

December 03, 2019



U.S. Department  
of Transportation

East Building, PHH-30  
200 New Jersey Avenue S.E.  
Washington, D.C. 20590

**Pipeline and Hazardous  
Materials Safety Administration**

DOT-SP 15389  
(FOURTH REVISION)

**EXPIRATION DATE: 2020-11-30**

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: Ametek Ameron, LLC  
Baldwin Park, CA
2. PURPOSE AND LIMITATIONS:
  - a. This special permit authorizes the manufacture, mark, sale and use of non-DOT specification cylinders conforming to all regulations applicable to DOT specification 39 cylinders, except as specified herein, for the transportation in commerce of compressed oxygen and flammable or non-flammable gases authorized by this special permit. 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 packaging maybe used in accordance with CFR 173.22a.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.

4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§173.301(a)(1), 173.302a(a)(1) and 173.304a(a)(1) in that a non-DOT specification cylinder is not authorized; §§173.302(f)(1), and 173.304(f)(1) in that a non-specification cylinder is not authorized for the transportation of oxygen or other oxidizing gases aboard an aircraft; and §§ 173.302(f)(2) as well as 173.304(f)(2) in that the rated burst pressure of the pressure relief device on cylinders used for the transportation of oxygen and other oxidizing gases aboard an aircraft must be as prescribed in those paragraphs and 178.65(f) pressure tests alternative exceptions, as provided herein.
5. BASIS: This special permit is based on the modification application of Ametek Ameron LLC d/b/a MASS Systems, dated November 14, 2019, submitted in accordance with § 107.105 and the public proceeding thereon.
6. HAZARDOUS MATERIALS (49 CFR § 172.101):

<b>Hazardous Material Description</b>			
<b>Proper Shipping Name</b>	<b>Hazard Class/Division</b>	<b>Identification Number</b>	<b>Packing Group</b>
Oxygen, compressed	2.2	UN1072	N/A
Flammable gases listed in 49 CFR that are authorized in DOT 39 specification cylinders	2.1	As appropriate	As appropriate
Non-flammable gases listed in 49 CFR that are authorized in DOT 39 specification cylinders	2.2	As appropriate	As appropriate

7. SAFETY CONTROL MEASURES:
- a. PACKAGING - Packaging prescribed is a non-DOT, non-refillable stainless steel cylinder made in accordance with Ametek Ameron LLC, d/b/a MASS Systems drawings OS00600-B, OS00602-A and OS00605-C and the information provided in the

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report, DTR-OS00600-Rev-A, on file with the Office of Hazardous Materials Safety Approvals and Permits Division (OHMSAPD). The cylinders must be in conformance with DOT-39 specification (§§ 178.35 and 178.65) except as follows:

*§ 178.65(a) Type, size, service pressure and test pressure.*

Each cylinder must be welded construction with a marked service pressure not to exceed 80 percent of test pressure or 3,600 psig, whichever is less.

(1) *Size limitation:* Maximum water capacity may not exceed 10 pounds (277 cubic inches).

(2) *Test Pressure:* Maximum test pressure is 4,500 psig.

*§ 178.65(b) Materials - Steel as specified below:*

(1) *Steel.* (i) Type Nitronic 40 (ARMCO 21-6-9) austenitic stainless steel with analysis as follows:

Element	(Percent)
C	0.04 Max.
Mn	8.00/10.00
P	0.060 Max.
S	0.030 Max.
Si	1.00 Max.
Cr	19.00/21.50
Ni	5.50/7.50
N	0.15/0.40

(ii) Not applicable

(iii) \* \* \*

(iv) Materials with longitudinal welds such as electric resistance welded/gas tungsten arc welded and drawn over mandrel tubing that is manufactured and tested as shown in the application are authorized.

(2) Not applicable

(3) and (4) \* \* \*

§ 178.65(c) *Manufacture.*

(1) \* \* \*

(2) \* \* \*

(i) through (v) Not applicable.

\* \* \* \*

§ 178.65(d) *Wall thickness*

\* \* \*

(1) \* \* \*

(2) Not applicable.

§ 178.65(e) *Openings and attachments* \* \* \*

§ 178.65(f) *Pressure tests.*

(1) \* \* \*

(2) One cylinder from each lot must be hydrostatically pressure tested to destruction. The entire lot must be rejected if:

(i) \* \* \*

(ii) A failure initiates in weld or heat affected zone(See bullet 4 below for additional alternative requirements for lot acceptance in this case)

(iii) \* \* \*

(iv) Not applicable

(3) ~~\* \* \*~~ A "lot" means a group of cylinders successively produced and having the same:  
- Size, design and material of construction;  
- Process and equipment of manufacture; and  
- Heat treatment and conditions of time,

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temperature and atmosphere during heat treatment.

- The maximum duration of the shift may not exceed 10 hours of production or 200 cylinders whichever is less.

- (4) If failure initiates in weld or heat affected zone, at greater than 2.0 times the test pressure and is satisfactory in other respects (i.e., is along longitudinal axis, ductile and the cylinder remains in one piece), then the lot may be accepted if the following additional tests are successful:

Cycle test one cylinder from 1750 psi to 4100 psi at ambient temperature for 10,000 cycles with frequency of reversals not to exceed 10 cycles per minute. The ambient cycle test must be followed by hydrostatic pressurization to destruction. The entire lot must be rejected if:

- A failure by leakage or burst occurs during the ambient cycle test.
- A failure occurs at less than 2.0 times the test pressure during the hydrostatic pressurization test to destruction.

§ 178.65(g) *Flattening test.* \* \* \*

§ 178.65(h) *Rejected cylinders.* \* \* \*

§ 178.65(i) *Markings.*

Applies except that "DOT-SP 15389" replaces "DOT-39"

b. OPERATIONAL CONTROLS -

- (1) Cylinders must not be filled to a pressure exceeding the marked service pressure at 70°F.
- (2) Cylinders must be shipped in strong outside packaging in accordance with §173.301(a)(9).
- (3) Transportation of oxygen by aircraft is authorized only when in accordance with 175.501

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(4) When pressurized, the cylinders must be equipped with a pressure relief device (PRD) conforming to the requirements of DOT Specification 39 cylinder under CGA Pamphlet S-1.1.

(5) In the event of a leak or equipment failure during initial filling, the cylinder may be discharged and refilled. However, only two repeat refill attempts are permitted. If satisfactory filling is not achieved after two repeat attempts, the cylinder shall be rendered unserviceable and condemned. Note: This applies only to the filling of the cylinder at the filler's location prior to any transportation in commerce. Any subsequent refilling after the original filling is not allowed for these cylinders (49 USC 5124).

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 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 (OHMSAPD) for a specific manufacturing facility.

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- 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, cargo-only aircraft, cargo vessel, passenger-carrying aircraft, rail freight.
10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each cargo vessel, aircraft or motor vehicle 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. 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

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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-30, 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 [http://hazmat.dot.gov/sp\\_app/special\\_permits/spec\\_perm\\_index.htm](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:Refaat Shafkey/SG