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Joint Meeting of the RID Committee of Experts and the Working Party on the Transport of Dangerous Goods

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Item 6 of the provisional agenda

Reports of informal working groups

Carriage of pressure receptacles approved by the Department of Transportation of the United States of America (DOT)

Transmitted by the European Industrial Gases Association (EIGA)*, **, ***

Background and Introduction

1. For many years the question of the carriage of gases of Class 2 in refillable pressure receptacles authorized by the United States of America Department of Transportation (DOT) has been discussed and documented extensively at the Joint Meeting. The reason for the requirement is that some products are only produced in the United States and there are specific logistics and technical issues that prevent the use of a RID/ADR approved pressure receptacle. Similar issue in the United States is that there are products requiring RID/ADR pressure receptacles that are filled into non-authorized DOT pressure receptacles for the United States of America.
2. To accommodate the carriage of gases of Class 2 in refillable pressure receptacles authorized by DOT a number of successive multilateral agreements have been issued.
3. Recognizing that there needed to be a permanent solution, EIGA had made a number of proposals for changes to the RID/ADR. These proposals had not been accepted as it was felt that there needed to be a full reciprocal agreement for pressure receptacles which were approved under RID/ADR tend being temporarily imported into the United States.
4. At the 2015 spring session of the Joint Meeting the matter was again discussed in depth, see ECE/TRANS/WP.15/AC.1/2015/138. At this session the expert from the United

* A/75/6 (Sect.20), para 20.51.

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States of America identified a possible route forward whereby there could be a change in the United States Code of Federal Regulations to permit the temporary importation of ADR approved pressure receptacles into the United States of America with text similar in principle to that of the multilateral agreements used in Europe. In parallel, similar changes could be proposed for RID/ADR.

5. Following the 2015 spring session, EIGA along with their colleagues in the Compressed Gas Association (CGA) in the United States worked together to prepare a “Petition for Rulemaking” to permit certain European pressure receptacles to be temporarily imported into the United States of America. This Petition for Rulemaking was submitted by CGA.

6. EIGA has regularly updated the Joint Meeting of the progress of the Petition for Rulemaking.

7. At the 2018 autumn session of the Joint Meeting, EIGA submitted ECE/TRANS/WP.15/AC.1/2018/22 which proposed new text for the RID/ADR. Following discussions in the session, EIGA submitted a new proposal, see informal paper September 2018/INF.32 which modified ECE/TRANS/WP.15/AC.1/2018/3.

8. From the report of the Joint Meeting, ECE/TRANS/WP.15/AC.1/152, “41. *The Joint Meeting agreed in principle to the draft text in paragraph 5 of informal document INF.32 and noted that EIGA intended to continue working on its development together with the representative of the United States of America and other interested delegations with a view to submitting an official document for a future session. The representative of EIGA invited delegates to provide comments on the proposed draft text.*”

9. At the 2019 spring session of the Joint Meeting, EIGA submitted ECE/TRANS/WP.15/AC.1/2019/14 which made further amendments to INF.32 from the 2018 Joint Meeting. Following the discussion on ECE/TRANS/WP.15/AC.1/2019/14, INF.38 and INF.38/Rev.1 were submitted to assist in the preparation of a new Multilateral agreement.

10. At the 2019 Autumn Joint Meeting, EIGA submitted ECE/TRANS/WP.15/AC.1/2019/37. Following a lunchtime working group, new text was developed that resulted in INF 44 being presented to the meeting. In the report of Meeting, ECE/TRANS/WP.15/AC.1/156 stated, “*The Joint Meeting supported in principle the proposal in ECE/TRANS/WP.15/AC.1/2019/37 as amended in informal document INF.44 and agreed to consider the adoption of the proposal at a further session in the light of advancement of the rule making process in the United States of America.*”

11. EIGA continued to work with CGA and DOT. In November 2020 DOT published in their Federal Register amendments to 49CFR relating to “*Import of Foreign Pi-Marked Cylinders*”, see [2020-23712.pdf \(govinfo.gov\)](#), item 17, page 75690 to 75691 of the Federal Register. It is noted that this amendment to CFR is similar in content to this proposal. The explanation concludes as follows.

In this final rule, PHMSA is modifying §§ 171.23, 173.302, and 173.304 to permit the import of filled pi-marked foreign pressure receptacles for storage incidental to movement, transport to point of use, discharge, and export. PHMSA is also permitting the transportation of pi-marked foreign pressure receptacles for export, including filling and storage incidental to movement. In addition, PHMSA is revising §§ 171.23(a) and 173.302(a)(2) to ensure that the authorization for pi-marked cylinders is applicable to adsorbed gas packages.

12. The legal text of §§ 171.23, 173.302, and 173.304 shown in pages 75705 and 75715 of the Federal Register is reproduced in the annex of this paper with the passages relevant to pi-marked cylinders underlined.

Proposal

13. In light of the publication in the Federal Register of the changes detailed in (11), EIGA is proposing that the text presented at the 2019 autumn session in informal document INF.44 is adopted into the RID/ADR.

“1.1.4.7 *Refillable pressure receptacles authorized by the United States of America Department of Transportation*

1.1.4.7.1 **Import of gases**

Refillable pressure receptacles authorised by the United States of America Department of Transportation and constructed and tested in accordance with standards listed in Part 178, Specifications for Packagings of Title 49, *Transportation*, of the Code of Federal Regulations accepted for carriage in a transport chain in accordance with 1.1.4.2 may be carried from the location of the temporary storage at the end point of the transport chain to the end user.

The consignor for the RID/ADR carriage shall include the following entry in the transport document:

“Carriage in accordance with 1.1.4.7.1”

1.1.4.7.2 **Export of gases**

Refillable pressure receptacles authorised by the United States of America Department of Transportation and constructed in accordance with standards listed in Part 178, Specifications for Packagings of Title 49, *Transportation*, of the Code of Federal Regulations may be filled and carried only for the purpose of exporting to countries which are not Contracting States/Parties of RID/ADR provided the following provisions are met:

- (a) The filling of the pressure receptacle is in accordance with the relevant requirements of the Code of Federal Regulations of the United States of America.
- (b) The pressure receptacles shall be marked and labelled in accordance with Chapter 5.2 of RID/ADR.
- (c) The consignor for the RID/ADR carriage shall include the following entry in the transport document:

“Carriage in accordance with 1.1.4.7.2”

Excerpts of 49CFR 171.23, 173.302 and 173.304 copied from Federal Register / Vol. 85, No. 228 / Wednesday, November 25, 2020 / Rules and Regulations

■ 7. In § 171.23, revise paragraph (a) to read as follows:

§ 171.23 Requirements for specific materials and packagings transported under the ICAO Technical Instructions, IMDG Code, Transport Canada TDG Regulations, or the IAEA Regulations.

* * * * *

(a) Conditions and requirements for cylinders and pressure receptacles—(1) Applicability. Except as provided in this paragraph (a), a filled cylinder (pressure receptacle) manufactured to other than a DOT specification or a UN standard in accordance with part 178 of this subchapter, a DOT exemption or special permit cylinder, a TC, CTC, CRC, or BTC cylinder authorized under § 171.12, or a cylinder used as a fire extinguisher in conformance with § 173.309(a) of this subchapter, may not be transported to, from, or within the United States.

(2) Conditions. Cylinders (including UN pressure receptacles) transported to, from, or within the United States must conform to the applicable requirements of this subchapter. Unless otherwise excepted in this subchapter, a cylinder must not be transported unless—

- (i) The cylinder is manufactured, inspected and tested in accordance with a DOT specification or a UN standard prescribed in part 178 of this subchapter, or a TC, CTC, CRC, or BTC specification set out in the Transport Canada TDG Regulations (IBR, see § 171.7), except that cylinders not conforming to these requirements must meet the requirements in paragraph (a)(3), (4), or (5) of this section;
- (ii) The cylinder is equipped with a pressure relief device in accordance with § 173.301(f) of this subchapter and conforms to the applicable requirements in part 173 of this subchapter for the hazardous material involved;
- (iii) The openings on an aluminum cylinder in oxygen service conform to the requirements of this paragraph, except when the cylinder is used for aircraft parts or used aboard an aircraft

in accordance with the applicable airworthiness requirements and operating regulations. An aluminum DOT specification cylinder must have an opening configured with straight (parallel) threads. A UN pressure receptacle may have straight (parallel) or tapered threads provided the UN pressure receptacle is marked with the thread type, e.g. “17E, 25E, 18P, or 25P” and fitted with the properly marked valve; and

(iv) A UN pressure receptacle is marked with “USA” as a country of approval in conformance with §§ 178.69 and 178.70 of this subchapter, or “CAN” for Canada.

(3) Pi-marked pressure receptacles. Pressure receptacles that are marked with a pi mark in accordance with the European Directive 2010/35/EU (IBR, see § 171.7) on transportable pressure equipment (TPED) and that comply with the requirements of Packing Instruction P200 or P208 and 6.2 of ECE/TRANS/257 (Vol. I), the Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR) (IBR, see § 171.7) concerning pressure relief device use, test period, filling ratios, test pressure, maximum working pressure, and material compatibility for the lading contained or gas being filled, are authorized as follows:

- (i) Filled pressure receptacles imported for intermediate storage, transport to point of use, discharge, and export without further filling; and
- (ii) Pressure receptacles imported or domestically sourced for the purpose of filling, intermediate storage, and export.
- (iii) The bill of lading or other shipping paper must identify the cylinder and include the following certification: “This cylinder (These cylinders) conform(s) to the requirements for pi-marked cylinders found in 171.23(a)(3).”

(4) Importation of cylinders for discharge within a single port area. Except as provided in § 171.23(a)(3), a

cylinder manufactured to other than a DOT specification or UN standard in accordance with part 178 of this subchapter, or a TC, CTC, BTC, or CRC specification cylinder set out in the Transport Canada TDG Regulations (IBR, see § 171.7), and certified as being in conformance with the transportation regulations of another country may be authorized, upon written request to and approval by the Associate Administrator, for transportation within a single port area, provided—

- (i) The cylinder is transported in a closed freight container;
- (ii) The cylinder is certified by the importer to provide a level of safety at least equivalent to that required by the regulations in this subchapter for a comparable DOT, TC, CTC, BTC, or CRC specification or UN cylinder; and
- (iii) The cylinder is not refilled for export unless in compliance with paragraph (a)(5) of this section.

(5) Filling of cylinders for export or for use on board a vessel. A cylinder not manufactured, inspected, tested and marked in accordance with part 178 of this subchapter, or a cylinder manufactured to other than a UN standard, DOT specification, exemption or special permit, or other than a TC, CTC, BTC, or CRC specification, may be filled with a gas in the United States and offered for transportation and transported for export or alternatively, for use on board a vessel, if the following conditions are met:

- (i) The cylinder has been requalified and marked with the month and year of requalification in accordance with subpart C of part 180 of this subchapter, or has been requalified as authorized by the Associate Administrator;
- (ii) In addition to other requirements of this subchapter, the maximum filling density, service pressure, and pressure relief device for each cylinder conform to the requirements of this part for the gas involved; and
- (iii) The bill of lading or other shipping paper identifies the cylinder and includes the following certification:

“This cylinder has (These cylinders have) been qualified, as required, and filled in accordance with the DOT requirements for export.”

(6) Cylinders not equipped with pressure relief devices. A DOT specification or a UN cylinder manufactured, inspected, tested and marked in accordance with part 178 of this subchapter and otherwise conforms to the requirements of part 173 of this subchapter for the gas involved, except that the cylinder is not equipped with a pressure relief device may be filled with a gas and offered for transportation and transported for export if the following conditions are met:

- (i) Each DOT specification cylinder or UN pressure receptacle must be plainly and durably marked “For Export Only”;
- (ii) The shipping paper must carry the following certification: “This cylinder has (These cylinders have) been retested and refilled in accordance with the DOT requirements for export.”; and
- (iii) The emergency response information provided with the shipment and available from the emergency response telephone contact person must indicate that the pressure receptacles are not fitted with pressure relief devices and provide appropriate guidance for exposure to fire.

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■ 23. In § 173.302, revise paragraph (a) to read as follows:

§ 173.302 Filling of cylinders with nonliquefied (permanent) compressed gases or adsorbed gases.

(a) General requirements. (1) Except as provided in § 171.23(a)(3) of this subchapter, a cylinder filled with a nonliquefied compressed gas (except gas in solution) must be offered for transportation in accordance with the requirements of this section and § 173.301 of this subpart. In addition, a DOT specification cylinder must meet the requirements in §§ 173.301a, 173.302a, and 173.305 of the subpart, as applicable. UN pressure receptacles must meet the requirements in

§§ 173.301b and 173.302b of this subpart, as applicable. Where more than one section applies to a cylinder, the most restrictive requirements must be followed.

(2) Adsorbed gas. Except as provided in § 171.23(a)(3) of this subchapter, a cylinder filled with an adsorbed gas must be offered for transportation in accordance with the requirements of paragraph (d) of this section, and §§ 173.301, and 173.302c of this subpart. UN cylinders must meet the requirements in §§ 173.301b and 173.302b of this subpart, as applicable. Where more than one section applies to a cylinder, the most restrictive requirements must be followed.

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■ 24. In § 173.304, revise paragraph (a) introductory text to read as follows:
§ 173.304 Filling of cylinders with liquefied compressed gases.

(a) General requirements. Except as provided in § 171.23(a)(3) of this subchapter, a cylinder filled with a liquefied compressed gas (except gas in solution) must be offered for transportation in accordance with the requirements of this section and the general requirements in § 173.301 of this subpart. In addition, a DOT specification cylinder must meet the requirement in §§ 173.301a, 173.304a, and 173.305 of this subpart, as applicable. UN pressure receptacles must be shipped in accordance with the requirements in §§ 173.301b and 173.304b of this subpart, as applicable.

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