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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****Sixty-second session**

Geneva, 3-7 July 2023

Item 2 (h) of the provisional agenda

**Explosives and related matters:****Miscellaneous****Proposal to amend the definition for Class 1 explosives****Transmitted by the Australasian Explosives Industry Safety Group  
Inc. (AEISG)\*****Introduction**

1. The definition for Class 1 explosives is outlined in section 2.1.1.1 of the United Nations Recommendations on the Transport of Dangerous Goods, *Model Regulations*. At the sixtieth session of the Sub-Committee of Experts on the Transport of Dangerous Goods, the expert from Sweden introduced INF.12, on behalf of the informal working group on explosives (EWG) on the review of the definition of Class 1, which outlined a number of ambiguities in the definition and inconsistencies between the definition and the classification procedure for Class 1 explosives. The document proposed changes to the definition outlined in 2.1.1.1 of the *Model Regulations*.

2. The EWG concluded that the work of Sweden had identified genuine issues in inconsistencies that will require additional work, specifically, Proposal 1 concerning section 2.1.1.1 of the *Model Regulations*. The EWG did not support Proposal 1 at that stage but did consider that developing explanations and guidance in the *Model Regulations* to explain the inconsistencies should be pursued.

3. While the document from Sweden proposed a broader change to the definition of Class 1 explosives, in an attempt to address multiple issues, AEISG believes one significant inconsistency in the current definition could be corrected by a relatively minor, but significant, change to the definition.

**Background**

4. Explosives substances and explosives articles which are too dangerous to transport are NOT included in Class 1 explosives. Stability and sensitivity tests outlined in test series 3 and 4 of the United Nations *Manual of Tests and Criteria* are employed in the classification

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\* A/77/6 (Sect. 20), table 20.6.



procedure to determine whether or not the product is acceptable for Class 1 (see 2.1.3.3 of the *Model Regulations*).

5. For explosives articles, test series 4 is used to answer the question ‘Is the article, packaged article or packaged substance too dangerous for transport?’ (box 16 of figure 10.2 of the *Manual of Tests and Criteria*). Failure to satisfactorily pass test series 4 results in an explosives article being excluded from Class 1 (box 17 of figure 10.2 of the *Manual of Tests and Criteria*).

6. The current definition for Class 1 explosives as outlined in 2.1.1.1 exempts explosives substances too dangerous to transport, however it does not exempt explosives articles too dangerous to transport as intended by, and outlined in, the Class 1 explosives classification process (see figure 10.2 of the *Manual of Tests and Criteria*).

## Proposal

7. To address this current and significant inconsistency, it is proposed to amend the definition for Class 1 explosives as outlined in 2.1.1.1 of the *Model Regulations* as follows (new text is underlined, deleted text is ~~stricken through~~):

“2.1.1.1 Class 1 comprises:

- (a) Explosives substances (a substance which is not itself an explosive but which can form an explosive atmosphere of gas, vapour or dust is not included in Class 1), except those that are too dangerous to transport or those where the predominant hazard is appropriate to another class;
- (b) Explosives articles, except those that are too dangerous to transport or those devices containing explosive substances in such quantity or of such a character that their inadvertent or accidental ignition or initiation during transport shall not cause any effect external to the device either by projection, fire, smoke, heat or loud noise (see 2.1.3.6); and
- (c) Substances and articles not mentioned under (a) and (b) which are manufactured with a view to producing a practical explosive or pyrotechnic effect.”

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