

(k) Diesel fuel shall not be transported on or with mantrips or on conveyor belts.

(l) Diesel fuel shall be stored and handled in accordance with the requirements of §§ 75.1902 through 75.1906 of this part as of November 25, 1997.

[61 FR 55527, Oct. 25, 1996, as amended at 63 FR 12647, Mar. 16, 1998]

§ 75.1907 Diesel-powered equipment intended for use in underground coal mines.

(a) As of November 25, 1996 all diesel-powered equipment used where permissible electrical equipment is required must be approved under part 36 of this chapter.

(b) Diesel-powered equipment approved under part 36 of this chapter must be provided with additional safety features in accordance with the following time schedule:

(1) As of April 25, 1997 the equipment must have a safety component system that limits surface temperatures to those specified in subpart F of part 7 of this title;

(2) As of November 25, 1999 the equipment must have an automatic or manual fire suppression system that meets the requirements of § 75.1911 of this part, and at least one portable multi-purpose dry chemical type (ABC) fire extinguisher, listed or approved by a nationally recognized independent testing laboratory and having a 10A:60B:C or higher rating. The fire extinguisher must be located within easy reach of the equipment operator and be protected from damage by collision.

(3) As of November 25, 1999 the equipment must have a brake system that meets the requirements of § 75.1909 (b)(6), (b)(7), (b)(8), (c), (d), and (e);

(4) As of November 25, 1997 a particulate index and dilution air quantity shall be determined for the equipment in accordance with subpart E of part 7 of this chapter; and

(5) Permissible diesel-powered equipment manufactured on or after November 25, 1999 and that is used in an underground coal mine shall incorporate a power package approved in accordance with part 7, subpart F of this chapter.

(c) As of November 25, 1999 non-permissible diesel-powered equipment,

except the special category of equipment under § 75.1908(d), shall meet the requirements of §§ 75.1909 and 75.1910 of this part.

§ 75.1908 Nonpermissible diesel-powered equipment; categories.

(a) Heavy-duty diesel-powered equipment includes—

(1) Equipment that cuts or moves rock or coal;

(2) Equipment that performs drilling or bolting functions;

(3) Equipment that moves longwall components;

(4) Self-propelled diesel fuel transportation units and self-propelled lube units; or

(5) Machines used to transport portable diesel fuel transportation units or portable lube units.

(b) Light-duty diesel-powered equipment is any diesel-powered equipment that does not meet the criteria of paragraph (a).

(c) For the purposes of this subpart, the following equipment is considered attended:

(1) Any machine or device operated by a miner; or

(2) Any machine or device that is mounted in the direct line of sight of a job site located within 500 feet of such machine or device, which job site is occupied by a miner.

(d) Diesel-powered ambulances and fire fighting equipment are a special category of equipment that may be used underground only in accordance with the mine fire fighting and evacuation plan under § 75.1502.

[61 FR 55527, Oct. 25, 1996; 70 FR 36347, June 23, 2005]

§ 75.1909 Nonpermissible diesel-powered equipment; design and performance requirements.

(a) Nonpermissible diesel-powered equipment, except for the special category of equipment under § 75.1908(d), must be equipped with the following features:

(1) An engine approved under subpart E of part 7 of this title equipped with an air filter sized in accordance with the engine manufacturer's recommendations, and an air filter service indicator set in accordance with the

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engine manufacturer's recommendations;

(2) At least one portable multipurpose dry chemical type (ABC) fire extinguisher listed or approved by a nationally recognized independent testing laboratory with a 10A:60B:C or higher rating. The fire extinguisher must be located within easy reach of the equipment operator and protected from damage;

(3) A fuel system specifically designed for diesel fuel meeting the following requirements:

(i) A fuel tank and fuel lines that do not leak;

(ii) A fuel tank that is substantially constructed and protected against damage by collision;

(iii) A vent opening that maintains atmospheric pressure in the fuel tank, and that is designed to prevent fuel from splashing out of the vent opening;

(iv) A self-closing filler cap on the fuel tank;

(v) The fuel tank, filler and vent must be located so that leaks or spillage during refueling will not contact hot surfaces;

(vi) Fuel line piping must be either steel-wire reinforced; synthetic elastomer-covered hose suitable for use with diesel fuel that has been tested and has been determined to be fire-resistant by the manufacturer; or metal;

(vii) Fuel line piping must be clamped;

(viii) Primary fuel lines must be located so that fuel line leaks do not contact hot surfaces;

(ix) The fuel lines must be separated from electrical wiring and protected from damage in ordinary use;

(x) A manual shutoff valve must be installed in the fuel system as close as practicable to the tank; and

(xi) A water separator and fuel filter(s) must be provided.

(4) A sensor to monitor the temperature and provide a visual warning of an overheated cylinder head on air-cooled engines;

(5) Guarding to protect fuel, hydraulic, and electric lines when such lines pass near rotating parts or in the event of shaft failure;

(6) Hydraulic tanks, fillers, vents, and lines located to prevent spillage or leaks from contacting hot surfaces;

(7) Reflectors or warning lights mounted on the equipment which can be readily seen in all directions;

(8) A means to direct exhaust gas away from the equipment operator, persons on board the machine, and combustible machine components;

(9) A means to prevent unintentional free and uncontrolled descent of personnel-elevating work platforms; and

(10) A means to prevent the spray from ruptured hydraulic or lubricating oil lines from being ignited by contact with engine exhaust system component surfaces.

(b) Self-propelled nonpermissible diesel-powered equipment must have the following features in addition to those in paragraph (a):

(1) A means to ensure that no stored hydraulic energy that will cause machine articulation is available after the engine is shut down;

(2) A neutral start feature which ensures that engine cranking torque will not be transmitted through the powertrain and cause machine movement on vehicles utilizing fluid power transmissions;

(3) For machines with steering wheels, brake pedals, and accelerator pedals, controls which are of automobile orientation;

(4) An audible warning device conveniently located near the equipment operator;

(5) Lights provided and maintained on both ends of the equipment. Equipment normally operated in both directions must be equipped with headlights for both directions;

(6) Service brakes that act on each wheel of the vehicle and that are designed such that failure of any single component, except the brake actuation pedal or other similar actuation device, must not result in a complete loss of service braking capability;

(7) Service brakes that safely bring the fully loaded vehicle to a complete stop on the maximum grade on which it is operated; and

(8) No device that traps a column of fluid to hold the brake in the applied position shall be installed in any brake system, unless the trapped column of fluid is released when the equipment operator is no longer in contact with the brake activation device.

(c) Self-propelled nonpermissible heavy-duty diesel-powered equipment under § 75.1908(a), except rail-mounted equipment, shall be provided with a supplemental braking system that:

(1) Engages automatically within 5 seconds of the shutdown of the engine;

(2) Safely brings the equipment when fully loaded to a complete stop on the maximum grade on which it is operated;

(3) Holds the equipment stationary, despite any contraction of brake parts, exhaustion of any nonmechanical source of energy, or leakage;

(4) Releases only by a manual control that does not operate any other equipment function;

(5) Has a means in the equipment operator's compartment to apply the brakes manually without shutting down the engine, and a means to release and reengage the brakes without the engine operating; and

(6) Has a means to ensure that the supplemental braking system is released before the equipment can be trammed, and is designed to ensure the brake is fully released at all times while the equipment is trammed.

(d) Self-propelled nonpermissible light-duty diesel-powered equipment under § 75.1908(b), except rail-mounted equipment, must be provided with a parking brake that holds the fully loaded equipment stationary on the maximum grade on which it is operated despite any contraction of the brake parts, exhaustion of any nonmechanical source of energy, or leakage.

(e) The supplemental and park brake systems required by paragraphs (c) and (d) must be applied when the equipment operator is not at the controls of the equipment, except during movement of disabled equipment.

(f) Self-propelled personnel-elevating work platforms must be provided with a means to ensure that the parking braking system is released before the equipment can be trammed, and must be designed to ensure the brake is fully released at all times while the equipment is trammed.

(g) Any nonpermissible equipment that discharges its exhaust directly into a return air course must be provided with a power package approved under subpart F of part 7 of this title.

(h) Self-propelled nonpermissible heavy-duty diesel-powered equipment meeting the requirements of § 75.1908(a) must be provided with an automatic fire suppression system meeting the requirements of § 75.1911.

(i) Self-propelled nonpermissible light-duty diesel-powered equipment meeting the requirements of § 75.1908(b) must be provided with an automatic or manual fire suppression system meeting the requirements of § 75.1911.

(j) Nonpermissible equipment that is not self-propelled must have the following features in addition to those listed in paragraph (a):

(1) A means to prevent inadvertent movement of the equipment when parked;

(2) Safety chains or other suitable secondary connections on equipment that is being towed; and

(3) An automatic fire suppression system meeting the requirements of § 75.1911.

[61 FR 55527, Oct. 25, 1996; 62 FR 34641, June 27, 1997]

§ 75.1910 Nonpermissible diesel-powered equipment; electrical system design and performance requirements.

Electrical circuits and components associated with or connected to electrical systems on nonpermissible diesel-powered equipment utilizing storage batteries and integral charging systems, except for the special category of equipment under § 75.1908(d), must conform to the following requirements:

(a) Overload and short circuit protection must be provided for electric circuits and components in accordance with §§ 75.518 and 75.518-1 of this part;

(b) Each electric conductor from the battery to the starting motor must be protected against short circuit by fuses or other circuit-interrupting devices placed as near as practicable to the battery terminals;

(c) Each branch circuit conductor connected to the main circuit between the battery and charging generator must be protected against short circuit by fuses or other automatic circuit-interrupting devices;

(d) The electrical system shall be equipped with a circuit-interrupting