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;

(2) Shall not in its operation, function or malfunction result in any unsafe condition endangering the locomotive, its operators, riders or property on a train, or persons or property in close proximity to the locomotive; and

(3) Shall function during all in-use operation except as otherwise allowed by this part.

(b) In specifying the adjustable range of each adjustable parameter on a new locomotive or new locomotive engine, the manufacturer or remanufacturer, shall:

(1) Ensure that safe locomotive operating characteristics are available within that range, as required by section 202(a)(4) of the Clean Air Act, taking into consideration the production tolerances; and

(2) To the maximum extent practicable, limit the physical range of adjustability to that which is necessary for proper operation of the locomotive or locomotive engine.

### § 92.206 Required information.

(a) The manufacturer or remanufacturer shall perform the tests required by the applicable test procedures, and submit to the Administrator the information required by this section: Provided, however, that if requested by the manufacturer or remanufacturer, the Administrator may waive any requirement of this section for testing of locomotives, or locomotive engines, for which the required emission data are otherwise available.

(b) Exhaust emission deterioration factors, with supporting data. The determination of the deterioration factors shall be conducted in accordance with good engineering practice to assure that the locomotives or locomotive engines covered by a certificate issued under §92.208 will meet the emission standards in §92.8, in actual use for the useful life of the locomotive or locomotive engine.

(c) Emission data, including exhaust methane data in the case of locomotives or locomotive engines subject to a non-methane hydrocarbon standard, on such locomotives or locomotive engines tested in accordance with applicable test procedures of subpart B of this part. These data shall include zero hour data, if generated. In lieu of providing the emission data required by paragraph (a) of this section, the Administrator may, upon request of the manufacturer or remanufacturer, allow the manufacturer or remanufacturer to demonstrate (on the basis of previous emission tests, development tests, or other testing information) that the engine or locomotive will conform with the applicable emission standards of §92.8.

(d) A statement that the locomotives and locomotive engines, for which certification is requested conform to the requirements in §92.7, and that the descriptions of tests performed to ascertain compliance with the general standards in §92.7, and the data derived from such tests, are available to the Administrator upon request.

(e) A statement that the locomotive, or locomotive engine, with respect to which data are submitted to demonstrate compliance with the applicable standards of this subpart, is in all material respects as described in the manufacturer's or remanufacturer's application for certification; that it has been tested in accordance with the applicable test procedures utilizing the fuels and equipment described in the application for certification; and that on the basis of such tests, the engine family conforms to the requirements of this part. If, on the basis of the data supplied and any additional data as required by the Administrator, the Administrator determines that the test locomotive, or test engine, was not as described in the application for certification or was not tested in accordance with the applicable test procedures utilizing the fuels and equipment as described in the application for certification, the Administrator may make the determination that the locomotive, or engine, does not meet the applicable standards. If the Administrator makes