

be kept in a book on the surface of the mine and is open for inspection by any interested person.

(e) (1) Separate Openings. The main intake and main return air currents in slope mines shall be in separate openings.

(2) Liquid-Filled Transformers. Underground stables, battery charging stations, and transformer stations containing liquid-filled transformers shall be well ventilated by separate splits of air conducted through vents to the return air courses and returning directly to the surface.

(3) Changes in Ventilation. Changes in ventilation that may affect the safety of the workers shall be made when the mine is idle, when no workers other than those engaged in changing the ventilation are in the mine.

(f) (1) Deficiency of Oxygen and Excess of Carbon Dioxide.-- Air in mines in which workers work or travel shall be improved if it contains less than 19.5 percent oxygen, more than 0.75 percent carbon dioxide, or is contaminated with any noxious or poisonous gas.

(2) Excess Methane -- Generally.-- If the air immediately returning from a split that ventilates any group of active workings contains more than 1 percent methane, as determined with a permissible flame safety lamp, by air analysis or by other recognized means of accurate detection, the ventilation shall be improved.

(3) Same -- Returning From a Split.-- If the air immediately returning from a split contains 1.5 percent methane, a dangerous condition exists and the workers shall be withdrawn from the mine or its affected portion. Power shall be cut off from the mine or its affected portion until the dangerous condition has been corrected.

(4) Same -- Accumulation.-- Blasting may not be done at any working face or other place where methane has accumulated and is likely to attain an explosive mixture. The workers shall be removed from each working face or place until the condition has been corrected.

(5) Same -- Face Operations.-- If the methane content of air in any face operation exceeds 1 percent at any point not less than 12 inches from the roof, face, or rib, as determined by a permissible methane detector, a permissible flame safety lamp, or chemical analysis, the workers shall be removed from the affected area until the condition has been corrected by improving the ventilation.

(g) (1) Generally. Crosscuts between entries and rooms shall be made at intervals not exceeding 105 feet. However, this requirement does not apply to recovery work if the working face is ventilated by a perceptible movement of air

---