



TruckNews.com - MATS Report: SCR vs EGR debate heats up at Mid-America

Daily News Monday, March 23, 2009 By: James Menzies

LOUISVILLE, Ky. -- It was a rare sight: the CEOs of four major engine manufacturers sitting side-by-side on a panel and nodding in agreement as each of the others spoke. The scene was the *SCR for 2010 - CEO Summit*, hosted by FactsAboutSCR.com at the Mid-America Trucking Show.

Included on the panel were: Chris Patterson, CEO of Daimler Trucks North America; Per Carlsson, CEO of Volvo Trucks North America; Denny Slagle, CEO of Mack Trucks; and Jim Kelly, president of the engine business for Cummins. They were there to extol the virtues of selective catalytic reduction (SCR), the technology each of their respective companies will employ to meet EPA2010 emissions standards.

Noticeably absent was Navistar, which is the lone hold-out remaining in the EGR-only camp. Navistar has been critical of SCR and stands alone in its pursuit of an in-cylinder solution that doesn't require exhaust aftertreatment.

Also on the panel were: Byron Bunker of the EPA; Bill Mulligan of Pilot Travel Centers; Tom O'Brien, TA TravelCenters of America/Petro Stopping Centers; and Barry Lonsdale of diesel exhaust fluid (DEF) producer, Terra Environmental Technologies.

They brushed aside concerns about the availability of DEF – the urea-based essential ingredient required by SCR systems – by promising to have the fluid widely available before Jan. 1, 2010. Mulligan said Pilot will be taking delivery of DEF dispensing equipment beginning in the second quarter and will also sell pre-packaged quantities at each of its truck stops by December. O'Brien added his truck stop chain will have DEF available at-the-pump and in pre-packaged containers with emergency fills available through the company's fleet of more than 400 roadside service trucks.

For his part, Terra's Lonsdale dispelled rumours about the toxic nature of DEF, pointing out it is not considered a hazardous material by the Occupational Safety and Health Administration (OSHA).

It was the engine CEOs, however, that had the strongest words about SCR and the alternative in-cylinder solution being developed by Navistar.

"It strikes me as I sit here that even though we represent a very significant percentage of the world's heavy-duty engine and truck production, we must not be very good leaders," chided Volvo's Carlsson. "And the thousands of engineers working for us around the globe must not be very bright, because we've selected SCR for EPA2010. And according to the sole adopter of massive EGR, we've all made the wrong choice."

He urged a packed room to ignore the anti-SCR claims of a “regional manufacturer” that’s “making its first entry into the heavy-duty engine business.”

Mack’s Slagle pointed out all the engine manufacturers represented on the panel have their own EGR experiences.

“We use EGR today. We know it puts additional stress on an engine,” he said. “We know it generates a lot of heat, even at today’s levels. We know it presents challenges when it comes to engine performance and fuel economy. We’re managing all of this extraordinarily well today, but we’ve reached the limit of what can be accomplished with EGR.”

Daimler Trucks North America’s Patterson pointed out “This may be the only time you see the world’s three largest producers of heavy-duty diesel engines in violent agreement about anything.”

He suggested focusing on the benefits of SCR, including fuel economy improvements of about 5%. (Each of the engine OEMs represented cited similar fuel economy gains will be achieved with their versions of SCR).

Since Navistar was not invited to participate on the panel, Trucknews.com tracked down Tim Shick, director of marketing with Navistar’s engine group for a response. He said Navistar is more confident than ever that it has made the right choice by carving its own path.

“The more we get into this, the more confident we are,” he insisted.

Navistar will use emissions credits to slowly work its way down to the EPA2010 NOx limit of 0.2 g/bhp-hr, beginning at a level of 0.5 grams on Jan. 1, 2010. When asked for an explanation on how Navistar will meet the 0.2 g NOx limit once its emissions credits run out (expected to occur sometime in 2012), Shick said “If you put enough exhaust gas back into an engine, you can reach just about any level of NOx you want – that’s not the challenge.”

He continued: “The challenge at that level is to retain good performance, fuel economy and durability. And the way we ensure that is, every time we take the EGR rate up in the series of steps we’re making to the final 0.2 g emissions engine, we also take the fuel pressure up. We recalibrate to make sure that all those ingredients in the mix are optimized, and so far we’ve seen in the lab and we have trucks on the road today that show it definitely *can* be done, we *are* doing it and we *will* bring it out...the key to it is that high pressure common rail fuel system, that’s the magic ingredient.”

Back at the SCR Summit, Slagle urged everyone to do their due diligence when selecting an engine technology for 2010.

“Our message to customers is ‘do your homework’,” he suggested. “Become educated about both SCR and massive EGR so that you can make an informed decision.”