1. **GRANTEE:** Canberra Industries  
Meriden, CT

2. **PURPOSE AND LIMITATIONS:**
   
a. This special permit authorizes the manufacture, marking, sale and use of non-DOT specification containers described as hermetically-sealed electron tube devices for the transportation in commerce of the materials listed in paragraph 6 below. 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. The safety analyses did not consider the hazards and risks associated with consumer use, use as a component of a transport vehicle or other device, or other uses not associated with transportation in commerce.

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

4. **REGULATIONS FROM WHICH EXEMPTED:** 49 CFR § 173.302a in that a non-DOT specification container is not authorized, except as specified herein.

5. **BASIS:** This special permit is based on the application of Canberra Industries dated April 9, 2010, submitted in accordance with § 107.109.
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>Argon, compressed</td>
<td>2.2</td>
<td>UN1006</td>
<td>N/A</td>
</tr>
<tr>
<td>Carbon dioxide</td>
<td>2.2</td>
<td>UN1013</td>
<td>N/A</td>
</tr>
<tr>
<td>Compressed gas, n.o.s. (mixtures of the gases listed above, with or without 5% or less methane)</td>
<td>2.2</td>
<td>UN1956</td>
<td>N/A</td>
</tr>
<tr>
<td>Helium, compressed</td>
<td>2.2</td>
<td>UN1046</td>
<td>N/A</td>
</tr>
<tr>
<td>Krypton, compressed</td>
<td>2.2</td>
<td>UN1056</td>
<td>N/A</td>
</tr>
<tr>
<td>Neon, compressed</td>
<td>2.2</td>
<td>UN1065</td>
<td>N/A</td>
</tr>
<tr>
<td>Nitrogen, compressed</td>
<td>2.2</td>
<td>UN1066</td>
<td>N/A</td>
</tr>
<tr>
<td>Xenon, compressed</td>
<td>2.2</td>
<td>UN2036</td>
<td>N/A</td>
</tr>
</tbody>
</table>

7. **SAFETY CONTROL MEASURES:**

a. **PACKAGING** - Prescribed packagings are non-DOT specification, metal, single trip, inside containers, described as hermetically sealed electron tube radiation sensors. The radiation sensors have diameters from 0.75 inches to 2 inches, volumes from 23.2 to 173.9 cubic inches water capacity, and design (operating) pressures from 102 psig to 160 psig. Packagings must conform to the drawings on file with the Office of Special Permits and Approvals (OHMSPA). Each radiation sensor is constructed and tested in accordance with Harwell Instruments Ltd. Work Instruction HIL/WI/703, on file with the OHMSPA. The design burst pressure of the radiation sensor must be four times the operating pressure.
b. OPERATIONAL CONTROLS -

(1) The radiation sensor must be shipped in a strong outside packaging as described in the application for special permit, or as part of equipment.

(2) If repackaged, packagings used to ship larger equipment containing radiation sensors covered by this special permit must be in strong outside packagings providing equivalent protection for the devices as specified in paragraph 7.b.(1) above.

(3) Emergency response information provided with the shipment, and available via an emergency response telephone number must indicate those receptacles that are not fitted with pressure relief devices, and provide appropriate guidance for exposure to fire.

8. SPECIAL PROVISIONS:

a. In accordance with the provisions of Paragraph (b) of § 173.22a, persons may use the packaging authorized by this special permit for the transportation of the hazardous materials specified in paragraph 6, only in conformance with the terms of this special permit.

b. A person who is not a holder of this special permit, but 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 offered 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. Each packaging manufactured under the authority of this special permit must be either (1) marked with the name of the manufacturer and location (city and state) of the facility at which it is manufactured or (2) marked with a registration symbol designated by the Office of Hazardous Materials Special Permits and Approvals for a specific manufacturing facility.
e. A current copy of this special permit must be maintained at each facility where the package is manufactured under this special permit. It must be made available to a DOT representative upon request.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, cargo aircraft only, and passenger-carrying aircraft.

10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each aircraft 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, 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.

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 exemption 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 exemption 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 exemption.

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

PO: CWF/dl