

On the Air

New State Air Chair Leads with Experience

Mary Nichols was appointed Chair of the California Air Resources Board (ARB) in July of 2007. It's hard to imagine a person better qualified for the job. She served as Chair of the ARB from 1978 to 1983, as Assistant Administrator for the U.S. Environmental Protection Agency's Air and Radiation Program under the Clinton Administration, as Secretary for California's Resources Agency, and as Director of the University of California, Los Angeles, Institute of the Environment. Earlier in her career, as staff attorney for the Center for Law in the Public Interest, she initiated precedent-setting cases under the federal Clean Air Act and state laws. Nichols is now leading the implementation of AB 32, the state's landmark Global Warming Solutions Act, which gives the ARB powerful new responsibilities to regulate greenhouse gas emissions. *On the Air* spoke with her recently.



The recent Southern California wildfires have drawn attention to projections that climate change impacts could include more intense wildfire seasons. Are the fires changing any minds about global climate change, or raising some awareness that we are seeing some impacts already?

I don't think so. After all, we've been seeing impacts of climate

change here in the state for years. This particularly bad fire season was predicted, based on drought conditions, and conditions in our forests and wild lands. And I've been watching television coverage of the fires, and we're still hearing backlash from commentators who are saying there's no possible connection with climate change—so I don't know that this will do anything to change minds.

But Californians are already mobilized on climate change. We passed AB 32, we've supported it, we're moving forward. Maybe people in other parts of the country could take some lessons from the California wildfires.

People say you are one of the most powerful people in the state—or even in the U.S. and the world—due to ARB's sweeping powers under AB 32. Is there a lot of pressure? How does it feel to be on the hot seat?

It doesn't *feel* hot. I'm excited to be here. In some ways I've been preparing for this job my entire life. I think the most important thing I have to do is reach out and bring in the best minds, enlist the widest possible support in addressing this task. I'm at the center, yes. But I can't go forward without a lot of help.

I'm very pleased as I look out at the landscape of California that so many people are talking about AB32, and want to help. We are in a historic position to address this issue. It's been called the challenge of our generation—I think we are ready to take up this challenge.

What about the role of local air districts like APCD in implementing AB 32? The legislation puts everything in ARB's hands.

The air districts are partners with ARB in everything we do. With AB 32, the legislature recognized

(continued on page two)

Ash and Smoke in County's Air

In October, strong winds stirred ash left over from the Zaca Fire up in the county's air, resulting in the "highest particle levels we've seen in the county since we've been measuring," said Bobbie Bratz, APCD Public Information Officer. Hourly levels of PM10 (particulate matter less than 10 microns in diameter) were recorded in the

900s (micrograms per cubic meter) at the monitoring station in downtown Santa Barbara on October 20; APCD stations rarely record levels over 100 under normal conditions.


According to a preliminary review of the data, the county's air was in the unhealthy for everyone range due to levels of PM on

October 20 and 21; air was in the unhealthy for sensitive groups range for PM for several other days. In addition to the initial ash event, smoke from a fire burning near Santa Ynez and from fires burning to the south also impacted the county's air. APCD issued several joint advisories with the County Public Health

(continued on page two)

APCD Acts to Reduce Pollution from Marine Shipping—see inside...

Inside...

-  **2007 Green Awards**
-  **Staff Transitions**
-  **Reducing Pollution from Ships**
-  **Farm Engines Must be Registered**
-  **Vehicle Technologies at AltCar Expo**

New State Air Chair (cont'd)

that it was bold enough for the state to be addressing greenhouse gas emissions, an issue of global importance, at a state level. From the perspective of the international business community and global markets, it was already questionable whether one state could act on its own, so breaking this down into even smaller chunks by local areas was impossible.

In order for the local districts to play an active role in implementing AB 32—which we hope they can and will do—we need first to identify what's needed. Some districts are already undertaking critical tasks—advising local governments about emissions inventories, helping them develop land use and transportation plans that address greenhouses gases, and working with the ARB and major emitters to develop protocols for permits. The districts will play an important role as we go forward. There is plenty of work to be done.

What feedback have you been getting from businesses about AB 32?

Many elements of the business community that were originally opposed to the legislation have recognized that it's the law now, and they want to help design the implementation. Certainly there's industry concern that we need to

do this in a cost-effective manner, and that it needs to work with other regulations. But there's been an outpouring of interest in helping us set it up, especially looking at carbon trading systems, and at the early action provisions.

There are several climate change bills in Congress right now. Do you have a favorite?

California has not endorsed any, but we're watching this closely, and are interested in elements of some. The Lieberman-Warner bill is one of the newest pieces of legislation that seems to have a good chance to attract the support to pass. It addresses a trading system, and looks to be compatible with what we are doing here.

California will certainly weigh in with critiques and support; we're just not ready to sign onto any particular bill yet. We are working very closely with our state congressional delegation. We also meet regularly with representatives from other states and other countries to share what we're doing and learn about their programs.

EPA has not yet provided a waiver to allow the state to regulate greenhouse gas emissions from vehicles. The state plans to sue. How will this go?

forming pollutants and hot weather. APCD will be requesting that the U.S. Environmental Protection Agency review the air quality measurements during this period under their exceptional event policy.

For more information, see www.OurAir.org.

These waivers are normally granted routinely under California's special status in the federal Clean Air Act. EPA's delay—two years now—in granting this is unusual. Unfortunately in my short time here, I'm not hearing anything that gives me comfort that it will be granted. And we're not optimistic that this Administration will come up with some alternative that will be compatible with our targets under AB 32.

You've only been at ARB for a few months. And you came in at a turbulent time, with controversy around the previous Chair's leaving the agency. What was that like? Has the dust settled yet?

It was very easy for me to come back to the ARB. So many of the people in leadership positions here now are people I worked with—or even hired—years ago. Although there was a lot of consternation in the press at the time, the agency itself was in very good shape, and didn't miss a beat in the transition. In fact, at my first Board meeting we took some major regulatory actions. Obviously I was concerned to reach out as quickly as possible to my friends in the environmental

and business communities to assure them that I had every possible support from the Governor so I would be effective in this role. And I continue to enjoy that support, and support here from all levels.

You knew the job, you knew the agency, were there any surprises? Anything you didn't expect?

At the time I came in, I have to say I wasn't quite sure whether the agency had really embraced its new mission under AB 32. I wondered if the Board might feel it wasn't ready for this new responsibility, or that it didn't have the resources to take this on, that this would be a problem. I found that the opposite was true. Everyone throughout the organization—in all the divisions from research to regulatory—was fully committed to this and looking for ways to contribute.

You know, in a large bureaucratic organization like the ARB, you don't often get the chance to take on a major new direction. This has really energized everyone here.

To find out more about AB 32, and all of ARB's programs, visit <http://www.arb.ca.gov>.



The dark colored particulate filter from the Las Flores Canyon monitoring station, located in a canyon area near El Capitan, shows the high level of particles in the surrounding air from midnight October 21 to midnight of October 22. The other two filters are a filter from the same monitoring station exposed from midnight October 3 to midnight October 4, and an unexposed filter.

Ash and Smoke (cont'd)

Department alerting residents to the conditions and suggesting people stay indoors to minimize their exposure.

Also during this period, the monitoring station in Las Flores Canyon recorded an exceedance of the federal eight-hour ozone standard due to levels of smog-

2007 Green Award Winners Go the Extra Mile

APCD Board Roundup

Following are the highlights of the August and October Board meetings.

October

- In closed session, directed APCD Counsel to send a 60 Day Notice of Intent to File a Clean Air Citizen Suit to EPA for failure to adopt standards regulating air pollution from Category 3 marine vessels. Directed staff to issue news release.
- Adopted the schedule for 2008 APCD Board meetings.
- Adopted new APCD Rule 213, which establishes a fee of \$200 for registration of each agricultural engine subject to the new state requirement and new APCD rule.



Frances Gilliland with the award the Green Award Consortium gave her recently in recognition of her important role in the success of the Green Awards program. Gilliland also received an award from the Western Regional Pollution Prevention Network at their annual conference in October, in recognition of her many years of service on the Network's advisory board.

When Leland Walmsley from Evergreen Landscape Architecture and Construction walked through the B & H Flowers nursery recently he knew right away the business was a special one: "It was like walking through a redwood forest. The smell was that of compost, of wood, there wasn't that chemical smell you get in a typical nursery." Walmsley presented B & H with a 2007 Green Award for outstanding environmental achievements, continuing the tradition of a previous Green Award winner introducing a new one.

Walmsley remarked, "So many flowers are grown overseas, using carcinogenic sprays—it took a leap of faith years ago for B & H to stop using the traditional chemicals."

The transition wasn't an easy one, acknowledged Hans Brand of B & H, accepting the award: "Our goal for going sustainable was not financial. We learned a lot. And the first year was tough economically—we do not want to know what it cost us... But now I can say it works, we love it, we are not going to go back to the chemicals." All of the 60-70 million stems they produce in a

year are sustainably grown. He added, "We did it because it was right. But it's so wonderful to get the recognition for something we've been doing for ten years."

Jay Sullivan of Goleta School District, a previous winner, praised the University of California at Santa Barbara Campus Design and Facilities Department, another 2007 Green Award Winner: "The challenges of trying to do the green thing on a campus like this are enormous. You can't have outages or disruptions at a major research university—everything has to continue to work. It's like trying to change the fan belt on your car while the motor is running." He added that UCSB saved \$1.4 million on its electrical energy bill last year, and praised its new requirement that new buildings meet special standards for energy efficiency: "When you're doing \$1 billion of construction work, and you outline new requirements like this, you can actually change the local construction industry."

Other 2007 Green Awards recipients were: Valle Verde Retirement Community, the Chumash Casino Resort, and Clos Pepe Vineyards. The Green

Award is an annual award given by the Green Award Consortium, made up of APCD, the Community Environmental Council, Santa Barbara County Water Agency, Santa Barbara County Public Works-Resource Recovery & Waste Management, and SBCAG Traffic Solutions.

At the ceremony in September the Consortium members noted that in the future the Consortium may be making a transition from the awards program to a Green Business program, involving certification of green businesses.

For more information on current and past Green Award winners, see www.greendifference.org.



Hans Brand of B & H Flowers, a 2007 Green Award winner.

Staff Transitions

Two APCD staff members are leaving to take on new challenges.

Frances Gilliland was with APCD for 17 years, starting as an inspector, then serving as the Business Assistance Representative, performing California Environmental Quality Act review and public outreach functions, participating as a

longtime member of the Green Award Consortium, working on initiatives including the Old Car Buy Back and Don't Top Off programs, and becoming a leader in pollution prevention programs regionally, receiving numerous awards.

Anthony Fournier was with APCD for five years, administering grants for cleaner engines in

everything from school buses to farm water pumps, and working to reduce emissions from marine shipping.

Frances and Anthony will be much missed, and we wish them well!

For information on Employment Opportunities at the APCD, see www.OurAir.org.



APCD Board Calendar

Board of Directors

- Supervisor Salud Carbajal
First District
Santa Barbara County
- Supervisor Janet Wolf
Second District
Santa Barbara County
- Supervisor Brooks Firestone
Third District
Santa Barbara County
- Supervisor Joni Gray
Fourth District
Santa Barbara County
- Supervisor Joe Centeno
Fifth District
Santa Barbara County
- Mayor Pro Tem Russ Hicks
City of Buellton
- Councilmember Al Clark
City of Carpinteria
- Mayor Lupe Alvarez, Vice Chair
City of Guadalupe
- Mayor Pro Tem Will Schuyler, Chair
City of Lompoc
- Mayor Marty Blum
City of Santa Barbara
- Mayor Larry Lavagnino
City of Santa Maria
- Mayor Pro Tem Jim Richardson
City of Solvang
- Councilmember Eric Onnen
City of Goleta

For final meeting agendas, call the APCD Board Clerk, 961-8853.

December 20, 2007
2:00 pm
Board of Supervisors' Hearing Room
105 East Anapamu Street
Santa Barbara, California 93101

January 17, 2008
1:30 pm
Board of Supervisors' Hearing Room
511 East Lakeside Parkway
Santa Maria, California 93455

March 20, 2008
1:30 pm
Board of Supervisors' Hearing Room
511 East Lakeside Parkway
Santa Maria, California 93455

Community Advisory Council

The APCD Community Advisory Council meets the second Wednesday of every month at the Days Motor Inn in Buellton. The public is welcome. For more information, call Linda Beard, 961-8853.

Vehicle Technologies at AltCar Expo

The Alternative Energy and Transportation Show, also known as the AltCar Expo, in Santa Monica in October, showcased a range of vehicles and vehicle technologies. Below, the Solar Bug, an all-electric vehicle, includes a 200-watt roof-mounted solar array which can generate 10-25% of the vehicle's daily electrical requirement.

Also displayed at the Expo were fuel cell vehicles, biodiesel vehicles, battery-electric vehicles, and a plug-in hybrid—a Toyota Prius converted to a Plug-in Prius as part of a demonstration project of the South Coast Air Quality Management District.

Typical gas-electric hybrids have a gas engine and an electric motor, and a small battery that is recharged automatically; they are refueled with gasoline. Plug-in hybrids have an additional battery pack that can be plugged in and recharged. They can operate as all-electric vehicles—they can also be refueled with gasoline for extended range. While plug-in hybrids are not yet commercially available, auto manufacturers are working on this technology.



Vehicles on the market today vary a great deal in their gas mileage, and in their emissions. The U.S. Environmental Protection Agency has changed the way it estimates miles per gallon; changes will be reflected in numbers for the 2008 model year. To compare vehicles side by side on fuel economy, and for driving tips to increase fuel efficiency, visit www.fueleconomy.gov.



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- World Wide Web**
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On the Air is a quarterly newsletter written by Mary Byrd, published by the Community Programs Section of the Santa Barbara County Air Pollution Control District.

For further information on items in this newsletter, or to be added to our subscription list, please call Bobbie Bratz, 961-8890 or Email bratzb@sbcapcd.org.



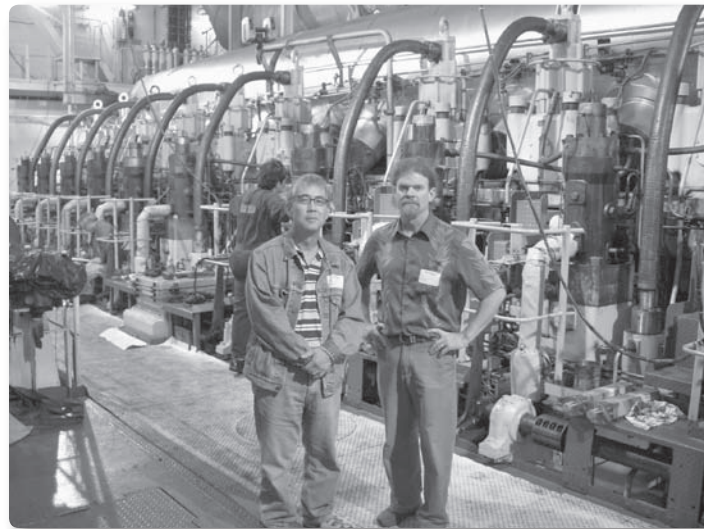
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Reducing Pollution from Marine Shipping APCD Files Intent to Sue EPA

In October, APCD announced its intent to sue the U.S. Environmental Protection Agency (EPA) over the EPA's failure to regulate pollution from large ship engines, as required under the federal Clean Air Act. "Litigation is always the last resort, but we have exhausted our other options," said APCD Director Terry Dressler.

APCD's "Clean Air Act Citizen Suit" may be filed sixty days from October 18, the date APCD sent the letter declaring its intent to sue, the required first step in this process. APCD might not file the lawsuit if the EPA takes action in this sixty day period.

Large ships are one of the last uncontrolled and unregulated major sources of air pollution. Their massive two-stroke engines produce as much power as a small power plant and burn residual fuel oil, a particularly dirty fuel. APCD estimates that ocean-going ships emit more than 45 percent of the emissions of nitrogen oxides (NOx) in the



Ron Tan and Tom Murphy inside the main engine room of the APL SINGAPORE, on the top floor of three floors of the main engine.

county. While not all of this pollution affects onshore air quality, the APCD also projects that, left unregulated, the ships could contribute almost 75 percent of the county's NOx pollution by 2020.

"EPA has repeatedly missed its own deadlines to regulate these ships," noted Division Manager Tom Murphy, explaining that

APCD sent the EPA a letter on May 8, 2007 expressing concern that the federal agency did not issue ship regulations by April 27, 2007, a deadline that was set in EPA's rule adopted in January of 2003. APCD did not receive any response to the May letter.

In addition to calling for regulations for these ships,

APCD has been working with partners on other ways to reduce ship emissions as part of the Maritime Working Group formed by the California Air Resources Board. The Group includes representatives from the Ports, commercial shipping companies, EPA, other California air districts, maritime industry associations, and community and environmental groups. A key task of the Maritime Working Group is to participate in the development of emission-reduction strategies for commercial marine vessels and dockside equipment.

APCD and several other members of the Maritime Working Group are currently working with APL, the world's eighth-largest container carrier, on a pilot project to demonstrate the feasibility of retrofitting the ocean-going ship the APL SINGAPORE with emissions-control equipment. Two technologies are being tested on the main engine of the SINGAPORE for use on California calls: a fuel/water

(continued on back)

Farm Engines Must Now be Registered with the APCD

Diesel engines rated at 50 horsepower or greater used in agricultural operations must now be registered with the APCD, according to a state law that became effective in Santa Barbara County on October 18. APCD has worked with

neighboring air districts in San Luis Obispo and Ventura Counties to establish a consistent program; registration of an engine in any of the three counties may be valid in all of them. There is a \$200 registration fee for each engine. The regulation primarily

applies to diesel-powered water and well pumps; it does not apply to mobile equipment, such as tractors and trucks.

New engines installed after August 16 of 2007 must be registered within 90 days of their

installation. Engines installed between January 1, 2005 and August 16, 2007 must be registered by November 14, 2007, and engines installed prior to January 1, 2005 must be registered by March 1, 2008.

(continued on back)

Business Focus

Marine Shipping (Cont'd)

emulsion system and slide-valves. A fuel/water emulsion system adds water to the fuel before it is injected into the combustion cylinder. This can reduce the maximum peak combustion temperature and the formation of nitrogen oxides (NO_x). The evaporation of the water inside the cylinder also causes the fuel to burn more completely, increasing efficiencies, and reducing emissions of pollutants such as particulate matter (PM) that are products of incomplete combustion. Different concentrations of water will be tested to determine the emulsion level that best reduces emissions. NO_x reductions up to 25 percent are expected. The

optimization of the fuel injection system is expected to reduce fuel consumption and PM emissions as well.

In addition, slide valves are being installed on the vessel's main engine to reduce dripping of fuel from the injector into the combustion zone; these could reduce PM emissions by about 25 percent.

In October, Murphy and other APCD staff visited the APL SINGAPORE at dock at the Port of Los Angeles to view the testing setup. The vessel had just returned from its voyage across the Pacific. On this voyage, an emissions testing crew studied the

emissions characteristics of the vessel's main engine and auxiliary engine under different conditions, including the use of emulsified fuels in the main engine. During the visit to the ship APCD staff witnessed the installation of some of the slide valves.

Murphy remarked, "Until you have actually been inside the engine room, it is hard to imagine just how large these engines are—over three stories high!" The APL SINGAPORE is 863 feet long, 131 feet wide, and 66 feet deep, and the engine is rated at 66,398 horsepower.

The emissions testing was to continue as the vessel departed Los Angeles for Oakland, at which point the testing crew would depart the vessel. Test results should be finalized and available sometime in the next few months.

Murphy added, "We believe emission-control technologies can cost-effectively reduce emissions from ship engines by ten to forty percent, or even more; due to the huge volume of emissions, the cost-per-ton of emissions reduced

is projected to be relatively low. This project, and others like it, will help us refine processes and technologies that have the most promise for wide application."

He summed up: "Our county's air has improved over the last 30 years. But our future clean-air progress may be jeopardized if marine shipping emissions continue to increase. We need accelerated application of control technologies on these existing ships, along with a strong regulatory approach from EPA for new built ships and fuels."

For more information, including copies of APCD letters to EPA, and APCD Board Actions in this area since 2001, plus additional information on the APL SINGAPORE project, see <http://www.OurAir.org>.



View from the bridge of the APL SINGAPORE, as cargo is loaded.

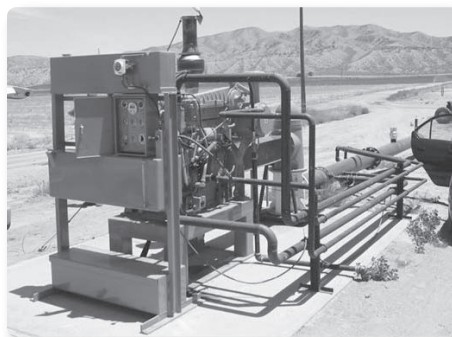
Farm Engines (Cont'd)

APCD has some funds available to help replace older high-polluting engines, and agricultural operators are encouraged to apply for funds as soon as possible.

Emissions from diesel engines can cause cancer and a range of other health problems. The state law applying to agricultural engines

was developed as part of California's Diesel Risk Reduction Program.

For more information, and to register an agricultural engine, see www.OurAir.org.



\$ APCD Grants for Local Businesses

Funds for Cleaner Engines

Equipment that may be eligible for grants to repower or retrofit includes:

On-Road and Off-Road Vehicles/ Equipment, Agricultural Water Pumps, School Buses, Marine Engines, and Other.

For applications & more info visit: www.sbapcd.org/itg/itg.htm.

Contact Information:

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