

where at least two modes of exit have been provided.

(e) Permanent underground storage magazines shall be at least 300 feet from any shaft, adit, or active underground working area.

(f) Permanent underground magazines containing detonators shall not be located closer than 50 feet to any magazine containing other explosives or blasting agents.

[44 FR 8577, Feb. 9, 1979; 44 FR 20940, Apr. 6, 1979, as amended at 58 FR 35311, June 30, 1993]

§ 1926.905 Loading of explosives or blasting agents.

(a) Procedures that permit safe and efficient loading shall be established before loading is started.

(b) All drill holes shall be sufficiently large to admit freely the insertion of the cartridges of explosives.

(c) Tamping shall be done only with wood rods or plastic tamping poles without exposed metal parts, but non-sparking metal connectors may be used for jointed poles. Violent tamping shall be avoided. The primer shall never be tamped.

(d) No holes shall be loaded except those to be fired in the next round of blasting. After loading, all remaining explosives and detonators shall be immediately returned to an authorized magazine.

(e) Drilling shall not be started until all remaining butts of old holes are examined for unexploded charges, and if any are found, they shall be refired before work proceeds.

(f) No person shall be allowed to deepen drill holes which have contained explosives or blasting agents.

(g) No explosives or blasting agents shall be left unattended at the blast site.

(h) Machines and all tools not used for loading explosives into bore holes shall be removed from the immediate location of holes before explosives are delivered. Equipment shall not be operated within 50 feet of loaded holes.

(i) No activity of any nature other than that which is required for loading holes with explosives shall be permitted in a blast area.

(j) Powerlines and portable electric cables for equipment being used shall be kept a safe distance from explosives

or blasting agents being loaded into drill holes. Cables in the proximity of the blast area shall be deenergized and locked out by the blaster.

(k) Holes shall be checked prior to loading to determine depth and conditions. Where a hole has been loaded with explosives but the explosives have failed to detonate, there shall be no drilling within 50 feet of the hole.

(l) When loading a long line of holes with more than one loading crew, the crews shall be separated by practical distance consistent with efficient operation and supervision of crews.

(m) No explosive shall be loaded or used underground in the presence of combustible gases or combustible dusts.

(n) No explosives other than those in Fume Class 1, as set forth by the Institute of Makers of Explosives, shall be used; however, explosives complying with the requirements of Fume Class 2 and Fume Class 3 may be used if adequate ventilation has been provided.

(o) All blast holes in open work shall be stemmed to the collar or to a point which will confine the charge.

(p) Warning signs, indicating a blast area, shall be maintained at all approaches to the blast area. The warning sign lettering shall not be less than 4 inches in height on a contrasting background.

(q) A bore hole shall never be sprung when it is adjacent to or near a hole that is loaded. Flashlight batteries shall not be used for springing holes.

(r) Drill holes which have been sprung or chambered, and which are not water-filled, shall be allowed to cool before explosives are loaded.

(s) No loaded holes shall be left unattended or unprotected.

(t) The blaster shall keep an accurate, up-to-date record of explosives, blasting agents, and blasting supplies used in a blast and shall keep an accurate running inventory of all explosives and blasting agents stored on the operation.

(u) When loading blasting agents pneumatically over electric blasting caps, semiconductive delivery hose shall be used and the equipment shall be bonded and grounded.

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