July 19, 2024

U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

DOT-SP 21745

EXPIRATION DATE: 2026-06-30

(FOR RENEWAL, SEE 49 CFR 107.109)

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

2. PURPOSE AND LIMITATIONS:

a. This special permit authorizes the manufacture, mark, sale and use of non-DOT specification cargo tanks that conform with all regulations applicable to a DOT Specification MC 331 cargo tank except that they are manufactured to ASME Section XII and stamped with a "T" Stamp instead of a “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.

c. In accordance with 49 CFR 107.107(a) party status may not be granted to a manufacturing permit. These packagings may be used in accordance with 49 CFR 173.22a.

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, LLC dated March 24, 2024, submitted in accordance with § 107.105 and the public proceeding thereon.

6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous Material Description			
Proper Shipping Name	**Hazard Class/ Division**	**Identi-fication Number**	**Packing Group**
Hazardous materials authorized in DOT Specification MC 331 cargo tank motor vehicles	As authorized	As authorized	As authorized

7. SAFETY CONTROL MEASURES:

a. PACKAGING: Prescribed packagings are non-DOT specification cargo tanks conforming to all requirements of the DOT specification MC 331 except that they are constructed and ASME stamped with a "T" designator in accordance with the 2023 edition of ASME Section XII. Code cases, if used, shall be marked on the manufacturer's data report form. The tanks must conform with all regulations applicable to a DOT specification MC 331, except as follows:

§178.337-1 General Requirements

(a) ASME Code Construction. Tanks must be -

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(2) ASME Code construction - Tanks must be designed, constructed, certified, and stamped in accordance with Section XII of the 2023 ASME Code.

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§178.337-2 Material

(a) General

(1) Materials used for construction of the cargo tank and appurtenances must be suitable for use with the commodities to be transported therein. Materials used may conform to Section XII of the 2023 ASME Code, Table TM-130.2-6 or must conform to the requirements in Section II of the ASME Code and/or requirements of the American Society for Testing and Materials in all respects.

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§178.337-3 Structural integrity

(a) General requirements and acceptance criteria

(1) Except as provided in paragraph (d) of this section, the maximum calculated design stress at any point in the cargo tank may not exceed the maximum allowable stress value prescribed in Section XII of the 2023 ASME Code or 28.57 percent of the ultimate tensile strength of the material used.

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(a) Static design and construction

(1) The static design and construction of each cargo tank must be in accordance with Section XII of the 2023 ASME.

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(e) In all cases, the minimum thickness of the tank shell and head shall be determined using structural design requirements in Section XII of the 2023 ASME Code.

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(g)(3)(i) Be fabricated from material determined to be suitable for welding to both the cargo tank material and the material of the appurtenance or structural support member; a Design Certifying Engineer must make this determination considering chemical and physical properties of the materials and must specify filler material conforming to the requirements of Section XII of the 2023 ASME Code.

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§178.337-4 Joints

(a) Joints shall be as required in Section XII of the 2023 ASME Code.

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(e) The maximum tolerance for misalignment and butting up shall be in accordance with Section XII of the 2023 ASME Code.

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§ 178.337-6 Closure for manhole

(a) Each cargo tank marked or certified must be provided with a manhole conforming to Section XII of the 2023 ASME Code.

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§ 178.337-9 Pressure relief devices, piping, valves, hoses, and fittings.

(a) Pressure relief devices must be 2023 ASME Section XII or VIII certified.

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(1) Pressure relief devices must be marked in accordance with 2023 ASME Section XII or VIII.

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§ 178.337-11 Emergency discharge control.

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§ 178.337-12 [Reserved]

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§ 178.337-13 Supporting and anchoring.

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§ 178.337-14 Gauging devices.

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§ 178.337-15 Pumps and compressors.

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§ 178.337-16 Testing.

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§ 178.337-17 Marking.

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

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-21745
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: ----------

§ 178.345-15 Certification

(a) The ASME Section XII manufacturer’s data report must be provided as part of the cargo tank motor vehicle certification documents.

(b) 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.

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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 SP-21745." 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 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 packaging 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:

    - 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.
    - 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.:

for William Schoonover
Associate Administrator for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, East Building PHH-13, 1200 New Jersey Avenue, Southeast, Washington, D.C. 20590.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at https://www.phmsa.dot.gov/approvals-and-permits/hazmat/special-permits-search. Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: AC/TG