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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**

Bern, 18–22 March 2019

Item 5 (b) of the provisional agenda

**Proposals for amendments to RID/ADR/ADN:
new proposals****Carriage of polymerizing substances as waste****Transmitted by the Government of Germany*****Introduction**

1. An essential prerequisite for the transport of polymerizing substances is sufficient stabilization by means of chemical stabilization or temperature control or a combination of both. This presupposes that the self-accelerating polymerization temperature (SAPT) is determined in relation to the packages, as a SAPT below 50°C (packagings) or 45°C (tanks) requires the application of temperature control provisions. Based on the SAPT, the control and emergency temperatures have to be determined for this purpose and have to be indicated in the transport document (see RID/ADR 5.4.1.2.3.1). When chemical stabilization is employed, it must be ensured that the level of chemical stabilization is sufficient to prevent dangerous polymerization of the substance, including at a mean loading temperature of 50°C or 45°C. In this case, different factors are to be taken into account, for example the duration of transport or the effectiveness and properties of the stabilizer. This information is in particular available from the manufacturer of such substances, i.e. at the beginning of the transport chain. The consignor has to make sure of the classification and provide the data required for the transport document.

2. A large amount of polymerizing substances is also carried as waste. Here, the information required for complying with the provisions is often not available. Usually, the substances to be transported are not new products to be placed on the market, but substances

* In accordance with the programme of work of the Inland Transport Committee for 2018-2019, (ECE/TRANS/WP.15/237, annex V, (9.2)).

to be disposed of because their properties have changed, because the substance has been stored for too long or because partial polymerization has already taken place. The evaluation of these wastes results in the following difficulties:

- (a) the wastes come from waste producers that (no longer) have information on the substance (e.g. from closed down businesses, site clearings, insolvency estates);
- (b) changes in the chemical composition cannot be ascertained;
- (c) the effectiveness of a potential stabilizer cannot be ascertained, except that there are no measurable reactions or physical changes;
- (d) emergency and control temperatures are unknown;
- (e) safety data sheets are not available, and/or
- (f) the wastes are stored in containers that are no longer permissible.

3. However, without further information, it cannot simply be assumed that there is sufficient chemical stabilization. In addition, without knowledge of the SAPT and the control and emergency temperatures derived from it, it is not possible to comply with the temperature control provisions described in RID/ADR 7.1.7.3 and 7.1.7.4.

4. Therefore, discussions have been held with the waste disposal sector on approaches for ensuring that also for the transport of wastes, dangerous polymerization cannot take place during transport to the disposal facility. Possible measures are:

- (a) the addition of inhibitors;
- (b) loading is only permitted if an examination has shown that there is no significant deviation between the outside temperature of the package and the ambient temperature;
- (c) the packages have to be protected from direct sunlight during transport;
- (d) the packages have to be protected from the impact of other sources of heat (e.g. additional loads that are being transported above ambient temperature) during transport;
- (e) transport has to be carried out at transport conditions (ambient temperature) below 45°C;
- (f) vehicles and containers have to be adequately ventilated; and/or
- (g) transport has to be effected within 24 hours.

5. There must always be consideration of the individual case, including actually available information on the substance, type and size of the containment as well as the circumstances under which the transport operation is effected.

6. Germany submitted a proposal on this issue to the Sub-Committee of Experts on the Transport of Dangerous Goods (ST/SG/AC.10/C.3/2018/97). The aim of the proposal was to allow exceptions in the transport document and the specific temperature control measures, for which the SAPT and chemical stabilization must be known. In the discussion at the Sub-Committee of Experts (26 November to 4 December 2018) it was proposed, among other things, that the transport conditions should be specified by the competent authority. In the end the proposal was withdrawn, as it seemed more expedient to resolve the issue at Joint Meeting level.

Possible amendment

7. In order to enable polymerizing substances to be carried as waste in accordance with the regulations, an appropriate legal basis for special procedures for such carriage should be established. As a rule, the requirements of special provision 386, in conjunction with RID/ADR 7.1.7.3, 7.1.7.4 and 5.4.1.2.3.1 cannot be complied with. To this end, another special provision, as follows, could be assigned to substances to which special provision 386 is assigned:

"**6xx** For substances carried for disposal or recycling, the provisions of special provision 386, in conjunction with 7.1.7.3, 7.1.7.4 and 5.4.1.2.3.1, need not be applied, provided suitable measures are taken to prevent dangerous polymerization. Factors to be taken into consideration when determining suitable measures include, but are not limited to, the capacity and geometry of the packaging, IBC or tank and the effect of any insulation present, the temperature of the substance when offered for carriage, the duration of the journey and the ambient temperature conditions typically encountered in the journey (considering also the season of year), the effectiveness and other properties of the stabilizer employed, applicable operational controls imposed by regulation (e.g. requirements to protect from sources of heat) and any other relevant factors."

Proposal

8. At the last Joint Meeting (Geneva, 17 to 21 September 2018), it was agreed that an informal working group led by the European Federation of Waste Management and Environmental Services (FEAD) would look into the carriage of dangerous wastes. The first meeting of the informal working group would prepare a list of issues to be dealt with (see OTIF/RID/RC/2018-B – ECE/TRANS/WP.15/AC.1/152, paragraph 62). It is proposed that this document should also be dealt with by the informal working group.