



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

January 05, 2024

1200 New Jersey Avenue, SE
Washington, DC 20590

DOT-SP 21179
(SECOND REVISION)

EXPIRATION DATE: 2027-06-30

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: Airgas USA, LLC
Tulsa, OK
2. PURPOSE AND LIMITATION:
 - a. This special permit authorizes the transportation in commerce of DOT Specification 3AA cylinders containing Division 2.2 gases that are requalified every 15 years instead of every 10 years. 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 the development of this special permit only considered the hazards and risks associated with the transportation in commerce.
 - c. No party status will be granted to this special permit.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 180.209 in that a retest frequency greater than 10 years is not authorized for DOT 3AA cylinders except as specified herein.
5. BASIS: This special permit is based on the application of Airgas USA, LLC dated March 20, 2023, submitted in accordance with § 107.105 and the public proceeding thereon.

6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Argon, <i>compressed</i>	2.2	UN1006	N/A
Helium, compressed	2.2	UN1046	N/A
Oxygen, compressed	2.2	UN1072	N/A
Krypton, compressed	2.2	UN1056	N/A
Nitrogen, compressed	2.2	UN1066	N/A
Neon, compressed	2.2	UN1065	N/A
Xenon, compressed	2.2	UN2036	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING: Packaging prescribed are DOT-3AA cylinders with a maximum water capacity of 125 pounds. Cylinders must have a minimum marked service pressure of 1800 psig and be star (*) marked. Each cylinder must be subjected to periodic retesting, reinspection and marking as prescribed in §§ 180.205, 180.209 and 180.213 except that:

- (1) Hammer testing is not required.
- (2) Once every 15 years instead of every 10 years:
 - (i) Each cylinder must be subjected to an external visual inspection in accordance with CGA Pamphlet C-6;
 - (ii) Each cylinder sidewall must be examined using 100% Ultrasonic Examination (UE) in accordance with an existing DOT (UE) special permit that is applicable to the DOT Specification 3AA cylinder, except as follows:

(A) Simulated defect for line corrosion in the sidewall-to-base transition (SBT). A circumferential notch must be machined into the surface of the cylinder to simulate SBT line corrosion. The notch must be 1/10 of the t_m depth, 1 inch long and less than or equal to 0.02 inch in width.

(B) Simulated defect for longitudinal sidewall crack (LSC). Dimensions of the LSC notch must be 0.05 of t_{min} depth, 1 inch long and less than or equal to 0.02 inch in width.

(iii) Each cylinder passing external visual inspection and UE requalification under the provisions of this special permit must be marked in accordance with the UE special permit. Additionally, each cylinder must be plainly marked "DOT-SP 21179" after the DOT Specification and followed by "*" (i.e., DOT XXXX psi, UE test date, "*", DOT-SP 21179). Alternatively, in lieu of stamping "DOT-SP 21179", a label bearing "DOT-SP 21179" may be affixed to the cylinder's sidewall near the shoulder region. Marking and/or labeling must be permanent and durable through each requalification period. For "+" marking, see paragraph 8.e. of this special permit; and

(iv) The external visual inspection and UE report must be in accordance with the UE special permit and must be kept for a minimum of 15 years.

b. Acceptance/Rejection Criteria: In addition to the criteria provided in an existing UE special permit, a cylinder must be rejected based on the measured wall thickness is less than the calculated minimum design wall thickness using a maximum allowable wall stress of 70,000 psi.

c. OPERATIONAL CONTROLS:

(1) Only cylinders that have been star marked (*) and used exclusively for the gases listed in § 180.209(b)(ii) since the last requalification are authorized to be used under this special permit. Newly manufactured cylinders that have been used exclusively for the gases listed in § 180.209(b)(ii) are authorized to be used under this special permit.

(2) Cylinders authorized under this special permit must be used exclusively for the Division 2.2 gases listed in paragraph 6. of this special permit. Mixtures of the gases that are listed in paragraph 6. of this special permit are not authorized.

- (3) Prior to each filling, the following conditions must be met:
 - (i) The authorized materials are chemically compatible with the cylinder material and will not have an adverse effect on the cylinder's strength; and
 - (ii) The authorized materials have a dew point below minus 52 °F at 1 atmosphere.
- (4) Prior to filling, each cylinder must be externally inspected in accordance with CGA Pamphlet C-6.
- (5) No person may perform inspection and testing of cylinders subject to this special permit unless that person has a current copy of this special permit at the location of such inspection and testing and complies with all the terms and conditions of this special permit.
- (6) Any cylinder exhibiting evidence of fire or excessive heat damage may not be retested under the terms of this special permit.
- (7) Cylinders requalified under this special permit must not be used in underwater breathing applications.
- (8) The UE retest facility must have a valid special permit for requalifying DOT Specification 3AA cylinders using UE.
- (9) An RPV must be installed on each cylinder that is authorized under this special permit. Before each refill, the functionality of the RPV valve shall be confirmed and the cylinder checked for positive pressure. If a cylinder is found to have no positive pressure, the valve shall be removed and the cylinder shall be internally visually inspected. If the cylinder is acceptable per CGA C-6, the valve shall be reinstalled or replaced before the cylinder can be placed back in service.

8. SPECIAL PROVISIONS:

- a. A person who is not a holder of this special permit who 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 reoffered for transportation in conformance with this special permit and the HMR.
- b. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation.
- c. The Ultrasonic Examination (UE) data, results, and additional technical information deemed pertinent in successful application of the UE must be recorded and kept at each facility for a minimum of 5 years after completion of the UE. The purpose of

this information is to determine whether certain examination procedures and criteria require modification. For any rejected cylinder, the defect causing the rejection must be fully characterized and profiled. That is, the specific type of defect should be identified (i.e., isolated pits, line corrosion or SBT crack) and the specific size of the defect should be determined (i.e., length, depth, width, diameter, area, etc.). The cylinder type, size, minimum design wall thickness, age, etc. of the rejected cylinder must be recorded. The ultrasonic signal profile should be recorded for any defect causing the cylinder to be rejected. These data must be provided to OHMS upon request.

d. The total number of cylinders tested and rejected under this special permit must be recorded cylinder specification and age and kept at each facility for a minimum of 5 years after completion of the UE. These data must be provided to OHMS upon request.

e. To authorize a cylinder for a special filling limit “+” marking stated in § 173.302a(b), the cylinder must meet the following:

- (1) The cylinder must meet the requirement of § 173.302a(b)(1); and
- (2) The wall thickness of the cylinder is equal to or greater than the design minimum wall thickness as it is described in the accept/reject criteria of the UE special permit for the cylinder type.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, cargo vessel, passenger-carrying aircraft, and cargo-only aircraft.
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 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 Material 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: BrM