

# On-Road Certified Emission Standards

## Texas Commission on Environmental Quality (TCEQ)

### Texas Emissions Reduction Plan (TERP)

#### Baseline NO<sub>x</sub> Emission Rate

For these calculations, the baseline NO<sub>x</sub> emissions will normally be the federal NO<sub>x</sub> emission standard for the model year and the gross vehicle weight rating (GVWR) of the baseline vehicle and/or engine. The federal NO<sub>x</sub> emission standards for on-road heavy-duty diesel vehicles are presented in Table 1.1. In situations where the model year of the vehicle and the model year of the engine are different, the model year of the engine should be used for determining the standard to apply.

For some model years, the EPA began using a combined NO<sub>x</sub> + NMHC (non-methane hydrocarbons) standard. For the standards listed in NO<sub>x</sub> + NMHC, the TCEQ will use a NO<sub>x</sub> fraction of 0.95 for diesel engines and 0.80 for alternative fuel engines to determine the NO<sub>x</sub>-only emissions based on the combined standard.

**Table 1.1 On-Road Heavy-Duty CI (Diesel) Engine NO<sub>x</sub> Emission Standards by Model Year**

Year of Manufacture	Emission Standard NO <sub>x</sub> Only (g/bhp-hr)	Emission Standard NO <sub>x</sub> + NMHC (g/bhp-hr)
1989 and earlier	10.7	
1990	6.0	
1991-1997	5.0	
1998-2001	4.0	
2002	4.0	
2003*	4.0	
2004-2006	2.375	2.5
2007-2009**	0.2-2.375	
2010+	0.2	

\*Some manufacturers were producing 2003 engines that met the more stringent 2.375 g/bhp-hr standard. Any application request for consideration of a 2003 engine meeting the 2.375 g/bhp-hr standard must include a copy of the official engine certification for the specific engine model or engine family code.

\*\*The 2007 NO<sub>x</sub> emission standard is 0.20 g/bhp-hr. Manufacturers may phase in their compliance with this new standard over a three-year period. Therefore, it is not guaranteed that a 2007 model year vehicle and engine will meet the lower standard. If an applicant proposes to purchase a 2007 model year vehicle and/or engine, the applicant must certify, in the application, the emission level that the new vehicle and engine will meet. Copies of the form certifying the engine family to the lower emission standard must be provided before any grant expenses are reimbursed. If it is not yet known what emission standard to which the engine will be certified, then use the 2006 standard, 2.375 g/bhp-hr.