

**§ 75.1716-3**

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**§ 75.1716-3 Applications for permits.**

An application for a permit required under this section shall be filed with the Coal Mine Safety District Manager and shall contain the following general information:

- (a) Name and address of the company.
- (b) Name and address of the mine.
- (c) Projected mining and ground support plans.
- (d) A mine map showing the locations of the river, stream, lake, or other body of water and its relation to the location of all working places.
- (e) A profile map showing the type of strata and the distance in elevation between the coal bed and the river, stream, lake or other body of water involved. The type of strata shall be determined by core test drill holes as prescribed by the Coal Mine Safety District Manager.

**§ 75.1716-4 Issuance of permits.**

If the Coal Mine Safety District Manager determines that the proposed mining operations under water can be safely conducted, he shall issue a permit for the conduct of such operations under such conditions as he deems necessary to protect the safety of miners engaged in those operations.

**§ 75.1717 Exemptions.**

[STATUTORY PROVISIONS]

No notice under § 75.1716-1 and no permit under § 75.1716-2 shall be required in the case of any new working section of a mine which is located under any water resource reservoir being constructed by a Federal agency as of December 30, 1969, and where the operator is required by such agency to operate in a manner that adequately protects the safety of miners.

**§ 75.1718 Drinking water.**

[STATUTORY PROVISIONS]

An adequate supply of potable water shall be provided for drinking purposes in the active workings of the mine, and such water shall be carried, stored, and otherwise protected in sanitary containers.

**§ 75.1718-1 Drinking water; quality.**

- (a) Potable water provided in accordance with the provisions of § 75.1718 shall meet the applicable minimum health requirements for drinking water established by the State or community in which the mine is located.
- (b) Where no state or local health requirements apply to drinking water or where no state or local minimum health requirements exist, drinking water provided in accordance with the provisions of § 75.1718 shall contain a minimum of 0.2 milligrams of free chlorine per liter of water.

**§ 75.1719 Illumination; purpose and scope of §§ 75.1719 through 75.1719-4; time for compliance.**

- (a) Section 317(e) of the Act (30 U.S.C. 877(e)) directs and authorizes the Secretary to propose and promulgate standards under which all working places in a mine shall be illuminated by permissible lighting while persons are working in such places §§ 75.1719 through 75.1719-4 prescribe the requirements for illumination of working places in underground coal mines while persons are working in such places and while self-propelled mining equipment is operated in the working place.
- (b) Mine operators shall comply with §§ 75.1719 through 75.1719-4 not later than July 1, 1978.

[41 FR 43534, Oct. 1, 1976, as amended at 43 FR 13564, Mar. 31, 1978]

**§ 75.1719-1 Illumination in working places.**

- (a) Each operator of an underground coal mine shall provide each working place in the mine with lighting as prescribed in §§ 75.1719-1 and 75.1719-2 while self-propelled mining equipment is operated in the working place.
- (b) *Self-propelled mining equipment; definition.* For the purposes of §§ 75.1719 through 75.1719-4, "self-propelled mining equipment" means equipment which possesses the capability of moving itself or its associated components from one location to another by electric, hydraulic, pneumatic, or mechanical power supplied by a source located on the machine or transmitted to the machine by cables, ropes, or chains.

(c) The lighting prescribed in this section shall be in addition to that provided by personal cap lamps.

(d) The luminous intensity (surface brightness) of surfaces that are in a miner's normal field of vision of areas in working places that are required to be lighted shall be not less than 0.06 footlamberts when measured in accordance with §75.1719-3.

(e) When self-propelled mining equipment specified in paragraphs (e)(1) through (e)(6) of this section is operated in a working place, the areas within a miner's normal field of vision which shall be illuminated in the working place shall be as prescribed in paragraphs (e)(1) through (e)(6) of this section.

(1) *Continuous miners and coal-loading equipment.* In working places in which continuous miners and coal-loading equipment are operated, the areas which shall be illuminated shall be as follows:

(i) The face, and

(ii) The ribs, roof, floor, and exposed surface of mining equipment, which are between the face and the inby end of the shuttle car or other conveying equipment while in position to receive material.

(2) *Self-loading haulage equipment used as a loading machine.* In working places in which self-loading haulage equipment is operated to load material, the areas which shall be illuminated shall be as follows:

(i) The face, and

(ii) The ribs, roof, floor, and exposed surfaces of mining equipment, which are between the face and a point 5 feet outby the machine.

(3) *Cutting and drilling equipment.* In working places in which cutting or drilling equipment is operated, the areas which shall be illuminated shall be as follows:

(i) The ribs, roof, floor, and exposed surfaces of mining equipment, which are between the face and a point 5 feet outby the machine.

(4) *Shortwall and longwall mining equipment.* In working places in which shortwall or longwall mining equipment is operated, the areas which shall be illuminated shall be as follows:

(i) The area for the length of the self-advancing roof support system and

which is between the gob-side of the travelway and the side of the block of coal from which coal is being extracted, and

(ii) The control station, and the head piece and tail piece of the face conveyor, and

(iii) The roof and floor for a distance of 5 feet horizontally from the control station, head piece and tail piece.

(5) *Roof bolting equipment.* In working places in which roof bolting equipment is operated, the areas which shall be illuminated shall be as follows:

(i) *Where the distance from the floor, to the roof is 5 feet, or less:* the face, ribs, roof, floor, and exposed surfaces of mining equipment, which are within an area the perimeter of which is a distance of 5 feet from the machine, when measured parallel to the floor.

(ii) *Where the distance from the floor to the roof is more than 5 feet:* the face, ribs, roof, floor, and exposed surfaces of mining equipment, which are within an area the perimeter of which from the front and sides of the machine is a distance equal to the distance from the floor to the roof and from the rear of the machine a distance of 5 feet, when measured parallel to the floor.

(6) *Other self-propelled equipment.* Unless the entire working place is illuminated by stationary lighting equipment, in working places in which self-propelled equipment is operated, other than equipment specified in paragraphs (e)(1) through (e)(5) of this section, illumination shall be provided as follows:

(i) Luminaires shall be installed on each machine operated in the working place which shall illuminate a face or rib coal surface which is within 10 feet of the front and the rear of the machine to a luminous intensity of not less than 0.06 footlamberts, and

(ii) The height and width of the area of the coal surface which shall be illuminated shall equal the height and width, respectively, of the machine on which the luminaires are installed, and

(iii) The luminaires in the direction of travel shall be operated at all times the equipment is being trammed in the working place.

(f) The Administrator, Coal Mine Health and Safety, MSHA, may specify other areas in a working place to be illuminated for the protection of miners

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while self-propelled mining equipment is being operated in the working place.

(g) Surface brightness of floor, roof, coal and machine surfaces in the normal visual field of a miner shall not vary more than 50 percent between adjacent fields of similar surface reflectance, and the maximum surface brightness of such surface shall not exceed 120 footlamberts when measured in accordance with §75.1719-3.

[41 FR 43534, Oct. 1, 1976, as amended at 42 FR 18859, Apr. 11, 1977; 43 FR 43458, Sept. 26, 1978; 47 FR 28096, June 29, 1982]

### §75.1719-2 Lighting fixtures; requirements.

(a) Lighting fixtures shall be permissible.

(b) Lighting fixtures may be installed on self-propelled machines or may be stationary lighting fixtures.

(c)(1) Electrically operated lighting fixtures shall be energized by direct current, or by sinusoidal full wave alternating current not less than 50 cycles per second (100 pulses per second), or by an equivalent power source that causes no greater flicker.

(2) Alternating current circuits supplying power to stationary lighting fixtures shall contain conductors energized at voltages not greater than 70 volts to ground. Alternating current circuits, energized at 100 volts or more and used to supply power to stationary lighting fixtures, shall originate at a transformer having a center or neutral tap grounded to earth through a proper resistor, which shall be designed to limit fault current to not more than 5 amperes. A grounding circuit in accordance with §75.701-4 shall originate at the grounded terminal of the grounding resistor and extend along with the power conductors and serve as a grounding conductor for the frames of all equipment receiving power from the circuit. The ground fault current rating of grounding resistors shall meet the "extended time rating" set forth in the Institute of Electrical and Electronics Engineers, Inc. Standard No. 32 (IEEE Std. 32-1972) which is hereby incorporated by reference and made a part hereof. The incorporated publication is available for examination at each Coal Mine Health and Safety District and Subdistrict Office

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of MSHA, and may be obtained from the Institute of Electrical and Electronics Engineers, Inc., 345 East 47th Street, New York, N.Y. 10017.

(3) Machine-mounted lighting fixtures shall be electrically grounded to the machine by a separate grounding conductor in compliance with §75.701-4.

(d) Direct current circuits in excess of a nominal voltage of 300 volts shall not be used to supply power to stationary light fixtures.

(e) Cables conducting power to stationary lighting fixtures from both alternating and direct current power sources, other than intrinsically safe devices, shall be considered trailing cables, and shall meet the requirements of Subpart G of this part. In addition, such cables shall be protected against overloads and short circuits by a suitable circuit breaker or other device approved by the Secretary. Circuit breakers or other device approved by the Secretary protecting trailing cables receiving power from resistance grounded circuits shall be equipped with a ground trip arrangement which shall be designed to deenergize the circuit at not more than 50% of the available fault current.

(f) Before shunts are removed from blasting caps, lighting fixtures and associated cables located in the same working place shall be deenergized. Furthermore, lighting fixtures shall be removed out of the line of blast and not less than 50 feet from the blasting operation unless otherwise protected against flying debris.

(g) Lighting fixtures shall be designed and installed to minimize discomfort glare.

[41 FR 43534, Oct. 1, 1976]

### §75.1719-3 Methods of measurement; light measuring instruments.

(a) Compliance with §75.1719-1(d) shall be determined by MSHA by measuring luminous intensity (surface brightness).

(b) In measuring luminous intensity the following procedures shall be used:

(1) In areas of working places specified in §§75.1719.1(e)(1) through 75.1719-1(e)(3) luminous intensity measurements of the face, ribs, roof, floor, and exposed surfaces of mining equipment, shall be made with the machine idle