

March 10, 2011



U.S. Department  
of Transportation

East Building, PHH - 30  
1200 New Jersey Avenue, Southeast  
Washington, D.C. 20590

**Pipeline and Hazardous  
Materials Safety Administration**

DOT-SP 10319  
(NINTH REVISION)

**EXPIRATION DATE: January 31, 2015**

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Amtrol, Incorporated  
West Warwick, RI
2. PURPOSE AND LIMITATIONS:
  - a. This special permit authorizes the manufacture, marking, sale and use of non-DOT specification pressure vessels (water pump system tank) for use in the shipment of Division 2.2 materials. This special permit provides no relief from any Hazardous Materials Regulation 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.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§ 173.302a(a)(1) and 173.306(g) in that non-DOT specification packages are not authorized except as specified herein.
5. BASIS: This special permit is based on the application of Amtrol, Incorporated dated January 5, 2010, submitted in accordance with § 107.109.

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6. HAZARDOUS MATERIALS (49 CFR § 172.101):

<b>Hazardous Materials Description</b>			
<b>Proper Shipping Name</b>	<b>Hazard Class/ Division</b>	<b>Identification Number</b>	<b>Packing Group</b>
Compressed gas	2.2	UN1956	N/A
Nitrogen compressed	2.2	UN1066	N/A

7. SAFETY CONTROL MEASURES:

- a. PACKAGING - Packaging prescribed is a welded, non-DOT specification cylindrical pressure vessel (water pump system tank) designed for a working pressure of up to 150 psig. Pressure vessels are not ASME Code "U" stamped. However, each pressure vessel must be welded in accordance with Section IX of the ASME code. The following 42 Models and capacities are authorized:

Drawing Number	Model	Gals.	Drawing Number	Model	Gals.
184-13	WX-421	165	183-36	WX-450	132
185-13	WX-422	220	184-34	WX-451	158
186-13	WX-423	275	185-34	WX-452	211
181-13	WX-424	325	186-34	WX-453	264
187-13	WX-426	440	181-34	WX-454	317
188-13	WX-427	550	182-34	WX-455	370
144-74	WX-401	17.5	187-34	WX-456	422
145-74	WX-402	25	188-34	WX-457	528
146-74	WX-403	34	184-43	ST-451	158
147-74	WX-404	68	185-43	ST-452	221
149-74	WX-405	90	186-43	ST-453	264
149-142	WX-406	110	181-43	ST-454	317
149-143	WX-407	132	182-43	ST-455	370
183-35	WX-447	53	187-43	ST-456	422
183-34	WX-448	80	188-43	ST-457	528
183-33	WX-449	106	165-7	ST-35-L	10
166-7	ST-50-L	13	167-6	ST-85-L	22
168-6	ST-100-L	26	169-6	ST-130-L	34
171-17	ST-165-L	44	191-35	ST-200-L	53
192-33	ST-300-L	80	193-34	ST-400-L	106
194-34	ST-500-L	132	174-39	ST-600-L	158

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- b. Each pressure vessel must be pressure tested by either the hydrostatic method at 1.5 times the MAWP or by the pneumatic method at 1.25 times the MAWP in accordance with the requirements of the ASME Code.
- c. Safety relief devices are not required for shipment.
- d. Each pressure vessel must be shipped in a strong outside shipping packaging or crate, or shipped mounted on skids, designed to protect any valves from damage or projections from the pressure vessel under conditions normally incident to transportation.
- e. Charge pressure may not exceed 50 psig.
- f. The burst pressure of each pressure vessel must be at least 6 times the charge pressure at 70°F.
- g. The stress at prescribed test pressure may not exceed 20,000 psi using the formula:

$$S = Pd / 2t$$

where: S = wall stress in pounds per square inch;  
P = prescribed test pressure for the tank of  
at least 150 psig;  
d = inside diameter in inches;  
t = minimum wall thickness, in inches.

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 modifications or changes are 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.

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- d. Each packaging manufactured under the authority of this special permit must be 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.
- f. Packagings marked "DOT-E 10319", 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 10319".
- d. Shipping papers displaying "DOT-E 10319" may continue to be used until October 1, 2007 provided the special permit remains valid.
9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, cargo vessel.
10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each cargo vessel 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.

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- 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.:



for Dr. Magdy El-Sibaie  
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.

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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](http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm)

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PO: PTolson/TG