



# Southern California **CONTRACTORS** Association Magazine

**AIR QUALITY  
ISSUES, 2006**

## **AIR QUALITY ISSUES 2006**

**CARB's new off-road diesel rules unworkable  
Portable equipment regs tightened down  
Solutions showing up on job sites**

**Past**



**Future?**



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*By Steve Walag*

*Editor's note: Not all the news on the air quality front is dark – solutions are starting to show up as illustrated in this article from one of our affiliate members, RECAT, Inc.*

This is a story about how a construction job was kept on a steady course despite diesel pollution issues and how a construction superintendent with an ace up his sleeve helped turn a thorny problem into a lesson in cooperation between contractors, suppliers and public agencies.

At the center of the story is a new pollution-control technology which not only cuts emissions from diesel-powered earth-moving machines, but also significantly reduces their fuel consumption – as superintendent Rob McNew discovered.

It was this technology, called the Combustion Catalyst System, which staved off a pollution-related work shutdown at a major commercial complex in the City of Industry.

It all began last fall, when an executive with McNew's company, Vern Thomas of Vance Corporation in Rialto, first got word of the new technology. Pollution control is a high-focus issue for Southern California contractors, because the California Air Resources Board (CARB) is planning to phase in tighter controls on older heavy equipment that will impact the majority of the construction equipment in use in California.

McNew, Vance's general superintendent, was asked to investigate the new technology, distributed by SCCA Affiliate RECAT, Inc., of Perris. McNew admits to being skeptical at first.

"I'm a bit of a born skeptic," he says. "And I'm also something of a purist when it comes to equipment, so my knee-jerk reaction was if you put this on a machine, what does it do to



your engine?"

The catalyst system is packaged in a device about the size of a large cereal box which is installed near the turbocharger of a diesel engine. The technology works by injecting a platinum-based catalyst into the combustion chamber, making combustion both cleaner and more efficient.

It didn't take long for McNew to adjust his thinking.

"The emissions testing we did was actually pretty easy," he recalls. "All you had to do was watch the black smoke disappear. We've seen that the claims were valid, and that the device wasn't going to invalidate warranties or damage our engines, and it's been nothing but a success story since then."

McNew says they've installed the catalyst system on 40 of their earth movers and plan to install it on all new higher-power machines they buy.

McNew says he was already keeping detailed records of fuel usage by their vehicles, and with the device in place, the machines showed an average 15 percent reduction in fuel usage.

Vance broke ground for the City of Industry's major commercial complex last spring and McNew's familiarity with the system proved invaluable. All Vance's newer earth movers were already outfitted with the catalyst systems and,



with their emissions significantly reduced, did not present a concern. But the company was renting about two-thirds of its job fleet – older machines that were visibly spewing black smoke.

The site, as it happened, was within easy view of the South Coast Air Quality Management District headquarters. At the beginning of the project, the crest of the hill hid those machines, but as soon as they reached the hilltop – and could be seen by officials at the SCAQMD office – inspectors showed up immediately.

The inspector issued pollution citations twice, says McNew. With most of the fleet facing shutdown, clearly something had to be done.

The rented earth movers belong to Tony R. Crisalli, Inc., another long-time SCCA member. The owner, Tony Crisalli, says that sometimes diesel emissions can be reduced through engine adjustments, but added, "We can only adjust and fine-tune so far. So we had to step up to the next level and use the catalyst system. It was the only thing really available for us to turn to.

"Once we decided to use that system," says Crisalli, "RECAT was very fast with the installations. They had all the equipment in stock and the personnel to put it on. And it was a pleasure also to work with a first-class company like



***Vance has equipped most of its fleet with the new Combustion Catalyst System.***

Vance. They were involved in helping us work things out with the SCAQMD without having any downtime or loss of production on the project.”

Tom Yeager, one of the founding owners of RECAT, says he couldn't be more pleased with the way the Combustion Catalyst System helped two long-time customers deal with the real-world challenges facing

contractors today.

“It's very gratifying to play a part in helping our contractors overcome some of the many issues in this complicated and competitive business,” says Yeager. The catalyst system is manufactured by Arizona-based Emissions Technology, Inc., yet another SCCA Affiliate.

March 29th, CARB issued Executive Order D-605U, clearing the way for use

of the system on any and all off-road diesel engines.

A CARB-certified testing lab, Olson-Ecologic of Fullerton, conducted tests on a Detroit Diesel engine, with results indicating that the technology reduces particulate matter by 47.8 percent; nitrogen oxides by 13.6 percent; and hydrocarbons by 58.3 percent. ♦