

142B. Cap lamps and checking systems. All workmen and other persons underground shall use only permissible electric cap lamps for portable illumination. This does not preclude the use of other types of permissible electric lamps. Mines now operating with open-light equipment may continue to so operate until permissible electric cap lamps can be secured from suppliers, or until necessary facilities for service of such equipment are available.

142C. Arcs, sparks, and flames. Because of explosion and fire hazards, all persons in underground workings of a mine are herewith prohibited from intentionally creating any arc, spark, or open flame, except those that cannot be avoided in the normal performance of work. The carrying of matches or other flame-making devices into a mine and smoking shall be prohibited.

142D. Welding and cutting (with electricity or flame) shall be restricted to places where trolley locomotives are permitted except that where it is necessary to do welding and cutting in face regions, such work shall be under the direct supervision of a certified official, who shall test for gas before starting operations and frequently thereafter. In all welding and cutting operations, precautions shall be taken against starting a fire and the area shall be rock-dusted.

## EXPLOSIVES AND BLASTING

144. Surface magazines. (a) Separate surface magazines shall be provided for the storage of explosives, detonators, and Cardox heater elements. Surface magazines for storing and distributing high explosives in amounts exceeding 125 pounds shall be:

1. Reasonably bulletproof and constructed of incombustible material or covered with fire-resistive material. The roofs of magazines so located that it is impossible to fire bullets directly through the roof from the ground, need not be bulletproof, but where it is possible to fire bullets directly through them, roofs shall be made bullet-resistant by material construction, or by a ceiling that forms a tray containing not less than a 4-inch thickness of sand, or by other methods.

2. Provided with doors constructed of 3/8 inch steel plate lined with a 2-inch thickness of wood, or the equivalent.