

(e) Subparts E, F, G, and H of this part specify requirements for manufacturers and remanufacturers after certification; that is during production and use of the locomotives and locomotive engines.

(f) Subpart I of this part contains requirements applicable to the importation of locomotives and locomotive engines.

(g) Subpart K of this part contains requirements applicable to the owners and operators of locomotives and locomotive engines.

(h) Subpart L of this part describes prohibited acts and contains other enforcement provisions relating to locomotives and locomotive engines.

(i) Unless specified otherwise, the provisions of this part apply to all locomotives and locomotive engines subject to the emission standards of this part.

§ 92.7 General standards.

(a) Locomotives and locomotive engines may not be equipped with defeat devices.

(b) New locomotives fueled with a volatile fuel shall be designed to minimize evaporative emissions during normal operation, including periods when the engine is shut down.

(c)(1) Locomotive hardware for refueling locomotives fueled with a volatile fuel shall be designed so as to minimize the escape of fuel vapors.

(2) Hoses used to refuel gaseous-fueled locomotives shall not be designed to be bled or vented to the atmosphere under normal operating conditions.

(3) No valves or pressure relief vents shall be used on gaseous-fueled locomotives except as emergency safety devices, and these shall not operate at normal system operating flows and pressures.

(d) All new locomotives and new locomotive engines subject to any of the standards imposed by this subpart shall, prior to sale, introduction into service, or return to service, be designed to include features that compensate for changes in altitude to ensure that the locomotives or locomotive engines will comply with the applicable emission standards when op-

erated at any altitude less than 7000 feet above sea level.

§ 92.8 Emission standards.

(a) *Exhaust standards.* Exhaust emissions from locomotives and locomotive engines, when measured in accordance with the provisions of Subpart B of this part, shall comply with both the applicable line-haul duty-cycle standards, and the applicable switch duty-cycle standards of paragraph (a)(1) (and/or the standards of paragraphs (a)(3) and (a)(4) of this section, as applicable) of this section, and the smoke standards of paragraph (a)(2) of this section. Emissions that do not exceed the standards comply with the standards.

(1) *Gaseous and particulate standards.* Gaseous and particulate emission standards are expressed as gram per brake horsepower hour (g/bhp-hr). Non-methane hydrocarbon standards apply to locomotives and locomotive engines fueled with natural gas, and any combination of natural gas and other fuels where natural gas is the primary fuel; total hydrocarbon equivalent standards apply to locomotives and locomotive engines fueled with an alcohol, and any combination of alcohol and other fuels where alcohol is the primary fuel. Total hydrocarbon standards apply to all other locomotives and locomotive engines; that is, those not fueled by natural gas or alcohol. The line-haul duty-cycle standards and switch duty-cycle standards apply to the respective cycle-weighted emission rates as calculated in subpart B of this part.

(i) *Tier 0.* The following locomotives (and the engines used in the following locomotives) are subject to the Tier 0 emission standards listed in Table A8-1 of this section: Locomotives manufactured on, or after, January 1, 1973, and before January 1, 2002; and upgraded locomotives manufactured prior to January 1, 1973. The standards apply when such a locomotive or locomotive engine is manufactured, remanufactured, or imported on or after January 1, 2002; except where the locomotive was previously certified to one or more FELs under subpart D of this part instead of the applicable standards, in which case, the applicable standards are replaced at each subsequent remanufacture by the FELs specified by