**Section 220.230 Health and Safety Rules Applicable to Underground Coal Mines**

This Section sets forth mandatory health and safety standards applicable to underground coal mines. This Section complements the specific provisions of the Coal Mining Act of 1953, as amended, and in no way limit or diminish the applicability of that law to underground coal mines. In adopting this Section, the Mining Board and the Director have adhered to the statutory standards affecting the adoption of and promulgation of health and safety rules, including, but not limited to, Section 2.12 of the Coal Mining Act of 1953 [225 ILCS 705/2.12], as amended, and the Rules of Procedure in Administrative Proceedings (62 Ill. Adm. Code 100) in the Department of Natural Resources (Department) before the Mining Board.

a) Submission of plan where coal is broken down by compressed air.

In each mine where coal is "broken down" by compressed air, a plan describing the means by which coal is to be "broken down" shall be submitted to the Mining Board for the Board's retention and file. Nothing in this Section shall be construed to require approval of such plan by the Mining Board.

b) Submission of fan stoppage plan.

Each operator of an underground mine shall submit the fan stoppage plan required by the Mine Safety and Health Administration to the Mining Board for the Board's retention and file. Nothing in this Section shall be construed to require approval of such plan by the Mining Board.

c) Hoisting of persons; stationing of competent persons.

At every shaft and/or slope where persons are hoisted or lowered, the operator shall station a competent person at the top and at the bottom of such shaft and/or slope who shall attend to signals, and be empowered to preserve order and enforce the rules governing the carriage of persons on means of conveyance. The top person and bottom person shall be at their respective posts of duty a sufficient length of time before the shift begins in the morning and after the shift ends for the day to properly perform their duties as provided for in this Section. Cagers and alternates should be trained or instructed as to duties and signals. No operator shall use persons not familiar with caging procedures.

d) Uniform daily inspection of hoists.

Procedures shall be adopted for the uniform daily inspection of all electric hoists, cages, guides, and other equipment associated with the hoisting and lowering of men.

e) Communications between coal-producing sections and the surface.

A means of communication from each coal-producing section to the surface shall be maintained at all times while coal is being mined. No coal shall be produced nor shall any face equipment be operated on such section while there is an interruption in that communication. An interruption in the communication from one (1) coal-producing section to the surface shall not prohibit the production of coal on any other coal-producing section or area of the mine. Nothing in this Section shall preclude work other than the production of coal during the time that the communication system is interrupted.

f) State mine inspectors; notification of miners' representative prior to inspection and posting of findings and recommendations.

On each visit to the mine, the State Mine Inspector shall notify a representative of the miners that he is there to make an inspection so that the miners' representatives may accompany him if they so desire. Following each inspection, the inspector shall meet with management and representatives of the miners at the request of either or both of them to discuss his findings and recommendations. His findings and recommendations together with the time provided to comply shall be posted in a conspicuous place following each inspection. The length of time to comply will be based upon the nature and severity of the infraction(s) noted.

g) Standards for Diesel Engines in Underground Coal Mines.

The following rules govern the operation of diesel equipment in underground coal mines. In addition to these rules, compliance with 30 CFR 31, 32, and 36 (1983) as pertaining to the operation and maintenance of diesel equipment is required.

1)

A) Before operating any diesel equipment in an underground mine, the operator must submit to the Department of Natural Resources a mining plan amendment which shall contain a ventilation plan stating the quantity of air in the areas where the diesel equipment will be operating and the number of diesel units which the mine operator plans to operate. An operator must meet also the quantity of air requirements of Section 31.02 of the Coal Mining Act of 1953. This plan must also contain the projected quantities of diesel fuel to be used in a 24-hour period. The State Mine Inspector shall adjust the quantity of diesel fuel allowed in the mine in accordance with Sections (11) and (12) herein by submitting such adjustment in writing to the Department.

B) No diesel equipment shall be placed in initial operation underground until it is checked for approval in accordance with Sections (2) and (10) herein and tested in accordance with Sections (3) and (4) herein by the State Mine Inspector for the district in which the mine is located. The State Mine Inspector shall submit to the Department, in writing, the mine operator's name, type of equipment, serial number and Mine Safety and Health Administration (MSHA) certification number.

C)

i) To amend a mining plan to include the use of diesel equipment in underground coal mines, an operator must submit a request for a mining plan amendment to the Mining Board. Upon receipt of that request, the State Mine Inspector shall test the mine in which the equipment is proposed to be used to insure that sufficient ventilation exists to comply with this rule.

ii) The State Mine Inspector shall test the diesel equipment which is proposed to be used in the mine prior to its installation for compliance with this rule. If this equipment meets the requirements of this rule, it shall be installed in the mine in which it is to be operated and tested again by the State Mine Inspector to insure it complies with the requirements of this rule. This equipment may not be operated until such time as its use is approved by the Mining Board.

iii) The State Mine Inspector shall provide a written report of the results of the testing of the equipment to the Mining Board. Within 10 days of receipt of the State Mine Inspector's report, the Mining Board shall approve or disapprove the operator's request. Within 10 days of such action, the Mining Board shall notify the operator of its decision. A denial of the operator's request shall be accompanied by a statement of reasons for the denial.

2) All diesel equipment operated inby the last open crosscut and in return air courses shall be permissible and shall be maintained and operated in a permissible condition as defined by 30 CFR 31 and 36 (1983). "Permissible", as used herein, shall mean diesel equipment which will not cause an underground ignition if an explosive mixture of gas is present and this piece of diesel equipment is operated in the presence of this explosive mixture of gas.

3) The quantity of ventilating air maintained in the last open crosscut where multiple diesel units are operating in a working section shall be at least 100 percent of the air quantity specified on the approval plate of the first diesel unit (the unit requiring the highest air quantity on its approval plate), plus 75 percent of the approved plate air quantity of the second diesel unit (next highest air quantity), plus 50 percent of the approval plate air quantity of each additional diesel unit operating in that split of air.

4) Air quality in which diesel equipment is operated shall be sampled to determine if the composition of the air is within safe limits with respect to CO, NO, and NO2@.equal to or less than the following values:

|  |  |
| --- | --- |
| TWA |  |
| Carbon Monoxide (CO) | 50 ppm |
| Nitrogen Dioxide (NO2@) | 3 ppm |
| Nitric Oxide (NO) | 35 ppm |

(Reference: 30 CFR 75.301-2 MSHA and Threshold Limit Values for Chemical Substances in Work Air adopted by American Conference of Government and Industrial Hygienists, 1982)

5) Air quality measurements for face equipment shall be taken in the operator compartment of the diesel equipment at a point where the air current exists the last open crosscut. Measurements must comply with Section (4) above.

6) Air quality measurements shall also be taken in the immediate return from each working section, while all units of diesel equipment being employed in that Section during the shift are operating. Measurements must comply with Section (4) above.

7) The measurements required in Sections (5) and (6) shall be made no less than twice a shift in mines and working sections employing diesel engines for the first time. After 500 hours of operating time has been accumulated in compliance with Sections (5), (6) and (7), the measurement frequency shall be reduced to once a week for the air quality measurements in the operator's compartment (Section (5)) and once per shift for air quality measurements in the immediate returns (Section (6)).

8)

A) Air quality measurements shall be taken by one of the following recognized methods:

i) gas concentration indicator tubes;

ii) vacuum bottle sample and subsequent analysis; or

iii) direct readout instruments which the Mine Safety and Health Administration has certified under 30 CFR 75.303-1, 75.303-2 (1985).

B) These testers shall be provided and maintained by the mine operators.

9) All tests shall be made by a competent person and the results of these tests shall be permanently recorded and kept in a place at the mine accessible to federal or state mine inspectors or officials, mine employees, or mine employee's representatives. These records shall be made available for inspection during the hours the mine's offices are open to the public. "Competent person" as used herein and in Section (14) below, shall mean a person trained by an instructor certified by MSHA under 30 CFR 48.3(h) (1985) or the Department to provide such training.

10) Air quality for outby diesel equipment shall meet the standards provided in 30 CFR 32 (1983) as that section pertains to mobile powered diesel equipment.

11) Diesel fuel storage and handling in a working section shall comply with the following:

A) Only one diesel fuel center will be allowed to be in permanent residence.

B) The diesel fuel center may be stored in combination with and/or in the same area as hydraulic oil, lubricating oil greases.

C) At least two approved ABC fire extinguishers will be available at the storage area.

D) The storage area shall be vented directly to the returns.

E) Storage shall be limited to a typical 24-hour supply for a given working section or not to exceed 500 gallons.

12) Diesel fuel storage for the mine shall comply with the following:

A) The underground storage area shall be vented directly to the returns.

B) At least two 150 lb. approved ABC type fire extinguishers and no less than 200 lbs. of rock dust shall be available at the underground mine storage area.

C) Storage underground shall be limited to a typical 24-hour supply for all normally operating diesel units in the mine.

13) All diesel engines, in particular, their intake and exhaust systems, shall be maintained in accordance with the manufacturers specifications and instructions and in accordance with 30 CFR 31.4-31.5 (1985). Maintenance manuals shall be made available by the operator to the inspectors when requested.

14) Maintenance and inspection of diesel equipment will be conducted only by competent persons authorized by the mine operator (not to include State Mine Inspectors).

15) An approved ABC type fire extinguisher shall be carried at all times on each unit of diesel powered equipment.

16) No gasoline powered device will be allowed in an underground coal mine.

(Source: Amended at 10 Ill. Reg. 8104, effective June 15, 1986)