June 6, 2006



400 Seventh Street, S.W. Washington, D.C. 20590

Pipeline and Hazardous Materials Safety Administration

DOT-SP 10407 (NINTH REVISION)

EXPIRATION DATE: May 31, 2010

(FOR RENEWAL, SEE 49 § CFR 107.109)

1. <u>GRANTEE</u>: Thermo MeasureTech Sugar Land, TX

2. PURPOSE AND LIMITATIONS:

a. This special permit authorizes the manufacture, marking, sale and use of non-DOT specification packaging described as a hermetically sealed electron tube device or ionization chamber for the transportation in commerce of the Division 2.2 materials authorized by this special permit. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein.

b. The safety analyses performed in development of this special permit only considered the hazards and risks associated with transportation in commerce.

- 3. <u>REGULATORY SYSTEM AFFECTED</u>: 49 CFR Parts 106, 107 and 171-180.
- 4. <u>REGULATIONS FROM WHICH EXEMPTED</u>: 49 CFR **§§** 173.302a(a) and 175.3 in that the electron tube is not an authorized packaging, except as specified herein.
- 5. <u>BASIS</u>: This special permit is based on the application of Thermo MeasureTech dated March 7, 2006, submitted in accordance with § 107.109.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Material Description				
Proper Shipping Name	Hazard Class/ Division	Identi- fication Number	Packing Group	
Argon, compressed	2.2	UN1006	N/A	
Helium, compressed	2.2	UN1046	N/A	
Hexafluoroethane compressed, or Refrigerant gas, R116	2.2	UN2193	N/A	
Xenon, compressed	2.2	UN2036	N/A	

7. SAFETY CONTROL MEASURES:

a. <u>PACKAGING</u> - Prescribed packaging is a non-DOT specification metal, single trip, inside container, described as a hermetically sealed electron tube radiation detector or ionization chamber. The design of the radiation detector or ionization chamber assembly must conform to TN Technologies' drawing numbers as listed in the table "<u>Drawings and Dimensions for Ion Chambers</u>" submitted with the application, and on file with the Office of Hazardous Materials Special Permits and Approvals (OHMSPA). Each radiation detector or ionization chamber must conform with the following design criteria:

Inside diameter:	2.87 inches to 5.87 inches
Gas volume:	25.88 to 640.07 cubic inches
Operating pressure:	105 psig

Minimum burst pressure:

o Three times the design pressure if equipped with a pressure relief device; or

o Four times the design pressure if not equipped with a pressure relief device.

b. OPERATIONAL CONTROLS -

(1) The radiation detector or ionization chamber must be shipped inside a styrofoam lined, strong outside container as shown on Western Industries Corporation Continuation of DOT-SP 10407 (9th Rev.)

Drawing A370 Rev. A or General Packaging Corporation Ion Chamber Drawing dated 06/30/2005 on file with OHMSPA.

(2) If repackaged, packagings used to ship larger equipment containing radiation sensors or ionization chambers 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 <u>name of</u> the <u>manufacturer and location (city and state) of the</u> facility at which it is manufactured or (2) marked with a <u>registration symbol</u> designated by the Office of Hazardous Materials Special Permits and Approvals <u>for a specific</u> 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.

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f. Except when offered for transportation by air:

(1) Packages covered by this special permit are excepted from labeling requirements of Subpart E of 49 CFR Part 172.

(2) Shipments are not subject to the placarding requirements of Subpart F of 49 CFR Part 172.

g. Packagings permanently marked "DOT-E 10407, prior to October 1, 2007 may continue to be used under this special permit for the remaining service life of the packaging or until the special permit is no longer valid. Packagings marked on or after October 1, 2007 must be marked "DOT-SP 10407".

d. Shipping papers displaying "DOT-E 10407" may continue to be used until October 1, 2007 provided the special permit remains valid.

- 9. <u>MODES OF TRANSPORTATION AUTHORIZED</u>: Motor vehicle, rail freight, cargo vessel, cargo aircraft only and passenger-carrying aircraft.
- 10. <u>MODAL REQUIREMENTS</u>: A current copy of this special permit must be carried aboard each cargo vessel or 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. <u>COMPLIANCE</u>: 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 <u>et seq</u>:
 - 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.
 - o Registration required by § 107.601 <u>et seq</u>., when applicable.

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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. <u>REPORTING REQUIREMENTS</u>: 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 -- OHMSPA, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:

R. Ryan For

for Robert A. McGuire Associate Administrator for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Materials Safety Administration, Department of Transportation, Washington, D.C. 20590. Attention: PHH-31.

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: SS/AM