

## Environmental Protection Agency

## § 92.204

(10) All test data obtained by the manufacturer or remanufacturer on each test engine or locomotive;

(11) The intended useful life period for the engine family, in accordance with § 92.9(a);

(12) The intended deterioration factors for the engine family, in accordance with § 92.9(b)(2);

(13) An unconditional statement certifying that all locomotives and engines included the engine family comply with all requirements of this part and the Clean Air Act.

(e) At the Administrator's request, the manufacturer or remanufacturer must supply such additional information as may be required to evaluate the application.

(f)(1) If the manufacturer or remanufacturer, submits some or all of the information specified in paragraph (d) of this section in advance of its full application for certification, the Administrator shall review the information and make the determinations required in § 92.208(d) within 90 days of the manufacturer's or remanufacturer's submittal.

(2) The 90-day decision period is exclusive of any elapsed time during which EPA is waiting for additional information requested from a manufacturer or remanufacturer regarding an adjustable parameter (the 90-day period resumes upon receipt of the manufacturer's or remanufacturer's response). For example, if EPA requests additional information 30 days after the manufacturer or remanufacturer submits information under paragraph (f)(1) of this section, then the Administrator would make a determination within 60 days of the receipt of the requested information from the manufacturer or remanufacturer.

(g)(1) The Administrator may modify the information submission requirements of paragraph (d) of this section, provided that all of the information specified therein is maintained by the manufacturer or remanufacturer as required by § 92.215, and amended, updated, or corrected as necessary.

(2) For the purposes of this paragraph (g), § 92.215 includes all information specified in paragraph (d) of this section whether or not such information

is actually submitted to the Administrator for any particular model year.

(3) The Administrator may review a manufacturer's or remanufacturer's records at any time. At the Administrator's discretion, this review may take place either at the manufacturer's or remanufacturer's facility or at another facility designated by the Administrator.

### § 92.204 Designation of engine families.

This section specifies the procedure and requirements for grouping of engines into engine families.

(a) Manufacturers and remanufacturers shall divide their locomotives and locomotive engines into groupings of locomotives and locomotive engines which are expected to have similar emission characteristics throughout their useful life. Each group shall be defined as a separate engine family.

(b) For Tier 1 and Tier 2 locomotives and locomotive engines, the following characteristics distinguish engine families:

(1) The combustion cycle (e.g., diesel cycle);

(2) The type of engine cooling employed (air-cooled or water-cooled), and procedure(s) employed to maintain engine temperature within desired limits (thermostat, on-off radiator fan(s), radiator shutters, etc.);

(3) The bore and stroke dimensions;

(4) The approximate intake and exhaust event timing and duration (valve or port);

(5) The location of the intake and exhaust valves (or ports);

(6) The size of the intake and exhaust valves (or ports);

(7) The overall injection, or as appropriate ignition, timing characteristics (i.e., the deviation of the timing curves from the optimal fuel economy timing curve must be similar in degree);

(8) The combustion chamber configuration and the surface-to-volume ratio of the combustion chamber when the piston is at top dead center position, using nominal combustion chamber dimensions;

(9) The location of the piston rings on the piston;

(10) The method of air aspiration (turbocharged, supercharged, naturally aspirated, Roots blown);

(11) The turbocharger or supercharger general performance characteristics (e.g., approximate boost pressure, approximate response time, approximate size relative to engine displacement);

(12) The type of air inlet cooler (air-to-air, air-to-liquid, approximate degree to which inlet air is cooled);

(13) The intake manifold induction port size and configuration;

(14) The type of fuel and fuel system configuration;

(15) The configuration of the fuel injectors and approximate injection pressure;

(16) The type of fuel injection system controls (i.e., mechanical or electronic);

(17) The type of smoke control system;

(18) The exhaust manifold port size and configuration; and

(19) The type of exhaust aftertreatment system (oxidation catalyst, particulate trap), and characteristics of the aftertreatment system (catalyst loading, converter size vs engine size).

(c) For Tier 0 locomotives and locomotive engines, the following characteristics distinguish engine families:

(1) The combustion cycle (e.g., diesel cycle);

(2) The type of engine cooling employed (air-cooled or water-cooled), and procedure(s) employed to maintain engine temperature within desired limits (thermostat, on-off radiator fan(s), radiator shutters, etc.);

(3) The approximate bore and stroke dimensions;

(4) The approximate location of the intake and exhaust valves (or ports);

(5) The combustion chamber general configuration and the approximate surface-to-volume ratio of the combustion chamber when the piston is at top dead center position, using nominal combustion chamber dimensions;

(6) The method of air aspiration (turbocharged, supercharged, naturally aspirated, Roots blown);

(7) The type of air inlet cooler (air-to-air, air-to-liquid, approximate degree to which inlet air is cooled);

(8) The type of fuel and general fuel system configuration;

(9) The general configuration of the fuel injectors and approximate injection pressure; and

(10) The fuel injection system control type (electronic or mechanical).

(d) Upon request by the manufacturer or remanufacturer, locomotives or locomotive engines that are eligible to be included in the same engine family based on the criteria in paragraph (b) or (c) of this section may be divided into different engine families. This request must be accompanied by information the manufacturer or remanufacturer believes supports the addition of these different engine families. For the purposes of determining whether an engine family is a small engine family in §92.603(a)(2), EPA will consider the number of locomotives or locomotive engines that could have been classed together under paragraph (b) or (c) of this section, instead of the number of locomotives or locomotive engines that are included in a subdivision allowed by this paragraph (d).

(e) Upon request by the manufacturer or remanufacturer, the Administrator may allow locomotives or locomotive engines that would be required to be grouped into separate engine families based on the criteria in paragraph (b) or (c) of this section to be grouped into a single engine family if the manufacturer or remanufacturer demonstrates that similar emission characteristics will occur. This request must be accompanied by emission information supporting the appropriateness of such combined engine families.

**§92.205 Prohibited controls, adjustable parameters.**

(a) Any system installed on, or incorporated in, a new locomotive or new locomotive engine to enable such locomotive or locomotive engine to conform to standards contained in this subpart:

(1) Shall not in its operation or function cause significant (as determined by the Administrator) emission into the ambient air of any noxious or toxic substance that would not be emitted in the operation of such locomotive, or locomotive engine, without such system, except as specifically permitted by regulation;