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**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****Fifty-fourth session**

Geneva, 26 November-4 December 2018

Item 2 (b) of the provisional agenda

**Recommendations made by the Sub-Committee on its fifty-first,  
fifty-second and fifty-third sessions and pending issues:  
explosives and related matters****UN 0222 Ammonium Nitrate****Transmitted by the Institute of Makers of Explosives (IME)\*****Background**

1. The Dangerous Goods List has an entry for ammonium nitrate, UN 0222 (1.1D), which is not a commercially manufactured product. This was further confirmed during the fifty-second session of the Sub-Committee during which some members stated that this number is used for labelling contaminated ammonium nitrate or for ammonium nitrate fertilizers that fail test series 2.
2. At the fifty-second session, IME proposed a discussion to remove UN 0222 from the Dangerous Goods List on the basis that it is not commercially used<sup>1</sup>. The matter was referred to the Working Group on Explosives (EWG). The EWG preferred not to remove UN 0222 with some delegations (including United Kingdom, Germany, United States of America, Poland, Sweden, and the Australian Explosives Industry Safety Group (AEISG)) explaining that the entry is useful for classifying contaminated ammonium nitrate and ammonium nitrate of unknown classification. The EWG further confirmed that UN 0222 ammonium nitrate is not manufactured commercially for distribution but, as cited by some delegations, it preferred to retain the entry for special purposes and for fertilizers that fail test series 2<sup>2</sup>.

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\* In accordance with the programme of work of the Sub-Committee for 2017–2018 approved by the Committee at its eighth session (see ST/SG/AC.10/C.3/100, paragraph 98 and ST/SG/AC.10/44, para. 14).

<sup>1</sup> INF.15 (fifty-second session)

<sup>2</sup> INF.53, para. 13 (fifty-second session)

3. The Sub-Committee noted and concurred with the findings of the EWG<sup>3</sup> and noted that IME "... would not pursue this issue further." However, misinterpretation and misapplication of this dangerous goods listing is still possible. Therefore, IME proposes a different remedy to the issue.

4. At the fifty-third session, the EWG considered informal document INF.21 from IME proposing to amend special provision (SP) 370 to better clarify what the UN 0222 entry applies to and what it does not apply to. Some experts supported the proposal, while others stated that they did not understand the need for amending SP 370, did not see how it would help, but also did not see how it would hurt and would, therefore, likely not oppose the proposal. Additionally, it was suggested that SP 370 be amended to explicitly state what entries UN 0222 does not apply to<sup>4</sup>.

## Discussion

5. As this ammonium nitrate entry appears in the Dangerous Goods List in Chapter 3.2 of the UN Model Regulations, it does get called upon by other jurisdictions since ammonium nitrate is a security sensitive chemical.

6. SP 370, which applies only to UN 0222, states: "ammonium nitrate with more than 0.2% combustible substances, including any organic substance calculated as carbon, to the exclusion of any added substance; and ammonium nitrate with not more than 0.2% combustibles, including any organic substance calculated as carbon, to the exclusion of any added substance, that gives a positive result when tested in accordance with Test Series 2...".

7. Ammonium nitrate mixed with fuel oil (ANFO), such as diesel, and manufactured as a Blasting Agent, Division 1.5 product is a commercial product and is classified and transported as UN 0331 (1.5D) or as UN 0082 (1.1D). However, since SP 370 could also be applied to such a mixture, it could also be classified as UN 0222. As confirmed by the EWG at the fifty-second session, UN 0222 is not manufactured commercially and the working group preferred to retain the entry for special purposes as described in paragraph 2 above. Therefore, classifying commercial ANFO as UN 0222, while possible, is inappropriate since the entry is reserved for non-commercial special purposes.

8. Further, there are several additional entries for ammonium nitrate in the Dangerous goods List; however, as the list is sequenced by UN number, UN 0222 is the first entry encountered when searching the list for "ammonium nitrate". One, especially one not familiar with or proficient in transport related classifications, could easily stop their search at this first encounter and mistakenly conclude that all ammonium nitrate is covered by UN 0222. This is already an issue with certain regulatory agencies in the United States of America. A simple explanation would aid the explosives industry in responding to inquiries as to what UN 0222 applies.

9. To avoid confusion, an amendment to SP 370, which applies only to UN 0222, is proposed to clarify what is covered by the entry.

10. Also, in the current text of SP 370, the two conditions are joined by the conjunction "and". Since SP 370 applies to ammonium nitrate meeting either condition, IME believes that "or" is the more appropriate conjunction.

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<sup>3</sup> ST/SG/AC.10/C.3/104 (report of the Sub-Committee of Experts on its fifty second session)

<sup>4</sup> INF.67, para. 14 (fifty-third session)

## Proposal

11. Amend SP 370 as indicated below:

370 This entry only applies to ammonium nitrate that meets one of the following criteria:

- Ammonium nitrate with more than 0.2% combustible substances, including any organic substance calculated as carbon, to the exclusion of any added substance; ~~and/or~~
- Ammonium nitrate with not more than 0.2% combustible substances, including any organic substance calculated as carbon, to the exclusion of any added substance, that gives a positive result when tested in accordance with Test Series 2 (see Manual of Tests and Criteria, Part I). See also UN N1942.

This entry shall not be used for ammonium nitrate based blasting explosives covered by entries UN 0082 and UN 0331, or ammonium nitrate that can be properly classified under any of the following entries:

- UN 1942, AMMONIUM NITRATE with not more than 0.2% combustible substances, including any organic substance calculated as carbon, to the exclusion of any other added substance, 5.1
- UN 2067, AMMONIUM NITRATE BASED FERTILIZER, 5.1
- UN 2071, AMMONIUM NITRATE BASED FERTILIZER, 9