



Ohio Revised Code

Section 1567.17 Rules for use of direct current.

Effective: June 14, 2000

Legislation: House Bill 601 - 123rd General Assembly

Where direct current is used underground in mines, the following rules shall govern:

(A) In determining the voltage limit the difference in potential shall not exceed three hundred twenty-five volts measured by a meter at the nearest switchboard except with the written approval of the chief of the division of mineral resources management.

(B) For the protection of circuits, a switch and circuit breaker shall be installed in the ungrounded side of the circuit, but may be omitted from the return side. Fuses may be substituted for circuit breakers transmitting twenty-five kilowatts or less. Each circuit leading in the underground workings of such mine shall be provided with a suitable ammeter. Additional switches shall be installed in the ungrounded side of all branch circuits.

(C) One side of grounded circuits shall be very efficiently insulated from the earth.

(D) All trolley and feed wires shall be placed on the opposite side of the track from refuge holes or necks of room. All lines except telephone, shot firing, and signal lines shall be on the same side as the trolley lines.

(E) All terminal ends of feed and trolley wires shall be guarded to prevent persons from inadvertently coming in contact with them.

(F) No locomotive shall be operated by means of a person holding and sliding upon, or frequently making contact with, the positive wire with any device attached to the cable as a substitute for a trolley, except to move a locomotive out of traffic because of a broken trolley pole or fixtures attached thereto. This does not prohibit the operation of a locomotive by means of a cable without the use of the trolley, if the connection with and disconnection from the positive wire is made when the locomotive is not in motion.



(G) Inside the mine the trolley wire shall be installed parallel to the gauge line of the rail and as far away as practical, and in no place closer than six inches from the gauge line, except where written permission is given by the chief. The trolley wire shall be securely supported on hangers efficiently insulated. Such hangers shall be placed at intervals of not exceeding thirty feet and at less intervals if it is necessary to prevent the sag between points of support exceeding three inches. Hangers installed after September 2, 1941, shall be of sufficient height to place the trolley wire within six inches of the roof or cross timbers at the point of trolley wire support, except where the trolley wire may be above the top of the normal seam or draw slate taken with the seam or six feet six inches from the top of the rail.

(H) In underground workings all feed wires shall be in places either above the trolley wire on the same hangers, between trolley wire and rib, or on the rib as close to the roof as practicable, and securely supported on hangers sufficiently insulated, not more than fifty feet apart. If feed wires are installed in entries that are not equipped with trolleys, they are to be installed as close to the rib as practicable.

(I) Recharging stations for battery locomotives located inside a mine shall be adequately ventilated at all times. All charging panels shall be equipped with automatic overload circuit breakers and ammeters. All refuse or movable material of an inflammable nature shall be kept out of such stations.

(J) All trolley and positive feed wires crossing places where persons or animals are required to travel shall be safely guarded or protected from such persons or animals coming in contact with such wires, except where such wires are above the top of normal seam or draw slate taken with the seam, or six feet six inches from the top of the rail.

(K) No trolley wire shall be extended into or maintained in any room while being used as a working place; no trolley or feed wire shall be extended into any entry beyond the outside corner of the last break-through, except in case of systems of mining or equipment approved by the chief.

(L) When necessary to carry bare wires down shafts or slopes used as traveling ways, the wires shall be thoroughly protected so that persons cannot inadvertently come in contact with them.

(M) When positive machine feed wires are extended into rooms, they shall be placed not nearer than



four feet from the rail where the room is of sufficient width, and shall only be connected to the positive wire on the entry while in actual use. The wire used for making such connections shall be of sufficient length to reach across the entry, and when the same is disconnected, it shall be removed from the entry or be kept with the machine. No electric wires shall be extended into any room unless a one hundred fifty foot trailing cable will not reach the face of the room, and then not beyond the outside corner of the last break-through, except in the case of systems of mining and equipment approved by the chief. Means shall be provided by which machine runners may readily install the machine cable across the entry so as to render it free from ground, and so the cable will not come in contact with persons or animals required to travel such entry.

(N) Any track or rail that is used as a return circuit shall be properly bonded. When metallic pipelines parallel a rail or track used for return, the pipe may be bonded to the rail at both ends to avoid electrolysis, and if the pipeline is of unusual length, intermediate bonds shall be installed. No pipeline or any part thereof shall be used exclusively as the return. In a section of a mine where electric detonators or electric squibs are used, metallic pipeline rails and return lines in that section shall be bonded together.

(O) All lighting circuits of a mine, whether underground or outside, shall be installed in such a manner that they will not be a fire hazard or will not endanger persons coming in contact therewith.

No operator of a mine shall refuse or neglect to comply with this section.