

February 28, 2013



U.S. Department  
of Transportation

East Building, PHH-30  
1200 New Jersey Avenue S.E.  
Washington, D.C. 20590

**Pipeline and Hazardous  
Materials Safety Administration**

DOT-SP 12677  
(ELEVENTH REVISION)

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: (See individual authorization letter)
2. PURPOSE AND LIMITATION:
  - a. This special permit authorizes the transportation in commerce of certain Division 1.1, 1.4, 1.5D explosives, Division 5.1 oxidizers, Class 8 corrosive liquids and combustible liquids in separate containers mounted on the same vehicle frame structure. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein. The most recent revision supersedes all previous revisions.
  - b. The safety analyses performed in support of this special permit considered only the hazards and risks associated with transportation in commerce.
  - c. Unless otherwise stated herein, this special permit consists of the special permit authorization letter issued to the grantee together with this document.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 177.835(c)(3) in that Division 1.1 explosives may not be loaded into or carried on any vehicle in a combination with a cargo tank containing material required to be placarded under § 177.823 (i.e., Combustible liquid, n.o.s.) except as specified herein; § 177.848(e) Table in that Division 1.1 and 1.5 explosives may not be shipped together with Division 5.1 or Class 8 liquids except as specified herein; § 177.848(g) in that Compatibility Group B detonators may not be carried on the same motor vehicle as Compatibility

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Group D explosives, except as specified herein and § 177.835(a) in that the engine may remain running for certain operations.

5. This special permit is based on the responses to the Pipeline and Hazardous Materials Safety Administration's (PHMSA) show cause letter issued under § 107.121 initiated on August 14, 2008, additional information of June 20, 2011 and information from the Institute of Makers of Explosives dated January 16, 2013.
6. HAZARDOUS MATERIALS (49 CFR § 172.101):

<b>Hazardous Material Description</b>			
<b>Proper Shipping Name</b>	<b>Hazard Class/Division</b>	<b>Identification Number</b>	<b>Packing Group</b>
Acetic acid solution, <i>not less than 50 percent but not more than 80 percent acid by mass</i>	8	UN2790	II
Ammonium nitrate-fuel oil mixture <i>containing only prilled ammonium nitrate and fuel oil</i>	1.5D	NA0331	II
Ammonium nitrate	5.1	UN1942	III
Articles, explosive, n.o.s. (Shock tubing containing HMX)	1.4S	UN0349	II
Boosters, <i>without detonator</i>	1.1D	UN0042	II
Cord, detonating, <i>flexible</i>	1.1D	UN0065	II
Detonator assemblies, non-electric, <i>for blasting</i>	1.4B	UN0361	II
Detonators, electric, <i>for blasting</i>	1.4B	UN0255	II
Explosive, blasting, type A	1.1D	UN0081	II
Explosive, blasting, type E or Agent blasting, Type E	1.5D	UN0332	II

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Hazardous Material Description			
Proper Shipping Name	Hazard Class/Division	Identification Number	Packing Group
Explosive, blasting, type B or Agent blasting, Type B	1.5D	UN0331	II
Explosives, blasting, type E	1.1D	UN0241	II
Fuel Oil (No. 2)	Combustible	NA1993	III
Nitrites, inorganic, aqueous solution, n.o.s. (sodium nitrite)	5.1	UN3219	III
Oxidizing liquid, n.o.s. (contains ammonium nitrate/fuel oil aqueous emulsion)	5.1	UN3139	II

NOTE: Other blasting explosives and oxidizers must be specifically identified to, and acknowledged in writing by, the Office of Hazardous Materials Special Permits and Approvals (OHMSPA) prior to the first shipment.

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Prescribed packagings are as follows:

(1) Division 1.1D and 1.5D explosives must be packaged as prescribed in the § 173.62(c) Table according to their UN number and overpacked in an IME Safety Library Publication 22 (IME-22) container.

(2) Division 1.4B electric detonators and non-electric detonator assemblies as well as the Division 1.4S shock tube must be packaged according to § 173.63(f) or (g) in a separate IME-22 container.

(3) Combustible liquids (NA1993) must be packaged in DOT Specification or non-DOT specification cargo tanks not to exceed 210 gallons, as described in Tread Corporation Drawing Nos. P1555-3C Rev. A (body profile) dated September 19, 1997 or P1664-1D Rev. A (saddle-mounted) dated May 19, 1998 on file with the Office of

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(OHMSPA).

(4) Ammonium nitrate (UN1942), Division 5.1, and ammonium nitrate/fuel oil mixtures (NA0331), Division 1.5D, must be packaged in non-DOT specification cargo bins as described in Tread Corporation Drawing No. 100-C540 Rev 6 dated November 1, 1985 on file with OHMSPA.

(5) Bulk explosives, blasting, type E, Division 1.5D and all oxidizing liquids, n.o.s., Division 5.1, must be packaged in DOT Specification 406, 407, 412 MC 306, MC 307 or MC 312 cargo tanks or in non-DOT specification cargo tanks described in Atlas Powder Company drawings RS-41701, RS-41702 and RS-41703 (2,376-gallon capacity). The non-DOT specification cargo tanks are currently authorized under DOT-SP 8453.

(6) Nitrites solution (UN3219 containing not more than 40 percent sodium nitrite in water) and Acetic acid solution (UN2790 with not less than 50 percent but not more than 80 percent acetic acid) must be separately packaged in 1/8 inch thick stainless steel non-DOT specification containers which are permanently mounted on the motor vehicle and have a capacity not to exceed 115 gallons as shown in Tread Corporations Drawing No. P1338T-1D, Rev. B dated December 2, 1996 on file with OHMSPA.

b. OPERATIONAL CONTROLS -

(1) Transportation is limited to private carriage or to contract carriers specifically identified to, and acknowledged in writing by OHMSPA prior to the first shipment.

(2) IME-22 container(s) or compartment(s) must be located directly behind the cab or at other locations entirely within the profile of the vehicle, forward of the rear most axle, and may not be located on the front of the vehicle. The IME-22 container(s) or compartment(s) may not share a common wall or be in direct contact with any cargo tank, tank bin, pump or piping containing a hazardous material.

(3) Cargo tanks containing combustible liquids and the non-DOT specification containers containing the nitrite solution and acetic acid solution may not have

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common walls with each other or with any other compartment, tank or bin on the motor vehicle.

(4) The cargo tank containing nitrite solution must be located below and away as far as practical from cargo tanks containing ammonium nitrate or ammonium nitrate emulsions on the frame structure of the motor vehicle.

(5) None of the materials in any cargo tank or bin on the motor vehicle may be mixed, transferred or circulated while the vehicle is in transit on a public road or highway.

(6) All transfer pumps must be equipped with at least two positive means to prevent operation while in transportation. All process lines should be appropriately cleaned to minimize residue prior to transport on public roads and highways and valves must be securely closed before transport on a public road or highway.

(7) All nitrite solution cargo tank transfer piping and pumps must be completely drained prior to transport on a public road or highway.

(8) All other process lines, discharge lines, chutes, surge hoppers, pumps or augers should be appropriately cleaned to the extent practicable to minimize residue prior to transport on public roads or highways.

(8) Driver Qualification and Training Program Audits. By July 1, 2010, and annually thereafter the special permit grantee must audit its program for validating the qualifications and training of the persons who operate the vehicles authorized under the terms of the special permit. The records of the audit must be maintained for one year or until the next annual audit. The audit must ensure:

(i) Each driver holds a Commercial Driver's License and appropriate endorsements, as required by 49 CFR Part 383, and meets the qualification requirements in 49 CFR Part 391.

(ii) Each driver has received current training as required by 49 CFR part 172, subpart H, and 49 CFR §§ 177.800 and 177.816. This training must specifically include the terms and conditions of

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the special permit(s); design and operational characteristics of the vehicles authorized under these special permits; methods of defensive driving and vehicle control to avoid accidents (including roll-overs) and how to recover control in the event the wheels leave the paved surface of the road; successful road tests in a vehicle similar to the one they will operate prior to being authorized to operate a vehicle under the terms of this special permit and emergency response procedures including information necessary to communicate to responders in the event of an incident. Training records must be maintained as required by 49 CFR part 172, subpart H.

(9) Training after an accident. Beginning July 1, 2010, a driver of a vehicle operated under the terms of this special permit that is involved in a "preventable" accident, as described in 49 CFR Part 385, Appendix A, must be retrained in accordance with the applicable provisions of paragraph 7.b.(8)(ii) above prior to resuming operations of a vehicle operated under the terms of this special permit. Note that if the vehicle is not disabled as a result of the preventable accident, the driver may complete the assigned movement for his or her vehicle.

(10) Vehicle Inspections.

(i) By July 1, 2010, and annually thereafter the special permit grantee must perform an audit of its program for vehicle inspections to ensure that the requirements for daily and periodic inspections set forth in 49 CFR Part 396 are properly performed and recorded. A record of the audit must be maintained for a minimum of one year or until the next annual audit.

(ii) Tire Inspections

(A) The grantee must ensure that tires installed on a vehicle authorized under the terms of this special permit are rated and sized according to the tire manufacturer's recommendations for size and gross vehicle weight rating, as displayed on the sidewall of the tire.

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(B) Tires that are more than six years old, based on the manufacture date marked on the sidewall of the tire, may not be used on vehicles authorized under this special permit.

(C) Tires on the steering axle must have a minimum tread depth of 8/32 inch and may not be retreaded tires. All other tires on the vehicle must have a minimum tread depth of 4/32 inch.

(D) Tire Pressure. When vehicles authorized under this special permit are in use, tire pressure must be monitored using one of the following methods:

(1) Tire pressure must be measured and recorded as a minimum on a daily basis and additionally each time the vehicle begins a trip on a public roadway. Tire pressure must be adjusted if it is more than 25% below the recommended inflation pressure. The results must be recorded in the vehicle inspection report as required in 49 CFR 396.11, or

(2) Tire pressure must be physically measured and recorded at least once in each consecutive seven-day period, and electronic or mechanical pressure monitoring systems must be installed and functional on all wheels. Tire pressure must be adjusted if it is more than 25% below the recommended inflation pressure. The results must be recorded in the driver vehicle inspection report as required in 49 CFR 396.11.

(3) Flat, leaking, or improperly inflated tires must be repaired, replaced, or properly inflated before the vehicle is driven or at the nearest safe location.

(E) Prior to traveling on a public roadway, tires must be inspected to ensure they

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conform to requirements in the North American Standards of the Commercial Vehicle Safety Alliance. However, tread depth must meet the minimum requirements of paragraph 7.b.(10)(ii)(C). Tires that meet the out-of-service criteria must be replaced prior to the vehicle being used on a public roadway.

(11) Vehicle Batteries.

(i) Emergency Disconnect Standards

By July 1, 2011, each vehicle operating under the terms of this special permit must be equipped with system meeting one of the requirements below.

A. A redundant (two or more independently operating systems) system capable of interrupting all electrical current flow from the battery and of powering down all mechanical and electrical systems in the event of a rollover incident or incident when the vehicle is in an upright position. (Example: a battery disconnect device located in the vehicle cab and another on the exterior of the vehicle.) The activation device for each system must be clearly marked in a manner that identifies it as the emergency shutdown. Each device shall be tested once per calendar month and in the event of malfunction or failure, be repaired or replaced prior to placing the vehicle back in service.

B. Emergency Battery Disconnect and Emergency Engine Shut Off

a. An emergency battery disconnect switch that can isolate the battery from the vehicle electrical system.

1) The switch shall be located no more than 60 cm (24 inches) from the battery terminal.

2) Each switch shall be tested once per calendar month and, in the event of malfunction or failure, be repaired or replaced prior to placing the vehicle back in service.

3) The switch shall be clearly marked, "Emergency Battery Disconnect."



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b. Emergency engine shutoff. The device used to shut off the cargo tank motor vehicle engine may be the same device as the emergency battery disconnect switch above or it may be a separate device, such as the ignition switch or a fuel cut-off valve that, when actuated, will stop the cargo tank motor vehicle engine.

1) Each emergency engine shutoff device shall be tested once per calendar month and, in the event of malfunction or failure, be repaired or replaced prior to placing the cargo tank motor vehicle back in service.

2) The emergency engine shutoff shall be clearly marked, "Emergency Engine Shutoff."

(ii) By January 1, 2011, batteries and housings must be located towards the front of the vehicle, within the profile of the vehicle, and marked in such a way as to be easily identified to emergency responders. The battery housing must be designed to meet the requirements of 49 CFR 393.30 with the additional requirement that all cables, not just those leading to the starter motor, must be protected and that the positive (+) battery terminal must be covered to prevent the possibility of short circuit.

(12) Emergency Response.

(i) By July 1, 2010, the grantee must develop, maintain, and implement an emergency response action plan that at a minimum describes the risks associated with the transportation of the materials listed in paragraph 6 of this special permit on the same transport vehicle, including risks resulting from the accidental mixing of these materials as a result of a breach or breaches in the containment systems on the transport vehicles, especially when a fire is involved, and the actions to be taken to minimize such risks. The emergency response action plan must include guidance for first responders concerning actions to be taken in the event of an accident involving the transport vehicle both in the absence of a fire and if a fire results from the accident.

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(ii) The emergency response guidance developed as part of the action plan must be maintained on each vehicle operating under the special permit in the manner set forth in 49 CFR § 172.602(c).

8. SPECIAL PROVISIONS:

a. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation.

b. The motor vehicle must be plainly and durably marked on both sides near the front, in letters and numbers at least 5 cm (2 inches) high on a contrasting background "DOT-SP 12677."

c. In the event of an accident for which an incident report is required under 49 CFR §§ 171.15 or 171.16 that results in an overturn of a vehicle operated under the terms of this special permit, the special permit grantee must:

(1) Conduct an in-depth investigation to determine the cause of the cause(s) of the accident and provide a report of the investigation's findings, conclusions, and recommendations to prevent future accidents or incidents. The report must be completed within 30 days after the accident or incident and forwarded to the Office of Hazardous Materials Special Permits and Approval (OHMSPA) within 15 days.

(2) Provide a copy of the insurance company investigation report, if available, and the police report to PHMSA within 15 days of the date the special permit grantee receives them. If the insurance company investigation report is not available, the special permit grantee must arrange for an independent accident reconstruction investigation to determine the root cause of the incident and any other factors that might be relevant to prevent similar accidents from occurring in the future. The report from the reconstruction and the police report must be provided to OHMSPA within 15 days of the date the special permit grantee receives them.

(3) If requested by PHMSA, the grantee must arrange for an independent accident reconstruction investigation to determine the root cause of the incident and any other

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factors that might be relevant to prevent similar accidents from occurring in the future. The report from the reconstruction must be provided to OHMSPA within 60 days of the PHMSA request to conduct the investigation.

d. The requirements of § 177.835(a) are waived when the engine of a cargo tank motor vehicle is necessary for the operation of a pump, auger, or other equipment needed to load or unload materials from the vehicle.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle.

10. MODAL REQUIREMENTS:

a. A current copy of this special permit must be carried aboard each motor vehicle used to transport hazardous materials covered by this special permit.

b. Drivers must have been instructed as to the necessary safeguards and proper procedures in the event of an unusual transportation delay, fire, explosion or accident involving the hazardous materials covered by this special permit.

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:

- o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
- o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
- o Registration required by § 107.601 et seq., when applicable.
- o All applicable requirements in the Federal Motor Carrier Safety Regulations (49 CFR Parts [insert parts]).

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special

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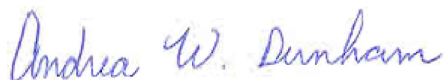
permit in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)- 'The Hazardous Materials Safety and Security Reauthorization Act of 2005' (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005) amended the Federal hazardous materials transportation law (49 U.S.C. 5101 *et seq.*) to change the term "exemption" to "special permit" and authorize a special permit to be granted up to two years for new special permits and up to four years for renewals.

12. REPORTING REQUIREMENTS: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR 171.15, Immediate notice of certain hazardous materials incidents, and 171.16, Detailed hazardous materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:



for Dr. Magdy El-Sibaie  
Associate Administrator for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Materials Safety Administration, Department of Transportation, Washington, D.C. 20590. Attention: PHH-31.

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Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at

[http://hazmat.dot.gov/sp\\_app/special\\_permits/spec\\_perm\\_index.htm](http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm)

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PO: Burger