

Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labeling of Chemicals

Sub-Committee of Experts on the Transport of Dangerous Goods

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Programme of work for the biennium 2013-2014

Global recognition of UN and non-UN pressure receptacles

Transmitted by the experts from the United Kingdom and the United States of America

Introduction

1. The UN Sub-Committee of Experts introduced provisions for UN pressure receptacles in the eleventh revised edition of the UN Model Regulations. It did so after a great deal of difficult discussion and hard work with the intention of developing a universally acceptable system for the construction, approval and inspection of a range of pressure receptacles to harmonise technical standards and to enhance the free movement of goods across the globe.

2. Conforming to the usual practice, the international modal bodies incorporated the new provisions for UN pressure receptacles into their modal instruments from 2001 onwards with other major regional or national instruments following at various intervals thereafter. However, in most cases pressure receptacles were already addressed in legislation in other ways and had been for many years. Given the very long life-span of such pressure receptacles it was always likely there would be a significant period of time when both UN and non-UN pressure receptacles would continue to exist side by side.

3. It appears that use of the UN pressure receptacle provisions by industry has been more gradual than expected. A principle reason for this appears to be the lack of incentive to do so because there remain impediments to the mutual recognition of UN pressure receptacles in various regions of the world and the fact that so many non-UN pressure receptacles remain serviceable and generally do not move outside of their regions of origin. Nevertheless, the fact remains that for those pressure receptacles that are transported internationally from one region to another difficulties are encountered with both filling, use and continued movement because the concept of mutual recognition of applicable provisions for such receptacles is minimal.

4. In the European Union, this has in part been addressed through the adoption of Directive 2010/35/EU on transportable pressure equipment which is intended to enable pressure receptacles bearing the 'pi mark' to be re-filled for further use in EU Member States. In turn elements of this Directive have been included into the provisions of the RID/ADR/ADN Agreements in order to widen the concept to non-EU Contracting Parties to those Agreements. In the United States, this has in part been addressed by the application of the USA marking on UN cylinders; like the 'pi mark', this allows for cylinders approved under United States requirements to be transported to, from, or within the United States.

5. Nevertheless, it remains the case that various barriers remain. For example, other than by approval or for filling and export under defined conditions, it is not possible to import UN or EU pi marked cylinders into the United States unless they also bear a “USA” mark. Equally, it is not possible to import US DOT specification cylinders not bearing a pi-mark into the territories of RID/ADR/ADN contracting parties other than through the application of a multilateral agreement (M 237) for those contracting parties that have signed the agreement. Similar problems arise in other regions of the world too.

6. The experts from the United Kingdom and the United States consider this issue to be worthy of close examination as stakeholders continue to identify the lack of reciprocity in this area as a significant impediment to the free movement of dangerous goods. As such, they organised two informal meetings to which other competent authority and industry representatives were invited to participate on a without prejudice basis to determine the level of interest there may be in examining in more detail the many facets of the issue in order to look at the possibility of working towards expanded reciprocity for the transport of dangerous goods in cylinders. The first meeting took place in the margins of the RID/ADR/ADN Joint Meeting held in Bern in March 2012 and the second in the margins of the last session of the UN Sub-Committee of Experts in Geneva in June 2012 (The informal notes of those meetings are attached as Annex A). There was substantial interest among the many who attended those meetings in looking further into this issue.

Proposal

7. The experts from the United Kingdom and the United States therefore propose that a new work item be added to the programme of work for the next biennium to consider the issue of global mutual recognition of UN and non-UN pressure receptacles. If agreed, the experts from the United Kingdom and the United States would be willing to jointly lead an inter-sessional correspondence working group with the following mandate:

- Consider the safety implications of differing national/regional/UN design specifications;
- Consider the safety implications of differing approval and testing regimes for such pressure receptacles;
- Consider requirements for filling and use to better understand the implications of enhanced recognition;
- Propose measures that might be applied through inclusion in the Model Regulations [or other instruments] to promote mutual recognition and free movement of pressure receptacles on a global basis.

8. It is recognised that this represents a substantial body of work that will require genuine commitment by regulators and technical experts in the public and private sectors. It is also possible that such work cannot be completed within a single biennium; however the experts from the United Kingdom and the United States would undertake to keep the Sub-Committee regularly informed of progress.

Annex

Enhanced Global Recognition of Cylinders

Informal Meetings in Bern – 20 March 2012 and in Geneva, 27 June, 2012

NOTE: This paper, prepared by the delegates of the United States and United Kingdom, has no formal status and is disseminated for information only.

Overview

During the RID/ADR/ADN Joint Meeting held 19-23 March, 2012, representatives from the United Kingdom and the United States invited interested delegates and observers from the Joint Meeting to discuss informally and without prejudice the current state of recognition of cylinders with a particular focus on U.S. DOT and RID/ADR/ADN cylinders (e.g. UN or EU pi marked cylinders). The intent of the meeting was to assess the current state of affairs and gauge in a general sense the level of interest in working towards enhanced reciprocity. The discussion touched on the following areas:

- Recognition Issues
- Design Specification
- Approval and Testing
- Filling and Use

Recognition Issues

It was noted that under present U.S. and other regional dangerous goods standards, a number of regulatory impediments restricted the free movement of cylinders. These impediments largely were attributable to a lack of recognition within relevant U.S. and other regional regulatory requirements (specifically the U.S. Hazardous Materials Regulations (HMR;49 CFR Parts 100-180) and the European RID/ADR/ADN (Road/Rail/Inland Waterway) Regulations. Examples of the effects of such impediments were given including:

- Inability to import UN or EU pi marked cylinders not also bearing a “USA” mark into the U.S. when full (export from the U.S. is permitted under certain conditions)
- Inability to import US DOT specification cylinders not bearing a “pi” mark into the territories of RID/ADR/ADN contracting parties (except under multilateral agreement M-237)

Practical consequences of these limitations were discussed, such as hindrances in the international movement of specialty gases and the servicing/refilling of cylinders used aboard aircraft, among others.

Design Specification

It was noted that the long service life of cylinders, as well as implications on manufacturing and testing processes, made it necessary to recognize specifications that predated UN harmonization by a considerable length of time. This basic principle is underscored by the current international modal regulations (ICAO Technical Instructions and IMDG Code), which recognize cylinders other than UN specification cylinders conforming to the requirements of the State in which they are filled. The broad allowance in the ICAO TI and IMDG Code is however overshadowed by limitations within national and regional regulations (e.g. the HMR and RID/ADR/ADN). Some were of the opinion that while differences in specifications existed, current levels of recognition appeared to support to a certain degree that specifications afforded acceptable comparable levels of safety. It was noted that both the U.S. HMR (49 CFR 171.23(a)(4)) and Multilateral Agreement M-237 broadly recognized variances in specifications.

Approval and Testing

It was recognized that approval and testing systems differed widely and that recognition of approval processes was inherently more complex than recognition of differing design types. A detailed review and comparison of existing systems would need to be undertaken to better understand the implications of enhanced recognition from this standpoint.

Filling and Use

It was evident that a detailed review and comparison of requirements for filling and use would be necessary to better understand the implications of enhanced recognition from this standpoint. It was suggested by some that discussions could be significantly simplified if authorizations for filling and use were separated from the issue of importing/exporting cylinders already filled in accordance with the requirements of the State in which filling took place.

Next Steps

It was clear from discussions that there was substantive interest amongst attendees of the informal meeting to examine in more detail the many facets of the issue in order to look at the possibility of working towards expanded reciprocity for the transport of dangerous goods in cylinders. Affected stakeholders in both hemispheres of the globe should be consulted and the scope better defined through more detailed work involving the appropriate technical experts in the public and private sectors.

The representatives of the United States and the United Kingdom undertook to take forward this work on an informal basis as and when resources permitted. The current study being undertaken in North America on reciprocity of US/Canadian pressure receptacles and the work of the EU Transportable Pressure Equipment Directive Guidelines Working Group might also provide for a further consideration of the issues raised. Another informal discussion in the margins of the forty-first session of the UN Sub-Committee of Experts on the Transport of Dangerous Goods was arranged.

A number of attendees expressed their interest and support in looking for ways to enhance global recognition at this additional meeting held on 27 June; key points raised included:

- Some expressed the view that dividing the work into categories may facilitate addressing areas posing less difficulty more expediently. For example finding ways to enhance global mutual recognition of approval bodies may be significantly more challenging than addressing onward movement of pressure receptacles filled and approved in accordance with the applicable requirements of the country where filled.
 - Attendees affirmed there is a practical need to enhance recognition based on practical issues related not only to the movement of goods in commerce but also for practical reasons such as the world-wide serviceability of aircraft etc. requiring specific pressure receptacles approved by the appropriate competent authority
 - It was affirmed that significant impediments to free movement existed which complicated pressure receptacle movement not only with respect to the transport of gases, but also liquids and solids
 - Some suggested that consideration of ways to facilitate inter-regional use of pressure receptacles for liquids and solids may be an issue that could be more readily addressed as compared to addressing approval and use of pressure receptacles for gases
 - There was general support for continued work to identify impediments, possible solutions, and necessary work to facilitate global movement of pressure receptacles
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