1. **GRANTEE:** (See individual authorization letter)

2. **PURPOSE AND LIMITATION:**

   a. This special permit authorizes the transportation in commerce of Space Shuttle Orbiter Auxiliary Power Units containing the residue of Hydrazine, anhydrous. 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.

   c. Unless otherwise stated herein, this special permit consists of the special permit authorization letter issued to the grantee together with this document.

3. **REGULATORY SYSTEM AFFECTED:** 49 CFR Parts 106, 107 and 171-180.

4. **REGULATIONS FROM WHICH EXEMPTED:** 49 CFR § 173.201 in that non-specification packaging is not authorized, and § 172.101 Hazardous Materials Table, Column (9B) in that the quantity limitation may not be exceeded, except as specified herein.

5. **BASIS:** This special permit is based on the application of ATK Launch Systems dated April 6, 2011, submitted in accordance with § 107.107 and additional information dated May 9, 2013.
6. HAZARDOUS MATERIALS (49 CFR § 172.101):

<table>
<thead>
<tr>
<th>Hazardous Materials Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper shipping name</td>
</tr>
<tr>
<td>Hydrazine, anhydrous</td>
</tr>
</tbody>
</table>

7. SAFETY CONTROL MEASURES:

a. PACKAGING: Each of the Space Shuttle Orbiter Auxiliary Power Units (APU) conforming to Hamilton Sunstrand part number 763759 must be packaged as described in the Boeing Company application on file with the Office of Hazardous Materials Special Permits and Approvals (OHMSPA). The outer package is a 198-gallon type 304 stainless steel drum, with attached forklift pockets. The approximate dimensions of the drum are 36 inches in diameter and 45 inches in height with a wall thickness of 0.0598 inches. The cover is attached to the body of the drum with a bolted lock-ring. Each drum will contain one APU packed as described below:

(1) The APU must be wrapped with a hydrazine compatible wrap and securely fastened to a shipping bracket. The edges of the wrap must be securely taped to the shipping bracket.

(2) The APU must be securely bolted to a metal protective frame. Desiccant must be bagged and taped to the bottom of the protective frame.

(3) The APU, desiccant, frame and shipping bracket must be completely wrapped in two layers of polyethylene wrap. Before sealing each layer they must be purged with gaseous nitrogen and purged with a vacuum.

(4) The sealed APU is placed into the drum, which is cushioned top and bottom with polyethylene foam as well as a center ring of polyethylene. The APU in the protective frame must be restrained securely within the drum to prevent movement during transportation.
b. OPERATIONAL CONTROLS -

(1) Transportation is authorized only between:
A. Kennedy Space Center, FL;
B. NASA White Sands Test Facility, Las Cruces, NM;
C. ATK Launch Systems, Corinne and Clearfield, UT;
D. Hamilton Sundstrand Facility, Rockford, IL; and
E. George C. Marshall Space Flight Center, AL.

(2) Each APU may contain only a residue of hydrazine and must be filled with nitrogen at ambient pressure and sealed prior to shipment.

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. Each outer package must be marked "DOT-SP 13350" in accordance with § 172.302(c).

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle and cargo aircraft only.

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

   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.
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.:

Andrea W. Dunham
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: DB/dl