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Mack chief says testing shows SCR technology ready, performing well

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LOUISVILLE, Ky. — Mack Trucks said today that extensive field testing had demonstrated that the company's selective catalytic reduction (SCR) technology for EPA'10 is ready and performing well.

The testing has also confirmed that Mack's SCR aftertreatment strategy results in significantly less active regeneration events of the diesel particulate filters (DPF), which increases fuel economy, as well as productivity for both the truck and driver, according to Denny Slagle, Mack president and CEO, who added that in its over-the-road applications, Mack had eliminated active DPF regeneration.

Slagle addressed the testing during a news conference at the Mid-America Trucking Show under way here.

"Mack is ready for 2010 and we have complete confidence in our SCR technology and its ability to deliver increased fuel economy and lower operational costs for our customers, especially when compared with other approaches to 2010," Mack said. "Ultimately, the performance and efficiency debate on technology will be decided on the road. This is where Mack will shine."

The customer response to real-world testing of SCR-equipped Mack trucks reflects that SCR is a mature and established technology with significant support in vital industry sectors, according to David McKenna, director of powertrain sales and marketing.

SCR also has benefits which are not yet widely recognized by the trucking industry, he noted.

"Mack's testing revealed that our EPA'10 emissions control systems will allow near zero amounts of NOx and particulate matter and as a direct result of this elegance of modern chemistry our customers will experience near zero DPF active regenerations," McKenna said. "Since we use SCR to remove NOx from the exhaust downstream from the DPF, we are able to tune the engine to produce better performance and fuel economy, while using the NOx in the exhaust to passively regenerate the DPF. We're making simple chemistry work in our favor."

Active regeneration requires injecting diesel fuel into the exhaust stream to raise the DPF temperature to convert particulate matter into ash.

In some duty cycles, this may have required the driver to monitor the DPF's status or even to stop the truck for a parked active regeneration. The use of passive-only regeneration avoids both the increased fuel consumption and the need to park while regenerating. These time and money savings will not be realized in competitor vehicles using massive EGR, rather than SCR, Mack spokesmen said.

Customers operating Mack's test trucks in both vocational and highway applications reported excellent performance, power and fuel economy using Mack MP Series engines with SCR aftertreatment, the company said. They also reported no issues involving the use of diesel exhaust fluid (DEF) with the SCR systems.

"We've actually had very good experience," said Dan Alderfer, fleet superintendent for the H&K Group, which operates in construction, road building, mining, quarrying and logging applications. H&K has been testing a Mack Granite since April 2008, with about 50,000 miles accumulated to date.

Alderfer said fuel economy is better with the SCR-equipped Granite, compared to the fleet's other Macks, and that there have been no issues or concerns involving the diesel exhaust fluid.

"We actually haven't seen any problems with DEF," he said. "What I'm seeing across the board, I'm going to say a mile per gallon better. It's doing well.

"We actually haven't seen any problems with DEF," he continued. "There's no special consideration. It's safe. We fill the truck once a week (with DEF). You could probably take it out two to three weeks, depending on how many miles you put on the truck.

"It's just amazing how clean the exhaust is. There's a little over 50,000 miles on the truck and the stack looks like it's brand new."

Mike Burns, vice president of Burns Motor Freight, agreed. His fleet hauls building materials on the East Coast from Maine to Florida.

"It's a win-win situation," Burns said. "We've had this truck for about six months and put on about 60,000 miles. We are seeing a pretty good increase in fuel economy. We handle [DEF] just like windshield washer fluid or antifreeze. We're able to go the whole week. I'm not really worried about the availability of DEF."

"We haven't had to do any servicing to it," he said. "I talked to the driver about [DPF] regenerations and he said it's not a concern to him. If it's doing it, it must be doing it automatically, because it is not asking for any manual [active] regens. We've had some cold weather here – we had -22 degrees here one day – and we had no issues with this truck."

"These experiences confirm that our customers will benefit from our SCR technology," McKenna said. "Mack's SCR technology allows us to use the same proven base engines we do today, with a straightforward design requiring only one turbocharger, only one intercooler and only one radiator.

"Service technicians are already very familiar with this easily-serviced engine. Mack engines will have lower heat rejection, since we will use a lower rate of EGR than we do today, and we will have lower underhood temperatures, which helps lengthen component life through improved thermal management. Mack has not had to raise hood and cab heights to accommodate the 25-percent larger cooling systems and air flow required for MEGR either. As our test fleets have discovered, there are many advantages to choosing SCR for EPA'10."

"Mack is ready for 2010 and has complete confidence in its SCR technology and its ability to deliver increased fuel economy and lower operational costs for our customers, especially when compared with other approaches to 2010," company President and CEO Denny Slagle said.

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