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 the lowest attainable level. In robbing areas of anthracite mines, where the air currents cannot be controlled and measurements of the air cannot be obtained, the air shall have perceptible movement.

**(c) Line brattice; functions; exceptions; repairs; flame resistant material**

(1) Properly installed and adequately maintained line brattice or other approved devices shall be continuously used from the last open crosscut of an entry or room of each working section to provide adequate ventilation to the working faces for the miners and to remove flammable, explosive, and noxious gases, dust, and explosive fumes, unless the Secretary or his authorized representative permits an exception to this requirement, where such exception will not pose a hazard to the miners. When damaged by falls or otherwise, such line brattice or other devices shall be repaired immediately.

(2) The space between the line brattice or other approved device and the rib shall be large enough to permit the flow of a sufficient volume and velocity of air to keep the working face clear of flammable, explosive, and noxious gases, dust, and explosive fumes.

(3) Brattice cloth used underground shall be of flame-resistant material.

**(d) Pre-shift examinations and tests; scope; violations of mandatory standards; notification; posting of "DANGER" signs; restriction of entry; records; re-entry**

(1) Within three hours immediately preceding the beginning of any shift, and before any miner in such shift enters the active workings of a coal mine, certified persons designated by the operator of the mine shall examine such workings and any other underground area of the mine designated by the Secretary or his authorized representative. Each such examiner shall examine every working section in such workings and shall make tests in each such working section for accumulations of methane with means approved by the Secretary for detecting methane and shall make tests for oxygen deficiency with a permissible flame safety lamp or other means approved by the Secretary; examine seals and doors to determine whether they are functioning properly; examine and test the roof, face, and rib conditions in such working section; examine active roadways, travelways, and belt conveyors on which men are carried, approaches to abandoned areas, and accessible falls in such section for hazards; test by means of an anemometer or other device approved by the Secretary to determine whether the air in each split is traveling in its proper course and in normal volume and velocity; and examine for such other hazards and violations of the mandatory health or safety standards, as an authorized representative of the Secretary may from time to time require. Belt conveyors on which coal is carried shall be examined after each coal-producing shift has begun. Such mine examiner shall place his initials and the date and time at all places he examines. If such mine examiner finds a condition which constitutes a violation of a mandatory health or safety standard or any condition which is hazardous to persons who may enter or be in such area, he shall indicate such hazardous place by posting a ''DANGER'' sign conspiciously[1] at all points which persons entering such hazardous place would be required to pass, and shall notify the operator of the mine. No person, other than an authorized representative of the Secretary or a State mine inspector or persons authorized by the operator to enter such place for the purpose of eliminating the hazardous condition therein, shall enter such place while such sign is so posted. Upon completing his examination, such mine examiner shall report the results of his examination to a person, designated by the operator to receive such reports at a designated station on the surface of the mine, before other persons enter the underground areas of such mine to work in such shift. Each such mine examiner shall also record the results of his examination with ink or indelible pencil in a book approved by the Secretary kept for such purpose in an area on the surface of the mine chosen by the operator to minimize the danger of destruction by fire or other hazard, and the record shall be open for inspection by interested persons.

(2) No person (other than certified persons designated under this subsection) shall enter any underground area, except during any shift, unless an examination of such area as prescribed in this subsection has been made within eight hours immediately preceding his entrance into such area.

**(e) Daily examinations and tests; scope; imminent danger; withdrawal of persons; abatement of danger**

At least once during each coal-producing shift, or more often if necessary for safety, each working section shall be examined for hazardous conditions by certified persons designated by the operator to do so. Any such condition shall be corrected immediately. If such condition creates an imminent danger, the operator shall withdraw all persons from the area affected by such condition to a safe area, except those persons referred to in section 814(d) of this title, until the danger is abated. Such examination shall include tests for methane with a means approved by the Secretary for detecting methane and for oxygen deficiency with a permissible flame safety lamp or other means approved by the Secretary.

**(f) Weekly examination for hazardous conditions; scope; notification; repairs; imminent danger; withdrawal of persons; abatement; records**

In addition to the pre-shift and daily examinations required by this section, examinations for hazardous conditions, including tests for meth-

[1] So in original. Probably should be ''conspicuously''.

ane, and for compliance with the mandatory health or safety standards, shall be made at least once each week by a certified person designated by the operator in the return of each split of air where it enters the main return, on pillar falls, at seals, in the main return, at least one entry of each intake and return aircourse in its entirety, idle workings, and, insofar as safety considerations permit, abandoned areas. Such weekly examination need not be made during any week in which the mine is idle for the entire week, except that such examination shall be made before any other miner returns to the mine. The person making such examinations and tests shall place his initials and the date and time at the places examined, and if any hazardous condition is found, such condition shall be reported to the operator promptly. Any hazardous condition shall be corrected immediately. If such condition creates an imminent danger, the operator shall withdraw all persons from the area affected by such condition to a safe area, except those persons referred to in section 814(d) of this title, until such danger is abated. A record of these examinations, tests, and actions taken shall be recorded in ink or indelible pencil in a book approved by the Secretary kept for such purpose in an area on the surface of the mine chosen by the mine operator to minimize the danger of destruction by fire or other hazard, and the record shall be open for inspection by interested persons.

**(g) Weekly ventilation examinations; scope; records**

At least once each week, a qualified person shall measure the volume of air entering the main intakes and leaving the main returns, the volume passing through the last open crosscut in any pair or set of developing entries and the last open crosscut in any pair or set of rooms, the volume and, when the Secretary so prescribes, the velocity reaching each working face, the volume being delivered to the intake end of each pillar line, and the volume at the intake and return of each split of air. A record of such measurements shall be recorded in ink or indelible pencil in a book approved by the Secretary kept for such purpose in an area on the surface of the coal mine chosen by the operator to minimize the danger of destruction by fire or other hazard, and the record shall be open for inspection by interested persons.

**(h) Methane examinations at working place; periodic intervals; standards; procedures for different air contents of methane**

(1) At the start of each shift, tests for methane shall be made at each working place immediately before electrically operated equipment is energized. Such tests shall be made by qualified persons. If 1.0 volume per centum or more of methane is detected, electrical equipment shall not be energized, taken into, or operated in, such working place until the air therein contains less than 1.0 volume per centum of methane. Examinations for methane shall be made during the operation of such equipment at intervals of not more than twenty minutes during each shift, unless more frequent examinations are required by an authorized representative of the Secretary. In conducting such tests, such person shall use means approved by the Secretary for detecting methane.

(2) If at any time the air at any working place, when tested at a point not less than twelve inches from the roof, face, or rib, contains 1.0 volume per centum or more of methane, changes or adjustments shall be made at once in the ventilation in such mine so that such air shall contain less than 1.0 volume per centum of methane. While such changes or adjustments are underway and until they have been achieved, power to electric face equipment located in such place shall be cut off, no other work shall be permitted in such place, and due precautions shall be carried out under the direction of the operator or his agent so as not to endanger other areas of the mine. If at any time such air contains 1.5 volume per centum or more of methane, all persons, except those referred to in section 814(d) of this title, shall be withdrawn from the area of the mine endangered thereby to a safe area, and all electric power shall be cut off from the endangered area of the mine, until the air in such working place shall contain less than 1.0 volume per centum of methane.

**(i) Methane examination of air returning from working section; periodic intervals; standards; procedures for different air contents; virgin territory**

(1) If, when tested, a split of air returning from any working section contains 1.0 volume per centum or more of methane, changes or adjustments shall be made at once in the ventilation in the mine so that such returning air shall contain less than 1.0 volume per centum of methane. Tests under this paragraph and paragraph (2) of this subsection shall be made at four-hour intervals during each shift by a qualified person designated by the operator of the mine. In making such tests, such person shall use means approved by the Secretary for detecting methane.

(2) If, when tested, a split of air returning from any working section contains 1.5 volume per centum or more of methane, all persons, except those persons referred to in section 814(d) of this title, shall be withdrawn from the area of the mine endangered thereby to a safe area and all electric power shall be cut off from the endangered area of the mine, until the air in such split shall contain less than 1.0 volume per centum of methane.

(3) In virgin territory, if the quantity of air in a split ventilating the active workings in such territory equals or exceeds twice the minimum volume of air prescribed in subsection (b) of this section for the last open crosscut, if the air in the split returning from such workings does not pass over trolley wires or trolley feeder wires, and if a certified person designated by the operator is continually testing the methane content of the air in such split during mining operations in such workings, it shall be necessary to withdraw all persons, except those referred to in section 814(d) of this title, from the area of the mine endangered thereby to a safe area and all electric power shall be cut off from the endangered area only when the air returning from such workings contains 2.0 volume per centum or more of methane.

**(j) Abandoned area air; pre-shift examination**

Air which has passed by an opening of any abandoned area shall not be used to ventilate any working place in the coal mine if such air contains 0.25 volume per centum or more of methane. Examinations of such air shall be made during the pre-shift examination required by subsection (d) of this section. In making such tests, a certified person designated by the operator shall use means approved by the Secretary for detecting methane. For the purposes of this subsection, an area within a panel shall not be deemed to be abandoned until such panel is abandoned.

**(k) Abandoned area air; inaccessible or unsafe for inspection; air from where pillars have been removed**

Air that has passed through an abandoned area or an area which is inaccessible or unsafe for inspection shall not be used to ventilate any working place in any mine. No air which has been used to ventilate an area from which the pillars have been removed shall be used to ventilate any working place in a mine, except that such air, if it does not contain 0.25 volume per centum or more of methane, may be used to ventilate enough advancing working places immediately adjacent to the line of retreat to maintain an orderly sequence of pillar recovery on a set of entries.

**(*l*) Methane monitors; required equipment; maintenance; warnings; deenergizing of equipment**

The Secretary or his authorized representative shall require, as an additional device for detecting concentrations of methane, that a methane monitor, approved as reliable by the Secretary after the operative date of this subchapter, be installed, when available, on any electric face cutting equipment, continuous miner, longwall face equipment, and loading machine, except that no monitor shall be required to be installed on any such equipment prior to the date on which such equipment is required to be permissible under section 865(a) of this title. When installed on any such equipment, such monitor shall be kept operative and properly maintained and frequently tested as prescribed by the Secretary. The sensing device of such monitor shall be installed as close to the working face as practicable. Such monitor shall be set to deenergize automatically such equipment when such monitor is not operating properly and to give a warning automatically when the concentration of methane reaches a maximum percentage determined by an authorized representative of the Secretary which shall not be more than 1.0 volume per centum of methane. An authorized representative of the Secretary shall require such monitor to deenergize automatically equipment on which it is installed when the concentration of methane reaches a maximum percentage determined by such representative which shall not be more than 2.0 volume per centum of methane.

**(m) Idle area inspections; authorized inspectors**

Idle and abandoned areas shall be inspected for methane and for oxygen deficiency and other dangerous conditions by a certified person with means approved by the Secretary as soon as possible but not more than three hours before other persons are permitted to enter or work in such areas. Persons, such as pumpmen, who are required regularly to enter such areas in the performance of their duties, and who are trained and qualified in the use of means approved by the Secretary for detecting methane and in the use of a permissible flame safety lamp or other means approved by the Secretary for detecting oxygen deficiency are authorized to make such examinations for themselves, and each such person shall be properly equipped and shall make such examinations upon entering any such area.

**(n) Intentional roof falls; prior inspections; safeguards**

Immediately before an intentional roof fall is made, pillar workings shall be examined by a qualified person designated by the operator to ascertain whether methane is present. Such person shall use means approved by the Secretary for detecting methane. If in such examination methane is found in amounts of 1.0 volume per centum or more, such roof fall shall not be made until changes or adjustments are made in the ventilation so that the air shall contain less than 1.0 volume per centum of methane.

**(*o*) Methane and dust control plans; contents**

A ventilation system and methane and dust control plan and revisions thereof suitable to the conditions and the mining system of the coal mine and approved by the Secretary shall be adopted by the operator and set out in printed form within ninety days after the operative date of this subchapter. The plan shall show the type and location of mechanical ventilation equipment installed and operated in the mine, such additional or improved equipment as the Secretary may require, the quantity and velocity of air reaching each working face, and such other information as the Secretary may require. Such plan shall be reviewed by the operator and the Secretary at least every six months.

**(p) Devices for detection of methane and oxygen deficiency; maintenance**

Each operator shall provide for the proper maintenance and care of the permissible flame safety lamp or any other approved device for detecting methane and oxygen deficiency by a person trained in such maintenance, and, before each shift, care shall be taken to insure that such lamp or other device is in a permissible condition.

**(q) Pillar recovery; areas without bleeder systems**

Where areas are being pillared on the operative date of this subchapter without bleeder entries, or without bleeder systems or an equivalent means, pillar recovery may be completed in the area, to the extent approved by an authorized representative of the Secretary, if the edges of pillar lines adjacent to active workings are ventilated with sufficient air to keep the air in open areas along the pillar lines below 1.0 volume per centum of methane.

**(r) Overcast and undercast intake air split requirements; time extension**

Each mechanized mining section shall be ventilated with a separate split of intake air di-

rected by overcasts, undercasts, or the equivalent, except an extension of time, not in excess of nine months, may be permitted by the Secretary, under such conditions as he may prescribe, whenever he determines that this subsection cannot be complied with on the operative date of this subchapter.

**(s) Blasting; prior and subsequent examinations for methane**

In all underground areas of a coal mine, immediately before firing each shot or group of multiple shots and after blasting is completed, examinations for methane shall be made by a qualified person with means approved by the Secretary for detecting methane. If methane is found in amounts of 1.0 volume per centum or more, changes or adjustments shall be made at once in the ventilation so that the air shall contain less than 1.0 volume per centum of methane. No shots shall be fired until the air contains less than 1.0 volume per centum of methane.

**(t) Mine fan stop plans; requisites**

Each operator shall adopt a plan within sixty days after the operative date of this subchapter which shall provide that when any mine fan stops, immediate action shall be taken by the operator or his agent (1) to withdraw all persons from the working sections, (2) to cut off the power in the mine in a timely manner, (3) to provide for restoration of power and resumption of work if ventilation is restored within a reasonable period as set forth in the plan after the working places and other active workings where methane is likely to accumulate are reexamined by a certified person to determine if methane in amounts of 1.0 volume per centum or more exists therein, and (4) to provide for withdrawal of all persons from the mine if ventilation cannot be restored within such reasonable time. The plan and revisions thereof approved by the Secretary shall be set out in printed form and a copy shall be furnished to the Secretary or his authorized representative.

**(u) Modifications affecting main air current or any split; withdrawal of personnel; removal of power**

Changes in ventilation which materially affect the main air current or any split thereof and which may affect the safety of persons in the coal mine shall be made only when the mine is idle. Only those persons engaged in making such changes shall be permitted in the mine during the change. Power shall be removed from the areas affected by the change before work starts to make the change and shall not be restored until the effect of the change has been ascertained and the affected areas determined to be safe by a certified person.

**(v) Reading and countersigning of daily and weekly reports; foreman; superintendent**

The mine foreman shall read and countersign promptly the daily reports of the pre-shift examiner and assistant mine foremen, and he shall read and countersign promptly the weekly report covering the examinations for hazardous conditions. Where such reports disclose hazardous conditions, they shall be corrected promptly. If such conditions create an imminent danger, the operator shall withdraw all persons from, or prevent any person from entering, as the case may be, the area affected by such conditions, except those persons referred to in section 814(d) of this title, until such danger is abated. The mine superintendent or assistant superintendent of the mine shall also read and countersign the daily and weekly reports of such persons.

**(w) Daily mine condition reports; requisites; signatures**

Each day, the mine foreman and each of his assistants shall enter plainly and sign with ink or indelible pencil in a book approved by the Secretary provided for that purpose a report of the condition of the mine or portion thereof under his supervision, which report shall state clearly the location and nature of any hazardous condition observed by him or reported to him during the day and what action was taken to remedy such condition. Such book shall be kept in an area on the surface of the mine chosen by the operator to minimize the danger of destruction by fire or other hazard, and shall be open for inspection by interested persons.

**(x) Reopening of abandoned or declared inactive mine; notification; inspection**

Before a coal mine is reopened after having been abandoned or declared inactive by the operator, the Secretary shall be notified, and an inspection shall be made of the entire mine by an authorized representative of the Secretary before mining operations commence.

**(y) Separation of intake and return aircourses from belt haulage entries; standards**

(1) In any coal mine opened after the operative date of this subchapter, the entries used as intake and return aircourses shall be separated from belt haulage entries, and each operator of such mine shall limit the velocity of the air coursed through belt haulage entries to the amount necessary to provide an adequate supply of oxygen in such entries, and to insure that the air therein shall contain less than 1.0 volume per centum of methane, and such air shall not be used to ventilate active working places. Whenever an authorized representative of the Secretary finds, in the case of any coal mine opened on or prior to the operative date of this subchapter which has been developed with more than two entries, that the conditions in the entries, other than belt haulage entries, are such as to permit adequately the coursing of intake or return air through such entries, (1) the belt haulage entries shall not be used to ventilate, unless such entries are necessary to ventilate, active working places, and (2) when the belt haulage entries are not necessary to ventilate the active working places, the operator of such mine shall limit the velocity of the air coursed through the belt haulage entries to the amount necessary to provide an adequate supply of oxygen in such entries, and to insure that the air therein shall contain less than 1.0 volume per centum of methane.

(2) In any coal mine opened on or after the operative date of this subchapter, or, in the case of a coal mine opened prior to such date, in any

new working section of such mine, where trolley haulage systems are maintained and where trolley wires or trolley feeder wires are installed, an authorized representative of the Secretary shall require a sufficient number of entries or rooms as intake aircourses in order to limit, as prescribed by the Secretary, the velocity of air currents on such haulageways for the purpose of minimizing the hazards associated with fires and dust explosions in such haulageways.

**(z) Pillar extractions; bleeder systems and sealing requirements; standards**

(1) While pillars are being extracted in any area of a coal mine, such area shall be ventilated in the manner prescribed by this section.

(2) Within nine months after the operative date of this subchapter, all areas from which pillars have been wholly or partially extracted and abandoned areas, as determined by the Secretary or his authorized representative, shall be ventilated by bleeder entries or by bleeder systems or equivalent means, or be sealed, as determined by the Secretary or his authorized representative. When ventilation of such areas is required, such ventilation shall be maintained so as continuously to dilute, render harmless, and carry away methane and other explosive gases within such areas and to protect the active workings of the mine from the hazards of such methane and other explosive gases. Air coursed through underground areas from which pillars have been wholly or partially extracted which enters another split of air shall not contain more than 2.0 volume per centum of methane, when tested at the point it enters such other split. When sealing is required, such seals shall be made in an approved manner so as to isolate with explosion-proof bulkheads such areas from the active workings of the mine.

(3) In the case of mines opened on or after the operative date of this subchapter, or in the case of working sections opened on or after such date in mines opened prior to such date, the mining system shall be designed in accordance with a plan and revisions thereof approved by the Secretary and adopted by such operator so that, as each working section of the mine is abandoned, it can be isolated from the active workings of the mine with explosion-proof seals or bulkheads.

(Pub. L. 91–173, title III, § 303, Dec. 30, 1969, 83 Stat. 767.)

REFERENCES IN TEXT

For the operative date of this subchapter, referred to in subsecs. (b), (*l*), (*o*), (q), (r), (t), (y), and (z)(2), (3), see section 509 of Pub. L. 91–173, set out as an Effective Date note under section 801 of this title.

BELT HAULAGE ENTRIES FOR VENTILATION

Pub. L. 110–161, div. G, title I, § 112(a), Dec. 26, 2007, 121 Stat. 2168, provided that: ''Not later than June 20, 2008, the Secretary of Labor shall propose regulations pursuant to section 303(y) of the Federal Mine Safety and Health Act of 1977 [30 U.S.C. 863(y)], consistent with the recommendations of the Technical Study Panel established pursuant to section 11 of the Mine Improvement and New Emergency Response (MINER) Act (Public Law 109–236) [enacting section 963 of this title], to require that in any coal mine, regardless of the date on which it was opened, belt haulage entries not be used to ventilate active working places without prior approval from the Assistant Secretary. Further, a mine ventilation plan incorporating the use of air coursed through belt haulage entries to ventilate active working places shall not be approved until the Assistant Secretary has reviewed the elements of the plan related to the use of belt air and determined that the plan at all times affords at least the same measure of protection where belt haulage entries are not used to ventilate working places. The Secretary shall finalize the regulations not later than December 31, 2008.''

## § 864. Combustible materials and rock dusting

**(a) Accumulations; maintenance**

Coal dust, including float coal dust deposited on rock-dusted surfaces, loose coal, and other combustible materials, shall be cleaned up and not be permitted to accumulate in active workings, or on electric equipment therein.

**(b) Abatement of hazards in active working areas**

Where underground mining operations in active workings create or raise excessive amounts of dust, water or water with a wetting agent added to it, or other no less effective methods approved by the Secretary or his authorized representative, shall be used to abate such dust. In working places, particularly in distances less than forty feet from the face, water, with or without a wetting agent, or other no less effective methods approved by the Secretary or his authorized representative, shall be applied to coal dust on the ribs, roof, and floor to reduce dispersibility and to minimize the explosion hazard.

**(c) Rock dusting of all areas of underground mines; exceptions**

All underground areas of a coal mine, except those areas in which the dust is too wet or too high in incombustible content to propagate an explosion, shall be rock dusted to within forty feet of all working faces, unless such areas are inaccessible or unsafe to enter or unless the Secretary or his authorized representative permits an exception upon his finding that such exception will not pose a hazard to the miners. All crosscuts that are less than forty feet from a working face shall also be rock dusted.

**(d) Distribution of rock dust; places, quantities**

Where rock dust is required to be applied, it shall be distributed upon the top, floor, and sides of all underground areas of a coal mine and maintained in such quantities that the incombustible content of the combined coal dust, rock dust, and other dust shall be not less than 65 per centum, but the incombustible content in the return aircourses shall be no less than 80 per centum. Where methane is present in any ventilating current, the per centum of incombustible content of such combined dusts shall be increased 1.0 and 0.4 per centum for each 0.1 per centum of methane where 65 and 80 per centum, respectively, of incombustibles are required.

**(e) Limitation of applicability**

Subsections (b) through (d) of this section shall not apply to underground anthracite mines.

(Pub. L. 91–173, title III, § 304, Dec. 30, 1969, 83 Stat. 774.)