

## **EPA Diesel Rule and the Sulfur Effects (DECSE) Project**

In January 2001 and in June 2004, EPA finalized the Highway Diesel and Nonroad Diesel Rules, respectively, which implemented more stringent standards for new diesel engines and fuels. The rules mandated the use of lower sulfur fuels in diesel engines beginning in 2006 for highway diesel fuel, and 2007 for nonroad diesel fuel. These new diesel emission standards required over 90% reduction of nitrogen oxide and particulate matter emissions. The Vehicle Technologies (VT) Program recognized early on that emission control devices needed by industry for such drastic reduction would be adversely affected by sulfur in the fuel. The VT program collaborated with industry stakeholders and the EPA (in an effort initiated in 1998 called Diesel Emission Control – Sulfur Effects study, otherwise known as DECSE) to quantify the effects of fuel sulfur on emission control technologies. Drawing upon data showing that a fuel sulfur level of not more than 15 ppm would be needed to maintain the effectiveness of diesel emission control devices, EPA included in the 2007 heavy-duty diesel engine emissions standards (issued in January 2001), a mandate for the phase-in of 15 ppm sulfur diesel fuel starting in 2006. The VT program has since expanded the effort to include evaluation of fuels and lubricants for efficient, durable, low-emission vehicles. The results of this work are being used to support EPA's rulemaking efforts and provide technical data to help industry meet EPA requirements.