

*Proposed Standard of Ventilation.*

An adequate amount of ventilation shall be constantly produced in every mine to dilute and render harmless inflammable and noxious gases to such an extent that all shafts, roads, levels, stables, and workings of the mine shall be in a fit state for working and passing therein, and in particular that the intake airways, up to within 100 yards of the first working-place which the air enters, shall be kept normally free from inflammable gas: Provided always that an abandoned road or level not used in connection with the working of the mine shall, if properly fenced off, not be deemed to be a road or level within the meaning of this section.

In the case of mines required to be under the control of a manager the quantity of air in the main current and in every split, and at such other points as may be determined by the regulations of the mine, shall at least once in every month be measured and entered in a book to be kept for the purpose at the mine, and the ordinary number of persons and horses in each split at one time shall be entered in such book.

For the purpose of this section a place shall not be deemed to be in a fit state for working or passing therein if the air contains either less than 19 per cent. of oxygen or more than 1 per cent. of carbon-dioxide: Provided that the Minister of Mines may, by order, exempt any mine or mines from the foregoing provision on the ground that they are liable to spontaneous combustion of the coal, but subject to any conditions specified in the order.

Special rules under the Act shall provide for the classification of mines according to the amount of inflammable and noxious gases in the main return airway, and the amount of air passing into the mine shall be such amount, proportionate to the number of men and animals employed underground in the mine, as may be prescribed by the special rules with regard to mines of the class to which the mine belongs, but in no case shall less than 150 cubic feet of air per minute be provided for every person, and 600 cubic feet of air per minute for every horse while employed underground.

All air-measurements shall be taken at the entrance to each ventilation-section, and shall there be not less in volume than the minimum statutory allowance per man and horse per minute. The total number of men employed ordinarily in any ventilation-section shall not exceed fifty at one time.

The obligation imposed by this section shall be in addition to, and not in substitution for, the obligation to provide an adequate amount of ventilation imposed by the foregoing section.

We also recommend as follows:—

- (1.) That the manager of every mine shall keep in the office of the mine a separate plan showing the system of ventilation in the mine, as recommended by us for metal-mines.
- (2.) That where a fire is used for ventilation in any mine the return air shall be carried off clear of the fire by means of a dumb drift or airway, unless the mine is one in which inflammable gas is unknown.
- (3.) That where a mechanical contrivance for ventilation is used at any mine it shall not be placed beneath the surface, and means shall be provided for reversing the air-current and maintained in readiness to be put into immediate operation (see accompanying drawing, Appendix No. 6): Provided that this provision shall not be construed as preventing mechanical contrivances for ventilation being placed underground when such contrivances are auxiliary only, and the contrivance whereby the main ventilation is produced is placed on the surface and is capable of producing such amount of ventilation as in an emergency would