

during developmental testing. Thus, we believe that for a limited number of model years after new standards take effect it is appropriate to adjust the compliance levels for assessing in-use compliance for diesel engines equipped with particulate traps or NO<sub>x</sub> adsorbers. This would provide assurance to the manufacturers that they will not face recall if they exceed standards by a small amount during this transition to clean technologies. This approach is very similar to that taken in the light-duty highway Tier 2 final rule (65 FR 6796) and the highway heavy-duty rule (66 FR 5113–5114), both of which

involve similar approaches to introducing the new technologies.

Table VII.J–1 shows the in-use adjustments that we propose to apply. These adjustments would be added to the appropriate FELs (see Section VII.A) or, for engines certified to the standards without the use of credits, to the standards themselves, in determining the in-use compliance level for a given in-use hours accumulation. These adjustment levels were chosen to be roughly equivalent to the temporary in-use standard adjustments adopted for the heavy-duty highway program. Note also the limiting of these adjustments to engines certified to FELs below certain threshold levels. This is similar to the

approach taken in the heavy-duty rule which applied the in-use standards only to vehicles using advanced low-emission technologies (see 66 FR 5113–5114). Our intent is that these add-on levels be available only for highly-effective advanced technologies such as particulate traps and NO<sub>x</sub> adsorbers. As in our other mobile source programs, we do not believe that the standards are stringent enough or the required technology change radical enough to warrant add-ons for other proposed standards changes (the NO<sub>x</sub> standard for 25–75 hp engines, the 2008 PM standards for engines below 75 hp, or the NMHC standards).

TABLE VII.J–1.—ADD-ON LEVELS USED IN DETERMINING IN-USE STANDARDS

Engine power	Model years	NO <sub>x</sub> add-on level to FEL <sup>a</sup> (g/bhp-hr)	PM add-on level to FEL <sup>b</sup> (g/bhp-hr)
25≤ hp <75 (19 ≤ kW < 56) .....	2013–2014	none.	0.01
75 ≤ hp <175 (56 ≤ kW < 130) .....	2012–2015	0.10 for operating hours ≤4000 .....	
		0.20 for operating hours >4000 .....	
hp ≥175 (kW ≥130) .....	2011–2015	0.10 for operating hours ≤4000 .....	
		0.20 for operating hours >4000.	

**Notes:**

<sup>a</sup> Applicable only to those engines with FELs at or below 1.5 g/bhp-hr NO<sub>x</sub>.

<sup>b</sup> Applicable only to those engines with FELs at or below the Tier 4 PM standard.

Note that these in-use add-on levels apply only to engines certified through the first few model years of the new standards and having FELs below the specified levels. The in-use add-ons are available through model year 2015 for such engines above 75 hp because our proposed implementation schedule does not complete the phase-in process in these power categories until 2014. The 2015 date provides 2 years for the designers of those engine models that are last to be phased in (which may comprise upwards of 50% of sales and a large number of low-volume engine models) to discover and resolve any problems not showing up in the certification process or developmental testing.<sup>316</sup> This is the same period as that provided in the highway HDDE rule.

During the certification demonstration, manufacturers will still be required to demonstrate compliance with the unadjusted Tier 4 certification standards using deteriorated emission rates. Therefore, the manufacturer will

not be able to use these in-use standards as the design targets for the engine. They will need to project that most engines would meet the standards in-use without adjustment. The in-use adjustments will merely provide some assurance that they would not be forced to recall engines because of some small miscalculation of the expected deterioration rates.

*K. Monitoring and Reporting of Emissions Related Defects*

We are proposing to apply the defect reporting requirements of § 1068.501 to replace the provisions of 40 CFR part 85 for nonroad engines. The requirements obligate manufacturers to tell us when they learn that emission control systems are defective and to conduct investigations under certain circumstances to determine if an emission-related defect is present. We are also proposing a requirement that manufacturers initiate these investigations when warranty information, parts shipments, and any other information which is available indicates that a defect investigation may be fruitful. For this purpose, we consider defective any part or system that does not function as originally designed for the regulatory useful life of the engine or the scheduled replacement interval specified in the manufacturer's

maintenance instructions. The parts and systems are those covered by the emissions warranty, and listed in Appendix I and II of part 1068.

We believe the investigation requirement proposed in this rule will allow both EPA and the engine manufacturers to fully understand the significance of any unusually high rates of warranty claims and parts replacements for parts or parameters that may have an impact on emissions. We believe that as part of its normal product quality practices prudent engine manufacturers already conduct a thorough investigation when available data indicate recurring parts failures. Such data is valuable and readily available to most manufacturers and, under this proposal it must be considered to determine whether or not there is a possible defect of an emission-related part.

Defect reports submitted in compliance with the current regulations are based on a single threshold applicable to engine families of all production volumes. No affirmative requirement for gathering information about the full extent of the problem was applicable. For very large volume engine families, the proposed approach may result in fewer total defect reports being submitted by manufacturers than the traditional approach because the

<sup>316</sup> Flexibility provisions such as our ABT program and the incentive program for early or very low emission engines may result in some engines that incorporate the advanced emission control technologies even later. However, we do not believe it is appropriate to adjust the in-use compliance levels for engines on which achieving the standard is delayed by manufacturer's choice, nor did we do so in our highway HDDE program.