List of Products and Explosion Group IIB

Transmitted by the Informal Group of Recommended Classification Societies¹,²

1. At different meetings of the ADN Safety Committee and the recommended classification societies the theme non electrical equipment and requested explosion group e.g. II B3 was discussed without a clear recommendation for further handling with respect of existing vessels and vessels actual under construction.

2. A short abstract of the decisions to theses theme you find below:

   • 21st session of ADN Safety Committee - August 2012
     Report ECE/TRANS/WP.15/AC.2/44 – point 45 " … the Safety Committee was of the opinion that the requirements for explosion groups applied to all equipment, and not just electrical installations.”

   • 22nd session of ADN Safety Committee - January 2013
     INF. 32 and Report ECE/TRANS/WP.15/AC.2/46 – point 65 " Consideration of informal document INF.32 was also referred to the informal group” (on explosion

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² In accordance with the programme of work of the Inland Transport Committee for 2016–2017 (ECE/TRANS/2016/28/Add.1 (9.3.)).
protection on tank vessels). "The references to EN standards would need to be replaced by or associated with the equivalent ISO or IEC standards if they exist."

- 23rd session of ADN Safety Committee - August 2013
  INF.7 and Report ECE/TRANS/WP.15/AC.2/48 – point 84 and 85 " … At the request of the informal working group" (on explosion protection on tank vessels) "the informal working group on substances was asked to consider the matter of subdivisions in explosion group II B and the assignment of subdivisions II B1, II B2 and II B3 to the different entries in Table C. The Safety Committee noted that the work was not yet complete and requested the informal working group to continue its work."

- 24th session of ADN Safety Committee - January 2014
  INF.23 and Report ECE/TRANS/WP.15/AC.2/50 – point 75 " The Safety Committee took note of the report of this sixth meeting and of the fact that the majority of the questions discussed had been the subject of specific proposals made to the present session."

  Report ECE/TRANS/WP.15/AC.2/58 – point 43 and 44 " The representative of the recommended ADN classification societies quoted informal document INF.32 submitted to the twenty-second session in 2013, which stated that protection in conformity with explosion group II B3 could be used for the overwhelming majority of substances carried. … It was noted that consequential amendments would need to be made. A proposal would also need to be submitted to the next session to solve the situation with existing vessels using proper protection in full conformity with explosion group II B. …"

3. According the available information that:

- the explosion protection for non-electrical equipment is not clearly regulated at actual ADN regulations;

- the statement of the Informal Group on substances at its paper ECE/TRANS/WP.15/AC.2/2016/4 that where self-contained protection systems for explosion group II B3 are in place, only products for explosion groups II B3, II B2, II B1 or II A may be transported;

- an unknown but big number of tank vessel new buildings and converted vessels of the last years where equipped with self-contained protection systems (flame arresters, pressure/vacuum relief valves with integrated backfire-prevention device and high velocity vent valves) of explosion group II B3;

- all vessels built before 1995 have a general transitional provision with respect to the explosion group II B for the electrical equipment;

- the proposal of the informal group of substances to add groups II B3, II B2 and II B1 for a number of substances into table C of ADN 2017 to allow self-contained protection systems which only fulfills the requirements of these groups and the additional information that these changes have only an effect to a small number of substances and the most substances and products in table C remain as before with the required explosion group II B and will not be covered by equipment with explosion group II B3;

- it is not clear now whether the new explosion protection concept on tank vessels will come into force in 2017.
4. The informal group of recommended classification societies asks the Safety Committee for a decision how to handle with this information with respect to issue of product lists for tank vessels.

5. The proposition could be:

   (1) Update of the product list software with the proposed changes for table C with the groups II B3, II B2, II B1 and II A as accepted at the ADN Safety Committee session in January 2016 and implementation of consideration of non-electrical equipment although not yet clearly regulated in ADN Regulations. Start collecting information about used non-electrical equipment.

   (2) Consideration of the hierarchy between explosion groups II C, II B, II B3, II B2, II B1 and II A as described by the informal group of substances in the new version of the product list software.

   (3) Issue of product lists for the vessel under consideration of the groups II B3, II B2 and II B1 for all vessels completed after 30 June 2017 if the new explosion protection concept on tank vessels will come into force in 2017 or after 30 June 2019 if the new explosion protection concept on tank vessels will come into force in 2019.

   (4) Transitional provisions for consideration of explosion group of non-electrical equipment have to be decided by the ADN Safety Committee.

   (5) The issue of a Product List is based on the characteristics included in the Certificate of Approval.

   The Model of this Certificate has to be amended in view to use official and correct data for publishing the Product List.

   We propose the following amendment for 8.1.6.3 and 8.6.1.4:

   "Electrical equipment: 
   • Temperature class: .........................
   • Explosion group:.........................

   Non-electrical equipment:
   • Explosion group: .........................

   For the French version we propose an additional correction:

   Appareils électriques :
   • classe de température : .........................
   • groupe d'explosion : .........................
   Appareils non électriques :
   • groupe d'explosion : ........................."

   In the French version of the ADN both "appareils électriques" and "équipements électriques" are used.

   We have chosen for the words "Appareils" according to the words used in the EN 13463-1:2009.