

US EPA ARCHIVE DOCUMENT

EPA and International Truck and Engine Corporation to Develop Clean Diesel Combustion Technology

- A new technology partnership known as a Cooperative Research And Development Agreement (CRADA) between the U.S. Environmental Protection Agency (EPA) and International Truck and Engine Corporation was announced by Administrator Mike Leavitt on May 13, 2004. The partnership will further develop and determine the commercial viability of a new EPA diesel emission technology called Clean Diesel Combustion (CDC).
- The CRADA calls for EPA and International to work together to move the CDC technology from EPA's research laboratory to the marketplace.
- Clean Diesel Combustion was invented in EPA's National Vehicle and Fuel Emissions Laboratory in Ann Arbor, Michigan, and holds promise for providing another pathway in meeting the 2007 Heavy-Duty Diesel nitrogen oxides (NOx) emission levels while maintaining good fuel efficiency. The measured fuel efficiency of Clean Diesel Combustion engines running in EPA's laboratory indicates there is no loss of fuel efficiency (brake efficiencies above 40 percent).
- Clean Diesel Combustion shows the potential to meet the level of upcoming diesel emissions standards without NOx aftertreatment, NOx traps, NOx catalysts or urea SCR (Selective Catalytic Reduction).
- Clean Diesel Combustion still requires engine aftertreatment to reduce the particulate matter (PM), hydrocarbon (HC), and carbon monoxide (CO) emissions to the levels of the upcoming stringent Tier 2 and 2007 Heavy-Duty standards.
- Clean Diesel Combustion technology is the combination of several innovative improvements in diesel fuel injection system performance, reoptimization and refinement of air management/turbocharging systems, and an improved combustion system.
- International is making significant investments in advancing CDC technology into their product line, starting with an evaluation in their V-6 diesel engine sized for SUVs and pickups.
- Future diesel engines will offer tremendous opportunity to reduce vehicle fuel consumption, since the diesel engine is 25-40 percent more efficient than a similar gasoline powered vehicle.
- Automotive diesels are one of several exciting technologies that can improve fuel efficiency, lower U.S. dependence on imported oil, and also reduce greenhouse gas emissions.

