



# Coffee Break Training - Fire Protection Series

## Hazardous Materials: Highway Transportation of Explosives

No. FP-2013-24 June 11, 2013

**Learning Objective:** The student shall be able to list the safety regulations associated with the transport of explosive materials on highways.

Small quantities of explosive materials occasionally have to be transported from a central storage or manufacturing facility to a construction site where they will be used. In those cases, portable or mobile magazines must be used to meet over-the-road safety requirements of National Fire Protection Association 495, *Explosive Materials Code* and the U.S. Department of Transportation, 49 Code of Federal Regulations 100–179 and 49 CFR 397. (See Coffee Break Training FP-2008-09 for a description of explosives magazines.)

Among the requirements from NFPA 495:

- Explosive materials must not be transported through any prohibited vehicular tunnel or subway or over any prohibited bridge, roadway or elevated highway. Federal, state or local highway departments can provide guidance on these restrictions.
- No person should smoke or carry matches, flame-producing devices, or unauthorized firearms or cartridges while transporting explosive materials.
- In the event of a breakdown or collision, the local Authority Having Jurisdiction (code official, law enforcement or highway department) should be notified promptly to help safeguard such emergencies.
- Vehicles used for transporting explosive materials should be strong enough to carry the load and in good mechanical condition.
- Where explosive materials are transported on a vehicle with an open body, a portable magazine — such as the one in the illustration — securely fastened to the vehicle body should be used to store the explosive materials.
- Vehicles used for transporting frictional, spark-sensitive explosive materials such as black powder and primary explosives should have no exposed spark-producing surface inside of the cargo body.
- The floors of transportation vehicles should be tight.
- Motor vehicles used for transporting any quantity of explosive materials on public highways should display all placards, lettering or numbering required by the DOT.
- Each motor vehicle used for transporting explosive materials should be equipped with at least two listed fire extinguishers, each with a rating of at least 4-A:40-B:C. Extinguishers should be located where they are accessible for immediate use.
- Vehicles transporting explosive materials should avoid congested areas and heavy traffic.
- Where routes through congested areas have been designated by the AHJ, such routes should be followed.
- Delivery should be made only to authorized persons and into authorized magazines or approved temporary storage or handling areas.



This pickup truck is loaded with a portable magazine designed to meet federal regulations for explosives transportation.

This list includes only a portion of the explosives transportation safety requirements from NFPA 495. Additional items will be covered in future Coffee Break Training sessions.



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