§ 75.1312 Explosives and detonators in underground magazines.

(a) The quantity of explosives kept underground shall not be more than is needed for 48 hours of use.

(b) Except as provided in §75.1313, explosives and detonators taken underground shall be kept in—

(1) Separate, closed magazines at least 5 feet apart; or

(2) The same closed magazine when—

(i) Separated by a hardwood partition at least 4 inches thick; or

(ii) Separated by a laminated partition; or

(iii) Separated by a device that is equivalent.

(c) Only explosives and detonators shall be kept in underground magazines.

(d) Magazines shall be substantially constructed and all interior surfaces shall be made of nonconductive material, with no metal or other conductive material exposed inside.

(e) All magazines shall be—

(1) Located at least 25 feet from roadways and any source of electric current;

(2) Located out of the direct line of the forces from blasting; and

(3) Kept as dry as practicable.

(f) Magazine locations shall be posted with indelibly marked and readily visible warnings indicating the presence of explosives.

(g) Only materials and equipment to be used in blasting shall be stored at magazine locations.

§ 75.1313 Explosives and detonators outside of magazines.

(a) The quantity of explosives outside a magazine for use in a working section or other area where blasting is to be performed shall—

(1) Not exceed 100 pounds; or

(2) Not exceed the amount necessary to blast one round when more than 100 pounds of explosives is required.

(b) Explosives and detonators outside a magazine that are not being transported or prepared for loading boreholes shall be kept in closed separate containers made of nonconductive material with no metal or other conductive material exposed inside and the containers shall be—

(1) At least 15 feet from any source of electric current;

(2) Out of the direct line of the forces from blasting;

(3) In a location to prevent damage by mobile equipment; and

(4) Kept as dry as practicable.

(c) Explosives and detonators not used during the shift shall be returned to a magazine by the end of the shift.

§ 75.1314 Sheathed explosive units.

(a) A separate instantaneous detonator shall be used to fire each sheathed explosive unit.

(b) Sheathed explosive units shall be primed and placed in position for firing only by a qualified person or a person working in the presence of and under the direction of a qualified person. To prime a sheathed explosive unit, the
entire detonator shall be inserted into
the detonator well of the unit and be
held securely in place.

(c) Sheathed explosive units shall not
be primed until immediately before the
units are placed where they are to be
fired. A sheathed explosive unit shall
not be primed if it is damaged or deters-
iorated.

(d) Except in anthracite mines, rock
dust shall be applied to the roof, ribs
and floor within a 40-foot radius of the
location where the sheathed explosive
units are to be fired.

(e) No more than three sheathed ex-
plosive units shall be fired at one time.

(f) No sheathed explosive unit shall
be fired in contact with another
sheathed explosive unit.

§ 75.1315 Boreholes for explosives.

(a) All explosives fired underground
shall be confined in boreholes except—
(1) Sheathed explosives units and
other explosive units approved by
MSHA for firing outside the confines of
a borehole; and

(2) Shots fired in anthracite mines
for battery starting or for blasting coal
overhangs. No person shall go inside a
battery to start the flow of material.

(b) Each borehole in coal for explo-
sives shall be at least 24 inches from
any other borehole and from any free
face, unless prohibited by the thickness
of the coal seam.

(c) Each borehole in rock for explo-
sives shall be at least 18 inches from
any other borehole in rock, at least 24
inches from any other borehole in coal,
and at least 18 inches from any free
face.

(d) No borehole that has contained
explosives shall be used for starting
any other hole.

(e) When blasting slab rounds off the
solid, opener holes shall not be drilled
beyond the rib line.

(f) When coal is cut for blasting, the
coal shall be supported if necessary to
maintain the stability of the column of
explosives in each borehole.

§ 75.1316 Preparation before blasting.

(a)(1) All nonbattery-powered electric
equipment, including cables, located
within 50 feet from boreholes to be
loaded with explosives or the sites
where sheathed explosive units are to
be placed and fired shall be deenergized
or removed to at least 50 feet from
these locations before priming of explo-
sives. Battery-powered equipment shall
be removed to at least 50 feet from
these locations before priming of explo-
sives.

(2) As an alternative to paragraph
(a)(1) of this section, electric equip-
ment, including cables, need not be de-
energized or removed if located at least
25 feet from these locations provided
stray current tests conducted prior to
priming the explosives detect stray
currents of 0.05 ampere or less through
a 1-ohm resistor.

(i) Tests shall be made at floor loca-
tions on the perimeter, on energized
equipment frames and on repaired
areas of energized cables within the
area between 25 to 50 feet from the lo-
cations where the explosives are to be
primed.

(ii) Tests shall be conducted using a
blasting multimeter or other instru-
ment specifically designed for such use.

(3) The blasting cable or detonator
circuitry shall not come in contact
with energized electric equipment, in-
cluding cables.

(b) Before loading boreholes with ex-
plosives, each borehole shall be cleared
and its depth and direction determined.

(c) No borehole drilled beyond the
depth of cut coal shall be loaded with
explosives unless that portion of the
borehole deeper than the cut is tamped
with noncombustible material.

(d) When two working faces are ap-
proaching each other, cutting, drilling
and blasting shall be done at only one
working face at a time if the two faces
are within 25 feet of each other.

[35 FR 17890, Nov. 20, 1970, as amended at 56
FR 51616, Oct. 11, 1991]

§ 75.1317 Primer cartridges.

(a) Primer cartridges shall be primed
and loaded only by a qualified person
or a person working in the presence of
and under the direction of a qualified
person.

(b) Primer cartridges shall not be
primed until immediately before load-
ing boreholes.

(c) Only a nonsparking punch shall be
used when priming explosive car-
triges.