

Lower water table boosts cleanup of old Sunland Refinery

World Oil expects to take five to 10 years to finish job that began in 1996

By SARAH RUBY, Californian staff writer

[Bakersfield Californian, Tuesday, April 12, 2005](#)

Molecule by molecule, World Oil Corp. is cleaning up the old Sunland Refinery, located on Coffee Road. It's taken nine years, and full cleanup at the refinery will likely take five to 10 years more. But those close to the cleanup say that's not bad for a facility founded in 1929 that operated for decades before environmental protection came into vogue.

So far, World Oil has removed 3,357 tons of gasoline and diesel constituents, including 17 tons of MTBE, from its former site. MTBE is a suspected carcinogen.

The site and its surroundings, such as the PG&E plant to the northwest, will require years of cleanup to remove all the MTBE from soil and groundwater. At the end of 2003, the PG&E plant had hundreds of times more MTBE than state drinking water standards allow.

Those MTBE concentrations are less now because the water table is lower in the area. The same is true for three other hazardous chemicals that were in the water.

The lower water table is good news for World Oil because it makes cleanup easier.

That's because World Oil is cleaning up the site by installing vacuum-like vapor extraction wells, which suck up evaporated gasoline ingredients from the soil.

Today's water level is about as far below ground as it was when cleanup began in 1996, exposing about 50 feet of soil that was submerged five years ago.

A few more rainy winters and the water table will rise again, and Myers said that could make the difference between five and 10 years of cleanup.

"You never know what Mother Nature's going to throw at you," Myers said. "While you've got the water table down, go for it."

The Sunland site wasn't always home to good environmental citizenship. Ten years ago, a gas explosion killed a passing motorist and revealed thousands of safety violations at the refinery.

On March 30, 1995, the Sunland Refinery took in more oil than it could safely handle. Employees put the overstock in unsealed tanks, which leaked flammable fumes over Coffee Road, according to a subsequent investigation.

A passing car ignited the gas vapors and the car exploded, fatally burning Tracy Kildebeck, 22.

"It wasn't just a one-night incident," said Deputy District Attorney John Mitchell, who investigated the refinery along with the air district. "We were lucky more people didn't end up getting killed."

The county and air district sued the company and eventually settled for \$5.8 million, Mitchell said, \$2 million of which went to soil and groundwater cleanup. Sunland never reopened.

Pollution from pesticides up in Valley

By Mark Grossi, The Fresno Bee

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Pesticide air pollution has spiked again in the country's top farming region, prompting the state to protect human health by calling for chemical manufacturers to change hundreds of products.

The state Department of Pesticide Regulation in the next several weeks will require reformulation of up to 800 pesticides, a spokesman said. The agency also announced about a 14 percent increase in smog-making gases from pesticides in the San Joaquin Valley.

The Valley is a \$14 billion farm belt with a quickly expanding population and one of the country's most stubborn air problems.

"We are committed to improving air quality in the Valley," said department spokesman Glenn Brank. "This is an unprecedented regulatory action for us, and we believe it will work."

The action comes too late as far as environmentalists and community activists are concerned. The groups believe the agency action should have taken place at least three years ago.

Last year, they sued the agency because the Valley was long past a 1999 deadline for pesticide air cleanup. The Clean Air Act has been violated, they said. The case was filed in a Sacramento federal court where a judge is currently considering various motions.

Teresa DeAnda, president of El Comit , para el Bienestar de Earlimart, one plaintiff, said the increase in pollution from pesticides is no surprise.

"It's infuriating," she said. "The air pollution is really bad here. We're not going to make our cleanup deadlines in this Valley if they keep delaying like this."

The Valley has more violations of the daylong smog standard than any other place in the country. The cleanup deadline is 2013, which most experts consider too ambitious.

Pesticides are the fifth-biggest source of smog-making gases called volatile organic compounds or VOCs. Other sources include vehicles, livestock waste and consumer products such as paint.

The gases combine with oxides of nitrogen, from fuel-burning sources such as cars, to make ozone, the main ingredient in smog. Ozone is a corrosive, warm-weather gas affecting the lungs, skin and eyes. It can trigger asthma attacks and other breathing disorders.

For 2003, the latest year of available data, pesticides sent out 26.5 tons of VOCs per day, up from about 23 tons the previous year. For comparison, passenger cars daily put out about 33.6 tons of the gas in the Valley.

In 1999, when the Valley was supposed to hit a target of 21.1 tons per day of VOCs from pesticides, the level was 26 tons. It dipped in 2000 and actually dropped well below the clean-air goal in 2001.

But the level jumped 34 percent in 2002, a number reported in 2004. It takes two years to compile the pesticide-use data and figure how much air pollution comes from the pesticides. State officials did not suspect the spike was coming.

"We were seeing a downward trend," said Brank. "We know it varies from year to year, depending on weather and the pressures of various pests."

Though officials have not yet seen 2003 numbers, a Fresno County Agricultural Commissioner spokesman said his "gut feeling" is that pesticide use had not increased. The use of more fumigants may have been the problem, said deputy commissioner Doug Edwards.

"If you have a lot of ground being taken out of production and switched to other crops, it is normal to use fumigants before you replant," he said.

The state announcement Friday confirmed part of Edward's suspicion. Three fumigants -- metam-sodium, 1,3-dichlorpropene and methyl bromide -- accounted for almost half of the smog-making gases coming from pesticides.

No controls will be ordered for individual farmers, although state officials are studying more effective applications of pesticides.

An idling threat

Roseville railyard raises pollution risk

[Sacramento Bee, Tuesday, April 12, 2005](#)

Imagine 10,000 big rigs burning diesel at freeway speeds near your home every day, their exhaust stacks spewing carbon particles so fine they can lodge deep in the lungs.

Multiply the concentration of particle pollution ninefold, recent state data show, and you're breathing the air just downwind of the Roseville railyard -- an area packed with homes, with more on the way.

In the first analysis of its kind, the California Air Resources Board, in cooperation with Union Pacific Railroad, quantified the toxic particles of diesel exhaust from the locomotives that chug and idle around the clock in the 52-track J.R. Davis Yard, the railroad's busiest hub west of the Rocky Mountains.

The air board calculated that yard operations emitted a total of 25 tons of the sooty pollution in 2000. In the five years since, traffic in the yard has increased further, with up to 70 cargo trains a day now converging on this six-mile-long strip in the heart of Roseville.

The calculation confirmed the train yard to be the single largest generator of diesel exhaust in the six-county Sacramento region, said Larry Greene, executive officer of the Sacramento Metropolitan Air Quality Management District.

The study's most surprising find, however, was not the volume of locomotive soot but the reach of its plume, and the number of people potentially breathing the particles, which scientists have linked to increased cancer risk.

The air board's computer analysis showed an aerosol of ultra-fine soot particles extending about 100 square miles - encompassing most of Roseville, all of Citrus Heights and all of Antelope -- and affecting an estimated 165,000 residents.

"That was the eye opener," said Tom Christofk, Placer County's air pollution control officer. "It's a big footprint."

For Union Pacific, the state findings helped pinpoint how it could change its railyard operations to get the most emission reductions for the money, said spokeswoman Katheryn Blackwell.

"That's not something we could have thought of before the study," Blackwell said.

Local regulators say they see a welcome change in Union Pacific.

For years, Christofk said, the railroad generally ignored the air district's requests to cut down on locomotive idling, which can go on for days. Once the state air board agreed to do the study, he said, "The company became a little more receptive to us."

UP begins to crack down

Not long after the Roseville Rail Yard Study began, Union Pacific installed controls on 21 locomotives assigned to the yard to reduce unnecessary idling and moved locomotive testing farther away from homes.

And after the results were made public last October, Union Pacific made a pact with the Placer County air district to cut the diesel exhaust at least 10 percent by 2008. Though the agreement is not legally binding, railroad officials said it behooves the company to stick to the deal.

"We are a huge employer in the county. We've got too much of a presence there," said Lanny Schmid, environmental operations director at Union Pacific headquarters in Omaha, Neb.

The company, which modernized and expanded the Roseville yard after its 1996 merger with Southern Pacific Lines, has a \$6 million monthly payroll of 1,200 employees at the yard.

Railroading in Roseville runs five generations deep. The car-men and engineers of years past still gather around banquet tables for a monthly breakfast at the Pacific Street Café, just opposite the tracks. Names of neighborhood schools are inscribed on cabs of locomotives assigned to the yard.

When the state sought to inventory the yard's locomotive emissions, Schmid said, "We worked with them every step of the way."

Air board engineers quantified the pollution, then used a computer model to predict where the soot would disperse and in what concentrations.

Smog officials thought the particles would dissipate to negligible levels within a few hundred yards downwind, much as studies of Los Angeles area freeways had shown.

The computer analysis, however, showed significant concentrations of toxic particles extending up to eight miles northwest of the yard.

Though the federal Environmental Protection Agency regulates locomotives as "mobile sources" of pollution, Roseville's herd of iron horses acts more like a factory, the study showed. And no factory today would be allowed to spew anywhere near the amount of soot wafting off the rail yard, local regulators said.

The congregation of so many idling and slow-moving locomotives potentially creates a toxic hot spot for neighboring residents, much like living downwind from a waste incinerator, regulators said.

"You don't have the turbulence and air mixing to dilute the exhaust as you would on a freeway," said Daniel Donohoue, the state official who supervised the air board study.

About 100 locomotives occupy the 780-acre yard at any given time. About one quarter are attached to trains passing through en route to Portland, Reno or Sacramento. Others stop to switch tracks, reassemble cars or crews, refuel or undergo inspection, repair or testing.

Several other locomotives known as "helpers" and "switchers" uncouple, sort, switch and recouple freight cars. A typical helper, the four-axle GP3-X model, emits 25 to 75 times more soot than a heavy-duty truck, state emissions data show.

Unlike a freeway, train yards have no rush hours. Emission levels stay fairly constant, the study found.

Also, the exhaust venting from the 1,200-to 4,400-horsepower locomotives runs hotter than anything spewed from a highway. The hotter the exhaust, the higher it rises and the larger the dispersal area, Donohoue said.

Residents' cancer risk rises

The railyard study arose from the air board's mandate to clean up an array of diesel-fueled engines statewide. In 1998, the board declared the particles in diesel exhaust - mainly specks of soot - a "toxic air contaminant" because of their potential to cause cancer and premature heart-and lung-related deaths in adults.

Board officials knew intuitively that railyards are huge sources of this pollution, but they did not know how big or how best to control them. They launched an extensive study to find out, centered on the Roseville yard operations at the request of Placer County's Christofk.

The locomotive soot elevates the cancer risk for the thousands of residents within the plume, the study said. The degree of added risk varies widely, depending mainly on length of residency and proximity to the yard. To be highly protective, the estimates assume an unlikely lifetime of exposure: breathing the same air for 70 years.

Expressed as chances in 1 million, the values denote potential - not actual - increased cancer risks to exposed individuals, the study said. The numbers have meaning only in comparison to other sources of cancer risk.

For example, living within 300 feet of Interstate 80 in Roseville -- a stretch traveled by an average 10,000 big trucks a day -- increases the cancer risk 50 to 100 chances in a million, according to the study.

By comparison, living within 300 feet of the yard's locomotive service and repair center boosts the cancer risk an average 950 chances in a million, the state analysis shows.

Such an increase is relatively small compared with the overall cancer incidence of 200,000 to 250,000 per million in the United States.

But public health officials view it differently: If efforts aren't made to reduce the risk from a railyard and other sources of cancer-causing pollutants, then the overall odds will climb above the current one in every four or five persons.

Cleanup will reduce smog

Beyond public health, the Sacramento region has a strong economic incentive to bring down the railyard pollution.

Cleaning up locomotive pollution reduces not only the hazardous particles but also nitrogen oxides, or NOx, the smog-forming gas that leaves metropolitan Sacramento chronically in violation of national clean-

air standards. The region must comply by 2013 or risk more burdensome smog restrictions on businesses and the loss of federal highway money.

Locomotives annually produce more than 4,700 tons or 8 percent of the total NOx emissions in the six county region, an area so smoggy that local air districts offer trucking companies up to \$13,600 for every ton of the gas they reduce voluntarily.

"This is why I'm so interested in getting locomotives to do their fair share," Christofk said.

It may seem odd that regulators only recently began to examine emissions from such a conspicuous source, a major train hub now in its 100th year of operation.

That's because trains are among the last engines of commerce to be touched by the 35-year-old U.S. Clean Air Act. Virtually everything else with an exhaust vent or pipe has been modified for the sake of healthier air, while locomotives, marine vessels and airplanes keep writing brown signatures in the sky.

"As we cleaned up other sources, these mobile concentrations of trains, planes and ships keep sticking their heads up higher and higher above the playing field as a target," said Greene, the Sacramento air district chief.

Most locomotive switchers in the Roseville yard were built between 1972 and 1982, according to Union Pacific's inventory. The EPA didn't require cleaner-burning locomotives until 1998.

Some improvement will come next year with the introduction of federally required low-sulfur diesel fuel for locomotives.

Federal law also requires cleaner-burning engines in new and remanufactured locomotives. But it will take years to see much impact from those changes. Railroads don't replace locomotives as often as people do cars. These \$2 million behemoths last 30 to 40 years.

Other railyards targeted

Union Pacific plans to accelerate cleanup beyond what federal laws require, with the help of public subsidies. Among other remedies, the company is considering an air district proposal to pipe exhaust from locomotives idling at the fueling and repair stations to a "scrubber" before its release.

The Placer County air district has received a state grant to set up air samplers in and around the yard this summer to verify and benchmark pollution levels so they can measure progress in abating the exhaust.

Meanwhile, state lawmakers are pushing for pollution controls on railyards statewide.

One bill would require railroads in the Los Angeles area to contribute to a public fund used to subsidize purchase of cleaner diesel engines. Another by Assemblyman Dave Jones, D-Sacramento, would have the industry fund the monitoring of locomotive exhaust to identify gross polluters in need of repair.

Don Martin doesn't need an air monitor to know he's at ground zero for locomotive soot. The retired air conditioning serviceman lives in the zone of maximum exposure and increased cancer risk, according to the study.

"I'm not real fond of trains," Martin, 57, said over the rumble of locomotives directly across the street from his home. "They'll sit there days and days and days idling."

Last July, the Roseville City Council approved a plan to build 48 Victorian-style homes right next door to Martin.

Council members see the Church Street Station project as a model of affordable, attractive housing that would brighten the city's core rather than add to suburban sprawl. Union Pacific objected.

"Locating such housing immediately adjacent to one of the largest concentrations of railroad activities in the western United States ... is not the solution to the area's housing needs," said Wayne Horuchi, a spokesman for the railroad.

The City Council initially rejected the proposal, heeding smog officials' concerns about placing residents so close to the yard. The council later reversed itself after a city environmental consultant concluded the health threat is comparable to living near a medium-volume freeway such as I-80.

The state study, with its more dire findings, was released a few months after the vote.

Randy Tachias, 45, said 25 years of living next to locomotive fueling racks and working in the yard has deadened his smell of diesel. He said families who would occupy the planned Church Street Station subdivision might not be so fortunate.

"I hope they know what they're getting into."

[Bakersfield Californian, Editorial, Tuesday, April 12, 2005:](#)

On track to clean dirty air

The state's first hybrid locomotive came to Bakersfield recently -- but it didn't stay long enough.

California's first low-emission diesel-hybrid switching locomotive stopped at the Amtrak station in Bakersfield before traveling to Fresno where it will shuffle rail cars as a switch locomotive for Union Pacific Railroad.

As a *Californian* news story noted: "The golden-yellow locomotive known as the 'Green Goat' is a regular diesel on the outside. Its conventional shell hides digitized innards, a network of batteries recharged by a small, low-emission diesel engine."

The San Joaquin Valley Air Pollution Control District paid \$700,000 in grants for the locomotive on the condition that Union Pacific keep it in the valley for five years. Then it will return to RailPower Technologies Corp. -- builder of the engine -- for maintenance and a new assignment.

It is estimated the engine will save the valley from 132 tons of nitrogen oxides and 2.5 tons of particulate pollution that would have been created by a conventional locomotive.

The district hopes to bring three more hybrid locomotives to the Central Valley. It would make sense to assign one to Bakersfield, site of major freight train operations.

[Fresno Bee, Editorial, Tuesday, April 12, 2005:](#)

Stuck in the station

High-speed rail proposal headed for another ballot postponement

The long wait for the beginning of high-speed rail in California will likely get even longer. The \$9.95 billion bond measure that would pay for the first phase of the proposed system, originally scheduled for the ballot last year, then pushed back to 2006, could now be postponed again, to 2008.

A bill to do just that, AB713, sailed through the Assembly Transportation Committee on an 8-0 vote on Monday. Its next stop is the Assembly Appropriations Committee, probably next month.

That's a blow to proponents and supporters of high-speed rail, including The Bee, who understand how dramatic the project's impact would be on the state's economy and environment. It's especially hard to swallow here in the Valley, where the benefits would be even greater.

But California's ragged finances may leave no choice. Some proponents want to go ahead with the 2006 vote. But others are concerned that the inability of leaders in Sacramento to get the state's budgetary house in order would make voters leery of taking on such large new debt. We reluctantly agree.

Delay will certainly drive up the cost of the project, already pegged at \$37 billion. The environmental study of the project, under way for several years, is nearly complete now, but it's likely that all or part of it would have to be done over if the bond is pushed back. In another three years, the landscape of the Valley, in particular, is sure to change, rendering today's studies outdated.

However long it takes, California needs an extensive high-speed rail system. It is no longer possible to build sufficient freeways and airports to move people long distances effectively.

Europe, Japan and other developed nations learned this long ago, and are far ahead of the United States in this crucial area.

Circumstances may have made this new setback unavoidable, but the economic and environmental benefits of taking thousands of cars off the roads -- not to mention creating some 35,000 new jobs -- will not change. We'll have high-speed trains one day, simply because we must.

[Fresno Bee, Commentary, Saturday, April 9, 2005:](#)

Gas tax could rev up the economy

By Phil Fullerton

Giant beasts stalk our nation and our Valley, threatening our economic, retirement and physical well-being: choking air pollution, crowded freeways and highways, an impending shortfall in Social Security, a national budget deficit, dependence on foreign oil and a growing international trade deficit.

Yet there is a single, gleaming silver bullet that will kill or seriously wound each of these predators: a major increase in the national tax on gasoline of at least \$1 and perhaps \$2 a gallon introduced gradually.

Air pollution is a major crisis in our Valley. Asthma rates are soaring. We are among the most contaminated places in America.

Also critical is the growing failure of the Valley's highway system. Highway 99 is now incredibly crowded; the slightest disruption on it causes huge lineups of cars. And the same is true of most other Valley roads. Our infrastructure is not keeping up with growth and we are gradually strangling.

Solutions and complications

President Bush suggests a Social Security crisis. He proposes private accounts, but this raises a huge problem, since the funding for these accounts would be taken from current contributions used now to pay the currently retired. House Ways and Means Chairman Bill Thomas suggests a national sales tax (value-added tax).

However, all agree that the solution to the Social Security problem depends on funding, either a new tax or perhaps borrowing into the teeth of a national deficit. And this national deficit is a huge problem. Our national government is spending more money than it takes in. The deficit is now about 4% of our gross national product (GNP) or what we produce as a nation.

Huge trade deficit

Similarly, we have a huge trade deficit. We are buying more foreign goods than we are selling, including major purchases of foreign petroleum. The trade deficit is almost 6% of our GNP, a staggering sum. Both deficits are being financed by foreign lenders - individuals and nations. China is a major purchaser of our treasury bonds. All China has to do is to refuse to buy them and we would be brought whimpering to our knees. Farewell, Taiwan!

Similarly, we are dependent on foreign oil. Any disruption of supply, as in the Arab boycott of the 1970s, would cripple the country.

No nation can long afford to be in debt to the world and be a power for democracy or even to protect itself and its friends. These unprecedented imbalances are the single greatest threats facing our nation.

So what is the solution? A large, additional gasoline tax. My wife and I lived for many years in France more than a decade ago. Gas prices were then more than \$5 a gallon, due to taxes, and are higher than that now. Folks adjusted. We had smaller cars, carpooled, drove less and used an excellent public transit system. Life went on and was delightful. National gasoline consumption was much reduced.

Similarly, here in the United States, such a tax would immediately both reduce the amount of traffic on our highways and the size of the vehicles, both reducing pollution. It would also provide new funds (in addition to reducing the deficits) for highway enlargement, and would also reduce our dependence on foreign oil as the public drives fewer and smaller vehicles.

The massive money this would generate would help solve the budget deficit. And it would help the trade deficit as driving and gas consumption plummeted.

As demand is reduced, world petroleum prices would also fall. This would also reduce our dependence on foreign oil. This money could be used to fund Social Security reform as well.

Anticipate the crisis

So, is this possible? Realism tells us that no Congress member would vote for it now. Only in a "crisis" would such a tax be approved.

Huge changes were made after Sept. 11 and after Pearl Harbor. Our nation only seems to react to perceived disasters. (That is perhaps why President George W. Bush seeks to claim a Social Security crisis.) No one can foresee a disaster, and certainly no one wishes for one. Yet the likelihood of one in the middle future is sadly probable.

The next time that we are mobilizing our nation to deal with a crisis, we should increase the gas tax (plus whatever other remedial steps the crisis requires) and tell the reluctant public that this is the solution to the disaster, or we could face collapse. And, incredibly, it might be so.

Phil Fullerton is a retired Fresno lawyer.

[Modesto Bee, Letters to the Editor, Tuesday, April 12, 2005](#)

State makes owning a car expensive

I recently bought a used car, a '96 Ford Thunderbird, and went to get it smog tested. It failed. Not because of emission problems, but because an engine sensor wasn't working properly. I thought the reason for the smog test was to test your smog. What does my engine sensor have to do with anything? Then, I'm forced to pay \$60 for this failure.

I need two jobs to afford an automobile in California. Registration for my car is going to cost around \$300. I'm a male teenager, so my insurance rates are something insane, and on top of all of that I'm going to have to pay hundreds of dollars to get this problem fixed. I don't even need to mention fuel prices.

Where does it stop? California sucks its residents dry when it comes to automobiles. We're forced to pay into their monopoly of automobile taxes and fees, with no other possible options. How can anyone be satisfied with this?

SEAN STOTT
Tracy

[Stockton Record, Letter to the Editor, Tuesday, April 12, 2005:](#)

We're just too hooked on oil

There is no quick solution to the oil problem. Oil won't last forever. It spills. It causes wars. Gas-powered vehicles destroy the environment. Pollution is dangerous to our health.

Gridlock is a nightmare. The only solution is a hollow, "Let's build more highways."

If we poured as much of our hard-earned money into hybrid technologies and train systems as we do the war, junk food and entertainment, maybe we could literally get somewhere.

What do the Europeans, Russians and Japanese, to name a few, know that we don't? Their bullet trains race from one town, city and country to another in record time, on time, at low prices.

Europeans who don't rely on cars manage to walk. They avoid the nasty obesity that's plaguing Americans, and they are, for the most part, healthy. Bicycles and motorbikes work, also. Small cars use less gas. So Europeans drive small cars.

Why is there talk of building more highways and drilling for more oil when there are safe, intelligent and reliable solutions that won't hurt our economy, destroy the environment or bring the nation to a standstill?

If our dependency continues, we might be stuck in the driveway because we won't be able to afford the gas. Even if we could, traffic will be at a standstill.

We don't need to let politicians decide our fate. We have a voice and we should take a serious look at where we're going and how we're going to get there.

Mary Little
Stockton