Clean-air expo to offer ways to fight pollution

Fresno program features tips to save energy, car-crushing event.

By Jeff St. John / The Fresno Bee
Thursday, June 8, 2006

People looking for ways to save energy and fight air pollution will find plenty of examples at the Fresno Energy and Clean Air Business Expo.

From 1 to 6:30 p.m. today at the Fresno Convention and Entertainment Center, visitors can find about 70 exhibitors ranging from businesses demonstrating innovative energy-saving products to students reporting on their studies of air pollution around their schools.

And for those seeking some excitement, there's always the car-crushing demonstrations happening at 1:30 p.m. and again at the end of the program.

"It's amazing — they'll get three or four cars crushed down to the size of one," said Shelley McKenry, spokeswoman for Valley Clean Air Now, the nonprofit group putting on the expo with the help of the Greater Fresno Area Chamber of Commerce and Pacific Gas & Electric Co.

But the car crushing — part of a state buyback program to keep polluting cars off the road — is only one of many examples of cost-effective pollution reduction efforts that will be on display, she said.
Valley Clean Air Now has revamped this year's expo, the second to be held in Fresno, to include more examples of how technology can both cut down on environmental impacts and improve a business's bottom line, she said.

"I think it's very important that we combine our economic development and our clean air agenda," said Dr. David Lighthall, research director for the Relational Culture Institute, a Fresno-based nonprofit that builds community relationships around policy issues like clean air. "We can create jobs and clean up the air."

Given the central San Joaquin Valley's vulnerability to air pollution, Lighthall said he sees the region as a "natural center for clean air technology and the adoption of new ways of living and working that don't put such a strain on the environment."

At the expo, he'll be discussing ways community and faith-based organizations can get more involved in the issue.

"We'll be focusing on households as part of that, and hopefully we can get more people involved," deciding as a family to make lifestyle changes that reduce pollution, he said.

For presenter Mark Alvis, president of Alvis Projects Inc., the expo is an opportunity to generate some business for his company's energy-efficient building methods, including insulating concrete and foam walls and photovoltaic solar panels that can cut electricity bills.

"What we're doing differently is emphasizing that you need to pay attention to the whole package" when designing energy-smart buildings, he said.

On the education side, the expo will feature a number of student presentations, including a team of Tenaya Middle School students who spent the past semester studying the air pollution around their school and learning how different types of motor fuels may be contributing to that pollution.

The Clean Air Challenge Curriculum Project has trained about 500 teachers across the state to carry on such projects in hopes that demonstrations like these will get students, parents and whole communities more involved in the subject, said Glenn Craig, project director.

Not only that, but participating students have become "much more interested in pursuing math and science as careers," he noted — perhaps going on to invent new technologies that will take the fight against air pollution even further.

For more information about the Fresno Energy and Clean Air Business Expo, visit the Web site www.valley-can.org

Rural county rejects big city sewage on farmland

By Juliana Barbassa, Associated Press Writer
In the Fresno Bee, Bakersfield Californian, S.F. Chronicle and other papers, Thursday, June 8, 2006

BAKERSFIELD, Calif. (AP) - Urban centers in Southern California will have to find some other place to dump their sewage after their rural neighbors to the north voted overwhelmingly to stop them from spreading treated human waste on farmland.

Each year, Kern County's open fields take in over 450,000 tons of treated human waste trucked from Los Angeles and other urban centers. The mixture is spread on land used to grow cattle feed.
While some residents swore by it, saying the sludge has no pathogens after treatment and works well as fertilizer, other residents worried that the unsavory mixture could seep into the region's water, increase air pollution or taint the name of Kern's $3.5 billion agricultural industry, though sludge is never applied to crops consumed by humans.

Critics prevailed, with 82.69 percent of county voters saying they don't want sludge applied to their land anymore.

"It's time to start cleaning up our back yard, and the first step is to get neighbors to stop throwing stuff over the fence," said Larry Pearson, councilman for the rural farming town of Wasco.

Pearson was a fierce advocate of the measure. About 15 miles from Wasco a 1,280-acre sludge application site owned by the city of Oxnard takes in 24,000 tons of treated waste a year.

The practice of using treated waste as fertilizer took off in the early 1990s when U.S. Environmental Protection Agency decided that applying treated sewage to farmland as fertilizer was preferable to sending it out to sea or pouring it in landfills.

Kern County's vast expanse of inexpensive land and its location, just across the Tehachapi mountains from the Los Angeles basin, made it an attractive option.

But residents in the area resented being seen as a dumping ground. A picture of a two-story outhouse, the top labeled "L.A. County" and the bottom labeled "Kern County" illustrated the Web site for the campaign to pass Measure E, and likely represented the feelings of many in the region.

"This county's been under siege, taking in one-third of California's sludge," said Sen. Dean Florez, D-Shafter. "They're finally taking their well-being into their own hands."

Now the urban areas that chose Kern's land as a solution for their waste management problems and invested money in the scheme are scrambling for an alternative.

Los Angeles has been sending about two dozen tanker trucks of sewage a day to Kern County since 1994. In 2000, it spent $9.3 million to buy Green Acres, the 4,688-acre farm where it was applying its waste.

In 2000, when Kern County decided to take only sludge that's been cooked at high temperatures to kill pathogens, the city invested another $40 million into its treatment system to comply. It was costly, but all other options are even more expensive, said Diane Gilbert Jones, with Los Angeles' sanitation department.

"We are looking at technologies that are not readily available, at continuing to land-apply in other areas, farther away," she said. "We're not closing our minds to anything."

Cities and counties have six months to comply with the measure, or face fines of $500 a day.

L.A. officials may challenge Kern ban on imported sludge

BY KERRY CAVANAUGH, Staff Writer
LA Daily News
6/08/2006 12:00 AM

Los Angeles officials said Wednesday they are considering a lawsuit to challenge Kern voters' decision to keep L.A. from trucking its sewage sludge to the other county.

The Kern ban came even as L.A. officials launched an experimental project to inject sludge beneath the ground in San Pedro.

Kern voters easily passed Measure E late Tuesday to prohibit the use of highly treated human waste, or biosolids, as fertilizer in unincorporated areas of their county.

The initiative, which takes effect within six months, was aimed at blocking Los Angeles from trucking 750 tons of biosolids per day to the city-owned Green Acres Farm in Kern.

The city now could be forced to spend up to $21 million per year to truck its sludge to Arizona.

But Los Angeles officials said they are considering their options and a lawsuit is likely.

"There's a pretty clear understanding that legal action will ensue," said Councilwoman Jan Perry, who heads the City Council's Energy and Environment Committee.

City attorneys are still evaluating the case and will advise the City Council in the coming weeks, Perry said.

Meanwhile, Los Angeles is moving forward with an experiment to reduce the city's dependence on the Kern farm by injecting up to 400 tons of sludge into rock a mile beneath Terminal Island in San Pedro.

The proposed project has been reviewed by the U.S. Environmental Protection Agency and is now open for public comment.

Under the plan, three wells would be drilled at the Terminal Island Treatment Plant. One well would be used to inject the slurry of sterilized waste into the spongelike sandstone where oil has been extracted. Two other wells would be used to monitor the spread of the biosolids in the rock.

"Over time, the expectation is that the material should break down into its constituent products: methane and carbon dioxide," said David Albright, manager of the EPA's groundwater office for the southwest region.

The slurry will be injected about one-half mile below the lowest groundwater level, and EPA officials said the project should have no impact on drinking water.

Bureau of Sanitation Division Manager Omar Moghaddam said the project would begin with 50 tons of biosolids per day and could eventually reach 400 tons. That could cut the cost of the city's biosolid program by more than $2 million a year.

Moghaddam also said there would be less pollution from trucking biosolids to Kern County and fewer greenhouse gases from decomposing sludge. But the project has raised concern among some environmentalists.

Sludge ban spurs look at options

By Sarah Ruby, staff writer
Bakersfield Californian, Thursday, June 8, 2006

Southern California sanitation districts and local sludge farmers are both weighing litigation and looking for places other than Kern to dump a continuous stream of human and industrial waste.

On Tuesday, Kern voters overwhelmingly approved a ban on the use of sewage sludge as fertilizer on land in unincorporated areas of the county. The initiative, known as Measure E, won with 82.7 percent of the vote, according to unofficial election results.

Last year, Southern California sanitation agencies sent more than 470,000 wet tons of sludge to farms in Kern.

Sanitation districts are now looking into other options. On Tuesday, the U.S. Environmental Protection Agency asked for public input on a proposal to inject sludge into deep wells beneath the city of Los Angeles' treatment plant in San Pedro.

It's a five-year pilot program that involves sucking down 400 tons of sewage sludge each day and exploring the possibility of harvesting methane gas from the wells. The city of Los Angeles now trucks some 500 tons of sewage sludge to Kern each day, according to the EPA.

Orange County Sanitation District, which sends about a third of its sewage sludge to Kern, is working on a project to convert 200 tons of sludge to energy daily, according to an announcement Friday.

"I am encouraged" by these projects, said Paul Giboney, a soil scientist with grape-grower M. Caratan Inc. in Delano, and an outspoken critic of sludge spreading on fields.

They know they have a problem that needs to be dealt with, he said, and "it's time they get serious about it rather than continuing to be a lousy neighbor."

The city of Los Angeles is the acknowledged leader of a possible legal challenge to Measure E, which would require it and one other sludge farm to shut down in the next six months.

The city is "evaluating available options" in light of the election results, according to a statement released by the Department of Public Works Wednesday.

Shaen Magan, who operates a sludge farm in northwest Kern, said he had "no idea" what his response will be to Measure E. He's "sure everyone understands what's going to happen," he said, and in the past he's suggested there will be a legal fight.

On Wednesday Dave Price, director of Kern's Resource Management Agency, sent brief letters to Magan and Responsible Biosolids Management, the Lompoc-based company that operates the city of Los Angeles' sludge farm. The initiative is effective immediately, he wrote, and the farms have six months to stop spreading sludge.

Neither Price nor Bernard Barmann, the county's top lawyer, had gotten word Wednesday of any immediate challenge to Measure E.

If sludge handlers file, they might do it once the election has been certified several weeks from now, Price said, or they could wait until the six-month deadline approaches.

If the sludge industry succeeds in blocking the ordinance, even temporarily, it could take years before a judge decides whether or not to reinstate it, Price said.

Valley Air District seeks artwork for kids calendar

Brief in the Merced Sun-Star, May 26, 2006

The San Joaquin Valley Air Pollution Control District is looking for student artwork for its 2007 Clean Air Kids Calendar. The deadline for submissions is Sept. 30.

The district will select 14 color drawings from students in kindergarten through 12th grade that contain a message about a way to help clean the air. Entries in English and Spanish or both languages are welcome.

Drawings must be horizontal on an 81/2- by 11-inch sheet of paper. Entries must contain the child's name, address, phone number, age, grade and school, and should be mailed flat, not folded, to 2007 Calendar Contest, Valley Air District, 1990 E. Gettysburg Ave., Fresno, CA 93726. For contest rules, call 559-230-6000 or e-mail public.education@valleyair.org.

About 20,000 of the bilingual calendars are distributed free to schools, community groups, health care facilities, churches and nonprofit organizations in December.

Air Quality District offers lawn mower exchange

Gas models may be traded in for electric mower purchase

By Marl Jo Fischer

The Orange County Register, Tuesday, June 6, 2006

SANTA ANA — People who bring old gas-powered lawn mowers to trade in can purchase a $400 cordless electric lawn mower for only $100 under a program sponsored by the Air Quality Management District.

The exchange is scheduled for Saturday at the Orange County Hall of Administration parking lot, at the northeast corner of Ross Street and Santa Ana Boulevard in Santa Ana.

You must pre-register.

Call 888-425-6247 or visit www.aqmd.gov/tao/lawnmower.html for more information.

House OKs bill to speed permits for new refineries

Foes say measure guts environmental rules

Edward Epstein and Zachary Coile, Chronicle Washington Bureau

Thursday, June 8, 2006

Washington -- The House passed legislation Wednesday aimed at streamlining permits for new refineries, a step Republican leaders stung by public anger over high gas prices said could expand energy supplies and eventually cut prices.

The Republicans, fighting to keep control of the House in November's elections, used the debate to attack minority Democrats who they say have been obstructionists, opposing any step that would increase gas supplies. The Democrats countered that Republicans are doing the oil companies' work by trying to gut environmental state regulations by requiring state authorities to submit to a new federal coordinator who would set a timetable for granting environmental permits for new or expanded refineries.

Republican Rep. Joe Barton of Texas, chairman of the House Energy and Commerce Committee, denied that the bill would short-change environmental rules. But he said changes were needed to get state, local and federal regulators to work together. "We can certainly find the political will for

reform of permitting processes to increase refining capacity, perhaps even build new ones," Barton said. The last new U.S. refinery opened in 1976.

The bill, which passed 238-179, would also require the president to designate three closed military bases that might be suitable as refining sites.

The House voted on an identical bill May 3, but because it was considered under special rules it needed two-thirds approval, which it couldn't muster.

A Democratic opponent of the bill, Rep. Rick Boucher, D-Va., said the proposal was based on the wrong assumption that environmental rules were blocking new refineries. "The real reason is the economic interest of refiners," he said, pointing to the industry's large and increasing profits. "When you're doing this well, why change anything?" he asked.

In California, the state Energy Commission says it knows of no pending applications to build a new refinery, but there are a few applications to expand existing refineries. In all, commission data show, refinery capacity in the state edged up from 1.93 million barrels a day in 1996 to 2.03 million this year.

The legislation faces uncertain prospects in the Senate, where concerns over weakening environmental rules could sink it. Democrats have proposed establishing a strategic refinery reserve that could boost production of gas during emergencies.

Also on Wednesday, the Energy and Commerce Committee chairman heard testimony on Barton's bill to limit the number of fuel blends that state and local air quality officials require in order to meet federal air quality standards.

Currently, 12 states have 15 boutique fuel blends. California, which has special authority under federal rules to control fuel blends, requires the use of both a clean-burning gasoline -- California reformulated gasoline -- and a cleaner-burning diesel.

Barton's bill would limit the number of fuel blends nationwide to just three or four, which he claims could help ease price spikes caused when supplies of a specialty blend in a given market are tight.
"I just think having some standardization so that one fuel fits more markets over time is going to lower prices," Barton said.

But industry officials testifying before his committee said limiting the number of boutique fuels would not lower the high prices consumers are paying at the pump this summer, saying the real culprits were high demand worldwide and volatility in global energy markets.

President Bush urged Environmental Protection Agency administrator Stephen Johnson in April to "confront the large problem of too many localized fuel blends." But an EPA report last month found the cost to refiners to produce cleaner-burning blends was about 0.3 to 3 cents per gallon.

"Cleaner-burning fuels are a very cost-effective way to clean up the air," said Frank O'Donnell of Clean Air Watch. "It's something the average consumer doesn't even notice. If they take that right away, then state governments that are wrestling with air pollution problems might have to crack down on other kinds of consumer products or smokestack industries in ways that might not be as cost-effective."

The House passed an energy bill last year that capped the number of new cleaner-burning fuel blends and gave the EPA the authority to waive state requirements for boutique fuels in the case of emergencies, a provision that was used after Hurricanes Katrina and Rita.

"Have new facts come to light that indicate a need for us to change the law that was passed less than a year ago?" asked Rep. John Dingell, D-Mich., the committee's ranking Democrat.

But Barton insists that fuel blends have contributed to price spikes in certain local or regional markets, especially when overall supplies are tight and refiners are having trouble meeting demand for various blends. He hopes to move his bill to the floor later this month, when the House may also take up a separate measure to allow states to drill for oil and gas off their coasts.

Fuel doesn't grow on trees -- but it does in a cornfield

Ethanol is still relatively expensive, but it offers renewable alternative energy -- and the auto industry has noticed.

By Ralph Vartabedian, staff writer
L.A. Times, Thursday, June 7, 2006

General Motors introduced this week three additional models designed to burn high concentrations of ethanol, part of a major trend in the auto industry to offer flexible fuel vehicles.

Although ethanol has a low public profile as an alternative fuel in California, it is rapidly gaining attention in the Midwest, where the corn-based fuel is primarily produced and more widely available.
A blend of 85% ethanol (a form of alcohol) and 15% gasoline is sold as E85 fuel at 727 U.S. gas stations, mainly in the Midwest. The fuel contains about 25% less energy than traditional gasoline, so fuel mileage drops and the cruising range on a tank decreases.

But proponents say that it will eventually provide a cost-effective alternative to gasoline and will reduce U.S. dependence on foreign producers of crude, as well as creating an indigenous U.S. industry that supports farmers.

The E85 buzz in California is muted, reflecting that most E85 is made in the Midwest and that California air regulators are concerned the fuel has still unknown impacts on air quality. So far, only one retailer in the state sells E85, a gas station in San Diego, according to the National Ethanol Vehicle Coalition.

Some military and government facilities, however, are burning the fuel and California has a demonstration project for E85 in the Bay Area.

GM, perhaps reflective of its Midwestern roots, offers 17 vehicles with E85 compliant fuel systems and engines, one of the auto industry's largest lineups.

"It is a big deal in the Midwest, because of the farming industry here," said Andy Buczynsky, a GM fuels engineer. "It is considered very American."

Ethanol has had an uphill battle proving its validity. For many years, the product was pushed by politically powerful agriculture interests in the Midwest and supported by government subsidies. But in the past, more energy in the form of coal and oil was used to make ethanol than the ethanol contained.

The case for ethanol is getting better. New technology is helping to increase the efficiency of producing the ethanol.

Alexander Farrell, a UC Berkeley professor of energy and resources, said that on average, U.S.-

made ethanol contains 25% more energy than is used to make it. Coal and natural gas are used to help distill corn into ethanol, meaning that E85 puts the sun's energy, coal and natural gas into vehicle fuel tanks.

The newest plants are putting 67% more energy into the product than used in the manufacturing, said Michelle Kautz, a spokeswoman the ethanol coalition, based in Missouri.

Brazil leads the world in ethanol use. It has the advantage of using sugar cane rather than corn, producing an ethanol that contains several times as much energy as is used to produce it. Eventually, U.S. scientists hope to make a breakthrough that would enable many kinds of organic farm waste and even trees to be converted to ethanol.

Ethanol does not yet make a lot of economic sense for U.S. consumers. To be economical, it should sell at 20% to 25% less than gasoline. In many locations, the E85 fuel costs the same as gasoline or even more. Kautz said she is aware of one station in Missouri that discounts E85 by 50 cents a gallon so that it should be at parity with gasoline for vehicle operation costs.

The high cost of E85 reflects the strong demand for ethanol. A lot of gasoline already being used in California and elsewhere contains up to 10% ethanol as an octane booster (to reduce engine knocking). The phasing out of MTBE, an octane booster that raised human health concerns, has increased the demand and price of ethanol. On average, about 5% of the total volume of gasoline sold in California is ethanol, said Farrell, the UC Berkeley professor

Supporters of E85 say eventually the production of ethanol will meet demand and it will be at least as cheap as gasoline. And E85 may have other benefits.

"Producing flexible fuel vehicles is part of GM's effort to reduce America's dependency on foreign oil," said GM spokesman Tom Read. "For every 37 gallons of E85 used, one barrel of oil is saved. Because E85 ethanol is a renewable fuel made from U.S. grown bio material it helps reduce greenhouse gas emissions."

But if you want to use E85, even if you can find it, you need a special E85 compliant vehicle. An E85 car or truck is a flexible fuel vehicle, meaning it can burn regular gasoline or 85% ethanol. Engine sensors determine what percentage of the fuel is ethanol and adjust fuel injectors to squirt more or less fuel into the engine, Buczynsky said. Because ethanol has less energy content, the injectors must put in more fuel per cylinder.

You should not try to burn E85 in a vehicle designed only for gasoline, because it can cause engine damage. Compared with gasoline, ethanol has less of what engineers call lubricity, the ability to help lubricate moving parts. So, E85 vehicles use tougher metal and plastic parts. E85 compliant vehicles either have a yellow fuel cap or a label on the fuel filler door.

Ask Us
When going green warms you inside
By Christy Hobart
L.A. Times, Thursday, June 8, 2006

QUESTION: I'm considering buying a pellet stove and am wondering what your opinion is of its reliability and comfort.

How could I determine the quality of consumer service offered by manufacturers? What is your opinion on buying a pellet stove online?
Jullius Chao, *San Jose*

ANSWER: With rising energy costs and growing concern about the environment, many people are searching for alternative heating sources for their homes. One option is the pellet stove,

which burns small pellets that look like rabbit feed and offers one of the cleanest — and greenest — ways of heating a home. It might be a good idea to start researching now, when you don't need the heat.

The pellet stove, a free-standing heating device with an intricate interior system, burns pellets made from compacted bark, sawdust, wood chips, agricultural crop waste or waste paper. Some models run on nutshells, dried cherry pits, corn kernels or other waste. Pellets are poured into a hopper and a programmed electrical mechanism dispenses them at a precise rate into a combustion chamber, where they are ignited by a fan. The level of heat is regulated by choosing the desired setting or, in some cases, by being connected to a remote wall thermostat. Because of their high combustion and heating efficiencies, pellet stoves produce little air pollution.

Prices for pellet stoves, which vary in size and power, range from $1,700 to $3,000. The unit needs only a simple venting system instead of a chimney, but installation should be done by a professional. Depending on the size of the room to be heated, the exterior temperature and the desired temperature, a pellet stove will use 35 to 130 pounds of pellets a day and will consume about 100 kilowatt-hours, or about $9 worth of electricity, a month. Pellets from wood byproducts are often sold in 40-pound bags that cost about $5 each.

Although there are websites that sell pellet stoves, it's best to find a local dealer that offers an in-home service plan for repairs and for highly recommended yearly cleaning and maintenance. The Pellets Fuels Institute (www.pelletheat.org) lists dealers across the country. Make sure the technicians who service your stove are certified by the National Fireplace Institute and ask for — and follow up with — references. With the rising popularity of the stoves, new companies are entering the market, but it might be safer to go with an established company. Also ask about local retail sources for purchasing pellets. If a local store isn't available, you'll have to order online or by mail and pay for shipping costs, which can get expensive. Before you purchase a pellet stove, check with your local environmental agencies about any wood-burning regulations that may apply.

Although a pellet stove offers "clean" heating, if there's an electrical outage and your unit doesn't have a backup source, the system will stop and smoke from burning embers could back up into the house. If you live in an area with frequent air-quality problems that require restrictions on wood burning, pellet burning, though much cleaner, may be prohibited at times. And, lastly, while much attention has been paid to the efficiency of the pellet stove's interior design, the exterior of many models has been entirely overlooked.