Pennsylvania Mining Laws
Diesel Regulations
Section 416 to Section 420

1. At intervals not to exceed 100 hours, a _____ mechanic shall perform maintenance and make necessary adjustments to all diesel equipment.

a. Certified
b. Qualified
c. Knowledgeable
d. Factory trained diesel mechanic

2. All diesel powered equipment shall be steam-cleaned as part of the 100 hour maintenance schedule.

a. True
b. False

3. If any diesel powered equipment is approved with a nondisposable diesel particulate filter, a _____ test of the filtered exhaust must be done at 100 hour intervals.

a. Chemical analysis
b. Water board
c. Smoke tube
d. Smoke dot

4. When any diesel powered equipment first enters service at any mine, _____ shall be determined by a qualified mechanic.

a. The motor hours
b. Baseline emission value
c. The quality of the re-build
d. Validity of the pre-recorded maintenance schedule

5. As part of the diagnostic testing required by Section 418, the qualified mechanic must measure and record the exhaust back pressure of the diesel motor he is examining. It is in compliance if the:

a. Back pressure is above that which is recommended by the manufacturer
b. Back pressure is below that which is recommended by the manufacturer
c. Exhaust is free of visible contaminants
d. There is no right answer for this question

6. When the qualified mechanic uses the exhaust gas analyzer to determine is the CO levels are acceptable, he must run the motor for a time of not more than _____ to insure that he is getting the proper readings.

a. 60 seconds
b. 90 seconds
c. Two minutes
d. Three minutes

7. Baseline CO levels for all diesel motors in operation underground shall be determined by:

a. The manufacturer
b. MSHA lug curve readings
c. The Technical Advisory Committee
d. The Environmental Protection Agency (EPA)

8. If the baseline levels for all diesel motors used underground exceed the recommendations, the _____ shall investigate and either recommend approval or disapproval or recommend alternate methods of meeting the requirements of this section.

a. The manufacturer
b. MSHA tech support
c. The technical advisory committee
d. The environmental protection agency (EPA)

9. An alternate method for exhaust emissions testing may be developed may be developed by the technical advisorv committee.

a. True
b. False

10. At intervals not exceeding once every _____ of engine operation, a qualified mechanic shall perform equipment maintenance diagnostic testing of each piece of diesel powered equipment in the mine.

a. 100 hours
b. 1,000 hours
c. Week
d. Month

11. When diagnostic testing diesel powered equipment, if the average CO reading for untreated exhaust gas is _____ the baseline established, or if the average CO reading for treated exhaust gas is greater than _____ ppm, the equipment has failed the test and is removed from service until it can meet the standard.

a. Greater than, 100
b. Less than, 50
c. Less than, 100
d. More than twice than, 100

12. In monitoring and controlling exhaust gases, the ambient concentration of exhaust gases in the mine atmosphere shall not exceed _____ ppm of CO and 3 ppm of nitrogen dioxide.

a.10
b.35
c.50
d.100

13. When testing the quality of the mine atmosphere, the test shall be made:

a. At the equipment operator's position
b. At the equipment attendant's position
c. By the last piece of diesel equipment in the split
d. All of the above

14. When testing the quality of the mine atmosphere, the test shall be made:

a. Each shift
b. Daily
c. Weekly
d. Monthly

15. If the concentration of a gas is at least _____ of its exposure limit, changes to the use of the diesel equipment, the mine ventilation, or the mining process shall be made.

a. 10%
b. 25%
c. 50%
d. 75%