

Study finds higher air pollution near Santa Monica Airport

UCLA researchers find ultrafine particle emissions are 10 times higher than normal 300 feet from the runway -- a range that includes many homes. The study calls for larger buffers at urban airports.

By Dan Weikel, staff writer

L.A. Times, Thursday, Nov. 19, 2009

UCLA scientists have found that people who live and work near Santa Monica Airport are exposed to high levels of air pollution -- a significant health concern that has been largely associated with major commercial airports such as LAX.

The study, released Wednesday, shows that ultrafine particle emissions were 10 times higher than normal about 300 feet downwind of the runway's east end, where takeoffs generally start. The levels were 2.5 times higher than normal at a distance of about 2,000 feet.

A tiny fraction of the width of a human hair, ultrafine particles can travel deep into the lungs, penetrate tissue and even travel to the brain. Studies show that elevated exposure to the particles presents a health risk for children, older adults, and people with respiratory and cardiovascular diseases.

Although the research focused on Santa Monica, the study may have broader implications for regional and municipal airports that serve private planes and corporate jets. Many such airfields in Southern California are in densely populated areas.

"Our research shows the potential impacts of smaller airports on residential areas and that we ought to have more of a buffer around airports," said UCLA professor Suzanne E. Paulson, an atmospheric chemist who worked on the study. "This is not just happening at Santa Monica."

The Santa Monica Airport sits on a plateau surrounded by businesses and homes, some less than 300 feet from the runway. For years, nearby residents and business owners have complained about aircraft emissions and the growing use of corporate jets.

"It's just horrible," said Virginia Ernst, who lives about 300 feet from the runway's east end. "They line the planes up and the fumes just invade your home. Sometimes you have to leave because it is so bad."

The university's Department of Atmospheric and Oceanic Sciences conducted the study -- one of only a handful to explore airborne pollutants near general aviation airports. The results were disclosed Wednesday in the journal *Environmental Science and Technology*, published by the American Chemical Society.

UCLA's findings are consistent with a study yet to be published by the South Coast Air Quality Management District, which found that levels of ultrafine particles were significantly elevated near the Santa Monica runway during aircraft operations.

The UCLA research suggests that government officials should pay closer attention to airport-related emissions that could cause health problems. Many smaller airports in urban areas, the study noted, have insufficient buffer zones to reduce noise and prevent emissions from reaching neighborhoods.

Officials for the Federal Aviation Administration said that air traffic control at Santa Monica has taken several steps to limit emissions from taxiing and departing aircraft. They include positioning planes so their exhaust is directed away from neighborhoods and instructing pilots not to start their engines until five or 10 minutes before they are cleared for takeoff.

But Martin Rubin, a community activist involved in airport issues, disputes the effectiveness of those procedures. Aircraft are still idling for up to 30 minutes, back to back, he said, and wind can send emissions into neighborhoods despite a plane's position on the runway.

Wind turbine jobs blow in China's direction

By Jim Landers - The Dallas Morning News
In the Merced Sun-Star, Thursday, November 19, 2009

WASHINGTON -- The rush to America of foreign wind-turbine manufacturers shows that the Obama administration's plan for stimulating the creation of green-energy jobs is going in an odd direction.

Two weeks ago, U.S. Renewable Energy Group, led by Dallas investor Cappy McGarr, announced plans to build a \$1.5 billion wind energy farm in West Texas. About a third of the money would come from federal stimulus funds. All of the wind turbines (and much of the remaining investment capital) would come from China.

"We believe that this project will greatly contribute to job creation, the goals of the Obama administration and our desire to reduce our reliance on fossil fuels and increase our energy independence," McGarr said in announcing the deal.

There would be perhaps 330 jobs created in Texas. Most would be temporary construction jobs. Meanwhile, thousands of Chinese workers in the northeastern industrial city Shenyang would build the labor-intensive turbines.

Most of the wind energy projects seeking money under the American Recovery and Reinvestment Act rely on foreign-made turbines. Even the industry we have here at home, led by GE, is looking abroad. GE's technology will power the gearboxes of the turbines for the U.S. Renewable Energy Group. The gearboxes will be made in China.

U.S. companies emerging from the financial shocks of the last year haven't started investing in American factory jobs. Richard Fisher, president of the Federal Reserve Bank of Dallas, told an Austin audience last week that the company CEOs he speaks with are more interested in investing abroad.

That doesn't fit with the administration's plans. To fix the big economic imbalances of the U.S. economy, administration economists say, Americans must save more, import less and sell more U.S. goods to the world. This is particularly important in the U.S. relationship with China, which is America's biggest creditor.

Democrats, with union support, included a "Buy America" provision in the stimulus bill. This hasn't proved to be an obstacle to moving ahead with wind projects that rely on foreign-made turbines.

When the wind is right, the U.S. Renewable project would generate more than 600 megawatts of electricity, or enough for 180,000 homes. Texas has long recognized such energy projects as a public good and provides incentives to support them.

Federal support has been more haphazard. Wind energy advocates say that's a reason other countries are taking the lead with alternative energy technologies developed in the United States.

President Barack Obama said the stimulus bill would create environmentally friendly manufacturing jobs in America. He's using the same rhetoric to promote legislation that would curb [greenhouse gas emissions](#).

To get there, however, it now looks like we'll have to rely on foreign investors.

The engineering for the U.S. Renewable turbines was developed in Germany. Joachim Fuhrlander, CEO of this namesake company, says the West Texas project and others will eventually lead to service jobs for more than a thousand Americans.

Denise Bode, president of the American Wind Energy Association, says other foreign manufacturers are moving plants to the United States to be nearer the world's biggest wind market.

In a roundabout way, those plants will create American jobs. That might be behind another wind farm announcement scheduled for Wednesday, this time by the Portuguese-owned firm Horizon Wind Energy.

Horizon says its latest investment "will create thousands of good-paying jobs on American soil."

Cleaner-burning diesel train on Capitol Corridor

The Associated Press

In the Modesto Bee, Merced Sun-Star and other papers, Wednesday, November 18, 2009

OAKLAND, Calif. -- A locomotive outfitted with a cleaner-burning diesel engine is being hailed as the first step in a new era of greener passenger train travel.

State air pollution regulators and Amtrak on Tuesday unveiled Locomotive 2015, which runs between San Jose and Sacramento on the Capitol Corridor line. They billed it as the cleanest diesel passenger train in the nation.

The train underwent a \$826,000 overhaul of its engine, which was outfitted with new technology that cuts its harmful emissions in half.

Another \$2.6 million has been earmarked to retrofit five of the remaining 17 Capitol Corridor locomotives.

The new engines are modified to burn less fuel, reducing diesel emissions that contribute to higher asthma rates in nearby neighborhoods.

USDA grants help state farmers cut pollution

By Mark Glover

Sacramento Bee, Wednesday, November 18, 2009

The U.S. Department of Agriculture's Natural Resources Conservation Service said it has awarded nearly \$23 million this year to 586 California farmers and ranchers to subsidize pollution-reduction and other environmental measures.

The service said it received more than 2,500 applications from farmers and ranchers who were offered incentives to retire old, inefficient equipment and adopt practices to improve air quality throughout the Central Valley.

USDA has estimated that the resulting emissions reduction would be equivalent to removing 153,000 vehicles from California highways.

Gayle Norman, conservationist with California NRCS, said \$18.9 million went to help farmers replace combustion engines from older agricultural equipment, including pumps and tractors.

Other funding went to promote agricultural practices to reduce dust, pests and the spread of hazardous substances.

Most of the California funding for the initiative came from the 2008 federal Farm Bill.

Stench contained traces of hydrogen sulfide, report says

By Rashi Kesarwani

O.C. Register, Wednesday, Nov. 18, 2009

LAS FLORES – The Santa Margarita Water District held its board meeting today, the first since the Upper Oso Reservoir began releasing a foul odor on Oct. 28 because of an algae bloom. About 10 residents were present to hear a presentation on the actions taken to remedy the smell, plans to avoid a similar problem in the future and the results of an air quality study of the area.

The meeting coincided with the release of a report by the South Coast Air Quality Management District finding that hydrogen sulfide - a poison known as "sewer gas" because it is often produced by the breakdown of waste material - was present in air samplings taken around the Upper Oso Reservoir since late October when residents first began complaining about a rotten egg stench.

The air quality management district report said the hydrogen sulfide levels in residential neighborhoods around the lake were in most cases at or below the district's detection level of at

least 0.005 parts per million, with occasional short-term readings in the range of 0.01 to 0.015 ppm.

The highest readings were recorded around the perimeter of the reservoir in the range of 0.013 to 0.37 ppm, with the highest concentrations measured on Nov. 4 and 11.

Those figures are below the exposure levels known to cause discomfort or irritation by the U.S. Environmental Protection Agency. Eight hours of exposure to hydrogen sulfide at a level of 0.33 ppm can cause discomfort or irritation that reverses itself upon cessation of exposure, according to the EPA's guidelines.

The water district also measured hydrogen sulfide levels around the lake using a device with a detection level of at least 0.5 ppm, less sensitive than the air quality management district's detection level of at least 0.005 ppm. The water district's chief engineer, Dan Ferons, said earlier this month that the algae bloom had not released levels of hydrogen sulfide gas at or above their lowest reading level of 0.5 ppm, well below the 20 ppm exposure limit issued by the U.S. Occupational Safety and Health Administration.

The water district's equipment to measure hydrogen sulfide levels is not as sensitive as that of the air quality management district because the water district is concerned with ensuring that the gas does not pose a permanent health risk to employees under OSHA guidelines rather than whether it causes irritation to residents, Ferons said today.

Ferons said the report released today by the air quality management district shows there were no permanent health effects as a result of the hydrogen sulfide in the atmosphere because of the lake's algae bloom.

"People could have been irritated by a nuisance odor," Ferons said. "It's nice to have an independent verification of that."

A similar message was repeated during tonight's water district board meeting. But some residents in attendance were not satisfied by the findings.

Gene Bedley of Rancho Santa Margarita said during the public forum that the inability to go outside because of the stench was another health effect of the algae bloom.

"You're locked in your house because of the smell for the last two weeks," Bedley said.

Ladera Ranch resident Gary Kephart said the board of the water district needed to make themselves known to the communities they served.

"It's a lot harder for people to get angry with you when they're going to a person that's going to be solving this problem," Kephart said.

Water district officials said during the meeting they plan to study enhancements or changes at the reservoir to avoid a future depletion of oxygen leading to an algae bloom, including nutrient removal systems, aeration at the surface, diffused aeration, oxygen injections to the lake's bottom layer and the use of oxidation chemicals.

Officials said they planned to install new equipment at the reservoir in March and April, 2010.

The algae bloom was the result of a cold spell in late October, which caused the top layer of the reservoir's warmer water to turn cold quickly, making it heavier and bringing the oxygen-depleted bottom water to the surface rapidly. The wind then caused all the water to mix, creating a situation in which the entire lake suffered oxygen depletion.

Water district general manager John Schatz said in an interview today the recent algae bloom was the first of its kind at the Upper Oso Reservoir.

"This is unprecedented," Schatz said.

Schatz said the reservoir's four solar-powered aeration pumps, known as SolarBees and installed in March 2008, leave the bottom layer of the lake oxygen depleted.

"I think we're going to have a conversation about what happened and the ongoing strategy as it concerns the use of the SolarBees," Schatz said. "They're going to have to be supplemental and not primary."

Something old, something new

New buses to help pollution

By Staff

Reedley Exponent & Orange Cove & Mountain Times Wednesday, November 18, 2009

Officials celebrated new, cleaner school buses last week at Orange Cove High School.

Dignitaries attending were Valley Air District Executive Director Seyed Sadredin, Air Resources Board Communications Director Leo Kay, Kings Canyon Unified School District Superintendent Juan Garza and KCUSD Deputy Superintendent Ron Hudson.

A state grant administered through the local air district is taking old, polluting school buses off the road in a rural Fresno County school district, and as a result, improving the lives of its children and community.

The four new buses, which replace buses manufactured before 1977, will reduce harmful air pollutants that affect human health in the Kings Canyon Unified School District. The buses were replaced through the Prop 1B Lower Emission School Bus Program. The state Air Resources Board allocated \$39 million in Prop 1B funds to the San Joaquin Valley Air Pollution Control District.

The two buses on display had the number 42. The older 42 was used to transport students many years ago from Orange Cove to Reedley High School before the new campus was built in Orange Cove.

"The replacement for No. 42 transports students from one side of Orange Cove to the other," said Garza.

"Replacing older, dirtier school buses with today's newer models provides cleaner air to students, communities and schoolyards," said ARB Chairman Mary D. Nichols. "Credit goes to the San Joaquin Air District for moving expeditiously to parlay this voter-state funding into on-the-ground air quality improvements in a part of the state that really needs it."

This project is an example of how the Air District targets the areas of greatest need in the Valley for critical funding," said Seyed Sadredin, the Air District's executive director and air pollution control officer.

With a population of 10,000 students in the Kings Canyon Unified School District and nearly 600 at Orange Cove High School, these newer buses will have an immediate benefit to the area, reducing exposure to harmful diesel particulate emissions and nitrogen oxides (NOx) by 85 percent each. These pollutants are serious health threats that can cause disease and exacerbate existing respiratory conditions such as asthma.

Buses manufactured before 1977 produced about seven tons of emissions over their lifetime, compared to lifetime emissions of one ton for buses manufactured today. Additionally, older buses are not subject to federal safety standards. All pre-1977 buses in the Valley will be replaced with Prop 1B funding. Remaining funds will be used for retrofits and additional replacements.

School districts must apply to the Air District for funding. For additional information, call 559-230-5800.

"With this important change, we can improve the lives of these students and their community significantly," said Sadredin. "That, in a nutshell, is why we are here."

For more information about the Valley Air District, call a regional office: in Fresno, 559-230-6000; in Bakersfield, 661-392-5500; and in Modesto, 209-557-6400.

City finds no basis to oppose mining project

By Cheryl Lingo Editor

Reedley Exponent Wednesday, November 18, 2009

Local opponents of a proposed aggregate mining operation on Jessse Morrow Mountain gathered at City Hall last week to enlist the City's help in rejecting the draft environmental impact report (DEIR).

Several of the same people who spoke against the project at a public meeting on Nov. 16 also addressed the Council the next night, asking the City to take an official stance against Cemex plans for a 100-year mining operation. Of seven neighboring cities, none have taken such a step.

City manager Rocky Rogers said the City will submit comments on the DEIR but could not take a City stance on the project.

"We cannot approve or disapprove the project," Rogers said. "We will submit comments, as we do on any project that comes into or near Reedley, but we would have to hire our own experts to take an official position," he said.

A planning consultant to the City briefed council members on the DEIR, noting her opinion that the document included an adequate review of the project and its impacts. She reported no substantial disputes with its findings.

At council direction, however, Rogers is preparing a letter to be signed by council members and forwarded to the Fresno County board of supervisors, noting specific concerns with air quality, traffic, and water issues.

Council member Steve Rapada—who was absent from the meeting—submitted a letter urging the council to oppose the project. Councilman Pete Chavez said he has concerns about the project but believed it best to handle interaction with the county supervisors as individuals, not as a council. "We do need to sit down and talk about it with [the supervisors]. We need to let Judy Case know how we feel."

The public comment period on the DEIR closes on Dec. 4. On Nov. 18, a second public meeting hosted by Fresno County takes places at Sanger High School.

[L.A. Times blog, Wed., Nov. 18, 2009:](#)

Global warming: California pushes ahead

By Margot Roosevelt, staff writer

While Congress dithers over federal climate change legislation, and nations squabble over a global treaty, the nation's most populous state is doggedly pushing ahead with its own regulations to control the greenhouse gas emissions that are heating up the Earth's atmosphere.

In a milestone for the state's landmark plan to slash emissions by 15% over the next 11 years from today's levels, the Air Resources Board announced today that more than 97% of the state's 605 largest factories, cement plants, refineries and power plants have reported how much carbon dioxide and other heat-trapping gases they emit.

At the same time, California became the first state in the nation to accredit third-party professionals to make sure the polluters accurately report their emissions. The first 101 individual verifiers and 17 businesses completed a 40-hour course and final examination, the ARB announced.

Verification of all reported emissions will be required beginning next year, providing a key database for the state's proposed cap-and-trade regulations. A cap and trade system, which would take effect in 2012, would allow polluters to trade emissions credits among themselves so

that facilities which can cut emissions for less money may sell their reductions to facilities which would have to pay more to install controls.

[O.C. Register blog, Wednesday, Nov. 18, 2009:](#)

Predict air quality decades in advance — on your computer

posted by Pat Brennan, green living, environment editor

The digital heroes of computer games are typically knights, cyborgs soldiers and other thrill-seeking adventurers.

But what about air-quality regulators?

Graphic from computer model showing drop in 2060 ozone levels with widespread use of hydrogen fuel-cell vehicles courtesy Shane Stephens-Romero. Expressed in parts per billion; the more green and blue, the lower the ozone.

The exciting world of pollution-control bureaucracy might not be for everyone, but UC Irvine scientists have high hopes for their newly devised computer model, which forecasts likely air-pollution levels decades in the future.

Plug in your favorite parameters — say, ozone pollution levels in coastal Southern California in 2060 if 75 percent of the driving public uses hydrogen fuel-cell cars — and out pops the answer: 10 percent less ozone pollution than even a metropolis full of advanced gasoline engines would produce.

“In terms of greenhouse gases, you see incredibly dramatic reductions — more than 60 percent,” said one of the model’s creators, UC Irvine doctoral student Shane Stephens-Romero.

The model, described in a paper published online this month in *Environmental Science and Technology*, was mainly designed as a tool for regulators — those at the state Air Resources Board, for instance, who must try to forecast the likely effects of new pollution laws in order to hit mandated targets.

But the scientists plan to make the model available to the public within a year on the Web. They are also developing versions for school children and college students.

“There will be some interactive elements,” said UC Irvine professor Scott Samuelsen, director of the National Fuel Cell Research Center and the principal investigator on the project. “They can put in what they believe is possible, and see what the ramifications are. They can role play, as if they were a legislator or an agency regulator.”

While it’s hard to imagine the model making much of a dent in the popularity of Blizzard’s *World of Warcraft*, the scientists hope it will be a learning tool — and, just maybe, ignite public interest in the real-world intricacies of air-quality control.

The model was developed with the help of automakers such as Toyota, Honda, GM, Hyundai and Nissan, as well as energy companies such as Air Products and Chemicals Inc. and Linde North America Inc., the scientists said.