



Economic and Social Council

Distr.: General
5 July 2021

Original: English

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

Geneva, 21 September – 1 October 2021

Item 5(b) of the provisional agenda

Proposals for amendments to RID/ADR/ADN: new proposals

Amendment of RID/ADR 1.1.3.2(e)

Transmitted by the Government of Ireland*, **, ***

Summary

Executive summary: RID/ADR 1.1.3.2 (e) permits the transport of gases contained in the special equipment of wagons or vehicles carried as a load / vehicles and necessary for the operation of this special equipment during the carriage, such as fish tanks, without being subject to the requirements of RID/ADR.

The aim of this proposal is to widen the scope of 1.1.3.2 (e) to also include gases contained in special equipment carried as a load.

Action to be taken: Amend RID/ADR 1.1.3.2 (e) so that the transport of gases contained in special equipment carried as a load are not subject to the requirements of RID/ADR.

Background

1. For over twenty years, the International Civil Aviation Organization's (ICAO) Technical Instructions for the Safe Transport of Dangerous Goods by Air has provided a method for transporting aquatic animals by air, using compressed air and oxygen to provide life support in accordance with special provision A302 of the Technical Instructions (see Appendix I). The approval allows transport of a cylinder with its valve open, releasing a

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

** Circulated by the Intergovernmental Organisation for International Carriage by Rail (OTIF) under the symbol OTIF/RID/RC/2021/39.

*** This document was scheduled for publication after the standard publication date owing to circumstances beyond the submitter's control..

measured flow of air or oxygen through a specially designed regulator and air stone into the water containing the aquatic animals. It is effectively a mobile aquarium. One such system has been used over 300,000 times, mostly on passenger aircraft, without incident.

2. Whilst provision is made for the transport of these systems on journeys by air, there is no equivalent to special provision A302 in RID/ADR. The closest provision is the exemption in 1.1.3.2 (e), which states that the provisions laid down in RID/ADR do not apply to the carriage of “gases contained in the special equipment of wagons or vehicles carried as a load / vehicles and necessary for the operation of this special equipment during transport (cooling systems, *fish-tanks*, heaters, etc.)”. Since systems are not “special equipment of wagons/vehicles” (they are carried as a load by a wagon/vehicle), this exemption cannot be used, and as the cylinder is transported with the valve open, P200 cannot be complied with and so carriage by rail/road in accordance with RID/ADR is not possible.

Proposal

3. It is proposed to amend RID/ADR 1.1.3.2 (e) as follows. New text is underlined.

“The provisions laid down in RID/ADR do not apply to the carriage of:

Gases contained in the special equipment of wagons or vehicles carried as a load / vehicles, or in special equipment carried as a load and necessary for the operation of this special equipment during transport (cooling systems, fish-tanks, heaters, etc.) as well as spare receptacles for such equipment or uncleaned empty exchange receptacles, transported in the same wagon or vehicle / transport unit;”

Justification

4. Extensive experience has demonstrated that self-contained systems containing compressed gas, carried as a load, can be transported safely by air and it is suggested that there is no safety reason why similar provisions for such equipment should be made for transport by surface modes.

Annex

Special provision A302 of the Supplement to the International Civil Aviation Organization's (ICAO) Technical Instructions for the Safe Transport of Dangerous Goods by Air

For the purpose of providing life support for aquatic animals during transport, the appropriate authority of the States of Origin and of the Operator may approve the carriage of cylinders containing oxygen compressed, UN 1072 and air, compressed UN 1002, with the valve(s) open to supply a controlled quantity of oxygen or air through a regulator into water containing the aquatic animals. The cylinder or cylinder valve must be fitted with a self-sealing device to prevent uncontrolled release of oxygen or air should the regulator malfunction or be broken or damaged. The oxygen or air cylinder must meet those parts of Packing Instruction 200 which apply, except for the need for valves to be closed. In addition, the following conditions apply as a minimum:

- (a) the water container with the attached oxygen and/or air cylinder (transportation unit) must be engineered and constructed to withstand all anticipated loads. No more than two cylinders of which a maximum is one cylinder of oxygen are permitted;
- (b) the water container must be tilt-tested at an angle of 45° in four directions from the upright for a 10-minute minimum duration in each direction with the oxygen supply operating, without leakage of water;
- (c) the oxygen or air cylinder and regulator must be restrained and protected within the equipment;
- (d) the oxygen or air regulator used must have a maximum flow rate of not more than five litres per minute;
- (e) the oxygen or air flow rate to the container must be limited to that sufficient to provide life support to the aquatic animals;
- (f) the quantity of oxygen or air provided must not exceed 150 per cent of the oxygen or air required for the normal duration of air transport; and
- (g) only one cylinder may be carried for each 15 cubic metres of gross cargo hold volume. In no circumstances may the rate of oxygen or air flow from the cylinder exceed one litre per minute per five cubic metres of gross cargo hold volume.