

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 and/or fire clay stratum or strata, which excavations are ventilated by one general air current, and all appliances and equipment for hoisting and extracting coal and/or fire clay; 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/or fire clay; and which is connected by one general system of mine railroads, over which coal and/or fire clay 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 where less than five persons are employed or engaged in work inside the mine, in any one period of twenty-four hours; but any mine inspector