June 18, 2009

1. GRANTEE: NASA
   Kennedy Space Center, FL

2. PURPOSE AND LIMITATION:
   a. This special permit authorizes the transportation in commerce of Ammonia, anhydrous and Toxic liquid n.o.s. in alternative packaging contained in the Protein Diagnostics Crystallization Facility unit as part of the payload for a shuttle launch. 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 § 173.304a and 173.226 in that alternative packaging is authorized.

5. BASIS: This special permit is based on the application of NASA dated April 30, 2009 submitted in accordance with § 107.105 and the public proceeding thereon.
6. HAZARDOUS MATERIALS (49 CFR § 172.101):

<table>
<thead>
<tr>
<th>Hazardous Materials Description</th>
<th>Hazard Class/Division</th>
<th>Identification Number</th>
<th>Packing Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonia, anhydrous</td>
<td>2.3</td>
<td>UN1005</td>
<td>N/A</td>
</tr>
<tr>
<td>Toxic liquid, inorganic, n.o.s.</td>
<td>6.1</td>
<td>UN3287</td>
<td>I</td>
</tr>
</tbody>
</table>

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Prescribed packagings are as authorized in German Competent Authority Approval - Ausnahme-Genehmigung Exemption B63.F/439.87/08

b. OPERATIONAL CONTROLS -

(1) Transportation is only authorized between Germany and the Kennedy Space Center, Florida.

(2) A copy of this special permit and the German Competent Authority Approval referenced in paragraph 7.a. must accompany each shipment made under the terms of this approval.

(3) This special permit in no way affects the need to obtain any required authorizations from other agencies of the United States Government or from the competent authorities of the countries of transit and destination.

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 authorized air carriers are Cargolux, Lufthansa and Martinair.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor Vehicle and Cargo only aircraft.
10. **MODAL REQUIREMENTS**: A current copy of this special permit must be carried aboard each 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 Theodore L. Willke
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