1. **GRANTEE:** Exosent Engineering  
   College Station, TX

2. **PURPOSE AND LIMITATIONS:**
   a. This special permit authorizes the manufacture, mark, sale and use of non-DOT specification cargo tank motor vehicles that conform to all regulations applicable to Specification DOT MC 331 except that the CTMVs are manufactured to ASME Section XII and stamped with a "T" Stamp instead of the "U" Stamp. 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 § 173.315, 178.337, and Part 180, Subpart E in that non-DOT specification cargo tank motor vehicles are not authorized, except as specified herein.
5. **Basis:** This special permit is based on the application of Exosent Engineering dated June 22, 2015 submitted in accordance with § 107.105 and the public proceeding thereon and additional information of November 18, 2015.


<table>
<thead>
<tr>
<th>Hazardous Material Description</th>
<th>Hazard Class/Division</th>
<th>Identification Number</th>
<th>Packing Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazardous materials authorized in DOT Specification MC 331 cargo tank motor vehicles</td>
<td>Various</td>
<td>Various</td>
<td>I, II, or III</td>
</tr>
</tbody>
</table>

7. **Safety Control Measures:**

a. **Packaging** – Prescribed packagings are non-DOT specification cargo tanks conforming to all requirements of the Specification DOT MC 331 except that they are constructed and ASME stamped with a "T" designator to the 2013 edition of ASME Section XII. Code cases, if used shall be marked on the manufacturer’s data report form. The tanks must conform to all regulations applicable to a Specification DOT MC 331, except when specified below:

   § 178.337–1 General requirements. This section applies except that paragraph (a)(2) is replaced with the following paragraph:

   (a)(2) ASME Code construction tanks must be designed, constructed, certified, and stamped in accordance with Section XII of the 2013 ASME Code. The minimum thickness must be determined by ASME Section XII.

   § 178.337–2 Material. This section applies except that paragraph (a)(1) is replaced with the following paragraph:

   (a)(1) All material used for construction of the cargo tank and appurtenances must be suitable for use with the commodities to be transported therein. All materials of construction must conform to ASME Section XII, Section II and applicable codes cases.
§ 178.337-3 Structural integrity. This section applies except that paragraph (a)(1) of this section is replaced with the following paragraph:

(a)(1) Maximum calculated design stress in the cargo tank wall must not exceed the ASME Section XII maximum allowable stress.

§ 178.337-4 Joints. This section applies except that paragraph (a) of this section is replaced with the following paragraph:

(a) All joints shall be in accordance with ASME Section XII of the 2013 ASME Code.

§ 178.337-5 Bulkheads, baffles and ring stiffeners. This section applies.

§ 178.337-6 Closure for manhole. This section applies except that paragraph (a) of this section is replaced with the following paragraph:

(a) Manhole conforming to Section XII of the 2013 ASME Code.

§ 178.337-7 Overturn protection. This section applies.

§ 178.337-8 Openings, inlets, and outlets. This section applies.

§ 178.337-9 Pressure relief devices, piping, valves, hoses, and fittings. This section applies except that paragraph (a)(3) of this section is replaced with the following paragraph:

(a)(3) Pressure relief devices must be 2013 ASME Section XII or VIII certified. Pressure relief devices must be marked in accordance with 2013 ASME Section XII or VIII.

§ 178.337-10 Accident damage protection. This section applies and the following sentence is added to paragraph (b) of this section:

(b) ASME Section XII criteria must be met except that bottom damage protection shall be designed with a load criteria of 0.85 the Gross Vehicle Weight.
§ 178.337-11 Emergency discharge control. This section applies.

§ 178.337-12 [Reserved]. This section applies.

§ 178.337-13 Supporting and anchoring. This section applies.

§ 178.337-14 Gauging devices. This section applies.

§ 178.337-15 Pumps and compressors. This section applies.

§ 178.337-16 Testing. This section applies.

§ 178.337-17 Marking. This section applies except that paragraphs (b) and (c) of this section are replaced with the following paragraphs, respectively:

(b) ASME NAME PLATE: ASME Section XII requirements must be met in lieu of Section VIII. Character markings must be a minimum of 4 mm (5/32”) and markings directly on the tank must be a minimum of 8 mm (5/16”).

(c) DOT SPECIFICATION PLATE: Specification plate requirements must be appropriately modified to reflect compliance with terms of this special permit. For example:

DOT SPECIFICATION PLATE
CARGO TANK MOTOR VEHICLE MANUFACTURED BY
XXX Co.
XXX, XX USA
DOT Reg. # CT-XXXX

SPECIFICATION: DOT MC 331 SP-16516
CARGO TANK MOTOR VEHICLE CERTIFICATION DATE: ----------
CARGO TANK MFR.: -----------------------------------------------
CARGO TANK DATE OF MFG: ----------
CARGO TANK MFR. SERIAL #: ----------
CARGO TANK MOTOR VEHICLE MFR. VIN: -------------------------------------
MAXIMUM PAYLOAD: -------------------------
MAXIMUM LOADING RATE: -----------------------------------
MAXIMUM UNLOADING RATE: -----------------------------------
§ 178.337-18 Certification. This section applies except that:

“Section VIII of the ASME Code” in paragraph (a) of this section is replaced with “Section XII of the ASME Code”.

The following paragraph is added to paragraph (b) of this section:

Inspection and record keeping requirements of ASME Section XII apply to all cargo tanks. All inspection and certification must be made by an inspector registered with the DOT. This includes registration of the ASME, Authorized Inspection Agency.

b. MARKING – Each cargo tank motor vehicle must be plainly marked on both sides near the middle in letters at least two inches in height on a contrasting background “DOT-SP 16516”. Each vehicle identification number must be marked on both sides of the vehicle as specified in §§ 172.302(b) and (c).

c. OPERATIONAL CONTROLS – Repairs, alterations and modifications must be performed by a facility holding a current NBIC certificate of authorization for the use of the National Board “TR” or “R” Stamp with Section XII endorsement for Category 331 Cargo Tanks. The maintenance and continued qualification of cargo tanks authorized under the terms of this special permit shall be in accordance with the 2013 Edition of the NBIC including Supplement 6 of Parts 2 and 3.

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 packaging 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 packaging is manufactured under this special permit. It must be made available to a DOT representative upon request.

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: MAJORS