

# **An idea to cut idle hours: Lane Regional Air Pollution Authority's program helps truckers install power units and save diesel**

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**An innovative technology to stop Interstate-5 truckers from spewing diesel exhaust into the air while they sleep at truck stops is drawing national attention to the Lane Regional Air Pollution Authority.**

The Springfield-based agency over the past year has offered low-cost loans that spurred the installation of auxiliary power units on 96 tractor-trailer rigs to drastically reduce their pollution. LRAPA is on pace to equip 250 more trucks over the coming year.

LRAPA's timing couldn't have been better for the trucking industry: By allowing trucks to turn off their main engines while idling, the units not only reduce exhaust fumes, they also cut by 80 percent the amount of diesel that truckers use while idling.

That's a compelling feature in a year in which diesel prices topped a record high of \$3 a gallon after Katrina and Rita damaged gulf coast refineries.

LRAPA's program caught the U.S. Environmental Protection Agency's attention. Last month, the federal agency gave LRAPA \$500,000 to conduct a demonstration and evaluation study on the units.

"The Lane County program is being featured as an example for the rest of the nation," said John Gustafson, products manager for the Portland-based trucking firm Coast Transit Refrigeration. "It's really something to crow about," he said.

The program will equip only a fraction of the 30,000 long-haul trucks that work the Interstate-5 corridor. But organizers say it could be the spark that starts an anti-idling revolution inside the industry.

The low-cost loans the government is providing to industry means each newly equipped truck will spew tons less pollution each year, LRAPA officials said. They've named their program "Everybody Wins."

"It's not a bailout (for industry) because they are the ones actually paying for the idling reduction equipment. We're not giving them money; we're just making the money available. They bear the full cost of the equipment themselves," said Gordon Griffin, environmental specialist at LRAPA.

"What's in it for the public? Short term, you get the immediate reduction in emissions. The air is cleaner in the places where trucks usually idle. In the long term, it's moving the whole industry. These programs offer a case-in-point opportunity for the trucking community to see the benefits and want to participate," he said.

### **Mandatory rest periods**

Under federal law, long-haul truckers may drive 14 hours a day but they must rest for 10 hours.

So truckers park with engines rumbling and retire to the upper cab, where they can crash on a bunk, watch television, zap a meal, all by means of electricity generated by the truck engine.

Temperature control in the upper cab - heat in winter, air conditioning in the summer - is essential to the driver's health and safety, Gustafson said. That's especially true when passing through places of extremes, such as Minnesota in winter and Arizona in summer.

"(In Arizona) he needs to reduce the temperature down to 70 or 80 degrees so he can rest," Gustafson said. "It creates a safety problem if that driver can't go out fresh and relaxed."

The typical truck driver idles his or her rig eight to 10 hours a day, the EPA estimates.

Installing auxiliary power units allows them to switch off the main engine and run the small engine at a fraction of the cost.

The 10-horse-power mini diesel engines are added onto existing trucks; some models fit on the frame just under the passenger-side door.

Truckers can rely on the little engines to keep their engines warm, run a compressor to lock their brakes on steep slopes, provide juice for their appliances and keep the atmosphere in the cab comfortable.

Some big trucking firms are adding the power unit of their own accord. In return, they can take an Oregon business pollution reduction tax credit, LRAPA officials said. The Salem-based May Co. is equipping 600 trucks, for example.

"They got the idea from talking to LRAPA," said Sharon Banks, the LRAPA diesel project manager.

Through the LRAPA loan program, a dozen Oregon firms began installing the power units over the past year, including Leavitt's Freight Services in Springfield and Cummins Northwest in Coburg.

"If I was an owner-operator, I wouldn't even think twice. It's just the way to go," said Rick Erickson, service manager at Cummins.

## **Public benefit**

Idling trucks pump carbon dioxide, nitrogen oxides and particulate matter into the air.

In hot weather, the nitrogen oxides react with ozone to create smog. Meanwhile, carbon dioxide acts as a greenhouse gas, which is implicated in global warming.

Particulate is the sooty ingredient of the haze that hangs over many big cities.

"You fly into Los Angeles," Gustafson said, "and you feel yourself drop down through this dirty layer that sits in the atmosphere at about 1,000 to 1,500 feet."

"It's awful. We don't know how good we have it here," he said.

Diesel particulate is small; it can be trapped down in the lungs, and it's coated by 40 varieties of toxin, according to the EPA.

Studies have linked diesel exhaust to lung cancer. Also, the particles exacerbate asthma and other lung diseases, the EPA found.

"When you breathe diesel particulate, It's a lot more toxic than normal dust or other types of wind-blown matter," said LRAPA's Banks.

Over the past week, Lane County got a whiff of nasty air. An inversion cemented a stagnant air mass over the valley, trapping fog near the ground and causing an accumulation of particulate from wood stoves, vehicles and industrial combustion.

LRAPA ranked the air quality as "moderate," meaning the small number of people with damaged and delicate lungs should avoid the outdoors.

The LRAPA power unit program - with 350 units finally installed - will help wherever the receiving trucks go.

Each year, there will be 29 tons less particulate, 101 tons less nitrogen oxide and 7,950 tons less carbon dioxide, the agency calculates.

## **Government help**

Truckers are lured by the incentive of a cheap loan. LRAPA's waiting list for the \$7,000 to \$10,000 units is 40 trucks.

Even though diesel prices have moderated in recent weeks, the cost per gallon is up 41 cents over this time last year, according to the U.S. Energy Information Administration. West Coast diesel buyers are paying \$2.65 a gallon.

"It's really been a huge pinch to the owner-operator - especially the little guy; he's a small business man or woman," Banks said.

Small operators don't have the cash flow to purchase the auxiliary power units up front, Gustafson said.

So LRAPA treats the small buyers to a nothing-down, no-interest loan. Payments average \$160 a month; the power units save the trucker \$300 to \$400 in fuel costs in those 30 days.

"The payment stream fits very nicely inside of the savings on diesel fuel," Gustafson said.

Moreover, a truck's main engine gains 10 percent to 20 percent more life-span when it is turned off at rest, said Gustafson of Coast Transit Refrigeration.

The LRAPA program is particularly appealing to the trucking industry because it differs so starkly from the more rigorous approach being taken by other agencies.

Thirty one state and local governments have taken a get-tough approach to truck exhaust fumes. They've passed laws that simply prohibit extensive idling.

The California Air Resources Board, for instance, has instituted a five-minute limit on idling. The effective year is 2008 for sleeper trucks.

So, over the next two years, the owners of the 30,000 trucks that ply the I-5 corridor though the Golden State will be looking for ways to comply with the order - including possibly adding auxiliary power units.

A few will be ahead of the game because of help from LRAPA.

Truckers appreciate the agency's approach, Gustafson said. "That's helping the trucker solve the problem, as opposed to Los Angeles that says, 'Turn off your truck' even when it's 120 degrees out."