

THE GENERAL ASSEMBLY OF PENNSYLVANIA

HOUSE BILL

No. 2452 Session of
2002

INTRODUCED BY S. H. SMITH, DeWEESE, COLEMAN, ALLEN, ARGALL,
BARD, BASTIAN, BEBKO-JONES, BELFANTI, CAPPELLI, CLYMER,
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R. STEVENSON, J. TAYLOR, THOMAS, TRELLO, WANSACZ, WOJNAROSKI,
YOUNGBLOOD AND YUDICHAK, MARCH 26, 2002

REFERRED TO COMMITTEE ON ENVIRONMENTAL RESOURCES AND ENERGY,
MARCH 26, 2002

AN ACT

1 Amending the act of July 17, 1961 (P.L.659, No.339), entitled
2 "An act relating to bituminous coal mines; amending,
3 revising, consolidating and changing the laws relating
4 thereto; providing for the health and safety of persons
5 employed in and about the bituminous coal mines of
6 Pennsylvania and for the protection and preservation of
7 property connected therewith; prescribing powers and duties
8 in connection therewith; prescribing penalties; and repealing
9 existing laws," further providing for underground use, for
10 exhaust emissions controls, for ventilation, for fuel storage
11 facilities, for containers, for fueling, for certain records,
12 for scheduled maintenance, for emissions monitoring and
13 control, for diagnostic testing and for Technical Advisory
14 Committee on Diesel Powered Equipment.

15 The General Assembly of the Commonwealth of Pennsylvania
16 hereby enacts as follows:

17 Section 1. Sections 201-A(c), 203-A(a)(1), (b)(1) and (4)
18 and (d), 204-A(d), 205-A(a), (b), (c), (d) and (e)(1) and (2),
19 207-A(g), 211-A(a), 214-A(f) and 216-A(5) of the act of July 17,

1 1961 (P.L.659, No.339), known as the Pennsylvania Bituminous
2 Coal Mine Act, added December 19, 1996 (P.L.1414, No.182), are
3 amended to read:

4 Section 201-A. Underground Use.--* * *

5 (c) Inby and outby diesel-powered equipment may be used in
6 underground mines if the inby or outby diesel-powered equipment
7 uses an engine approved or certified by MSHA, as applicable, for
8 inby or outby use that, when tested at the maximum fuel-air
9 ratio, does not require an MSHA Part 7 approval plate
10 ventilation rate exceeding [150] 75 c.f.m. per rated horsepower.
11 Should MSHA promulgate new regulations that change the MSHA Part
12 7 approval plate ventilation rate, the c.f.m. requirement per
13 rated horsepower shall be revised either up or down on a direct
14 ratio basis upon recommendation of the advisory committee in
15 accordance with section 224-A. The secretary shall publish the
16 revision as a notice in the Pennsylvania Bulletin.

17 Section 203-A. Exhaust Emissions Control.--(a) (1)
18 Underground diesel-powered equipment shall include an exhaust
19 emissions control and conditioning system that has been
20 laboratory tested with the diesel engine, except as provided in
21 paragraph (3), using the ISO 8178-1 test and has resulted in
22 diesel particulate matter emissions that do not exceed an
23 average concentration of 0.12 mg over m to the third power when
24 diluted by [fifty] one hundred per cent of the MSHA Part 7
25 approval plate ventilation rate for that diesel engine. Should
26 MSHA promulgate new regulations that change the MSHA Part 7
27 approval plate ventilation rate, the dilution percentage
28 relative to the approval plate ventilation rate shall be revised
29 either up or down on a direct ratio basis upon recommendation of
30 the advisory committee in accordance with section 224-A. The

1 secretary shall publish the revision as a notice in the
2 Pennsylvania Bulletin.

3 * * *

4 (b) The exhaust emissions control and conditioning system
5 shall include the following:

6 (1) A diesel particulate matter (DPM) filter that has proven
7 capable of [an average of ninety-five per cent or greater] at
8 least a seventy-five per cent reduction of [DPM emissions]
9 diesel particulate matter.

10 * * *

11 (4) A [heat exchanger] system capable of reducing the
12 exhaust gas temperature below three hundred two degrees
13 Fahrenheit.

14 * * *

15 [(d) The DPEP shall include a quality control plan for
16 assuring that the diesel fuel used shall be a low volatile
17 hydrocarbon fuel classified as ASTM D975 fuel with a cetane
18 index of at least 45, a maximum aromatic content of thirty-five
19 per cent, a sulfur mass of less than five hundredths of one per
20 cent and a flash point of one hundred degrees Fahrenheit or
21 greater at standard temperature and pressure.]

22 Section 204-A. Ventilation.--* * *

23 (d) Where multiple units are operated, the minimum quantity
24 shall be at least one hundred per cent of [the highest] MSHA's
25 Part 7 approval plate [air quantity plus seventy-five per cent
26 of the next highest quantity plus fifty per cent of the approval
27 plate quantity of] quantities for each [additional] unit
28 operating in that split. Air quantity measurements to determine
29 compliance with this requirement shall be made at the most
30 downwind unit of diesel-powered equipment that is being operated

1 in that air split. Should MSHA promulgate new regulations that
2 change the MSHA Part 7 approval plate ventilation rate, the
3 minimum quantity where multiple units are operated shall be
4 revised on a direct ratio basis upon recommendation of the
5 advisory committee in accordance with section 224-A. The
6 secretary shall publish the revision as a notice in the
7 Pennsylvania Bulletin.

8 * * *

9 Section 205-A. Fuel Storage Facilities.--(a) [A mobile] An
10 underground diesel fuel storage facility shall be any facility
11 designed and constructed to provide for the [temporary] storage
12 of any mobile diesel fuel transportation units or the dispensing
13 of diesel fuel.

14 (b) Diesel-powered equipment shall be used underground only
15 with [low volatile hydrocarbon fuel classified as ASTM D975
16 diesel fuel with a cetane index of at least 45, a maximum
17 aromatic content of thirty-five per cent, a sulfur mass of less
18 than five hundredths of one per cent and a flash point of one
19 hundred degrees Fahrenheit or greater at standard temperature
20 and pressure.] fuel that meets the standards of the most
21 recently approved EPA guidelines for over-the-road fuel.
22 Additionally, the fuel shall also meet the ASTM D975 fuel
23 standards with a flash point of one hundred degrees Fahrenheit
24 or greater at standard temperature and pressure. The operator
25 shall maintain a copy of the most recent delivery receipt from
26 the supplier that will prove that the fuel used underground
27 meets the standard listed above.

28 (c) Underground diesel fuel storage facilities shall meet
29 the following general requirements:

30 (1) Fixed underground diesel fuel storage [facilities] tanks

1 are prohibited.

2 (2) No more than five hundred gallons of diesel fuel shall
3 be stored in each [mobile] underground diesel fuel storage
4 facility.

5 (d) [Mobile underground] Underground diesel fuel storage
6 facilities shall be located as follows:

7 (1) at least one hundred feet from shafts, slopes, shops and
8 explosives magazines;

9 (2) at least twenty-five feet from trolley wires, haulage
10 ways, power cables and electric equipment not necessary for the
11 operation of the storage facilities; and

12 (3) in an area that is as dry as practicable.

13 (e) (1) [Mobile underground] Underground diesel fuel
14 storage facilities shall meet the construction requirements and
15 safety precautions enumerated in this subsection.

16 (2) [Mobile underground] Underground diesel fuel storage
17 facilities shall meet all of the following:

18 (i) Be constructed of noncombustible materials and provided
19 with [a means for automatic enclosure.] either self-closing or
20 automatic-closing doors.

21 (ii) Be ventilated directly into the return air course using
22 noncombustible materials.

23 (iii) Be equipped with an automatic fire suppression system
24 complying with section 209-A. The advisory committee may
25 recommend for approval an alternate method of complying with
26 this section on a mine-by-mine basis in accordance with section
27 224-A.

28 (iv) Be equipped with at least two portable twenty-pound
29 multipurpose dry-chemical type fire extinguishers.

30 (v) Be marked with conspicuous signs designating combustible

1 liquid storage.

2 (vi) Be included in the pre-shift examination.

3 * * *

4 Section 207-A. Containers.--* * *

5 (g) Containers, other than safety cans, used for the
6 transport of diesel fuel shall be permanently fixed to the
7 transportation unit[.], provided, however, that the advisory
8 committee may develop criteria on a mine-by-mine basis, in
9 accordance with section 224-A, that allows for approved diesel
10 fuel transportation units to be transported on or by a secondary
11 transportation unit to their respective work areas.

12 * * *

13 Section 211-A. Fueling.--(a) Fueling of diesel-powered
14 equipment shall not be conducted in the intake escapeway unless
15 the mine design and entry configuration make it necessary. In
16 those cases where fueling in the intake escapeway is necessary,
17 the mine operator shall submit a plan for approval to the
18 department outlining the special safety precautions that will be
19 taken to insure the protection of miners. Such plan shall
20 specify a fixed location, such as end-of-the-tail track or
21 adjacent to the load out point, where fueling will be conducted
22 in the intake escapeway and all other safety precautions that
23 will be taken, which shall include an examination of the area
24 for spillage or fire by a qualified person.

25 * * *

26 Section 214-A. Records.--* * *

27 (f) Records of emissions tests, one hundred-hour maintenance
28 tests and repairs shall be countersigned once each week by the
29 certified mine electrician [and] or mine foreman.

30 * * *

1 Section 216-A. Scheduled Maintenance.--At intervals not
2 exceeding one hundred hours of engine operation, a qualified
3 mechanic shall perform the following maintenance and make all
4 necessary adjustments or repairs or remove the equipment from
5 service:

6 * * *

7 (5) Replace engine oil and [oil] filter. The advisory
8 committee in accordance with section 224-A may recommend a
9 replacement interval greater than one hundred hours.

10 * * *

11 Section 2. Section 217-A(b) of the act, added December 19,
12 1996 (P.L.1414, No.182), is amended and the section is amended
13 by adding a subsection to read:

14 Section 217-A. Emissions Monitoring and Control.--* * *

15 (b) When any diesel-powered machine first enters service at a
16 mine, baseline emission values shall be determined by a
17 qualified mechanic. [The] Unless the advisory committee in
18 accordance with section 224-A recommends an alternate procedure,
19 the qualified mechanic shall:

20 (1) Verify that the seal on the engine fuel injector is in
21 place and that the proper fuel pump is on the equipment.

22 (2) Install a new clean intake air cleaner, measure and
23 record the intake restriction pressure.

24 (3) Check the level of engine oil.

25 (4) Change the engine lubrication oil if not fresh.

26 (5) Check the level of the transmission fluid.

27 (6) Flush the exhaust system [and install a new diesel
28 particulate filter] if needed, measure and record the exhaust
29 back pressure. If exhaust gas back pressure is above that
30 recommended by the manufacturer, the qualified mechanic shall

1 take steps to bring the exhaust gas back pressure within the
2 manufacturer's recommended limit prior to beginning the test
3 described in this section.

4 (7) Test the brakes.

5 (8) Place the equipment into an intake entry.

6 (9) Set the brakes and chock the wheels.

7 (10) Install the portable carbon monoxide (CO) sampling
8 devise into the untreated exhaust gas coupling provided in the
9 operator's cab.

10 (11) Start the engine and allow it to warm up to operating
11 temperature.

12 (12) For mobile equipment, shift into [second] the highest
13 gear and put the engine at full throttle, or for stationary
14 equipment, induce a load and put the engine at full throttle.

15 (13) Start the CO sampler and measure and record CO levels
16 every minute for five minutes.

17 (14) Comply with recordkeeping requirements pursuant to
18 section 214-A.

19 (c) An alternative to the testing provided in subsection (b)
20 may be developed by the advisory committee in accordance with
21 section 224-A.

22 Section 3. Sections 218-A and 224-A(d) of the act, added
23 December 19, 1996 (P.L.1414, No.182), are amended to read:

24 Section 218-A. Diagnostic Testing.--(a) At intervals not
25 exceeding once every one hundred hours of engine operation, a
26 qualified mechanic shall perform equipment maintenance
27 diagnostic testing of each piece of diesel-powered equipment in
28 the mine. The qualified mechanic shall:

29 (1) verify the identification numbers on the equipment;

30 (2) check the level of the engine lubricating oil;

1 (3) check the level of the transmission fluid;

2 (4) set the brakes and chock the wheels;

3 (5) install the portable CO sampling device into the

4 untreated exhaust port coupling provided in the operator's cab;

5 (6) start the engine and allow it to warm up to operating

6 temperature;

7 (7) check the intake restriction and the exhaust back

8 pressure at high idle speed;

9 (8) if the intake restriction is more than the

10 manufacturer's maximum recommended intake restriction, replace

11 the intake filter with a clean one;

12 (9) if the exhaust back pressure is more than the

13 manufacturer's maximum recommended exhaust back pressure,

14 replace the diesel particulate filter with a clean one and/or

15 clean out the heat exchanger;

16 (10) for mobile equipment, shift into [second] the highest

17 gear and put the engine at full throttle, or for stationary

18 equipment, induce a load and put engine at full throttle;

19 (11) start the CO sampler and record CO levels every minute

20 for five minutes;

21 (12) install the portable CO sampling device into the

22 treated exhaust port coupling provided in the operator's cab and

23 repeat steps (10) and (11);

24 (13) if the average CO reading for untreated exhaust gas is

25 greater than twice the baseline established under section 217-

26 A(b) or if the average CO reading for treated exhaust gas is

27 greater than 100 ppm, the equipment has failed and must be

28 serviced and retested before it is returned to regular service;

29 and

30 (14) comply with recordkeeping requirements pursuant to

1 section 214-A.

2 (b) An alternative to the testing provided in subsection (a)
3 may be developed by the advisory committee in accordance with
4 section 224-A.

5 Section 224-A. Advisory committee on Diesel-Powered
6 Equipment.--* * *

7 (d) Members of the advisory committee shall be compensated
8 on a per diem basis of one hundred fifty dollars (\$150) per day
9 plus all reasonable expenses incurred while performing their
10 official duties. Such compensation shall be adjusted annually by
11 the department to account for inflation since February 17, 1997,
12 based on the rate of inflation identified by the Consumer Price
13 Index published by the United States Department of Labor. The
14 secretary shall publish the annual adjustment as a notice in the
15 Pennsylvania Bulletin.

16 * * *

17 Section 4. This act shall take effect in 60 days.