Connecting the power network of a vessel to a land-based power network

Transmitted by the Government of Germany

Summary

Executive summary: At its thirty-first session, the ADN Safety Committee, on the basis of informal document INF. 14 (Central Commission for the Navigation of the Rhine), annex 1, considered amendments proposed by the informal working group on protection against explosions on board tank vessels aiming to make it possible to connect a vessel’s power network to a land-based power network. The proposals were approved, but for a formal decision to be taken, a document must be made available in all working languages.

Action to be taken: Adopt a formal decision on the proposed amendments set out below, which have been reproduced from informal document INF. 14 of the thirty-first session of the ADN Safety Committee.

ECE/TRANS/WP.15/AC.2/64, report on the thirty-first session.
I. Requests

1. The following requests for amendments mainly concern the version of ADN applicable from 1 January 2017. Requests concerning amendments proposed in document ECE/TRANS/WP.15/AC.2/2017/21 are identified as such.

2. 7.1.3.51.2 of ADN should be amended to read as follows:
   
   “The use of movable electric cables is prohibited in the protected area. This provision does not apply to the electric cables referred to in 9.1.0.53.5.

   Movable electric cables must undergo visual inspection each time before use. They must be installed in such a way as to ensure that they are not at risk of damage. Connectors must be located outside of the protected area.

   The use of electric cables to connect the power network of a vessel to a land-based power network is not permitted:
   • During the loading or unloading of substances for which explosion protection is required in column (17) of Table C in 3.2.3.2;
   or
   • When the vessel is located immediately adjacent to or within an onshore assigned zone.”.

3. The final sentence of subsection 7.1.3.51.3 of ADN should be amended to read as follows:
   
   “Connecting or disconnecting shall only possible when the sockets are not live.”

4. In 7.1.5.3 of ADN, after “that”, insert:
   
   “the electric cables are not compressed or folded, are not subject to tensile strain and”.

5. 7.2.3.51.2 of ADN should be amended to read as follows:
   
   “The use of movable electric cables is prohibited in the explosion danger area. This provision does not apply to the movable electric cables referred to in 9.3.1.56.3, 9.3.2.56.3, and 9.3.3.56.3.

   Movable electric cables must undergo visual inspection each time before use. They must be installed in such a way as to ensure that they are not at risk of damage. Connectors must be located outside of the explosion danger area.

   The use of electric cables to connect the power network of a vessel to a land-based power network is not permitted:
   • During the loading or unloading of substances for which explosion protection is required in column (17) of Table C of 3.2.3.2;
   or
   • When the vessel is located immediately adjacent to or within an onshore assigned zone.”.

6. In subsection 7.2.5.3 of ADN, after “hose assemblies”, insert:
   
   “are not compressed or folded,”.

7. In the final sentence of 7.2.3.51.3 in the French version of ADN:
   
   Replace “La connexion et la déconnexion” with “Le branchement et le débranchement” (does not concern the English version).

8. As per document ECE/TRANS/WP.15/AC.2/2017/21, 9.1.0.53.4 of ADN should be amended to read as follows:
   
   “Movable electric cables are prohibited in the protected area, except electric cables for intrinsically safe electric circuits or for connecting:
• Signal lights and lighting for gangways, provided the connection point (for example, the socket) is permanently fitted to the vessel close to the signal mast or gangway;
• Containers;
• Electrically operated hatch cover gantries;
• Submerged pumps;
• Hold ventilators;
• The power network on a vessel to a land-based power network; provided
  (a) The electric cables and the power supply unit conform with a valid standard (for example, EN 15869-03: 2010);
  (b) The power supply unit and connectors are located outside of the protected area.

Connecting and disconnecting sockets/connectors shall only be possible when they are not live.”

9. As per document ECE/TRANS/WP.15/AC.2/2017/21, 9.1.0.53.5 should be amended as follows:
Delete the final sentence.

10. 9.3.x.56.3 of ADN should be amended to read as follows:
“Movable electric cables are prohibited in the explosion danger area, except for electric cables for intrinsically safe electric circuits or for connecting:
• Signal lights and lighting for gangways, provided the connection point (for example, the socket) is permanently fitted to the vessel close to the signal mast or gangway;
• The power network on a vessel to a land-based power network; provided
  (a) The electric cables and the power supply unit conform with a valid standard (for example, EN 15869-03: 2010);
  (b) The power supply unit and connectors are located outside of the explosion danger area.

Connecting and disconnecting sockets/connectors shall only be possible when they are not live.”

11. 9.3.x.53.5 in annex 3 of informal document INF.14 of the thirty-first session should be amended as follows:
Delete the final sentence.