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## **Economic Commission for Europe**

### **Inland Transport Committee**

#### **Working Party on the Transport of Dangerous Goods**

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

**3 March 2016**

Bern, 14–18 March 2016

Item 2 of the provisional agenda

##### **Tanks**

### **5.4.1.2.2 - Documentation - Additional provisions for Class 2**

#### **Transmitted by the Government of the Russian Federation**

##### **Summary**

OTIF Secretariat in its report OTIF/RID/CE/GTP/2015-A, as well as in the document INF.5 drew the attention of the Working Group on the difference between the provisions of paragraph 5.4.1.2.2 in Annex 2 to SMGS and RID. In case of the carriage of empty tank wagons, which contained some of liquefied gases of classification codes, an additional provision in Annex 2 to SMGS prescribes that the residual pressure in the tank after unloading should be indicated in the transport document.

The representative of the Russian Federation explained that this additional information is required by the authorities in the states - parties to SMGS agreement, in order to, among other things, prevent the internal negative pressure in the tank that has already occurred several times in Siberia.

The representative of OTIF reminded that in the past, incidents that led to the deformation of the tank due to internal negative pressure, led to the inclusion in items 4.3.3.3.4 and 6.8.2.1.7 of the rules, which contained measures to prevent external negative pressure.

The Working Group has come to opinion that this issue should be submitted to the Joint RID/ADR/ADN Meeting to the Working Group on tanks for further study.

A meeting of the OSJD Commission on Transport Law on the topic “Implementation of works in the field of the Rules on the carriage of dangerous goods (Annex 2 to SMGS)” has been held on 27-29 October 2015 in Warsaw. The meeting appealed to the Russian Federation with a request to send to the session of the Permanent Working Group of Experts of the RID a proposal to add additional requirements in RID, related with the indication in the transport document of value of the residual pressure during carriage of empty tank wagons after unloading of liquefied gases of classification codes 2A, 2O, 2F, 2TF, 2TS, 2TO, 2TFC, 2TOC. Counter proposals were also made by participants of the 5th session of the Permanent Working Group of Experts of RID (Zagreb, 23-27.11.2015) and 48 session of the UN Sub-committee of Experts on the Transport of Dangerous Goods (Geneva, 30.11 - 09.12.2015).

## Justification

The justifications for the need for such additional requirements are the provisions of the national regulations of the Russian Federation, as well as the existing regulations of CIS countries.

So, items 9.1.20, 9.1.21 of the Rules of design and safe operation of vessels working under pressure (Registered by Ministry of Justice of the Russian Federation on June 19, 2003, № 4776) require existence in tanks or barrels of **residual pressure** and compliance of the gas which is available in them to the purpose of the tank or a barrel. Moreover, the consumer emptying tanks, barrels, is obliged to leave in them **excessive gas pressure** of at least 0.05 MPa. For liquefied gases, vapor pressure of which in winter may be below 0.05 MPa, **residual pressure** is established by the production instruction of the organization which is carrying out filling.

In accordance with paragraph 10.3.5 of the Rules for design and safe operation of vessels working under pressure, at operation of cylinders the gas which is in them is forbidden to be spent completely. **The residual gas pressure** in the cylinder shall be not less than 0.05 MPa.

In accordance with paragraph 10.3.11 of the Rules of design and safe operation of vessels working under pressure, it is prohibited to fill gas cylinders, in which:

- expired term of the designated examination;
- expired term of the inspection of the porous mass;
- damaged cylinder housing;
- valves are faulty;
- lack of proper coloring or inscriptions;
- **no excessive gas pressure;**
- there are no established hallmarks.

Filling the tanks in which **there is no excessive gas pressure** must be carried out only after their preliminary testing in accordance with the instruction of the organization which is carried out filling (filling station).

Paragraphs 4.1.7, 4.1.16 of the Rules of liquid bulk cargo transportation in tank cars and hopper type wagons for transportation of bitumen (approved by the Council for Rail Transport of States members of the Commonwealth, Minutes of May 21-22, 2009 № 50) also require existence in tanks of **residual pressure**:

"4.1.7. Before filling the tank-wagons by gases a responsible person of the consignor conducts a thorough inspection of the outer surface, check the condition and tightness of the valve, the **presence of residual pressure** gas and compliance of gas to purpose of the tank-wagon. The results of the inspection of tank-wagons and the conclusion concerning a possibility of their filling are registered in log.

4.1.16. The consignee is required to drain the liquefied gas from the tank-wagon completely. **The pressure in the pot after draining** of liquefied gases should be from 0.04 to 0.07 MPa. In The transport document for empty tank-wagons consignee shall specify: "**The tank has been drained completely. The pressure in the tank is \_\_\_\_ MPa.**"

We consider that the reference in the transport document of the residual pressures for carriage of empty tank-wagons after unloading of liquefied gases of classification codes 2A, 2O, 2F, 2TF, 2TS, 2TO, 2TFC, 2TOC is going to:

- 1) increase the safety of carriage of liquefied gases;
- 2) ensure the safety of vessels operating under pressure from damaging external influences;
- 3) guarantee the quality of liquefied gases carried;
- 4) increase the serviceable life of the vessels working under pressure.

We also consider that the list of liquefied gases, for which it is necessary to specify in the consignment note the residual pressure in carriage of empty tank-wagons after unloading, has to be added with the liquefied toxic gases (classification code of 2T).

## **Application**

Any problems with ensuring the application of the amendment are not expected.

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