EXPIRATION DATE: July 31, 2012

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: National Aeronautics and Space Administration (NASA) Washington, DC

2. PURPOSE AND LIMITATION:

   a. This special permit authorizes the one-way transportation in commerce of certain Division 2.3 and Division 6.1 materials in non-DOT specification cylinders. The cylinders are part of the Space Shuttle OMS (Orbital Maneuvering Subsystem) Pod and the FRCS (Forward Reaction Control Subsystem) Modules. 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 §§ 173.226(a) and 173.336(a) in that the use of non-DOT specification cylinders is not authorized, except as specified herein.

5. BASIS: This special permit is based on the application of National Aeronautics and Space Administration (NASA) dated May 13, 2010 and additional information dated July 12 and 13, 2010 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>Dinitrogen tetroxide</td>
<td>2.3</td>
<td>UN1067</td>
<td>N/A</td>
</tr>
<tr>
<td>Methylhydrazine</td>
<td>6.1</td>
<td>UN1244</td>
<td>I, Hazard Zone A</td>
</tr>
</tbody>
</table>

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packagings prescribed are titanium non-DOT specification cylinders that are part of the Space Shuttle OMS (Orbital Maneuvering Subsystem, which includes the Aft Reaction Control Subsystem) Pod and the FRCS (Forward Reaction Control Subsystem) Modules. The cylinders were designed and manufactured to Space Division, Rockwell International Specification MC282-0061 dated October 1, 1976 and McDonnell Douglas Specification 73P550073 dated May 18, 1982, on file with the Office of Hazardous Materials Special Permits and Approvals.

b. OPERATIONAL CONTROLS -

(1) Transportation is authorized from Kennedy Space Center, Florida to White Sands Test Facility, Las Cruces, New Mexico.

(2) The trucking company selected by NASA for the shipment authorized under this special permit must: use dual drivers; have satellite links; and provide an escort for the shipments from KSC Florida to Las Cruces, New Mexico.

(3) Each OMS Pod, FRCS Module, and supporting interconnect lines must be vented to a pressure of less than 40 psia @ 70°F prior to transport. All propellant system valves must be in the closed position. Engine valves must be closed with throat plugs installed. Media interfaces must be sealed at each location with
the intended ground transportation interfacing hardware.

(4) Compliance checklists in Attachment A-D of the NASA application for special permit must be used with shipments authorized under this special permit.

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 or 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: Motor vehicle.

10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each motor vehicle used to transport packages covered by this special permit.

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 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: CWFREEMAN