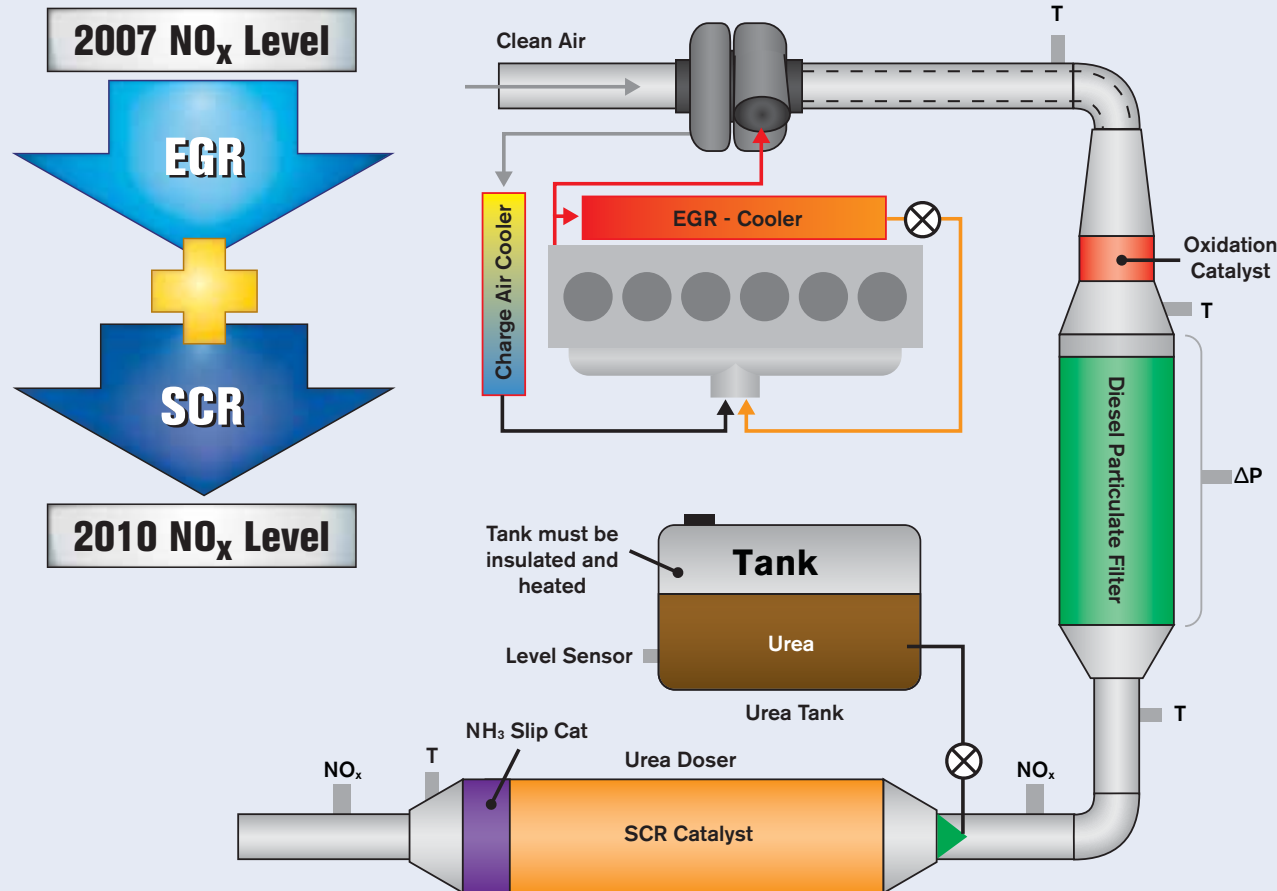


# SCR



- The engine includes an EGR system, much like today's engines, and it creates exhaust which includes particulate matter and NO<sub>x</sub>
- Exhaust passes through the oxidation catalyst and on to the DPF, which cleans the soot. From there, the exhaust passes to the SCR catalyst
- There is a urea tank located near the exhaust system. This tank must be continuously monitored for urea level. The tank must also be insulated and heated.
- Pump supplies urea to the SCR injection system
- The injector sends the urea into the SCR catalyst
- Urea mixes with the exhaust gases and turns into ammonia and carbon dioxide, then reacts with NO<sub>x</sub> to produce nitrogen and water vapor
- The end result of this process is lowered levels of NO<sub>x</sub> to meet the EPA 2010 emissions standards

One method of moving from the 2007 to 2010 emissions level is to take the current EGR system and add SCR, Selective Catalytic Reduction, to clean up the NO<sub>x</sub> emissions and meet the 2010 standards.