EXPIRATION DATE: December 31, 2015

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Praxair, Inc.
   Danbury, CT

2. PURPOSE AND LIMITATION:
   a. This special permit authorizes the transportation in commerce of certain DOT specification or UN certified packaging containing Division 2.1, 2.2, 2.3, 4.3, 5.1, 6.1, and Class 3 and Class 8 materials in a single Container Transport Unit (CTU) consisting of multiple compartments in lieu of segregation. 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. No party status will be granted to this special permit.


4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 176.83(b) and (c)(ii) in that certain hazardous materials must be separated “away from” other hazardous materials, except as provided herein.

5. BASIS: This special permit is based on the application of Praxair, Inc. dated April 19, 2013 submitted in accordance with § 107.105 and the public proceeding thereon.
6. HAZARDOUS MATERIALS (49 CFR § 172.101):

<table>
<thead>
<tr>
<th>Proper Shipping Name</th>
<th>Hazard Class/Division</th>
<th>Identification Number</th>
<th>Packing Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Division 2.1, 2.2, 2.3, 4.3, 5.1, 6.1, Class 3 and Class 8</td>
<td>Various</td>
<td>Various</td>
<td>Various</td>
</tr>
</tbody>
</table>

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Prescribed packagings are DOT authorized cylinders, multi-unit tank car tanks (Classes 106A and 110A), UN1A1, UN1N1 and UN1H1 drums, UN6HH1 and UN6HA1 composite packaging, combination packaging with inner metal or plastic receptacles, earthenware, plastic, and glass inner packagings. Packagings prescribed also include UN31H1 rigid plastic IBCs, UN31A metal IBCs, and UN31HA1 composite IBCs that are authorized in 49 CFR Part 173 or DOT-SP 6543 and DOT-SP 14204 for the specific hazardous material. Packagings are transported in a CTU with multiple compartments in a single ISO frame:

(1) Individual compartments comprising the container transport unit (CTU) shall be equipped with individual bulkheads and separated by an air space to ensure that a hazardous reaction between stowed dangerous goods does not occur.

(2) Each CTU shall conform to the schematic assembly drawing dated December 16, 2013 on file with the Approvals and Permits Division. Each CTU is limited to two compartments.

(3) Each compartment must be constructed to secure packages in accordance with paragraph 7.b. of this special permit.
b. OPERATIONAL CONTROLS -

(1) Each compartment shall be considered as separate Container Transport Units when determining segregation requirements in Part 176 Subpart D. An individual compartment must contain only a single hazardous material class or division.

(2) Packages and cylinders must be transported as follows:

i. The CTU compartments must meet the requirements of Chapter 7.5 of the IMDG Code.

ii. Cylinders containing Class 2 materials shall be transported in groups having a minimum of two securement assemblies on each group of cylinders as follows.

   A. Cylinders must be secured in an upright position with securement assemblies equal in strength to one and one-half times the weight of each group.

   B. Cylinders must be on pallets, skids, or in metal security cages designed to transport a maximum of 5000 pounds (2250 kg) per pallet, skid or cage.

iii. Securement straps for cylinders shall be by a minimum of two (2) webbing straps, each rated at 7500 pounds.

iv. Small cylinders that are not adequately secured against movement in transportation must be packed in wooden or fiberboard boxes and secured against movement during transportation.

(3) Cylinders and tank car tanks containing Division 2.3 Hazard Zone A materials must be stowed at least 3 meters away from cylinders, UN pressure receptacles UN1A1, UN1H1, UN1N1 drums, UN1HA1 or UN1HH1 composite packaging, combination packaging with glass earthenware, plastic or glass ampoule inner packaging, UN31H1 IBC’s, and UN 31HA1 composite IBCs containing materials in Division 2.1, 5.1, 4.3, Class 3, or Class 8.
(4) Drivers and persons who load and unload containers shipped under this special permit must be trained in the handling and loading of all types of compressed gases.

(5) Hazardous materials carried in each compartment authorized by paragraph 7.a.(3) of this special permit must be loaded in compliance with separation requirements for “away from” stipulated in §176.83 and §176.84.

(6) Packaging used for the transportation of bromine must be in full conformance with DOT-SP 14204.

8. SPECIAL PROVISIONS:

a. The names of motor carriers, other than private and Jack B. Kelley, Inc., must be on file with the Approvals and Permits Division. Motor carriers operating under the terms of this special permit have a “satisfactory” safety rating as prescribed in 49 CFR Part 385.

b. 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.

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

d. Shipping papers must contain an entry DOT-SP 15853, “Special Stowage Authorized.” The marking requirements of § 172.301(c) are waived.

e. Shippers using the packaging covered by this special permit must comply with the shipping paper, marking, labeling, and placarding requirements of 49 CFR Part 172; all provisions of this special permit, and all other applicable requirements contained in 49 CFR Parts 171-180.

9. MODES OF TRANSPORTATION AUTHORIZED: Cargo Vessel, motor carrier, and rail transportation as currently authorized.
10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each cargo vessel used to transport packages covered by this special permit. The shipper must furnish a current copy of this special permit to the 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: LAVALLE