

### **13 NCAC 07F .0709 INITIATION OF EXPLOSIVE CHARGES-ELECTRIC BLASTING**

Additions and amendments to 29 CFR 1926.906 Initiation of Explosive Charges-Electric Blasting apply throughout the Rules in this Section as follows:

- (a) Electric detonators shall not be used where sources of extraneous electricity make the use of electric detonators dangerous. Except during testing, electric detonator leg wires shall be kept short-circuited (shunted) until they are connected into the circuit for firing.
- (b) If the presence of extraneous electricity is possible, the blaster shall conduct a stray current survey. No holes shall be loaded using electric detonators until the danger of extraneous electricity is eliminated.
- (c) In any single blast using electric detonators, all detonators shall be of the same style or function, and of the same manufacture.
- (d) Electric initiation shall be carried out by using blasting machines or power circuits in accordance with the manufacturer's recommendations.
- (e) When firing a circuit of electric detonators, an adequate quantity of delivered current must be available, in accordance with the manufacturer's recommendations.
- (h) When firing electrically, the insulation on all firing lines shall be in good condition and shall be adequate to prevent voltage leaks.
- (i) A power circuit used for firing electric detonators shall not be grounded.
- (k) In underground operations there shall be a "lightning" gap of at least 15 feet in the firing system ahead of the main firing switch; that is, between this switch and the source of power. This gap shall be bridged by a flexible jumper cord just before firing the blast.
- (n) When firing with blasting machines, the connections shall be made as recommended by the manufacturer of the electric detonators used.
- (o) The number of electric detonators connected to a blasting machine shall not be in excess of its rated capacity. A series circuit shall contain no more detonators than the limits recommended by the manufacturer of the electric detonators in use.
- (p) A blaster shall be in charge of the blasting machines.
- (q) A blaster shall test blasting circuits for:
  - (1) Continuity of electric detonator in the blast hole prior to stemming and connection of the blasting line.
  - (2) Resistance of individual series or the resistance of multiple balanced series to be connected in parallel prior to their connection to the blasting line.
  - (3) Continuity of blasting lines prior to the connection of electric detonator series.
  - (4) Total blasting circuit resistance prior to connecting to the power source. A blasting galvanometer, or other instrument specifically designed for testing blasting circuits, shall be used to conduct these tests.
- (r) Whenever the possibility exists that a leading line or blasting wire might be thrown over a live power line by the force of an explosion, the total length of wires shall be kept too short to hit the lines, or the wires shall be securely anchored to the ground. If neither of these requirements can be satisfied, a nonelectric system shall be used.
- (s) The blaster shall assure that all connections are made from the bore hole back to the source of firing current, and that the leading wires remain shorted, except during testing, and not connected to the blasting machine or other source of current until the blast is to be fired. Only the blaster, or a qualified person (as described in 1926.900(a) and 1926.901) under the direct control of the blaster, shall make lead wire connections or fire the shot.

*History Note: Authority G.S. 95-131;  
Recodified from 13 NCAC 07F .0201 Eff. August 3, 2005;  
Pursuant to G.S. 150B-21.3A rule is necessary without substantive public interest Eff. March 1, 2016.*