page 3

Before the October revisions, most facilities were given a four-year deferral period in which their permitting eligibility was based on actual emissions, rather than *potential to emit*. But now, any facility with actual emissions equal to 25 percent or more of the EPA's major facility thresholds must calculate its *potential to emit* and show that it is below the EPA threshold. If it isn't, the facility must apply for a *Major Facility Review* or *Synthetic Minor* permit.

The other major revision involves emissions limits contained in permits issued before *Title V* was passed. These past permit conditions no longer have to be considered federally enforceable to affect a facility's *potential to emit*. (A "federally enforceable" limitation is one called for by legislation in the federal Clean Air Act or incorporated into a federally approved State Implementation Plan.) This means that state-only or local-only regulations included in previous permits can be used to lower a facility's *potential to emit* in evaluating its *Title V* status.

### Summary

Throughout the country, there are an estimated 22,000 air pollution emission sources that have been, or will be, required to obtain *Title V* permits. There are 113 state, territorial, and local

permitting authorities in charge of administering these *Title V* operating permit programs.

In the Bay Area, the Air District has identified and is in the process of permitting 89 major facilities and 29 synthetic minor facilities. In addition, there are about 300 facilities with emissions that may be over 25 percent of the *Title V* thresholds. These facilities still need to calculate their *potential to emit* to determine their permit status. At this time, the Air District has issued 28 *Title V* permits.

So there you have it. *Title V* operating permits will be uniform, universal documents that resolve compliance questions into one overall source, eliminating confusion for regulatory agency and regulated industry alike. *Title V* permits should also benefit the public—since they require an increased access to monitoring records and provide an opportunity for formal review and comment during the permitting process.

So, even though these new, bigger and better *Title V* permits may sometimes seem as heavy as a gold brick, they're worth their weight as a pollution prevention standard. In the end, everyone benefits from improved compliance with emission standards, which translates into cleaner air for us all.

—Aaron Richardson & Brenda Cabral

## Key Title V Permit Provisions

- *Title V* Permits must contain all applicable air quality requirements.
- Sources are required to provide monitoring reports at least semiannually, and must certify their compliance status annually.
- Sources must report any incidence of non-compliance within ten days.
- Permits will be reviewed periodically (usually every five years).
- Public notification and opportunity for comment must be provided during permit issuance and renewal or revision.
- State and local permitting authorities are authorized to collect permit fees to fund their *Title V* permit program.
- The EPA is responsible for supervising the implementation of state and local *Title V* permit programs and can invalidate a permit if it fails to comply with *Title V* requirements.
- The EPA can develop a federal permit program if it decides the state or local program is inadequate.

## Recent Revisions to BAAQMD Title V Permit Regulations

On October 20, 1999, the Board of Directors amended *Regulation 2, Rule 6*, which implements the federal *Title V* program. The revisions are reflected in the *Manual of Procedures, Volume II, Part 3: Major Facility Review Permit Requirements*. Some of the changes are summarized below:

- Facilities whose actual annual emissions have been over 25 percent of the major facility threshold since July 24, 1995 must figure out their potential to emit and demonstrate to the Air District that it is below the threshold. If it is not, they must apply for a Major Facility Review or Synthetic Minor permit.
- Some issues previously identified by EPA as obstacles to final program approval were amended, including revision of the compliance certification procedures and elimination of an extended review period for minor permit revisions.
- Off-road engines defined by EPA, and ARB-registered portable internal combustion engines are exempt from Air District permitting requirements.
- Locally enforceable and federally enforceable limitations are valid in making potential to emit calculations to determine *Title V* permit applicability.
- Federal emission trading provisions have been deleted. Emissions trading is allowed by other Air District rules for BARCT compliance.
- Facilities that are currently out of compliance with Air District regulations must seek a variance or have an order of abatement imposed upon them before a *Title V* permit can be issued. A "schedule of compliance" must be included in the permit.
- The limitations written into Synthetic Minor permits can be used by a facility to stay below the applicability threshold for non-*Title V* requirements.
- Public notice requirements for Synthetic Minor permits have been deleted.
- *Title V* permits can subsume previous monitoring requirements for a standard if the *Title V* monitoring requirement assures compliance with the previous standard.
- Applications for permit revisions must be submitted before undertaking a significant change of operations.
- Facilities are allowed to reference previously submitted information or information readily available from prior permits in their *Title V* applications.
- Minor changes were made to improve definition, clarity, and implementation.

# Air Legislation in California: A Look Back at 1999

The first year of the 1999-2000 California legislative session essentially ended October 12, 1999, with a flurry of bills that were signed or vetoed by Governor Davis. At the conclusion of a busy year for the Air District, we wanted to share with our readers the legislative outcomes for some of our air quality issues.

Four bills the Air District supported passed out of the Legislature and were signed into law by the Governor. Perhaps most significantly, SB 826 (Sher) was passed, making changes to the Air District's Transportation Fund for Clean Air. The Air District sponsored this legislation, and we appreciate all the work and support of our regional and local partners on this issue. These changes will increase the air quality benefits of the motor vehicle registration fee surcharge in the Bay Area.

Other bills we supported that became law include AB 1571 (Villaraigosa),

which established the Carl Moyer Memorial Program to fund emission reductions from diesel engines. Given the toxic nature of diesel exhaust—and the increasing availability of practical, clean alternatives—we are glad to see California provide funding for the cleaner technologies. AB 71 (Cunneen) provides an important incentive to the public to purchase clean electric and natural gas cars and trucks. Starting in July 2000, these vehicles will be able to use carpool lanes statewide, regardless of vehicle occupancy. Additionally, AB 1164 (Aanestad) became law, which deals with gasoline station vapor recovery systems.

The Air District was unusually successful this year at helping prevent bad air quality bills from becoming law. Of the 11 bills we opposed this year, 10 failed to advance, or were amended to address our concerns. The one bill we opposed that became law (AB 1105—Jackson et

al.) was a budget trailer bill with appropriations for a variety of different state programs. Unfortunately, it also exempted five- and six-year old vehicles from the Smog Check program.

Our success at making positive changes to reduce air pollution was more limited. There were 10 bills that we supported that did not become law. The most significant of these was SB 821 (Sher), sponsored by the California Air Pollution Control Officers' Association. This bill would have amended the California Clean Air Act and reduced emissions from gasoline stations. The Governor vetoed this bill.

Other bills we supported that failed to advance covered a variety of topics, including increasing civil penalties for air pollution, providing tax credits for transit passes, and reducing emissions from medical waste incinerators.

—Tom Addison

## Recent Board Actions

### October 6, 1999

#### RESOLUTION NO. 99-17

*Allocation of Transportation Fund for Clean Air (TFCA) Funds for Fiscal Year 1999-2000 Regional Fund Grants*

Board approval of 40 projects totaling \$12,474,945 in FY '99/00 TFCA Regional Funds.

#### RESOLUTION NO. 99-18: Amendments

*Regulation 3 (Fees), Schedule K: Solid Waste Disposal Sites*

Increases the minimum initial fee, deletes a duplicative fee, and recovers District staff costs associated with processing federally mandated reports.

*Regulation 8, Rule 34: Solid Waste Disposal Sites*  
Implements federal regulations and guidelines for solid waste disposal sites; resolves compliance issues for disposal sites that are subject to federal Title V permitting requirements.

*Regulation 9, Rule 2: Hydrogen Sulfide*

Amends the ground level monitoring requirement for hydrogen sulfide such that it will be required by the Air Pollution Control Officer.

### October 20, 1999

#### RESOLUTION NO. 99-19: Amendments

*Regulation 2 (Permits), Rule 1: General Requirements*

Streamlines the permitting requirements for semiconductor manufacturing areas to allow the addition or replacement of equipment within a fabrication area as long as it complies with permit conditions that limit throughput and/or emissions; revises and updates semiconductor manufacturing related definitions.

*Regulation 2 (Permits), Rule 2: New Source Review*

Revises the definition of "modified source," and deletes the requirement for an annual BACT and Offset Certification for semiconductor equipment.

*Regulation 3: Fees*

Effective March 1, 2000, deletes nine definitions for specific types of semiconductor manufacturing equipment.

*Regulation 3, Schedule H: Semiconductor and Related Operations*

Revises semiconductor operation fees to be consistent with fees paid by other types of solvent-evaporating sources.

#### RESOLUTION NO. 99-20: Amendments

*Regulation 2 (Permits), Rule 6: Major Facility Review*  
(See article on Title V in this issue.)

*Manual of Procedures, Volume II, Part 3: Major Facility Review Permit*  
Implements the amendments to Regulation 2, Rule 6.

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

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Newsletter Production

**Teresa Lee**, Director of  
Public Information

**Aaron Richardson**, Editor

A public hearing is scheduled to begin at 9:30 AM in the 7th floor Board Room, 939 Ellis Street, San Francisco, to consider amendments to:

**Regulation 8, Rule 5: Storage of Organic Liquids**, to achieve emission reductions required as part of the Final San Francisco Bay Area Ozone Attainment Plan (OAP) adopted June 1999. The proposed amendments are derived from Control Measure SS-07 of the OAP.

*Revised*

## WOODBURNING HANDBOOK

Available now —  
to get your free  
copy, call:  
1-800-HELP AIR



### BETTER LATE THAN NEVER—

As of this issue, we are pleased to announce that *Air Currents* is available on-line.

Look carefully for a link from the [www.baaqmd.gov](http://www.baaqmd.gov) site, or dial up directly at [www.baaqmd.gov/aircurrents](http://www.baaqmd.gov/aircurrents).

## BAAQMD ACTIVITIES

ENFORCEMENT	AUG	SEP
Total Inspections	1,642	686
Complaints Processed	332	384
Violation Notices	168	151

### LEGAL

Cases Resolved	94	51
Mutual Settlement	\$ 60,231	\$ 28,119
Civil Penalties	\$ 1,000	\$ 0

### PERMIT SERVICES

Authorities to Construct Granted	28	34
Permits to Operate Granted	119	139

### TECHNICAL

Highest Ozone AQI	137	124
Highest CO AQI	31	39
Highest Particulates AQI	30	54
State Excess Days	5	4
Source Tests	67	99

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 concentrations of ozone exceeding the national health standard.

### YEAR TO DATE (10/31/99)

State Ozone Violations	20
Federal Ozone Violations (8-Hour)	9
Carbon Monoxide Violations	0

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