Science to determine new regulations for diaries

Bob Brownne
Tracy Press, Tuesday, April 25, 2005

San Joaquin Valley dairy farmers hope new studies will convince air quality officials that cows aren't the polluters they're believed to be.

State and regional regulators have long suspected that belching from dairy cows contributes to a large percentage of organic gases in the San Joaquin Valley. But now that dairy farmers are facing new regulations they've convinced the San Joaquin Valley Air Pollution Control District to reject its old data and take a closer look at the type and amount of air pollution cows produce.

Ann Silva, a partner with Bacchetti and Silva Dairy north of town, said new laws requiring air-quality permits and emissions control means more expenses for dairy farmers.

"We're always concerned about it," she said. "You hope they use sound science and hope they have good numbers to go from … making sure that along with the regulations that the science and technology are there to deal with the problem."

The district's Dairy Permitting Advisory Group expects to establish a new "emission factor" by next Friday based on research from University of California, Davis, California State University, Fresno, and independent studies. That could replace previous dairy air pollution estimates used by the California Air Resources Board.

CARB lists dairy cattle as the valley's top producer of total organic gases and second only to cars, trucks and other motor vehicles for production of reactive organic gases. Organic gases are mostly the "greenhouse" gases, such as methane, and include reactive organic gases that contribute to smog.

Board statistics attribute about 32 percent of the valley's total organic gases and 10 percent of reactive organic gases to dairy cattle.

Mike Marsh, CEO of Western United Dairymen, said state and regional regulators are still using data from a 1938 study. While they refer to the amount of methane gas produced by cows, 12.8 pounds per cow, per year, Marsh said those numbers have since been misinterpreted to represent different chemicals that are blamed for the valley's smog.

"Most science indicates that emissions of VOCs (volatile organic compounds) from dairies are about one-quarter the 12.8 figure that's usually cited," Marsh said.

Western United Dairymen is one of two industry groups that sued the San Joaquin Valley Air Pollution Control District last year over its implementation of a new state law requiring air quality permits for farms. One of the settlement terms of that lawsuit is that the district will use updated studies to determine the type and amount of gases produced at dairies.

Regardless of the air pollution data, all farmers will face new regulations by next summer. Dairy farmers would have to obtain permits stating how they intend to control emissions, in most cases requiring explanations of farming practices designed to reduce pollution.

"There actually are a lot of measures to be taken, and that's the next role of the Dairy Permitting Advisory Group," said Dave Warner, director of permit services for the San Joaquin air district. "Some might be as simple as getting manure into a treatment lagoon quicker, or diet adjustments, to big engineering solutions like covering a lagoon and burning off VOCs to produce electricity."

Warner added that the numbers in the report, to be released before the May 5 meeting of the board's Dairy Permitting Advisory Group, will be subject to debate.

"There are still several areas where we don't have consensus," he said.

Diane Bailey, an engineer with the Natural Resources Defense Council, an environmental group working with the advisory group, said she expects more research will be needed before the group has a clear idea of the pollutants coming out of dairies.

"What has been done over the past couple of years has been useful but it's not enough," she said. "We have a lot of work to do and the numbers are not clear-cut."

Gennet Paauwe, spokeswoman with the Air Resources Board, said state officials are aware that their data on dairy air pollution is outdated, but they still believe that the smog-producing emissions from dairies could exceed those from cars within the next five or six years.

"We knew this needed to be updated, which is why we worked with the different communities, including the agricultural community, to get this updated," she said.

JUDGE RULES PESTICIDE SMOG LAWSUIT MAY PROCEED

Groups May Enforce Promise to Cut Smog-Forming Pollution by 20% by 2005.

from the Association of Irritated Resdients, Community and Children's Advocates Against Pesticide Poisening, El Comite Para el Bienestar De Earlimart, Ventura Coastkeeper and Wishtoyo Foundation, Tuesday, April 26, 2005

SACRAMENTO, CALIFORNIA - A coalition of community-based environmental justice groups received a green light from a Federal judge to proceed with a lawsuit brought under the federal Clean Air Act that seeks to force state regulators to keep a promise to reduce smog-forming pollution from pesticide and fumigant use. The defendants, Secretary of the California Environmental Protection Agency Alan Lloyd, Director of the Department of Pesticide Regulation Mary Ann Warmerdam, Executive Officer of the Air Resources Board Catherine Witherspoon, and the Board Members of the Air Resources Board sought to dismiss the lawsuit. The judge denied their request late Monday.

"Air quality regulators have a promise to keep: cut smog forming emissions from pesticides by twenty percent between 1990 and 2005," said air quality and pesticide activist Teresa DeAnda, President of El Comité para el Bienestar de Earlimart. "In the San Joaquin Valley, pesticides are the largest source of unregulated smog-forming pollution. We will push forward with our lawsuit because Californians' lungs are not subsidies for agriculture."

In a May 1995 letter sent to the U.S. Environmental Protection Agency as part of California's plan to meet the federal smog standard, California regulators promised to reduce smog-forming emissions from pesticides - called volatile organic compounds ("VOCs") - by 20% from 1990 levels by the year 2005. If any of the Sacramento, San Joaquin Valley, Ventura, South Coast, and Southeast Desert air basins failed to meet interim goals, then regulators would abandon a voluntary reduction program and implement regulations to ensure the 20% target would be met. To avoid the regulations, the voluntary program must reduce emissions by 8% in 1996, 12 % in 1999, and 16% in 2002.

The regulators sought to dismiss the suit, claiming that the state had no obligation to control pesticide pollution. In Monday's ruling, Judge Lawrence Karlton rejected the regulators' arguments and ruled that the strategy outlined in the May 1995 letter had been approved by the U.S. EPA as part of California's plan - called the State Implementation Plan. Under the Clean Air Act, citizens may enforce EPA-approved strategies.

In some areas of California, emissions from pesticides have actually increased from 1990 levels under the Department of Pesticide Regulation's voluntary program. The San Joaquin Valley has shown a steady increase in emissions since 1990, except for 2001 when emissions fell. In 2002 and 2003, pesticide use in the Valley rose dramatically to levels above the 1990 baseline. In 2003, the most recent year of data, pesticides represented the fifth largest source of VOC emissions in the Valley, emitting more than 26 tons of smog-forming pollution each day.

Ventura County has also seen a steady climb in emissions since 1990 to the point where emissions doubled from 1990 levels. The Southeast Desert air basin, an area east of Los Angeles, has likewise failed to meet its reduction targets. Despite the failure of voluntary measures, regulators never adopted the promised regulations.

The plaintiffs, five grassroots environmental justice groups located in the San Joaquin Valley and Ventura County, filed the lawsuit in May 2004. The lawsuit seeks an order compelling the regulators to adopt the regulations to control smog-forming emissions.

"The bottom line is that every source of pollution must be regulated," said Mati Waiya of the Wishtoyo Foundation and the Ventura CoastKeeper. "Their 'voluntary' measures are just another euphemism for 'loophole.'"

"These toxic, smog-forming poisons threaten nearby communities, schools, and the general public," added Tom Frantz, President of the Association of Irritated Residents and a high school math teacher. "A reduction in use would benefit those most at-risk from smog pollution and pesticide poisoning: our children, families, and students."

A photochemical reaction between VOCs and oxides of nitrogen forms ground-level ozone or "smog." Besides pesticides, common sources of VOCs are paint, gasoline, and solvents. Oxides of nitrogen - or NOx - come from cars, trucks, and power plants. Ozone pollution damages lung tissue, exacerbates asthma, reduces lung capacity, increases respiratory and cardiovascular hospital admissions, and increases school and work absenteeism. Recent research suggests a causal connection between smog pollution and asthma. The pesticide and fumigant products with the highest contribution of VOCs contain Methyl Bromide, Dichloropropene, Metam-Sodium, Chloropyrifos, and Oxyfluorfen.

"Instead of reducing this harmful pollution, the regulators have sold out the public," said Mary Haffner, Board Member of Communities and Children's Advocates Against Pesticide Poisoning. "We will now proceed with our lawsuit and ask the court to order the regulators to protect us, not the industry."

The Center on Race, Poverty & the Environment (CRPE) represents the coalition.

School bus plan scraps old models

Poochigian wants to use Prop. 98 money to replace unsafe, polluting vehicles.

By Jennifer M. Fitzenberger / Bee Capitol Bureau
Tuesday, April 26, 2005

SACRAMENTO - One out of every five California school children rides the bus to and from school each day, yet districts operate nearly 5,000 buses that violate federal safety or state air-quality standards.

Many of those buses are in the central San Joaquin Valley. In the 2003-04 school year, schools in the six-county region had nearly 600 buses that were built before 1987, state Department of Education statistics show.

Sen. Chuck Poochigian, R-Fresno, wants to take those buses off the roads. He says replacing old buses with safer, cleaner models will better protect kids and cut down on the amount of diesel exhaust they breathe.

Senate Bill 698 by Poochigian directs the state to spend $50 million each year for five years to replace buses built before 1977. When those are switched out, buses built before 1987 would be replaced.

"It is well recognized that school buses are problematic for safety and air-quality reasons," Poochigian said.

In 1977, the federal government established minimum safety requirements for school buses. New features included high, well-padded seats, better brakes, warning lights and multiple emergency exits.

Most buses built before 1977 have lower, harder seats that don't protect passengers as well.

In 1987, the California Air Resources Board began regulating particulate matter - small specks of soot that can lodge in the lungs and cause health problems. Older, diesel-powered buses emit high levels of particulate matter and nitrogen oxides, which help form ozone.

Studies have found that children riding older buses are exposed to exhaust that wafts into the cabin through cracks in the floor and frame. "Our children can get some fairly high emission doses just riding to school," said Jerry Martin, a spokesman for the Air Resources Board. The San Joaquin Valley is home to some of the dirtiest air in the nation. The San Joaquin Valley Air Pollution Control District, in its effort to improve air quality, has studied school bus pollution.

Maria Stobbe, a senior air-quality specialist with the district, said new buses can cost up to $150,000 apiece. "Our school districts are so poor they're just not going to have the funding to replace these buses unless someone helps them," Stobbe said.

Terry Beaver, transportation director for Fresno Unified School District, said money is tight. "Whatever funding we get from the outside would be much appreciated," he said.

Fresno Unified has two buses that were built before 1977. They're still used to transport children, but only when other buses aren't available. More than half of the district's 86 large buses were manufactured before 1987.

Central Unified School District has about 20 buses built before 1987.

"We would probably love to replace all of [those] buses, but financially that gets tough to do, especially the way the budget is now," transportation supervisor Dick Dailey said.

Under the bill, state money would come from the Proposition 98 Reversion Account, which collects unused school money.

Prop. 98, approved by voters in 1988, directs the state to spend 40% of its general fund on schools.

The account is estimated to have $166million in 2005-06. About $100 million would go to school facility improvement, $20 million would go to vocational education and the rest - Poochigian hopes - could go to school bus replacements.

Stephen Rhoads, legislative advocate for the School Transportation Coalition, said the state provides little money to buy new school buses. As a result, local districts depend on grants or pay for new buses themselves. Over the years, Valley districts have replaced older buses with cleaner models.

"If times are tight, like they've been for a long time, it's easy to postpone that decision," Rhoads said.

Rhoads said the older buses should be taken off the roads and scrapped.

The California State Firefighters' Association is supporting the bill because it has the potential to prevent injuries. Said Afrack Vargas, a legislative advocate for the association: "The newer ones are much safer than the old ones."

As of Monday, no group had officially opposed the bill.

SB 698 passed the Senate Education Committee last week.

It is scheduled to be heard today in the Senate Energy, Utility and Communications Committee.

Sierra Club members reject immigration proposal

By KIM CURTIS, Associated Press Writer
Published in the Bakersfield Californian, Tuesday, April 26, 2005

SAN FRANCISCO (AP) - With the "distraction" of the group's immigration policy behind it, the Sierra Club's president said he's eager to get on with the business of protecting the planet and ensuring clean air and water.

Sierra Club members rejected a change in the group's immigration policy that would have advocated reducing migration to the United States as a way to lessen the environmental consequences of population growth.

The proposal was defeated by nearly 84 percent of the 122,308 members who voted, the club announced Monday. About 16 percent of the club's more than 750,000 members cast ballots during voting that began in early March.

"We would rather focus our attention on the Bush agenda for so-called free trade or getting back to a sane energy policy, protecting against Arctic drilling, curbing sprawl all around the country," said President Larry Fahn shortly after the results were announced.

Members also elected five new members to the 15-member board of directors, which sets club policy and oversees the San Francisco-based organization's $100 million annual budget.

Sierrans for U.S. Population Stabilization, a network of club activists seeking to limit immigration, backed five of their own candidates and pushed a "yes" vote. None of the group's candidates won board seats.

Initiative supporters said Americans are the world's largest consumers, and that when immigrants come to this country they adapt quickly, significantly increasing their own consumption.

The immigration control advocates said the U.S. population, now about 300 million, is expected to more than double this century if nothing is done to slow its growth. They said overpopulation has led to a variety of environmental problems, including exploitation of resources, the erosion of wilderness areas and species extinction.

"I think there's a lack of understanding of the sheer magnitude of the problem," Dick Schneider, a supporter of the immigration proposal, said Monday after the ballots were counted. "The connection between population and environmental degradation is so clear-cut that it's a natural issue for the Sierra Club to be involved in."

Opponents, including many current and former club leaders, argued that wading into the politics of immigration would alienate allies such as labor unions and civil rights groups, and will not slow population growth worldwide.

Fahn said it was time to get back to basics.

"Our members have once again displayed great wisdom and made their views perfectly clear," he said in a statement. "Now we can put our focus back where it is needed most, into strengthening communities and building alliances to protect our environment for our families and our future."

The final tally against the immigration question was 102,455 to 18,998. Some members voted for directors but did not cast votes on the proposal.

Schneider said it was unlikely the immigration issue would be put to voters again next year.

"More Sierra Club members are going to have to recognize the issue as salient," he said. "When we sense there's that recognition will be the time to come back ... whether it's two years or five years or seven years."

The club, founded by famed conservationist John Muir in 1892, has debated its position on immigration for years and in 1998 voted to remain neutral.

Last April, a record number of members - 171,616 out of 757,058 - spoke out on the contentious issue and elected club-endorsed candidates to all five open seats.

Solar bill up for key vote today

By Harrison Sheppard
Los Angeles Daily News, Tuesday, April 26, 2005

SACRAMENTO - A bill that would provide incentives for homeowners and businesses to install solar-power systems comes up for a key committee vote today, just as California enters the summer peak times for energy usage.

The incentives include rebates and tax breaks on the purchase of solar-energy systems, and would allow those who install such systems to sell excess electricity back into the power grid.

"The time has come for California to move into the solar age," said Sen. Kevin Murray, D-Culver City, one of the bill's co-authors. "With the energy crisis that we just had, this could provide us some independence, (and) it cleans our air."

The bill, being considered today by the Senate Energy, Utilities and Communications committee, is backed by Gov. Arnold Schwarzenegger, but opposed by Southern California Edison.

The utility has expressed support for the concept of solar power, but objects to several provisions of the program. Edison argues that the program focuses on the most-expensive form of solar technology, and that nonsolar customers would be unfairly subsidizing part of the program.

"If the bill were amended to address the concerns ... SCE believes (it) would represent a positive step forward both to improve and reduce the costs of solar energy and to improve the environmental performance of California's electricity system," the company wrote in a recent letter to the Senate committee.

Murray said he is negotiating with the utility to address some of its concerns.

The bill, called the Million Solar Roofs Initiative, would provide enough incentives to generate 3,000 megawatts of power for the grid within 10 years, the equivalent of 1 million residential and commercial systems.

Those who install such systems would receive significant rebates on the purchase price and could deduct 7.5 percent of the cost from their state taxes.

They also would be able to sell excess power into the grid, which advocates say would most likely be generated when it is sunniest - during the hot summer months when power usage also peaks because of increased air conditioning usage.

During those peak times, advocates also argue, the solar systems would help limit pollution by reducing the need to put older and dirtier power plants into use to meet demand.

Hybrid buses arrive in Yosemite

In the Contra Costa Times, from the Associated Press
Tuesday, April 26, 2005

YOSEMITE NATIONAL PARK - A fleet of new hybrid buses delivered in California's Sierra Nevada will help shuttle tourists while belching less of the diesel soot that can obscure the scenery visitors come to admire.

Diesel-electric buses like the ones delivered to Yosemite National Park on Monday are already running in 22 cities around the country, but this will be the first fleet to operate in a national park.

The shuttles will carry visitors along Yosemite Valley and into the Mariposa Grove of Giant Sequoias, a stand of some of the world's largest trees.

The vehicles still consume diesel, but they're vastly more fuel efficient, according to General Motors Corp.

The buses are manufactured by Gillig Corp. of Hayward and use a GM Allison Electric Drive system.

The hybrid buses produce up to 90 percent less emissions, one of the reasons why park officials chose the technology, National Park Service deputy director Don Murphy said in a statement.

The new buses are also much quieter than the conventional models.

Fuel cell pulls hydrogen out of bacteria

Michael Kanellos, Staff Writer, CNET News.com

New York Times, Tuesday, April 26, 2005

A future source of energy may be festering in your bathroom sink.
Researchers at Penn State University and Ion Power have developed a process for fuel cells that can harvest the hydrogen produced when bacteria consume organic matter. The process can yield four times more hydrogen than the ordinary fermentation process.
The process also doesn't require external oxygen and can use a wider variety of organic material, or biomass, than can be used in the fermentation process.
"We can theoretically use our MFC (microbial fuel cell) to obtain high yields of hydrogen from any biodegradable, dissolved, organic matter--human, agricultural or industrial wastewater," Bruce Logan, the Kappe professor of environmental engineering at Penn State, said in a statement.
"While there is likely insufficient waste biomass to sustain a global hydrogen economy, this form of renewable energy production may help offset the substantial costs of wastewater treatment as well as provide a contribution to nations able to harness hydrogen as an energy source."

The MFC can produce more hydrogen than normal because byproducts of the fermentation reaction can yield additional hydrogen. Typically in fermentation, bacteria consume carbohydrates and release hydrogen and "dead end" fermentation products like acetic acid that the bacteria can't break down.
By applying about 0.25 volts of electricity, the bacteria can leap over the so-called fermentation barrier and break the acetic acid into hydrogen and carbon dioxide.
In turn, a fuel cell produces power by stripping the electron from hydrogen atoms and then letting the remaining proton combine with other molecules.
Biomass, along with solar and wave power, is one of a number of alternative energy technologies that have begun to garner more interest from scientists and investors in the past two years.
The new approach is described in a paper by Logan and other researchers titled "Electrochemically Assisted Microbial Production of Hydrogen from Acetate" published by Environmental Science and Technology.

Pollution Risk Is Found on Diesel School Buses

By NICHOLAS BAKALAR
New York Times, Tuesday, April 26, 2005

University of California researchers calculate that in large urban areas, children riding in school buses with diesel engines collectively inhale more school bus exhaust than everyone else in the city combined.
Exposure to the ultrafine diesel particulate matter, or D.P.M., is known to raise the risk for cancer. Scientists at the Berkeley and Los Angeles campuses tested the air inside six buses while they were being driven through the Los Angeles metropolitan area with the windows opened and closed.
Except for one 1975 model, all the buses were built from 1985 to 2002.
Air pollution inside all six buses was substantial, although newer buses and those driven with the windows open exposed passengers to fewer pollutants.
The study, published in the April 15 issue of Environmental Science & Technology, found that children riding in these school buses inhaled 34 to 70 percent more D.P.M. than the average weekday commuter did during the same day.
But don't abandon the school bus yet. "School buses are built like tanks," said Julian D. Marshall of Berkeley, the lead author. "When you compare the relative risk to your health of riding in a school bus to riding in a car, the school bus wins hands down."
Exposure to D.P.M. inside the buses is so concentrated, the researchers concluded, that a 20 percent reduction in their emissions alone would be as beneficial to a student's health as a 20 percent cut in the emissions of all other vehicles in the Los Angeles area.

Fresno Bee editorial, Tuesday, April 26, 2005:

Working with waste

Plan for southwest Fresno transfer station makes sense.

A green-waste transfer station proposed for southwest Fresno just outside the city's boundaries makes a lot of sense for the region. But the project is threatened by growing opposition from area residents still angry over the fire two years ago at the nearby Archie Crippen Excavation site. It took a month to extinguish the blaze, leaving residents to breathe unhealthful smoke while authorities tried to figure out how to douse the toxic fire.

Unfortunately, there's a lot of misinformation going around about the transfer station. This project and the Crippen site have few similarities.

We hope that when the Fresno County Board of Supervisors takes up the project today, it is evaluated on its merits and not on the emotion left over from the Crippen fire.

Dirk Poeschel, a consultant for the transfer facility project, said the site on Brawley Avenue north of Nielsen Avenue isn't in a residential neighborhood and is part of an area that has long been included in an industrial corridor planned by the city.

The material being transferred would be municipal green waste - grass clippings, tree trimmings and similar waste from residential gardening - and non-hazardous construction debris such as untreated wood. It also would accept waste produce from sources such as packinghouses and supermarkets. Most of the operations of the transfer station would be indoors, which would reduce noise and dust. The waste material can't be stored for more than 48 hours, and must be shipped to the project owner's Avenal plant for processing into compost within that time. Crippen had collected all types of waste and debris and stored it indefinitely.

Project supporters say the transfer station would provide a much-needed service by helping local communities comply with a state law requiring them to divert recyclable materials from landfills.

It also would reduce the number of trucks going to landfills because they would dump green waste at the transfer station and then larger trucks would transport the material to the compost site.

The Fresno County Planning Commission supported the project last month, but area residents persuaded the Fresno City Council to oppose the project two weeks ago.

It also is being opposed by developers of Running Horse, a community of 780 homes planned for the general area. Some veterans also fear that the transfer station could jeopardize funding for a state veterans home that's supposed to be built at the southeast corner of California and Marks avenues.

Southwest Fresno residents have rightly been concerned about previous governmental decisions that have seemed to leave their area as a dumping ground for projects that other parts of Fresno wouldn't stand for. But we believe this transfer station is on a site that would not be detrimental to the area.

We urge project owners to meet with area residents, the developers of Running Horse and other opponents to find common ground on the transfer station. The Board of Supervisors also should consider delaying the final vote to give time to reassure residents of the merits of the transfer station.