U.S. Department
of Transportation
**Research and
Special Programs
Administration**

OCT 1 2 2000

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

DOT-E 12392

EXPIRATION DATE: September 30, 2002

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Consani Engineering, Elsies River, South Africa (US Agent: Consani, Inc. Princeton, NJ)

2. PURPOSE AND LIMITATIONS:

a. This exemption authorizes the manufacture, marking, sale and use of certain DOT Specification 51 steel portable tanks designed in accordance with Section VIII, Division 2 of the ASME Code instead of Section VIII, Division 1. The portable tanks, mounted in ISO frames, are authorized for the transportation in commerce of certain Division 2.1 and Division 2.2 materials. This exemption provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein.

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

c. Party status will not be granted to this exemption.

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

4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 178.245-1(a) in that each portable tank is designed, constructed, certified and stamped in accordance with Section VIII, Division 2 of the ASME Code.

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5. BASIS: This exemption is based on the application of Consani Engineering dated October 26, 1999, and supplemental information dated August 9, 2000, submitted in accordance with § 107.105 and the public proceeding thereon.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Proper Shipping Name/ Hazardous Material Description	Hazard Class/ Division	Identi-fication Number	Packing Group
Division 2.1 and 2.2 materials authorized for DOT Specification 51 portable tanks.	2.1 2.2	Various	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packagings authorized are DOT Specification 51 steel portable tanks that are designed, constructed, certified and stamped in accordance with Section VIII, Division 2 of the ASME Code, including the ASME Code "U2" stamp. Each portable tank must be constructed in accordance with Consani Engineering Drawing numbers EDM-246/1/1 dated November 15, 1999 and EDM-246/2/1 dated September 16, 1999 and with other drawings, specifications and calculations on file with the Office of Hazardous Materials Exemptions and Approvals (OHMEA) and in compliance with the following provisions:

(1) **Code:** Tanks must conform to DOT Specification 51 in all respects except the design code. This exemption authorizes the use of Section VIII, Division 2, of the ASME Code and ASME Code Cases 2279, 2261 and 2265 as the design code.

(2) **Shell and Head Material:** SA612 carbon steel

(3) **Tank Capacity and Pressure:** The following range of tank designs is authorized:

Design pressure (See Note 1)	100 psig min.; 500 psig max.
Water capacity	4500 USWG min.; 6550 USWG max.

Note 1: Design pressure means "Maximum Allowable Working Pressure" as used in the ASME Code.

(4) **Pressure Relief System:** For each tank design, a spring-loaded pressure relief valve (minimum of 3-inch diameter) set at 110% of the design pressure must be provided. A rupture disc in series with the relief valve is optional. The venting capacity requirement for each material must be determined by the flow formulas contained in the Compressed Gas Association (CGA) Pamphlet S-1.2 (1980 edition).

(5) **Maximum Gross Weight** - 36,000 Kg (79366 lbs.)

(6) **Design Temperature Range** - -40/55°C (-40/131°F)

(7) **Welded Joints** - Welded joints must be 100% tested by a non-destructive testing method authorized by ASME Code.

(8) **Corrosion Allowance** - 0.0

(9) **G-Loadings:** Vertical down - 2; Vertical up - 2; Longitudinal - 2; Transverse - 2

(10) **Openings** - Only the following openings (in any combination) are authorized on each tank:

Number	Size (Diameter)	Description of Opening
One(1)	500 mm (19.6 in)	Manway opening on the end
One(1)	65/80 mm (2.5/3.0 in)	Liquid line opening on the bottom
One(1)	65 mm (2.5 in)	Vapor line opening on the bottom
One(1)	164 mm (6.5 in)	Pressure relief valve opening on the top
One(1)	10 mm (0.4 in)	Pressure gauge opening on the end
One(1)	12.5 mm (0.5 in)	Temperature gauge opening on the end
One(1)	57 mm (2.25 in)	Rotary gauge opening on the end

Note 1: Except for the opening for the pressure relief device, all openings must be grouped as described in § 178.245-1(d).

NOTE 2: Each bottom outlet valve must be provided with a shear section that meets the requirements of § 178.337-12.

(11) **Insulation** - Tanks may be provided with a sunshield (optional).

(12) **Baffles** - 2 or 3

b. TESTING -

(1) Hydrostatic test certificates for each tank must be maintained by the owner and made available to a DOT representative upon request.

(2) Each tank must be inspected and retested once every five years as specified for DOT Specification 51 portable tanks in accordance with § 173.32(e).

c. OPERATIONAL CONTROLS -

(1) The pressure produced by the lading and any gas padding at 50°C may not exceed the design pressure of the portable tank.

(2) The tank must be filled by weight in accordance with § 173.315.

(3) Each tank must be visually inspected prior to each shipment to ensure that it has not been damaged during loading.

8. SPECIAL PROVISIONS:

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

b. A person who is not a holder of this exemption, but receives a package covered by this exemption, may reoffer it for transportation provided no modifications or changes are made to the package and it is offered for transportation in conformance with this exemption and the HMR.

c. A current copy of this exemption must be maintained at each facility where the package is offered or reoffered for transportation.

d. Each packaging manufactured under the authority of this exemption 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 Exemptions and Approvals for a specific manufacturing facility.

e. A current copy of this exemption must be maintained at each facility where the package is manufactured under this exemption and be made available to a DOT representative upon request.

f. DOT Specification 51 portable tanks manufactured under this exemption must be in conformance with Consani Engineering Drawing numbers EDM-246/1/1 dated November 15, 1999 and EDM-246/2/1 dated September 16, 1999 and other drawings on file with OHMEA except that whenever a provision of this exemption is in conflict with the drawings, Consani Engineering must comply with the conditions of this exemption and make appropriate revisions to the drawing(s). Revisions to drawings must be prepared by the manufacturer and be submitted to OHMEA. Later drawings and revisions are considered a part of this exemption when acknowledged in writing by OHMEA.

g. MARKING -

(1) Each portable tank must be plainly marked on both sides near the middle, in letters and numerals at least two inches high on a contrasting background, "DOT-E 12392." Additionally, where applicable, each tank must be marked "Case 2279", "Case 2261" and "Case 2265" on the name plate and on the Manufacturer's Data Report.

(2) Each pressure relief valve must be marked with its set pressure and flow rate in SCFH.

h. A test report documenting a satisfactory ISO prototype test for each tank design must be on file with OHMEA prior to the first shipment.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight and cargo vessel.

10. MODAL REQUIREMENTS: A current copy of this exemption must be carried aboard each cargo vessel or motor vehicle used to transport packages covered by this exemption.

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:

    - All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, Parts 171-180.

    - Registration required by § 107.601 et seq., when applicable.

    Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by §§ 172.700 through 172.704.

    No person may use or apply this exemption, including display of its number, when this exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS: The carrier is required to report any incident involving loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable. (Sections 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, the holder(s) of this exemption must also inform the AAHMS, in writing, as soon as practicable of any incidents involving the package and shipments made under this exemption.

Issued in Washington, D.C.

Robert A. McGuire
Associate Administrator for
Hazardous Materials Safety

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(DATE)

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

The original of this exemption is on file at the above office. Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

Copies of exemptions may be obtained from the AAHMS, U.S. Department of Transportation, 400 7th Street, S.W., Washington, DC 20590-0001, Attention: Records Center, 202-366-5046.

PO: PTOlson