

South Carolina Department of Labor, Licensing and Regulation
Division of Labor
Office of Occupational Safety and Health
Columbia, South Carolina 29211

OSH Program Directive Number 80-1910.109/1926.902-2/2

Subject: Transportation of Explosives, Personnel and Blasting Caps.

Standard: Article VI, Sections 1910.109 (b) (1), 1910.109 (d) (1) (iv), 1910.109 (d) (2) (i) and Article VII, Section 1926.902 (a), 1926.902 (d), 1926.902 (f), and 1926.902 (g), Rules and Regulations, Commissioner of Labor, State of South Carolina.

Cross Reference to Federal Standards: 29 CFR 1910.109 (b) (1), (d) (1) (iv), (d) (2) (i) and 29 CFR 1926.902 (a), (d), (f), and (g).

Background:

- a. The standards related to this directive are:
 1. Article VI, Section 1910.109 (b) (1). General hazard. No person shall store, handle, or transport explosives or blasting agents when such storage, handling, and transportation of explosives and blasting agents constitutes an undue hazard to life.
 2. Article VI, Section 1910.109 (d) (1) (iv). Blasting caps or electric blasting caps shall not be transported over the highways on the same vehicles with other explosives.
 3. Article VI, Section 1910.109 (d) (2) (i). Vehicles used for transporting explosives shall be strong enough to carry the load without difficulty and be in good mechanical condition. If vehicles do not have a closed body, the body shall be covered with a flame-proof and moisture-proof tarpaulin or other effective protection against moisture and sparks. All vehicles used for the transportation of explosives shall have tight floors and any spark-producing metal on the inside of the body shall be covered with wood or other nonsparking materials to prevent contact with package of explosives. Packages of explosives shall not be loaded above the sides of an open body vehicle.

4. Article VII, Section 1926.902 (a). Transportation of explosives shall meet the provisions of the Department of Transportation Regulations contained in...49 CFR 171-179, Highways and Railways...
 5. Article VII, Section 1926.902 (d). Explosives, blasting agents, and blasting supplies shall not be transported with other materials or cargoes. Blasting caps (including electric) shall not be transported in the same vehicle with other explosives.
 6. Article VII, Section 1926.902 (f). When explosives are transported by a vehicle with an open body, a class II magazine or original manufacturer's container shall be securely mounted on the bed to contain the cargo.
 7. Article VII, Section 1926.902 (g). All vehicles used for transportation of explosives shall have tight floors and any exposed spark-producing metal on the inside of the body shall be covered with wood, or other nonsparking material, to prevent contact with containers of explosives.
- b. Due to apparent conflicts among federal OSHA, Department of Transportation, and Bureau of Mine regulations concerning explosives and the transportation thereof, inspectors, consultants, employer, and employees have expressed concern and confusion as to what constitutes proper transportation procedures. The authority on explosives, generally accepted by all agencies involved, is the Institute of Makers of Explosives (IME) which is the trade association representing the manufacturers of commercial explosives, blasting agents, supplies and accessories in the United States, and the association on whose guidelines most standards are based. The questions most commonly asked in regards to conflicts in standards are:
1. Can employees, equipment, and explosives be transported on the same vehicle?
 2. Can dynamite and blasting caps be transported together in the same vehicle?
 3. Can dynamite and/or blasting caps be transported in a trailer attached to the rear of a personnel transport truck?

Interpretation:

- a. As implied in Article VI, Section 1910.109 (b) (1) and specifically stated in IME Publications Numbers 3 and 4, and in federal mine safety regulations, only authorized persons qualified in explosives handling and/or blasting operations shall be in or around motor vehicles transporting explosive materials, Further, as implied in Article VI, Section 1910.109 (b) (1) and stated in Article VII, Section 1926.902 (d); IME Publications Numbers 3, 4, 5, and 17, federal mines safety regulations; and specifically described in Department of Transportation regulations, explosives, blasting caps, and blasting agents shall not be transported with tools, equipment, materials, and/or other cargoes. Tools, equipment, and/or materials of non-hazardous nature may be carried in separate compartments so long as they cannot in any way increase the hazards associated with handling and transporting the explosives, or increase the likelihood of employee injury. No loose cargo shall be permitted in the compartment with the explosives

- b. Article VI, Section 1910.109(d) (1) (iv) and Article VII, Section 1926.902 (d) prohibit the transportation of electric blasting caps and other explosives on the same vehicle. However, the same vehicle usage is permitted if both items are packed in their original containers, properly labeled, and deposited in approved containers or compartment as specified in IME Safety Library Publication Number 22 (copy provided as attachment #1). The locations for such containers and compartments are described in Part I of the above publication. Also, the construction and marking of such containers and compartments are described in Part II and Part III, respectively.

The cab of the vehicle is not acceptable as the “compartment or container” in which the electric caps shall be placed. If an approved magazine is not used for the explosive, then the metal surface of the cargo compartment shall be lined with wood, and open body vehicles covered with a fire and moisture resistant tarpaulin or equivalent. Explosives shall not be piled higher than the sides or tailgate of the transporting vehicle.

- c. Explosives and/or blasting caps shall not be transported on trailers unless the trailer is specifically designed and/or equipped for explosives hauling or storage, including approved type 2 or 3 magazines. Pole trailers are not acceptable for such uses. Situations contrary to these guidelines are subject to citations under Article VI, Section 1910.109 (b) (1) for general industry and Article VII, Section 1926.902 for construction.

- d. Close attention shall be given to strict adherence to all other requirements of Article VI, Section 1910.109 and Article VII, Sections 1926.900 through 1926.914 in explosives operations to ensure maximum safety and understanding of potential hazards.

Effective Date: This instruction is effective upon receipt and will remain in effect until cancelled or superseded by amendment to the Rules and Regulations.

William M. Lybrand, Director
October 22, 1980