

that are used only for storage of starting aids. Such metal enclosures must be conspicuously marked, secured, and protected from damage.

(c) Volatile fuel starting aids shall not be:

(1) Taken into or used in areas where permissible equipment is required;

(2) Used in the presence of open flames or burning flame safety lamps, or when welding or cutting is taking place; or

(3) Used in any area where 1.0 percent or greater concentration of methane is present.

(d) Compressed oxygen or compressed flammable gases shall not be connected to diesel air-start systems.

§ 75.1914 Maintenance of diesel-powered equipment.

(a) Diesel-powered equipment shall be maintained in approved and safe condition or removed from service.

(b) Maintenance and repairs of approved features and those features required by §§ 75.1909 and 75.1910 on diesel-powered equipment shall be made only by a person qualified under § 75.1915.

(c) The water scrubber system on diesel-powered equipment shall be drained and flushed, by a person who is trained to perform this task, at least once on each shift in which the equipment is operated.

(d) The intake air filter on diesel-powered equipment shall be replaced or serviced, by a person who is trained to perform this task, when the intake air pressure drop device so indicates or when the engine manufacturer's maximum allowable air pressure drop level is exceeded.

(e) Mobile diesel-powered equipment that is to be used during a shift shall be visually examined by the equipment operator before being placed in operation. Equipment defects affecting safety shall be reported promptly to the mine operator.

(f) All diesel-powered equipment shall be examined and tested weekly by a person qualified under § 75.1915.

(1) Examinations and tests shall be conducted in accordance with approved checklists and manufacturers' maintenance manuals.

(2) Persons performing weekly examinations and tests of diesel-powered

equipment under this paragraph shall make a record when the equipment is not in approved or safe condition. The record shall include the equipment that is not in approved or safe condition, the defect found, and the corrective action taken.

(g) Undiluted exhaust emissions of diesel engines in diesel-powered equipment approved under part 36 and heavy-duty nonpermissible diesel-powered equipment as defined in § 75.1908(a) in use in underground coal mines shall be tested and evaluated weekly by a person who is trained to perform this task. The mine operator shall develop and implement written standard operating procedures for such testing and evaluation that specify the following:

(1) The method of achieving a repeatable loaded engine operating condition for each type of equipment;

(2) Sampling and analytical methods (including calibration of instrumentation) that are capable of accurately detecting carbon monoxide in the expected concentrations;

(3) The method of evaluation and interpretation of the results;

(4) The concentration or changes in concentration of carbon monoxide that will indicate a change in engine performance. Carbon monoxide concentration shall not exceed 2500 parts per million; and

(5) The maintenance of records necessary to track engine performance.

(h) *Recordkeeping.* Records required by paragraphs (f)(2) and (g)(5) shall be—

(1) Recorded in a secure book that is not susceptible to alteration, or recorded electronically in a computer system that is secure and not susceptible to alteration; and

(2) Retained at a surface location at the mine for at least 1 year and made available for inspection by an authorized representative of the Secretary and by miners' representatives.

(i) Diesel-powered equipment must be maintained in accordance with this part as of November 25, 1997.

§ 75.1915 Training and qualification of persons working on diesel-powered equipment.

(a) To be qualified to perform maintenance, repairs, examinations and tests on diesel-powered equipment, as

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required by §75.1914, a person must successfully complete a training and qualification program that meets the requirements of this section. A person qualified to perform these tasks shall be retrained as necessary to maintain the ability to perform all assigned diesel-powered equipment maintenance, repairs, examinations and tests.

(b) A training and qualification program under this section must:

(1) Be presented by a competent instructor;

(2) Be sufficient to prepare or update a person's ability to perform all assigned tasks with respect to diesel-powered equipment maintenance, repairs, examinations and tests;

(3) Address, at a minimum, the following:

(i) The requirements of subpart T of this part;

(ii) Use of appropriate power package or machine checklists to conduct tests to ensure that diesel-powered equipment is in approved and safe condition, with acceptable emission levels;

(iii) Proper maintenance of approved features and the correct use of the appropriate maintenance manuals, including machine adjustments, service, and assembly;

(iv) Diesel-powered equipment fire suppression system tests and maintenance;

(v) Fire and ignition sources and their control or elimination, including cleaning of the equipment;

(vi) Safe fueling procedures and maintenance of the fuel system of the equipment; and

(vii) Intake air system maintenance and tests.

(4) Include an examination that requires demonstration of the ability to perform all assigned tasks with respect to diesel-powered equipment maintenance, repairs, examinations and tests; and

(5) Be in writing. The written program shall include a description of the course content, materials, and teaching methods for initial training and retraining.

(c) *Recordkeeping.* The operator shall maintain a copy of the training and qualification program required by this section and a record of the names of all persons qualified under the program.

(1) The record of the names of qualified persons shall be made in a manner that is not susceptible to alteration, or recorded electronically in a computer system that is secure and not susceptible to alteration.

(2) The training and qualification program and record of qualified persons are to be kept at surface location of the mine and made available for inspection by an authorized representative of the Secretary and by miners' representatives.

§75.1916 Operation of diesel-powered equipment.

(a) Diesel-powered equipment shall be operated at a speed that is consistent with the type of equipment being operated, roadway conditions, grades, clearances, visibility, and other traffic.

(b) Operators of mobile diesel-powered equipment shall maintain full control of the equipment while it is in motion.

(c) Standardized traffic rules, including speed limits, signals and warning signs, shall be established at each mine and followed.

(d) Except as required in normal mining operations, mobile diesel-powered equipment shall not be idled.

(e) Diesel-powered equipment shall not be operated unattended.

PART 77—MANDATORY SAFETY STANDARDS, SURFACE COAL MINES AND SURFACE WORK AREAS OF UNDERGROUND COAL MINES

Subpart A—General

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77.1 Scope.

77.2 Definitions.

Subpart B—Qualified and Certified Persons

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77.102 Tests for methane; oxygen deficiency; qualified person, additional requirement.

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