



Q: What are the main differences between EGR and SCR?

A: With advanced EGR there are no extra fuels to buy.
There is no new hardware to add.
And there is no new training needed.
SCR requires all of the above.

Q: Will mounting be easy?

A: With the Navistar 2010 solution, there will be no additional hardware on the chassis and there will be minimal additional body builder chassis packaging requirements. That is in addition to the long-known advantages of the Diamond Logic electrical system, which allows for multiplexing.

Q: Will there be a payload penalty with advanced EGR?

A: The Navistar advanced EGR emissions solution, which does not use SCR, does not add significant weight to the chassis. This means your customers will not have to reduce their payload when they buy equipment built on an International truck chassis. The competitive SCR 2010 solution adds 300-400 lbs. in additional hardware to a truck.

Q: Will it affect engine reliability and durability?

A: While other OEMs have been working to re-engineer their engines to include SCR technology, International hasn't. In fact, the International 2010 emissions solution is the same solution that was brought to market in 2007. This approach means your customers will not have to rely on unproven technology.

Q: Will it be hard to maintain trucks with advanced EGR?

A: Our solution does not require the use of urea and therefore requires no additional equipment to learn or new fuels to deal with, so it will be just like operating the truck you drive today. For every hundred gallons of diesel fuel consumed, SCR systems will require 1 to 4 gallons of urea. These 15-gallon urea tanks will need to be filled periodically or the truck will become disabled.

Q: Because it improves fuel economy, will SCR provide a lower operating cost?

A: SCR will not yield lowest operating cost. Whatever fuel economy savings (if any) will be offset by the cost of urea, which must be added in similar quantity to the fuel saved. The cost of urea is currently about the same as diesel fuel but it will likely increase to finance infrastructure capacity. Actual operating costs for SCR will likely be very close to Navistar's advanced EGR solution.

Q: Will engine operating temperatures be dangerously high with Navistar's advanced EGR 2010 system?

A: Cooling capacity will be sized to keep operating temperatures at optimum levels, just like today. Cooling loads have increased over the years with power increases, air-conditioning, and stringent emissions regulations. Cooling capacity has always kept pace and will continue to do so.

Q: Won't adding an SCR catalyst be just like adding another DPF?

A: The catalyst itself is only a minor portion of an SCR system. A 10-15 gallon urea tank complete with insulation and heater, and the doser system to meter and inject urea are also in the picture. Taken together, SCR system components will take up more space than a 100 gallon fuel tank and will add 300 lbs. – 400 lbs. weight. Packaging will be a critical challenge, particularly on vehicles requiring clean cab-to-axle space for body mounting.

Q: Will in-cylinder systems be 2010 compliant?

A: All MaxxForce engines will be emissions compliant for 2010, just as they are today. If they weren't, we couldn't sell them. Some Navistar engines are currently below 2007 levels and the EPA encourages and rewards this. We will be able to phase into 2010 emissions regulations with in-cylinder technology because our engines are cleaner, earlier than required. Customers benefit through the longer and smoother transition.

Q: What are the new 2010 EPA emissions requirements?

A: In 2010, the EPA is requiring new vehicles to achieve a new diesel exhaust emissions regulations limit, which is .2 NOx (g/hp-hr) down from 1.2 in 2007. This was a difficult task to achieve and we took a different path than the rest of the OEMs by choosing an advanced EGR solution.

Q: What choices are OEMs offering?

A: Next year you'll have two choices when you purchase a vehicle: a vehicle that reduces emissions in the engine cylinder (advanced EGR), and a vehicle that reduces emissions by adding a second fuel (Urea) through an after-treatment system (SCR). With the advanced EGR solution, operating and maintenance requirements don't change for your drivers or mechanics. Compare this to the SCR solution, where changes include significant add-on after-treatment equipment, additional attention from your drivers and new maintenance and servicing requirements for your technicians. With SCR, the burden on you is clear, and that's why we believe advanced EGR just makes sense.

Q: Why is Navistar the only OEM offering an in-cylinder solution?

A: While it was a tremendous amount of work for us, it was the easy answer for our customers. With continued tightening of EPA emissions, we knew keeping our customers' best interests in mind would lead us to the right solution. First in 2004, then in 2007 and now, as we set out to meet the 2010 standards, we're challenged to keep the burden of compliance as our responsibility, not place it on those who own and operate our trucks. Today Navistar's proud to stand behind the approach we've been developing for nearly a decade: advanced EGR.

Q: How does EGR work?

A: EGR (Exhaust Gas Recirculation) is an emissions reduction technique used in most gasoline and diesel engines. EGR works by re-circulating a portion of an engine's exhaust back to the engine cylinders and burning off excess pollutants. When temperatures in the combustion chamber get too hot, oxides of nitrogen (NOx) form. When these nitrous oxides combine with hydrocarbons, they produce the ugly haze we call smog. EGR re-circulates this exhaust into the intake stream. Since the exhaust gases have already combusted, they don't burn again. These gases displace some of the normal intake, slowing and cooling the combustion process, which reduces NOx formation.

The challenge for 2010 is to precisely control the flow of re-circulated exhaust. MaxxForce advanced EGR engines have increased injection pressure, improved combustion and refined calibrations with that goal in mind. The result is an engine that treats NOx in-cylinder, and therefore requires no extra effort from our customers.