1. GRANTEE: (See individual authorization letter)

2. PURPOSE AND LIMITATION:
   a. This special permit authorizes the transportation in commerce of Bromine trifluoride in certain non-refillable, non-DOT specification cylinders of equal or greater integrity than those currently authorized. This special permit provides no relief from any Hazardous Materials Regulation (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. Unless otherwise stated herein, this special permit consists of the special permit authorization letter issued to the grantee together with this document.


4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 172.101, Column (9B) in that this material is forbidden by cargo aircraft only, and § 173.228 in that a non-DOT specification packaging is not authorized, except as specified herein.

5. BASIS: This special permit is based on the Pipeline and Hazardous Materials Safety Administration’s (PHMSA) review under § 107.121 initiated on May 1, 2010.
6. HAZARDOUS MATERIALS (49 CFR § 172.101):

<table>
<thead>
<tr>
<th>Hazardous Materials Description</th>
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<tbody>
<tr>
<td><strong>Proper Shipping Name</strong></td>
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<tr>
<td>Bromine trifluoride</td>
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7. SAFETY CONTROL MEASURES:

a. **PACKAGING** - Prescribed packagings are non-DOT specification non-refillable cylinders as follows:

   (1) Constructed from not greater than 1 inch inside diameter by at least .344 inch thick side wall SAE 4140 Alloy seamless steel tubing with threaded plug closures at each end. Design rupture pressure, 6500 psi. Maximum volume is 61 cubic inches water capacity. Cylinder must be designed and constructed in accordance with McCullough Tool Company drawing 6110-8-90 Revision A dated October 24, 1972, or NL McCullough drawings 6105-8-90, 6106-8-90, 6108-8-90, 6113-8-90, 6134-8-90 or 6120 (submitted with NL McCullough March 23, 1981, application) on file in the Office of Hazardous Materials Special Permits and Approvals (OHMSPA).

   (2) Constructed from not greater than 2 inches outside diameter by at least .350 inch thick side wall SAE 4140 Alloy steel tubing with threaded plug closures at each end. Maximum volume is 61 cubic inches water capacity. Cylinder must be designed and constructed in accordance with NL McCullough drawing 6115-12 dated January 4, 1982; 6115-122, Rev. O dated November 2, 1982, and P6114-11 submitted on January 14, 1983, and tested as proposed in the application on file in OHMSPA or in accordance with NL McCullough's drawing 6115-122 dated February 30, 1972, submitted with NL McCullough's application dated March 13, 1984.
(3) Constructed from not greater than 1.25 inches inside diameter by at least .188 inch thick side wall SAE 4140 Alloy steel tubing with threaded plug closures at each end. Maximum volume is 57 cubic inches water capacity. Cylinder must be designed, constructed and tested in accordance with the application submitted by Baker Atlas dated June 21, 2001 on file in OHMSPA.

b. OPERATIONAL CONTROLS -

(1) Maximum permitted filling density is 75 percent.

(2) Rupture discs must be rendered non-functional in transportation by installation of shipping plugs.

(3) Prescribed packaging must be shipped in boxes as described in the application in accordance with § 173.301(a)(9).

(4) Emergency response information provided with the shipment and available via an emergency response telephone number must indicate that the pressure relief devices fitted on the cylinder have been rendered non-functional and provide appropriate guidance for exposure 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 modifications or changes are 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.

c. Each non-DOT specification cylinder must be plainly and durably marked "NON-REFILLABLE CYLINDER" in letters at least 1/4 inch high.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, cargo vessel, and cargo aircraft only.
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:

- All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
- 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.
- 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.:

[Signature]

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


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

PO: SStaniszewski/TG