

## DOCKETED

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## **Opposition to HECA Project**

*Additional submitted attachment is included below.*

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SEP 23 2013

SJVAPCD  
Southern Region

Valley Air Dist.

Are you people crazy? How could you (and I THINK) be allowing this HECA plant to come to our valley? We have the worst air in the NATION and we don't need any more pollution!

That is a coal plant. We have ~~no~~ COAL in California. Why do they have to test it out here? I understand there will be truckloads of coal coming from New Mexico up highways 99 and on 119, the most dangerous one lane road around.

Why doesn't this Michigan outfit build it in New Mexico or in Michigan where they have LOTS of wind?

Why would they want to build the plant in Calif. and haul coal from New Mexico? Think about it! This is INSANE!

Someone will be making a lot of money on this! I can't think of ANY other reason. The people that live here will pay the price for the pollution - especially the school children only 1/2 mile from this MONSTER! There will certainly be lawsuits over this!

I urge you to vote AGAINST this extra pollution for our valley.

Xojo Power

# VALLEY AIR POLLUTION: MADE IN CHINA?

## THE STUDY

### The San Joaquin Valley air district

has approved a \$99,747 contract with UC Davis for an 18-month analysis to determine if ozone from Asia, namely China, is mixing with valley air.

## WHAT IT MEANS

**If the study's findings help prove** that valley pollution violations are a result of so-called trans-boundary ozone, the air district should be able to make a case against the EPA's annual \$29 million smog penalty.

BY STEVEN MAYER

Californian staff writer  
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It was no pleasure flight. The plane soaring over Bakersfield in one of the most polluted air basins in the nation was on a scientific mission.

The men on board were searching for smog — and it wasn't hard to find.

Attached to the wings of the single-engine Mooney TLS were plastic inlets that sucked air through scientific equipment loaded into the rear of the plane.

The equipment, which can detect levels of ozone, or smog, in parts per billion, was wired to a computer resting on the lap of the plane's passenger. The laptop showed a fever chart — a graphical representation of ozone levels — in real time.

"Yesterday we got what we came for over Arvin," said Stephen Conley, an atmospheric scientist from UC Davis, who was at the controls of the



STEVEN MAYER / THE CALIFORNIAN

**The city of Arvin has long struggled with high ozone levels. Both people and agricultural crops can be adversely affected by this form of pollution.**

plane. "We detected 112 parts per billion at 1,000 feet above the ground."

Had that extreme level of ozone dipped to the surface and been detected by an official ground station near Arvin, it might well have

triggered an exceedance, or violation, of the federal one-hour ozone standard of 75 ppb by volume.

Residents on this end of the valley have known for years that we live in an ozone nightmare, a hazy, lung-

*Please see* **OZONE / A4**

# OZONE: Up to 23 percent may be coming from China

CONTINUED FROM A1

burning. Hedges that regularly lands us at the top of the nations' worst air list.

But what researchers like Conley are finding is that a significant portion of the ozone found in the southern San Joaquin Valley is not even produced in California. China, the largest exporter of goods in the world, isn't just sending us TVs, furniture and other consumer products. It is also exporting smog.

## The \$29 million question

Scientists have long known that smog flows down the valley from northern sources, including the San Francisco Bay Area. Scientists have estimated about 9 percent of our ozone comes from upriver.

But Conley and many other scientists are advocating a considerable body of evidence that shows alarming levels of ozone are being transported at relatively high altitudes across the Pacific Ocean from China and other Asian countries and making their way here in the air we breathe in Bakersfield, Kern, Lamont, Delano and Fresno.

As China's use of fossil fuels has grown dramatically in recent years, so has its production of precursors, chemicals that when cooked by the hot summer sun, become ozone, a corrosive gas linked to heart and lung illness and even premature death.

There is strong evidence that pollution from Asia, mainly from China, is crossing the Pacific, said Seyed Sadreid, executive director of the eight-county San Joaquin Valley Air Pollution Control District. "It is transported at high altitude and it gets to the valley where it takes root."

It's important to understand that this doesn't let us off the hook," he said. "We need to continue to reduce our emissions."



STEVEN MAYER / THE CALIFORNIAN  
Steven Mayer, an atmospheric scientist from UC Davis, files over the southern San Joaquin Valley as part of an 18-month study on the movement of ozone pollution.

However, the valley already has some of the toughest air regulations in the country, he said, and the number of exceedances has been trending downward for years.

Sadredin cautions that more studies are necessary to duplicate previous findings and to more precisely determine the paths of imported ozone and the meteorological and topographical processes that deliver it to our doorstep.

But one thing is clear, he said. This research raises serious questions of fairness regarding the annual assessment of a \$29 million pollution penalty paid primarily by valley motorists in their vehicle registration fees — a cost borne each year when the district exceeds the federal standards.

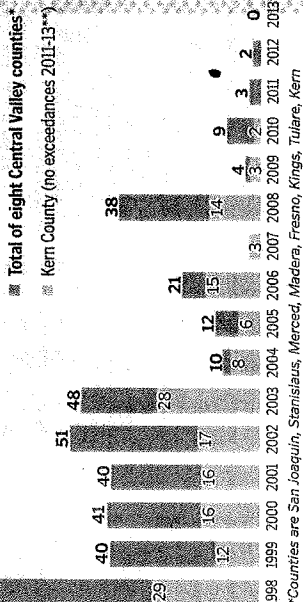
## Transboundary ozone

Last June, the valley air district board approved a \$99.747 contract with UC Davis for Conley's 18-month study, which uses aircraft monitoring to help determine whether long-distance flows of ozone from Asia are mixing with valley air.

Several other important studies examining this China syndrome have already been published in scientific journals.

A research study headed by Owen Cooper, an atmos-

## County one-hour ozone exceedances



Source: San Joaquin Valley Air Pollution Control District STEVEN MAYER and KENT KOEHL / THE CALIFORNIAN

## WHAT THE AIR ACT SAYS

**Actual wording from the federal Clean Air Act regarding a possible exemption for offshore ozone:** "Notwithstanding any other provision of law, any State that establishes to the satisfaction of the Administrator that, with respect to an ozone nonattainment area in such State, such State would have attained the national ambient air quality standard for ozone by the applicable attainment date, but for emissions emanating from outside of the United States, shall not be subject to the provisions of section 7511 (a)(2) or (5) of this title or section 7511d of this title."

pheric scientist at the University of Colorado, used a network of four balloon-launch sites along the California coast, and more sites inland, to gather ozone readings at various altitudes.

Published in 2011 by the Journal of Geophysical Research, the study used ozonostodes, balloon-borne instruments that measure concentrations of ozone at different altitudes and broadcast the data back to researchers.

One might expect air blowing in from the Pacific to be fairly clean — even pristine. However, in the free troposphere above 3 kilometers, or just under 2 miles in altitude, ozone-producing chemicals, or smog-producing chemicals, were found by Cooper's team. The main sources? China and international shipping.

But how can scientists determine the sources of smog or smog-producing substances that have traveled thousands of miles across oceans?

David Lightfall, the health and science adviser for the valley air district who coordinates T90 research, said many particles of soot carried

can be traced back to their average daytime concentration.

ditions, we found 10 percent of lower trophic Central Valley, but enhancements of 1.2-2.5 percent were found in the southern Central Valley. Cooper's study concluded that, in layman's terms, nearly one-third of Kern County's ozone problem may be attributable to times to offshore sources, making it completely beyond local control. And an additional 8 percent to 9 percent coming from upriver sources in California and it's hard to conclude that southern valley residents have limited influence over the very air we breathe.

## Guaranteed to fail?

In 1999, the valley portion of Kern County exceeded the federal one-hour ozone standard 29 times. From 2011 to the present, there have been zero exceedances in Kern Valleywide, there were only two last year and three in 2011. Statistically, the valley appears to be headed in the right direction when it comes to taking responsibility for the smog years without an ozone violation — and so far this year, there haven't been any.

The EPA will lift the national ambient air quality standard for valley residents' vehicle registration fees generate about two-thirds of the \$29 million penalty. The remaining one-third comes from large industrial businesses.

The money funds grants and incentives that help decrease emissions. As we learn more about the transport of ozone from Asia, ocean-going ships and peer-reviewed studies and put together a science-based proposal that could be presented to the EPA and the California Air Resources Board, it is conceivable, Drake acknowledged, that a convincing argument could

be made. "Let's say you have an exceedance on, say, Aug. 7, in Fresno," he said. "Can you prove, on that day, that you wouldn't have exceeded the ozone standard had it not been for ozone transported from Asia?"

To further complicate matters, the one-hour ozone standard of 75 parts per billion has been revoked in favor of a more health-protective and difficult-to-attain eight-hour ozone standard. However, litigation has reinstated many requirements of the one-hour standard, and it still is used to determine exceedances related to the \$29 million penalty.

There is a chance the standard could be lowered from 75 to 65 ppb, or even 60, making attainment in the valley a moving target.

David Parrish, one of the leaders in ozone research in the chemical sciences division of the National Oceanic and Atmospheric Administration in Boulder, Colo., approved ozone problems on China. Without local production of ozone, very seldom if ever would impacted air basins like Los Angeles and the San Joaquin Valley be exceeding standards.

And our imported ozone is certainly not all coming from China, he said. Other Asian countries, Europe, international shipping and natural ozone sources all contribute, he said. In fact, ozone can circle the globe, so smog and its precursors created in the United States can similarly affect other nations.

However, Parrish said, the impact of imported ozone is diluted as you move from west to east over North America.

Lightfall, the science adviser at the air district, said much of the research is still based on statistical inference and modeling. So more needs to be done, he said, especially if air officials are someday going to argue for an exemption from federal regulations.

"You need to have a good weight of evidence," he said. "A scientific case."

But it wouldn't be easy. "Let's say you have an exceedance on, say, Aug. 7, in Fresno," he said. "Can you prove, on that day, that you wouldn't have exceeded the ozone standard had it not been for ozone transported from Asia?"

## A moving target?

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## Kids deserve better than HECA

I'm writing about Hydrogen Energy California, or HECA, and its polluting effects on health. I am a registered nurse and Bakersfield is my hometown. My physician husband did his internal medicine residency in Bakersfield.

We know about the extreme bad air in Kern County. Studies show that polluted air contributes to the difficulties of lung disease. We are familiar with patients who suffer from respiratory problems, having treated asthma, chronic obstructive pulmonary disease, emphysema and a host of other lung diseases. The tons of emissions from HECA will certainly add to their health risks.

Have you witnessed an asthma attack? Patients struggle with severe shortness of breath, uncontrollable coughing, wheezing, and tightness in the chest. Obviously, these lung sufferers cannot fully enjoy life. Moreover, lung disease can shorten life. The Los Angeles Times reported on Aug. 26: "Health studies-

show that the most vulnerable are children, whose developing lungs can be harmed for life by air pollution."

The location for HECA is wrong. Already Kern has a higher asthma rate, higher asthma emergency hospital visit rate and higher death rate from asthma than the state as a whole. These health risks will only be multiplied with the added emissions of hundreds of diesel delivery trucks and fertilizer production from coal. If there is an elementary school only 1.5 miles downwind from the HECA facility, you must consider the long-term consequences of their exposure. The kids deserve better. Don't let this happen.

## What are our kids breathing?

In his Sept. 11 letter "We're improving our air quality," Bakersfield City Councilman Harold Hanson wrote: "Makes sense to me to be monitoring the air our kids are breathing in their immediate area." I totally agree with him. He is wise for recognizing this.

For almost a year, officials at Tupman

School — which is 1-1/2 miles downwind from the proposed Hydrogen Energy California plant — has asked for an air monitor for the protection of their students.

Rio Bravo-Greeley and Burton willow schools also recognize the danger to which their students will be exposed. There will be many hundreds of diesel trucks traveling daily in their vicinity and hundreds of railcars of coal unloaded nearby too. Hwy 119

They want to know, hourly, what their schoolchildren are breathing. I think that students and officials in Wasco and Arvin also need such accurate information on air quality.

## Air district board making side deals

The "good old boy" system is alive and well. The San Joaquin Valley Air Pollution Control District board did not even wait for the close of the public comment period on the Preliminary Determination of Compliance, or PDOC, for the HECA fertilizer manufacturing/power generation project before making a decision on a major component in the documentation process. The board voted on and sent the mitigation deal it had worked out with HECA to the California Energy Commission. This amounts to a private agreement between the air district board and the HECA/SCS Energy Corporation. They could not make their contempt for the public's concerns over this coal/chemical factory more plain. Who are these people and how did they get so much power over our health, welfare, and peace of mind?

There is one member of the board that I cannot praise enough. Supervisor David Couch has listened to our concerns. He was the only board member to come to the public hearing on the PDOC and he voted against the mitigation agreement. Kudos to him.

We are being railroaded by public officials and their private agreements. This project cannot be stopped unless every voice is raised against it.

## Why is the valley punished?

Regarding Richard Beene's Sept. 2 Bakersfield Observed blog item referencing the pollution article by Steven Mayer ("Valley air pollution: made in China?" Sept 1): What is the remedy here to stop the EPA and the California Air Resources Board from extorting money from the valley residents?

They set arbitrary standards that are constantly altered so as to keep us in violation mode, and there is nothing outside of a complete shutdown to remedy their punishing actions.

Chinese ozone and particulate pollution has been brought up before. The government built highways 5 and 99 through our valley for traffic between Los Angeles, Sacramento and the Bay Area, yet they bear no burden for all of their pollution.

The same is true of the Bay Area air pollution blown into our closed valley. What are they wasting our \$29 million on every year? Maybe they should spend it on giant fans to blow the pollution over our southern mountain range.

## Community Voices

# Tell the CEC what you think about being HECA's guinea pig

Chris Romanini

**M**ore bad news about HECA. What began as a power plant proposal has changed. HECA, or Hydrogen Energy California, is now a chemical/fertilizer project that produces a little electricity for the grid. We should be outraged the federal government would assist HECA with over \$500 million of our tax money to help fund a for-profit chemical company fueled by 450 daily trucks of dirty coal and refinery waste in the dirtiest air in the nation. And it is proposed on beautiful prime farmland surrounded by fields producing food crops in Buttonwillow.

We learn from the California Energy Commission's preliminary staff assessment that although HECA will produce somewhere around 415 MW of power, it will use up most of this power itself making chemicals and sequestering CO2 underground. And what power is left for us folks who helped finance this test project? Just 52 MW maximum to the grid. Power like this we don't need? Kern County has already permitted over 8000 MW of clean, renewable power in the form of wind and solar. We are the good guys of the state. No county is doing a better job of producing clean, renewable power than Kern. Now we are rewarded with a dirty coal plant that would produce a tiny amount more.

And what about the CO2 HECA would be pumping underground under high pressure? Have you heard of Denbury, Miss., where the CO2 came back up? It ate through the old, sealed well coverings and spewed for 37 days. It was so toxic the responders had to wear breathing masks. This stuff hugs the ground. Poor Tupman is downhill from Occidental Petroleum's Elk Hills target for its sequestered CO2, so if the CO2 eats through one of Oxy's old wells, it will likely flow downhill to Tupman or Buttonwillow. Oh yes, the CEC concluded that the CO2 will cause seismic activity. Should we be relieved that it is not expected to exceed a magnitude 4 earthquake?



And what about these chemicals and fertilizers they are making? How hazardous is it to Tupman's school only 1-1/2 miles downwind? HECA will make 1 million tons per year of urea, urea ammonium nitrate and anhydrous ammonia. This stuff is dangerous and explosive. It only took 30 tons of fertilizer in West, Texas, this past May to kill 15 people. HECA will make almost 3,000 tons of fertilizer per day, not just 30. How destructive can 3,000 tons be?

And what does the CEC have to say about the potential for accidents? This: "Staff has not encountered such a complex power facility in the history of the Energy Commission. The CEC's staff analysis casts serious doubt that this project will be 100 percent free of upsets or accidental releases of hazardous material" and leaks "are prone to happen."

This is a demonstration project. It has not been done anywhere else in the world. There are 42 other worldwide projects in planning stages to capture and sequester CO2 from coal. But none are in operation. And all but one are smaller. HECA is an experiment. Advocates may learn how to do it safer through mistakes that happen in this test plant. We will suffer the consequences as they learn.

The CEC and the federal Department of Energy are holding a public hearing in Buttonwillow on this project. Public comments will be heard Sept. 17 and 18 between 6 p.m. and 8 p.m. in the Buttonwillow Park Recreation Center. We in Kern have the dirtiest air in the nation. Pollution increases health risks. Kern ranks among the lowest in California for overall health. The mortality rate for asthmatics in Kern County is higher than the state's overall rate. Valley Fever appears to be on the rise in Kern. How outrageous that we, at the closed end of Central Valley, with no escape for the emissions and fumes, are chosen to test a cleaner way to process dirty coal, and we don't even have coal in our state. Come out to Buttonwillow and voice your concern. Comments are encouraged at [docket@energy.ca.gov](mailto:docket@energy.ca.gov).

*Chris Romanini and her husband, who farm as John Romanini & Sons, produce almonds, pistachios, and cotton. Along with their sons they have been farming in the Buttonwillow area for four generations. Community Voices is an expanded commentary of 650 to 700 words.*