

August 1, 2014



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 15721  
(FIRST REVISION)

**EXPIRATION DATE: June 30, 2018**

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Hunter Well Science  
Arlington, TX
2. PURPOSE AND LIMITATION:
  - a. This special permit authorizes the transportation in commerce of certain non-DOT specification high-voltage accelerators containing sulfur hexafluoride classed as a Division 2.2 material. 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 the development of this special permit only considered the hazards and risks associated with the transportation in commerce.
  - c. Party status will not be granted to this special permit.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.304a(a)(2) in that the prescribed non-DOT specification packaging is not authorized, except as specified herein.
5. BASIS: This special permit is based on the application of Hunter Well Science dated July 11, 2014, submitted in accordance with § 107.109.

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6. HAZARDOUS MATERIALS (49 CFR § 172.101):

<b>Hazardous Materials Description</b>			
<b>Proper Shipping Name</b>	<b>Hazard Class/ Division</b>	<b>Identification Number</b>	<b>Packing Group</b>
Sulfur hexafluoride	2.2	UN1080	N/A
Radioactive material, excepted package-articles	7	UN2911	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Prescribed packaging is a high voltage accelerator system, consisting of an Inconel 718 (UNS NO7718) outer housing and end caps, mechanically sealed to from a cylinder. The interior contains electronic components, a vacuum tube containing an excepted amount of radioactive material, and an inner pressure vessel constructed of 304 stainless steel containing sulfur hexafluoride gas. The inner pressure vessel may not be charged with sulfur hexafluoride to a pressure exceeding 120 psig at 70°F. The high voltage accelerator system is not equipped with a pressure relief device. The system must be in conformance with the drawings on file with the Approvals and Permits Division (APD).

b. TESTING -

(1) At the time of manufacture each inner pressure vessel must be hydrostatically pressure tested to at least 400 psig without evidence of leakage; and the outer housing must be subjected to an external pneumatic pressure test to at least 16,500 psig without evidence of leakage. The Green Tweed and Pave connectors must be rated to withstand pressures of 4400 psig and 25,000 psig, respectively. Each completed high voltage accelerator system with all pressure containing components must be pressure tested with nitrogen to at least 4,400 psig without evidence of leakage.

(2) Only Hunter Well Science is authorized to test/refurbish/certify new or used high voltage accelerator systems for shipment. Each high voltage accelerator system must be serviced in accordance with the Hunter Well Science procedures detailed in the application for special permit on file with the APD.

b. OPERATIONAL CONTROLS -

(1) The high voltage accelerator system must be overpacked in strong outside containers.

(2) Each outside packaging must be marked "DOT-SP 15721."

(3) Emergency response information provided with the shipment and available via an emergency response telephone number must indicate that the receptacles are not fitted with pressure relief devices and provide appropriate guidance in case receptacles are exposed to fire.

8. SPECIAL PROVISIONS:

a. A person who is not a holder of this special permit who receives a package covered by this special permit may reoffer it for transportation provided no modification or change is made to the package and it is reoffered for transportation in conformance with this special permit and the HMR.

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

9. MODES OF TRANSPORTATION AUTHORIZED: As authorized by the HMR.

10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each cargo vessel, aircraft, or motor vehicle used to transport packages covered by this special permit. The shipper must furnish a copy of this special permit to the air carrier before or at the time the shipment is tendered.

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.

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 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.

Under 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 by changing the term "exemption" to "special permit" and authorizes 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

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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 Material Safety Administration, U.S. Department of Transportation, East Building PHH-30, 1200 New Jersey Avenue, Southeast, Washington, D.C. 20590.

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). Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

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