

United Nations Committee of Experts
on the Transport of Dangerous Goods
(Twenty-first session
4-13 December 2000,
agenda item 2 (b))

Classification of Ammonium Nitrate Emulsions
Comments on ST/SG/AC.10/2000/20

Transmitted by the expert from the United States of America

1. The Subcommittee will recall that at the eighteenth session, the proposal from the Ammonium Nitrate Emulsions (ANE) Working Group was substantially revised by the inclusion of additional test requirements. The expert from the United States expressed concern over the changes to the testing requirements for classifying ANE (see Paragraph 111 and Annex 3 of ST/SG/AC.10/C.3/36) as a substance in Division 5.1. The proposed changes are arbitrary and are not justified by supporting data. In addition, the proposed testing requirements for ANE are more stringent than the current testing requirements for classification of Division 1.5 blasting explosives. This is inconsistent with lower case text of *intermediate for blasting explosives* associated with the new proposed ANE proper shipping name emphasising that ANE is not a blasting explosive.

2. At the October, 1999 working group meeting in Norway, industry and government experts from many countries discussed their experiences and reviewed current practices on ANE. The following general consensus were reached :

- 1) Direct use of ANE as an explosive is not practicable. These materials require further modification either by altering their density or chemical composition onsite. Therefore, working group agreed to the proper shipping name, "Ammonium Nitrate Emulsion, *intermediate for blasting explosives*".
- 2) ANE covers a wide range of formulations with varying degrees of explosive sensitivity (as measured using the existing Class 1 testing scheme). The formulations can be categorized into two groups: sensitized and non-sensitized. Currently there are no appropriate tests to distinguish between these two types.
- 3) ANE formulations have been classified differently in different countries. It was agreed that certain non-sensitized ANE could be classified into Div. 5.1. To achieve this goal the working group developed a definition of ANE which restricts the chemical composition so that only non-sensitized ANE are classified into Div. 5.1, and required non-sensitized ANE classified in this manner to show no explosive properties using the existing Class 1 explosive tests (U.S. Vented Pipe test is a new proposed test).

3. The new test requirements added at the eighteenth session are unsubstantiated. When they were introduced at the eighteenth session, the chairman of the working group assured the Subcommittee that test data would be available in time for the Committee meeting. To date no such data has been made available. The expert from the United States considers it inappropriate to include test requirements which have not been evaluated.

4. The expert of the United States of America believes the consensus reached at the Norway meeting reflects the known hazard properties of non-sensitized ANE. Considering the divergent views and lack substantiating data on tests proposed, the expert from the United States recommends that the work on ANE be carried over to the next biennium.
