

# WEST VIRGINIA CODE: §22a-2-4

## §22A-2-4. Ventilation of mines in general.

(a) The operator or mine foreman of every coal mine, whether worked by shaft, slope, or drift, shall provide and maintain adequate ventilation for each mine. In all mines the quantity of air passing through the last open crosscut between the intake and return in any pair or set of entries may not be less than 9,000 cubic feet of air per minute and as much more as is necessary to dilute and render harmless and carry away flammable and harmful gases. All working faces in a working section between the intake and return airway entries where coal is being cut, mined, drilled for blasting, or loaded shall be ventilated with a minimum quantity of 3,000 cubic feet of air per minute and as much more as is necessary to dilute and render harmless and carry away flammable and harmful gases. The quantity of air reaching the last crosscut in pillar sections may be less than 9,000 cubic feet of air per minute if at least 9,000 cubic feet of air per minute is being delivered to the intake of the pillar line. The air current shall under any conditions have a sufficient volume and velocity to reduce and carry away smoke from blasting and any flammable or harmful gases. The operator shall provide to the safety committee access to anemometers and smoke tubes while performing their duties. All active underground working places in a mine shall be ventilated by a current of air containing not less than 19.5 percent of oxygen, not more than 0.50 percent of carbon dioxide, and no harmful quantities of other noxious or poisonous gases.

(b) Airflow shall be maintained in all intake and return air courses of a mine and, where multiple fans are used, neutral areas created by pressure equalization between main fans is not permitted. Production activities in working faces shall cease while tubing, line brattice, or other ventilation devices are being installed by the machine operator.

(c) 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. When damaged by falls or otherwise, the line brattice or other devices shall be repaired immediately.

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

(e) Each working unit newly developed in virgin coal shall be ventilated by a separate split of air. In areas already under development and in areas where physical conditions prevent compliance with this provision, the director may grant temporary relief from compliance until such time as physical conditions make compliance possible. The quantity of air reaching the last crosscut may not be less than 9,000 cubic feet of air per minute and shall under any condition have sufficient volume and velocity to reduce and carry away smoke and

flammable or harmful gases from each working face in the section.

(f) As working places advance, crosscuts for air shall be made not more than 105 feet apart. Where necessary to render harmless and carry away noxious or flammable gases, line brattice or other approved methods of ventilation shall be used so as to properly ventilate the face. All crosscuts between the main intake and return airways not required for passage of air and equipment shall be closed with stoppings substantially built with incombustible or fire-resistant material so as to keep working places well ventilated. In mines where it becomes necessary to provide larger pillars for adequate roof support, working places may not be driven more than 200 feet without providing a connection that will allow the free flow of air currents. In such cases, a minimum of 12,000 cubic feet of air a minute shall be delivered to the last open crosscut and as much more as is necessary to dilute and render harmless and carry away flammable and noxious gases.

(g) In special instances for the construction of sidetracks, haulage ways, airways, or openings in shaft bottom or slope bottom layouts where the size and strength of pillars is important, the director may issue a permit approving greater distances. The permit shall specify the conditions under which such places may be driven.

(h) In all mines, a system of bleeder openings on air courses, designed to provide positive movement of air through or around abandoned or caved areas, or both through and around, sufficient to prevent dangerous accumulation of gas in such areas, and to minimize the effect of variations in atmospheric pressure shall be made a part of pillar recovery plans projected.

(i) If a bleeder return is closed as a result of roof falls or water during pillar recovery operations, pillar operations may continue without reopening the bleeder return if at least 20,000 cubic feet of air per minute is delivered to the intake of the pillar line.

(j) An operator or mine foreman may not permit any person to work where he or she is unable to maintain the quantity and quality of the air current as required by this section. This section does not prohibit the employment of individuals to make the place of employment safe.

(k) The ventilation of any mine shall be arranged by means of air locks, overcasts, or undercasts, in such a manner that the use of doors may be kept to a minimum on passageways where individuals or equipment travel. Where doors are used in a mine, they shall be erected in pairs so as to provide a ventilated air lock unless the doors are operated mechanically.

(l) A crosscut shall be provided at or near the face of each entry or room before such places are abandoned.

(m) Overcasts or undercasts shall be constructed of incombustible material and maintained in good condition.

(n) All run through check curtains shall be substantially constructed of translucent material, except that where belting material must be used because of high velocity, there shall be a window of translucent material at least 30 inches square or one-half the height of the coal seam, whichever is less.

(o) The MSHA-approved plan shall serve as the state-approved plan and comply with all provisions of state mining law as set forth in this code or the Code of State Rules.