

and Welfare” pursuant to section 509(b) of Pub. L. 96-88 which is classified to section 3508(b) of Title 20, Education.

#### § 845. Dust standards in presence of quartz

In coal mining operations where the concentration of respirable dust in the mine atmosphere of any working place contains more than 5 per centum quartz, the Secretary of Health and Human Services shall prescribe an appropriate formula for determining the applicable respirable dust standard under this subchapter for such working place and the Secretary shall apply such formula in carrying out his duties under this subchapter.

(Pub. L. 91-173, title II, §205, Dec. 30, 1969, 83 Stat. 765; Pub. L. 96-88, title V, §509(b), Oct. 17, 1979, 93 Stat. 695.)

##### CHANGE OF NAME

“Secretary of Health and Human Services” substituted in text for “Secretary of Health, Education, and Welfare” pursuant to section 509(b) of Pub. L. 96-88 which is classified to section 3508(b) of Title 20, Education.

#### § 846. Noise standards; promulgation of new standards; tests; procedures; protective devices

On and after the operative date of this subchapter, the standards on noise prescribed under chapter 65 of title 41, in effect October 1, 1969, shall be applicable to each coal mine and each operator of such mine shall comply with them. Within six months after December 30, 1969, the Secretary of Health and Human Services shall establish, and the Secretary shall publish, as provided in section 811 of this title, proposed mandatory health standards establishing maximum noise exposure levels for all underground coal mines. Beginning six months after the operative date of this subchapter, and at intervals of at least every six months thereafter, the operator of each coal mine shall conduct, in a manner prescribed by the Secretary of Health and Human Services, tests by a qualified person of the noise level at the mine and report and certify the results to the Secretary and the Secretary of Health and Human Services. In meeting such standard under this section, the operator shall not require the use of any protective device or system, including personal devices, which the Secretary or his authorized representative finds to be hazardous or cause a hazard to the miners in such mine.

(Pub. L. 91-173, title II, §206, Dec. 30, 1969, 83 Stat. 765; Pub. L. 96-88, title V, §509(b), Oct. 17, 1979, 93 Stat. 695.)

##### REFERENCES IN TEXT

For the operative date of this subchapter, referred to in text, see section 509 of Pub. L. 91-173, set out as an Effective Date note under section 801 of this title.

##### CODIFICATION

In text, “chapter 65 of title 41” substituted for “the Walsh-Healey Public Contracts Act, as amended” on authority of Pub. L. 111-350, §6(c), Jan. 4, 2011, 124 Stat. 3854, which Act enacted Title 41, Public Contracts.

##### CHANGE OF NAME

“Secretary of Health and Human Services” substituted in text for “Secretary of Health, Education,

and Welfare” pursuant to section 509(b) of Pub. L. 96-88 which is classified to section 3508(b) of Title 20, Education.

#### SUBCHAPTER III—INTERIM MANDATORY SAFETY STANDARDS FOR UNDERGROUND COAL MINES

#### § 861. Mandatory safety standards for underground mines

##### (a) Coverage; enforcement; review

The provisions of sections 862 through 878 of this title shall be interim mandatory safety standards applicable to all underground coal mines until superseded in whole or in part by improved mandatory safety standards promulgated by the Secretary under the provisions of section 811 of this title, and shall be enforced in the same manner and to the same extent as any mandatory safety standard promulgated under section 811 of this title. Any orders issued in the enforcement of the interim standards set forth in this subchapter shall be subject to review as provided in subchapter I of this chapter.

##### (b) Purpose; initiation of studies and research

The purpose of this subchapter is to provide for the immediate application of mandatory safety standards developed on the basis of experience and advances in technology and to prevent newly created hazards resulting from new technology in coal mining. The Secretary of the Interior in coordination with the Secretary shall immediately initiate studies, investigations, and research to further upgrade such standards and to develop and promulgate new and improved standards promptly that will provide increased protection to the miners, particularly in connection with hazards from trolley wires, trolley feeder wires, and signal wires, the splicing and use of trailing cables, and in connection with improvements in vulcanizing of electric conductors, improvement in roof control measures, methane drainage in advance of mining, improved methods of measuring methane and other explosive gases and oxygen concentrations, and the use of improved underground equipment and other sources of power for such equipment.

(Pub. L. 91-173, title III, §301, Dec. 30, 1969, 83 Stat. 765; Pub. L. 95-164, title II, §203, Nov. 9, 1977, 91 Stat. 1317.)

##### AMENDMENTS

1977—Subsec. (b). Pub. L. 95-164, §203(a), substituted “The Secretary of the Interior in coordination with the Secretary shall immediately initiate studies” for “The Secretary shall immediately initiate studies”.

Subsecs. (c), (d). Pub. L. 95-164, §203(b), struck out subsec. (c) which related to the modification of standards, and subsec. (d) which related to the applicability of section 553 of title 5 in cases where the provisions of sections 862 to 878 of this title had provided that certain actions, conditions, or requirements be carried out as prescribed by the Secretary or the Secretary of Health, Education, and Welfare.

##### EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95-164 effective 120 days after Nov. 9, 1977, except as otherwise provided, see section 307 of Pub. L. 95-164, set out as a note under section 801 of this title.

## EFFECTIVE DATE

Subchapter operative 90 days after Dec. 30, 1969, except to the extent an earlier date is specifically provided for in Pub. L. 91-173, see section 509 of Pub. L. 91-173, set out as a note under section 801 of this title.

**§ 862. Roof support****(a) Roof control plan; contents; review; availability**

Each operator shall undertake to carry out on a continuing basis a program to improve the roof control system of each coal mine and the means and measures to accomplish such system. The roof and ribs of all active underground roadways, travelways, and working places shall be supported or otherwise controlled adequately to protect persons from falls of the roof or ribs. A roof control plan and revisions thereof suitable to the roof conditions and mining system of each coal mine and approved by the Secretary shall be adopted and set out in printed form within sixty days after the operative date of this subchapter. The plan shall show the type of support and spacing approved by the Secretary. Such plan shall be reviewed periodically, at least every six months by the Secretary, taking into consideration any falls of roof or ribs or inadequacy of support of roof or ribs. No person shall proceed beyond the last permanent support unless adequate temporary support is provided or unless such temporary support is not required under the approved roof control plan and the absence of such support will not pose a hazard to the miners. A copy of the plan shall be furnished the Secretary or his authorized representative and shall be available to the miners and their representatives.

**(b) Creation of dangers by roof falls**

The method of mining followed in any coal mine shall not expose the miner to unusual dangers from roof falls caused by excessive widths of rooms and entries or faulty pillar recovery methods.

**(c) Location and supply of roof support material; safety devices for roof work**

The operator, in accordance with the approved plan, shall provide at or near each working face and at such other locations in the coal mine as the Secretary may prescribe an ample supply of suitable materials of proper size with which to secure the roof of all working places in a safe manner. Safety posts, jacks, or other approved devices shall be used to protect the workmen when roof material is being taken down, crossbars are being installed, roof bolt- holes are being drilled, roof bolts are being installed, and in such other circumstances as may be appropriate. Loose roof and overhanging or loose faces and ribs shall be taken down or supported. Except in the case of recovery work, supports knocked out shall be replaced promptly.

**(d) Roof bolts**

When installation of roof bolts is permitted, such roof bolts shall be tested in accordance with the approved roof control plan.

**(e) Recovery of roof bolts**

Roof bolts shall not be recovered where complete extractions of pillars are attempted, where

adjacent to clay veins, or at the locations of other irregularities, whether natural or otherwise, that induce abnormal hazards. Where roof bolt recovery is permitted, it shall be conducted only in accordance with methods prescribed in the approved roof control plan, and shall be conducted by experienced miners and only where adequate temporary support is provided.

**(f) Safety inspections; correction of dangerous conditions**

Where miners are exposed to danger from falls of roof, face, and ribs the operator shall examine and test the roof, face, and ribs before any work or machine is started, and as frequently thereafter as may be necessary to insure safety. When dangerous conditions are found, they shall be corrected immediately.

(Pub. L. 91-173, title III, §302, Dec. 30, 1969, 83 Stat. 766.)

## REFERENCES IN TEXT

For the operative date of this subchapter, referred to in subsec. (a), see section 509 of Pub. L. 91-173, set out as an Effective Date note under section 801 of this title.

**§ 863. Ventilation****(a) Equipment; approval; daily examinations**

All coal mines shall be ventilated by mechanical ventilation equipment installed and operated in a manner approved by an authorized representative of the Secretary and such equipment shall be examined daily and a record shall be kept of such examination.

**(b) Standards for air in work areas**

All active workings shall be ventilated by a current of air containing not less than 19.5 volume per centum of oxygen, not more than 0.5 volume per centum of carbon dioxide, and no harmful quantities of other noxious or poisonous gases; and the volume and velocity of the current of air shall be sufficient to dilute, render harmless, and to carry away, flammable, explosive, noxious, and harmful gases, and dust, and smoke and explosive fumes. The minimum quantity of air reaching the last open crosscut in any pair or set of developing entries and the last open crosscut in any pair or set of rooms shall be nine thousand cubic feet a minute, and the minimum quantity of air reaching the intake end of a pillar line shall be nine thousand cubic feet a minute. The minimum quantity of air in any coal mine reaching each working face shall be three thousand cubic feet a minute. Within three months after the operative date of this subchapter, the Secretary shall prescribe the minimum velocity and quantity of air reaching each working face of each coal mine in order to render harmless and carry away methane and other explosive gases and to reduce the level of respirable dust to the lowest attainable level. The authorized representative of the Secretary may require in any coal mine a greater quantity and velocity of air when he finds it necessary to protect the health or safety of miners. Within one year after the operative date of this subchapter, the Secretary or his authorized representative shall prescribe the maximum respirable dust level in the intake aircourses in each coal mine in order to reduce such level to