

Gas is used in the sense ordinarily employed by miners, to mean "fire damp," and inflammable gas, chiefly composed of methane, sometimes accompanied by ethane (C_2H_6) in case of leakage of natural gas, and explosive when mixed with air in certain proportions.

Gaseous Mine is one in which methane occurs in the mine atmosphere in such quantities as may become dangerous. If the percentage of methane in the main return exceeds one half of one per cent., or in any split, or single return exceeds three-tenths of one per cent., the mine shall be considered a gaseous mine. Samples of the mine air shall be taken in duplicate for testing purposes when the ventilating current in such mine and mine conditions have been normal for at least twelve hours; and when a sample is found to exceed the limits, duplicate samples shall be taken and tested. If the first results are confirmed, the mine shall be rated as gaseous.

Whenever the operator of a mine previously rated as gaseous shall improve the ventilation thereof until the percentage of methane in the main return falls below one-half of one per cent., and in each individual split falls below three-tenths of one per cent., as shown by samples taken and duly analyzed, and such condition has been maintained continuously for a period of not less than thirty days, the district mine inspector may by written certificate authorize the rating of such mine, during maintenance of such condition, as a non-gaseous mine.

Grounding means the establishment of an effective electric connection between the object grounded and the earth, whether the object grounded be a machine frame, a cable armor or an electric system.

Live or Alive applies to any part of an electric system, circuit, or apparatus or object in contact with or adjacent thereto, charged with electricity or generating voltage to an extent that the difference of potential between such system, circuit, apparatus or object and the earth is measurable by a voltmeter; or in case of a static charge, by an electrostatic voltmeter.

Methane is a hydrocarbon gas (CH_4) frequently encountered in coal mines; when it is diffused through air in certain proportions of the mixture, $5\frac{1}{2}$ to $14\frac{1}{2}$ per cent., the mixture will explode in the presence of a flame or hot spark.

Mine includes the shafts, slopes, drifts or inclined planes connected with the excavations penetrating coal stratum or strata, which excavations are ventilated by one general air current, and all appliances and equipment for hoisting and extracting coal; and shall embrace any and all parts of the mining property and plant on the surface or underground, which contributes directly or indirectly to the mining or handling of coal, and which is connected by one general system of mine railroads, over which coal may be delivered to one or more points outside such mine. The word also includes a portion of a mine when the sense so requires.

The provisions of this sub-title shall not apply to any mine employing less than ten persons excepting that the provisions of Section 54, Chapter 7, Title V, Mine Management and Operations, requiring an annual report in such form as the Bureau may prescribe, shall apply to all mines without regard to the number of their employees.))