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Joint Meeting of the RID Safety Committee and the  
Working Party on the Transport of Dangerous Goods  
(Geneva, 1-10 September 2003)

HARMONIZING WITH THE UNRTDG – MODEL RULE

INTRODUCTION OF RID/ADR TANK REQUIREMENTS FOR UN 3375 AMMONIUM  
NITRATE EMULSIONS

Transmitted by the Government of Norway \*/

**SUMMARY**

Executive Summary:	United Nations Sub-Committee of Experts on the Transport of Dangerous Goods (UNSCETDG) has now introduced provisions for transport of UN 3375 Ammonium Nitrate Emulsion, Suspension or Gel (ANE) in portable tanks. Since these substances in Europe today mainly are transported in tanks, the logical follow up to this is to introduce these provisions also into the UN Portable Tank regime in RID/ADR, as well as introducing similar provisions for transport in RID/ADR tanks.
Action to be taken:	Introduce tank provisions for ANE's in the relevant parts of RID/ADR.
Related documents:	INF.30/Add.3/Rev.1 to the March 2003 Joint Meeting.

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## *1. Introduction*

New positions for UN 3375 Ammonium Nitrate Emulsions, Suspensions or Gels (ANE) were introduced in the 2003 version of RID/ADR. These positions did not contain any provisions for transport in tanks, since these were not finalized in the UNsCETDG at that time.

The introduction of the specific UN- number for ANEs meant that the transport of such substances, which until now have been transported, mainly in tanks, under various n.o.s-entries, after 1 July 2003 may only be transported in packagings. Based on this fact, Norway introduced Multilateral Agreement M130 to make it possible for tank transport of these substances also after that date.

This Multilateral Agreement was based on the provisions adopted by the UN Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals (UNCETDG/GHS) at its meeting in December 2002. The Agreement is now signed by 6 member States in which the use of UN 3375 ANE as an intermediate for on site manufacturing of blasting explosives is an important part of civil construction works and mining.

## *2. Proposal*

To introduce into RID/ADR provisions for transport of UN 3375 ANE in tanks, Norway proposes the following changes to Annex A and Annex B of RID/ADR:

1. In Chapter 3.2, Table A, for the entries for UN 3375:

In column (10), insert "T1";  
in column (11), insert "TP1", "TP17" and "TP32";  
in column (12), insert "LGAV(+)" for the liquid entry and "SGAV(+)" for the solid entry;  
in column (13), insert "TE xy" "TU xz";  
in column (14), Insert "AT".

2. In Chapter 4.2:

In 4.2.5.3 add new portable tank instruction:

**"TP 32** For UN 3375, portable tanks may be used subject to the following conditions:

- (a) To avoid unnecessary confinement, each portable tank constructed of metal shall be fitted with a pressure-relief device that may be of the reclosing spring loaded type, a frangible disc or a fusible element. The set to discharge or burst pressure, as applicable, shall not be greater than 2.65 bar for portable tanks with minimum test pressures greater than 4 bar;

- (b) The suitability for carriage in tanks shall be demonstrated. One method to evaluate this suitability is test 8(d) in Test Series 8 (see *Manual of Tests and Criteria*, Part 1, sub-section 18.7);
- (c) Substances shall not be allowed to remain in the portable tank for any period that could result in caking. Appropriate measures shall be taken to avoid accumulation and packing of substances in the tank (e.g. cleaning etc.).”

3. In Chapter 4.3;

In 4.3.4.1.3 (d), add:

“UN No. 3375 ammonium nitrate emulsion, suspension or gel, liquid: code LGAV;

UN No. 3375 ammonium nitrate emulsion, suspension or gel, solid: code SGAV.”

In 4.3.5, add new “TU xz”:

“**TU xz** The suitability for carriage in tanks shall be demonstrated. One method to evaluate this suitability is test 8(d) in Test Series 8 (see *Manual of Tests and Criteria*, Part 1, sub-section 18.7)

Substances shall not be allowed to remain in the portable tank for any period that could result in caking. Appropriate measures shall be taken to avoid accumulation and packing of substances in the tank (e.g. cleaning etc.).”

4. In Chapter 6.8;

In 6.8.4 (b), add new TE xy:

“**TE xy** Only inorganic non-combustible materials shall be used for any thermal insulation of the tank.”

3. *Justification*

As mentioned in the introduction, the contents of this proposal are based on the new provisions of the UNRTDG and the existing Multilateral Agreement M130. The proposal deviates from M130 in that, instead of SGAN / LGAN, the tanks specified are LGAV(+)/SGAV(+).

The reason for this is that the main risk involved in transporting these substances is associated with heavy confinement under fire engulfment. This is, in our opinion, best controlled by using the “weakest” tank possible.

The introduction of the new “TUxz” and “TExy” is based on the need for introducing the contents of TP 32 for portable tanks into the RID/ADR tank regime.

4. *Safety implications*

None. This will bring RID/ADR in line with the UN Recommendations, and reflect, as well as improve, the present situation for transport of these substances in Europe today.

5. *Feasibility*

The expert from Norway sees no extra costs or practical implications with the proposed change. The effect will rather be to the contrary, since the proposed new text reflects the actual situation for the transport of these articles in most RID/ADR countries.

6. *Enforceability*

The expert from Norway sees no problems in enforceability arising from the proposal.

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