

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

Sub-Committee of Experts on the Transport of Dangerous Goods

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Explosives and related matters: miscellaneous

Transport of Explosives, Blasting, Type B and E, and Ammonium Nitrate Emulsion or Suspension or Gel, UN3375 in Bulk Containers

Transmitted by the Australian Explosives Industry Safety Group
(AEISG)

Introduction

1. The purpose of this paper is to assess the current extent, and suitability, of transporting particular explosives types, and Ammonium Nitrate Emulsion or Suspension or Gel, in Bulk Containers.

Discussion

2. The entries for Explosives Blasting, Types B, UN0082 and UN0331, and Type E, UN0241 and UN0332, currently permit transport of these substances in IBCs.
3. The entries for Explosives, Blasting, Types B and E, UN0331 and UN0332 respectively, and ANEs, UN3375, currently permit transport in portable tanks.
4. Such transport methods recognise and acknowledge the relative insensitivity of these explosives and explosive ingredients.
5. For over 30 years these explosives and ingredients have also been safely transported in other types of vehicles, e.g. bowl trucks, pump trucks, Mobile Manufacturing Vehicles, Mobile Processing Units, where the containment method for the explosives and/or ANEs has been a metal bin, hopper or other vehicle compartment, generally with top and bottom openings for loading and emptying, effectively closed against the elements and to prevent spillage.
6. Such vehicles are generally approved, licensed or otherwise authorised by the explosives competent authority for the transport and/or manufacture of explosives. The use of such explosives vehicles minimises the need for packaging, handling and storage of explosives at various sites and enables the manufacture of the final sensitised explosives to be delayed and restricted to the point of use.
7. The use of such explosives manufacturing vehicles is considered to be widely accepted and adopted in many countries around the world and hence some acknowledgement of this practice could be included in the UN Recommendations on the Transport of Dangerous Goods, Model Regulations.

8. Chapter 6.8 of the UN Recommendations on the Transport of Dangerous Goods, Model Regulations (17th revised edition), outlines the requirements for the design, construction, inspection and testing of Bulk Containers.
9. The following definition is provided:
- “Closed bulk container means a totally closed bulk container having a rigid roof, sidewalls, end walls and floor (including hopper-type bottoms). The term includes bulk containers with an opening roof, side or end wall that can be closed during transport. Closed bulk containers may be equipped with openings to allow for the exchange of vapours and gases with air and which prevent under normal conditions of transport the release of solid contents as well as the penetration of rain and splash water.”
10. Section 6.8.4.1 states:
- “Bulk containers covered in this section include skips, offshore bulk containers, bulk bins, swap bodies, trough shaped containers, roller containers, and load compartments of vehicles.”
11. Section 6.8.4.3 states:
- “Vehicles shall comply with the requirements of, and be acceptable to, the competent authority responsible for land transport of the materials to be transported in bulk.”
12. Section 6.8.4.4 states:
- These bulk containers shall be approved by the competent authority and the approval shall include the code for designating types of bulk containers in accordance with 6.8.2.3 and the requirement for inspection and testing as appropriate.’
13. It can be seen from the above that the competent authority retains the authority to accept and approve, or to reject, the relevant mode of transport in bulk containers.
14. AEISG believes the existing arrangements already accepted and approved in many countries for transporting these substances in bulk containers should be recognised and/or acknowledged within the UN Recommendations on the Transport of Dangerous Goods, Model Regulations.

Consideration

15. This issue is raised for discussion as to whether provision for transport in bulk containers, type BK2, closed bulk container, could be considered for the entries for:
- Explosives Blasting, Type B, UN0082 and UN0331,
 - Explosives Blasting, Type E, UN0241 and UN0332, and
 - Ammonium Nitrate Emulsion or Suspension or Gel, UN3375.
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