Pennsylvania Mining Laws
Diesel Regulations
Section 404 to Section 406

1. Each specific model of diesel powered equipment shall be approved by the department before it is taken underground. The department shall require that an approval plate be affixed to each piece of the approved diesel powered equipment. This plate shall specify:

a. The primary purpose of the equipment
b. The date the current a approval expires
c. The minimum amount of ventilation required before the equipment is used
d. All of the above

2. Before utilizing the diesel powered equipment, an air reading must be made at the equipment to verify that there is enough ventilation for it to run.

a. True
b. False

3. If there are 2 pieces of diesel equipment at work in the same split, and each unit requires 7500 cfm of air for it to run legally, the minimum amount of air required for the 2 units to run in the same split is:

a. 7,500 cfm
b. 9,000 cfm
c. 15,000 cfm
d. Enough ventilation to render harmless all noxious gases

4. If there are two pieces of diesel equipment running in the same split of air, the air reading shall be taken:

a. Immediately down-wind of each piece of equipment
b. Immediately inby the most inby piece of diesel equipment
c. At the beginning of the split
d. At the return regulator of that split

5. If MSHA promulgates new regulations that change the MSHA Part 7 approval plate ventilation rate, the minimum quantity where multiple units are operated shall be revised on a direct ratio basis upon recommendation of:

a. NIOSH
b. MSHA's Technical Support Staff
c. The Department's technical advisory committee
d. No changes need to be made

6. Diesel powered equipment shall be used underground only with fuel that meets the standards of:

a. EPA guidelines for over-the-road fuel
b. The Department of Environmental Protection guidelines for diesel fuel
c. National guidelines for all diesel fuel
d. Any fuel can be used. The equipment is being used underground

7. The department requires the submission and approval of a mine diesel ventilation plan for any mine that uses diesel equipment underground.

a. True
b. False

8. The minimum flash point for any diesel fuel used underground shall be: (ASTM D975 standards)

a. 100 degrees Fahrenheit or greater
b. 100 degrees Centigrade
c. 302 degrees Fahrenheit
d. A minimum flash point temperature is not required

9. How can the operator prove that the fuel he uses underground meets the ASTM standards?

a. He must physically test each load of fuel he gets at the mine site
b. He must produce the name of the supplier to the department in order that the department can contact them for verification
c. The operator must maintain a copy of the most recent delivery slip which verifies that the fuel meets the standard
d. MSHA regulates the fuel quality, not the department

10. Fixed underground diesel fuel storage tanks are permitted by the department.

a. True
b. False

11. No more than _____ gallons of diesel fuel shall be stored in each underground diesel fuel storage facility.

a. 275
b. 500
c. 550
d. 1,000

12. Underground diesel fuel storage facilities shall be located:

a. At least 100 feet from shafts, slopes, shops and explosive magazines
b. At least 25 feet from trolley lines
c. In an area that is as dry as practicable
d. All of the above

13. Underground diesel fuel storage facilities shall be constructed of combustible materials and be provided with self closing or automatic closing doors.

a. True
b. False

14. All underground diesel fuel storage facilities shall be equipped with a fire suppression system.

a. True
b. False

15. The technical advisory committee has the power to approve any alternate means of fire protection at diesel fuel storage facilities on a mine to mine basis.

a. True
b. False

16. Each underground diesel fuel storage facility shall be equipped with:

a. At least 2 ten pound chemical fire extinguishers
b. At least 2 twenty pound chemical fire extinguishers
c. At least 2 twenty pound conventional fire extinguishers
d. 240 pounds of rock dust

17. Each diesel fuel storage facility shall be marked with conspicuous signs designating:

a. No Smoking
b. No explosives allowed in the area
c. Combustible liquids stored here
d. Authorized personnel only

18. Welding or cutting shall not be performed within _____ of the underground diesel fuel storage area.

a. 25 feet
b. 50 feet
c. 100 feet
d. Welding and cutting is permitted in the storage facility provided that certain precautions are addressed.

19. Cutting or welding on tanks that have previously contained flammable liquids is permitted, providing that certain conditions are addressed.

a. True
b. False

20. When diesel fuel is transferred by means of a pump and a hose equipped with a nozzle containing a self-closing valve, a powered pump may be used only if:

a. The hose is equipped with a nozzle containing a self-closing valve without a latch-open device
b. The pump is equipped with an accessible emergency shut-off switch
c. Both a and b
d. Neither a nor b

21. Diesel fuel can be transferred using compressed gas.

a. True
b. False

22. Because the machine is diesel-powered, the machine operator is permitted to transfer fuel to the equipment's fuel tank while the machine is running.

a. True
b. False

23. Diesel fuel piping systems shall be designed and operated as dry systems.

a. True
b. False

24. All piping, valves and fittings used in the transfer of diesel shall be capable of withstanding:

a. Twice the static pressure
b. Four times the static pressure
c. Five times the static pressure
d. Eight times the static pressure

25. Vertical pipelines for supplying fuel to underground diesel fuel storage areas are permitted, provided that they are equipped with:

a. Check valves on the surface and at the underground storage facility
b. Manual shut off valves on the surface and the underground storage facility
c. Automatic shut off valves located on the surface and the underground storage facility
d. Vertical pipelines are not permitted for supplying fuel to underground diesel fuel storage facilities

26. Unburied diesel fuel pipelines shall not exceed _____ in length and shall have shut off valves located at each end of the unburied pipeline.

a. 125 feet
b. 250 feet
c. 300 feet
d. 600 feet

27. Horizontal pipelines are permitted to distribute fuel throughout a mine.

a. True
b. False

28. Diesel fuel pipelines from the surface can be used to transport fuel to more than one underground diesel fuel transfer point.

a. True
b. False

29. The same borehole from the surface can be used for electrical cables and diesel fuel lines.

a. True
b. False

30. Diesel fuel pipelines can be located in any shaft, provided that they are included as part of the required examination of the shaft.

a. True
b. False

31. Diesel fuel lines can be located on the same side of the entry as power lines, provided that extra care is made in its installation.

a. True
b. False

32. Diesel fuel pipelines shall not be located in any trolley entry, except in instances that it cross the entry perpendicular and buried in that entry.

a. True
b. False