

February 14, 2018



U.S. Department  
of Transportation

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

**Pipeline and Hazardous  
Materials Safety Administration**

DOT-SP 20221  
(SECOND REVISION)

**EXPIRATION DATE: 2021-12-31**

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: Comet Technologies USA Inc.  
Shelton, CT
2. PURPOSE AND LIMITATIONS:
  - a. This special permit authorizes the transportation in commerce of sulfur hexafluoride in a non-DOT specification pressure vessel which is an integral part of x-ray equipment. This x-ray equipment will be used in the field by radiographers for the purpose of inspection of installed fixed assets (such as pipeline infrastructure). 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 development of this special permit only considered the hazards and risks associated with transportation in commerce. The safety analyses did not consider the hazards and risks associated with consumer use, use as a component of a transport vehicle or other device, or other uses not associated with transportation in commerce.
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 a non-DOT specification pressure vessel is not authorized therein and § 173.322 in that the pressure vessel is not an authorized packaging except as described herein

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5. BASIS: This special permit is based on the application of Comet Technologies USA Inc. dated January 17, 2018, submitted in accordance with § 107.109.

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>
Sulfur hexafluoride	2.2	UN1080	N/A
Dangerous goods in apparatus	9	UN3363	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Prescribed packaging is a non-DOT specification aluminum alloy pressure vessel (SF6 Transport Vessel) which is an integral part of x-ray equipment. The equipment is manufactured by Yxlon Denmark, a division of The Comet Group in various sizes in accordance with the application for special permit. The drawings for both the smallest and largest sizes are on file with the Office of Hazardous Materials Safety Approvals and Permits Division.

(1) All pressure vessels must have a service pressure of no greater than 5bar (72.5psi) and a minimum design burst pressure of 20 bar (290 psi).

(2) All pressure vessels must have a wall thickness of at least 3mm (0.118in).

(3) Pressure vessels must be filled with no more than 255 grams (9oz) of sulfur hexafluoride (SF6).

b. OPERATIONAL CONTROLS -

(1) Leak test requirements: Each unit must be checked for leakage using a suitable electronic leak detector after each filling.

(2) Overpack requirements: Each unit must be packed in a wooden crate, flight case, or shipping container as described in the application for special permit to

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protect the equipment from damage during transportation.

- (3) **Marking Requirements:** The outside of each package transported under the provisions of this special permit must be plainly marked DOT-SP 20221.

8. SPECIAL PROVISIONS:

a. In accordance with the provisions of Paragraph (b) of § 173.22a, persons may use the packaging authorized by this special permit for the transportation of the hazardous materials specified in paragraph 6, only in conformance with the terms of this special permit.

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

c. 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: Motor vehicle, rail freight, cargo vessel, cargo aircraft, and passenger-carrying aircraft.

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.

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- 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 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 William Schoonover  
Associate Administrator for Hazardous Materials Safety

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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)

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PO: kah

TO: Andrea Smith