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ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

Working Party on the Transport of Dangerous Goods

Joint Meeting of Experts on the Regulations annexed to the
European Agreement concerning the International Carriage
of Dangerous Goods by Inland Waterways (ADN)
(ADN Safety Committee)

Fifteenth session
Geneva, 24-28 August 2009
Item 5 of the provisional agenda

CATALOGUE OF QUESTIONS

Transport by tank vessels, objectives 6, 7 and 8

Transmitted by the Central Commission for the Navigation of the Rhine (CCNR)¹

1. At its fourteenth session, the ADN Safety Committee, recalling that, under 8.2.2.7.2.3 of the Regulations annexed to ADN, the ADN Administrative Committee was required to prepare a

¹ Distributed in German by the Central Commission for the Navigation of the Rhine under the symbol CCNR/ZKR/ADN/WP.15/AC.2/2009/17.

catalogue of questions for the ADN examinations, decided that the item should be put on the agenda for future sessions, in order to enable lists of questions to be translated and adopted progressively (ECE/TRANS/WP.15/AC.2/30, paras. 38 and 40).

2. This document contains the lists of questions proposed by CCNR in respect of tank vessels and the following objectives:

- Examination objective 6: Loading, unloading and transport
- Examination objective 7: Documents
- Examination objective 8: Hazards and measures of prevention

TRANSPORT BY TANK VESSELS
Examination objective 6: Loading, unloading and transport

| Number | Source | Correct answer |
|---------|---|----------------|
| TV 6006 | 3.2, Table C, 7.2.4.21 | C |
| | <p>A tank vessel of type N is loaded with a substance of Class 3. How may the maximum permissible degree of filling be determined?</p> <p>A On the basis of the certificate of approval B On the basis of the transport documents C On the basis of Table C D On the basis of the instructions in writing</p> | |
| TV 6007 | 3.2, Table C | D |
| | <p>What is the maximum degree of filling for UN No. 1203 MOTOR SPIRIT or GASOLINE or PETROL?</p> <p>A 75% B 91% C 95% D 97%</p> | |
| TV 6008 | 7.2.4.21 | B |
| | <p>Where in ADN would you find the provisions concerning the maximum degree of filling of tank vessels?</p> <p>A In 9.3.2.21.1 B In 7.2.4.21 C In 1.2.1 D These appear not in ADN but in the certificate of approval</p> | |
| TV 6009 | 7.2.4.21 | C |
| | <p>Where is it stated how full the cargo tank of a tank vessel may be filled?</p> <p>A In CEVNI B In the instructions in writing C In Parts 7 and 9 of ADN D In the certificate of approval</p> | |

TRANSPORT BY TANK VESSELS
Examination objective 6: Loading, unloading and transport

| Number | Source | Correct answer |
|---------|--|----------------|
| TV 6010 | 7.2.4.22.2 | B |
| | <p>A tank vessel is carrying one blue cone. May the housing of the flame arresters be opened?</p> <p>A Yes, this is always permitted when the cargo tanks have been relieved of pressure</p> <p>B Yes, but only for the purpose of inspecting or cleaning empty cargo tanks that have been relieved of pressure and gas-freed</p> <p>C Yes, but only where authorized by the shore facility</p> <p>D No, this is not permitted</p> | |
| TV 6011 | 7.2.4.24 | A |
| | <p>May a refuelling operation be carried out during unloading of a tank vessel?</p> <p>A Only with the permission of the competent authority</p> <p>B The decision is made by the cargo transfer company</p> <p>C Only in daylight</p> <p>D Yes, for open type N tank vessels, not for others</p> | |
| TV 6012 | 7.2.4.76 | B |
| | <p>May synthetic ropes be used for mooring during loading or unloading of a closed type N tank vessel?</p> <p>A Only steel cables may be used</p> <p>B Only if steel cables are used to prevent the vessel from going adrift</p> <p>C Only steel cables may be used in harbour basins</p> <p>D Only during loading or unloading of goods for the transport of which a blue light or blue cone is not required</p> | |
| TV 6013 | 3.2, Table C | D |
| | <p>During the transport of UN No. 2031 NITRIC ACID, other than red fuming, with less than 70% nitric acid, what is the maximum degree of filling?</p> <p>A 90%</p> <p>B 95%</p> <p>C 96%</p> <p>D 97%</p> | |

TRANSPORT BY TANK VESSELS
Examination objective 6: Loading, unloading and transport

| Number | Source | Correct answer |
|---------|---|----------------|
| TV 6014 | 3.2, Table C | C |
| | <p>You have to transport UN No. 1301 VINYL ACETATE, STABILIZED. How should your tank vessel be marked?</p> <p>A With two blue cones by day and two blue lights at night B For all goods of Class 3, one blue light or one blue cone must always be used C The vessel must carry one blue light or one blue cone D For such goods no marking is required</p> | |
| TV 6015 | 3.2, Table C, 7.2.3.7.5 | A |
| | <p>You have unloaded a cargo of petrol from your tank vessel. The cargo tanks have not yet been cleaned. How does this affect the marking with one blue light or one blue cone?</p> <p>A The marking remains unchanged B The marking should be removed C The marking may be retained or removed according to circumstances D The marking should be displayed at mid-height</p> | |
| TV 6016 | Basic general knowledge | D |
| | <p>Can the level of a liquid cargo in a closed cargo tank rise during transport?</p> <p>A No B Yes, but only in stormy waters C Yes, but only in the event of a fall in atmospheric pressure, in bad weather conditions D Yes, particularly when the liquid cargo is warmed, e.g. by the sun</p> | |

TRANSPORT BY TANK VESSELS
Examination objective 6: Loading, unloading and transport

| Number | Source | Correct answer |
|---------|--|----------------|
| TV 6017 | Basic general knowledge | B |
| | Why should cargo tanks not be filled to the top? | |
| | A Because the cargo would not be able to move freely with the motion of the water | |
| | B Because liquid expands when heated and may damage the vessel and/or leak out of the tank | |
| | C There is no reason why the tank should not be filled to the top | |
| | D Because filling the tank to the top would take too long. It would cause disproportionate work at the cargo transfer station | |
| TV 6018 | 7.2.4.1 | C |
| | What are the provisions applying to the transport of dangerous goods in packages on tank vessels? | |
| | A The transport of packages on tank vessels is prohibited | |
| | B The transport of packages on tank vessels is permitted, provided that the exempted quantities are not exceeded | |
| | C The transport of packages in the cargo area is prohibited unless they comprise residual cargo, cargo residues or slops in no more than six approved intermediate bulk containers, tank-containers or portable tanks having a maximum individual capacity of not more than 2 m ³ , or 30 cargo samples | |
| | D A maximum of 50,000 kg is permitted, although the prohibition on mixed loading must be observed | |
| TV 6019 | Basic general knowledge | B |
| | An empty cargo tank having a capacity of 200 m ³ is closed in such a way that no air can get out. Subsequently, 20 m ³ of liquid is pumped into this cargo tank. What approximately is the absolute pressure in the cargo tank after this liquid has been pumped in? | |
| | A 100 kPa (1.0 bar) | |
| | B 110 kPa (1.1 bar) | |
| | C 180 kPa (1.8 bar) | |
| | D 220 kPa (2.2 bar) | |

TRANSPORT BY TANK VESSELS
Examination objective 6: Loading, unloading and transport

| Number | Source | Correct answer |
|--------|--------|----------------|
|--------|--------|----------------|

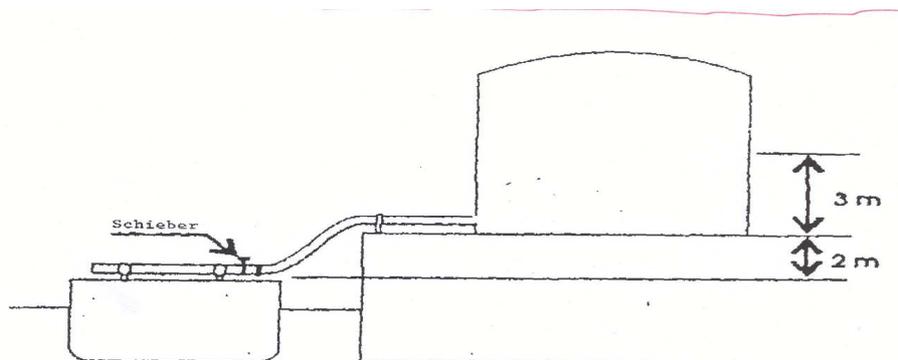
TV 6020 Basic general knowledge B

An empty cargo tank with a capacity of 300 m^3 is closed in such a way that no air can get out. Subsequently, 15 m^3 of liquid is pumped in. What approximately is the absolute pressure in the cargo tank after this liquid has been pumped in?

- A Less than 100 kPa
- B More than 100 kPa
- C The absolute pressure
- D No increase in pressure

TV 6021 Basic general knowledge A

The liquid in a tank ashore (see figure) has the same density as water. The valves of the vessel's cargo tank are closed. What is the pressure on the loading pipes?



Note: Schieber = valve

- A 50 kPa (0.5 bar)
- B 100 kPa (1 bar)
- C 500 kPa (5 bar)
- D 1,000 kPa (10 bar)

TRANSPORT BY TANK VESSELS
Examination objective 6: Loading, unloading and transport

| Number | Source | Correct answer |
|---------|---|----------------|
| TV 6022 | Basic general knowledge | C |
| | <p>A quantity of 285 m³ has to be loaded in a cargo tank. The maximum permissible degree of filling is 95%. What must the minimum capacity of the cargo tank be?</p> <p>A 280 m³ B 290 m³ C 300 m³ D 310 m³</p> | |
| TV 6023 | 9.3.3.0.3 | A |
| | <p>You receive an aluminium part to act as a connection between the flange of your tank vessel and the loading arm of the cargo transfer station. Is the use of aluminium permitted on a tank vessel?</p> <p>A No B Yes, if all the connecting bolts are fitted and tightened C Yes, if the vessel is earthed D Yes, when you are loading or unloading diesel fuel</p> | |
| TV 6024 | 7.2.4.7.1 | A |
| | <p>In what locations may tank vessels be loaded and unloaded?</p> <p>A In the locations approved by the competent authority B In all locations situated outside urban areas C In oil ports D In any location deemed appropriate by the master</p> | |
| TV 6025 | 3.2, Table C | A |
| | <p>Which of the following substances crystallizes at a temperature below 4° C?</p> <p>A UN No. 1114 BENZENE B UN No. 1090 ACETONE C UN No. 1125 n-BUTYLAMINE D UN No. 1282 PYRIDINE</p> | |

TRANSPORT BY TANK VESSELS
Examination objective 6: Loading, unloading and transport

| Number | Source | Correct answer |
|---------|--|----------------|
| TV 6026 | 3.2, Table C Which of the following substances may be loaded at a temperature below 4° C in a tank vessel with no possibility of cargo heating? A UN No. 1114 BENZENE B UN No. 1145 CYCLOHEXANE C UN No. 2055 STYRENE D UN No. 1307 p-XYLENE | C |
| TV 6027 | Basic general knowledge After the loading of UN No. 1203 MOTOR SPIRIT or GASOLINE or PETROL, four cargo tanks remain empty. These empty cargo tanks are to be filled with UN No. 1202 GASOIL or DIESEL FUEL or HEATING OIL, LIGHT. Special care should be taken to do what? A To pressurize the cargo tanks to be loaded with diesel fuel B To take the same safety measures as when loading an open type N tank vessel C To take the same safety measures as when loading petrol D To ensure that the lids of the empty cargo tanks are open so that any gases that may have formed can escape | C |
| TV 6028 | Basic general knowledge When a cargo tank is loaded to the maximum permissible degree of filling, there still remains some space in the cargo tank. What is the purpose of this empty space? A To make it easier to take samples B To provide space for lightening quantities C To allow for the expansion of the cargo D None of the above | C |

TRANSPORT BY TANK VESSELS
Examination objective 6: Loading, unloading and transport

| Number | Source | Correct answer |
|---------|--|----------------|
| TV 6029 | Basic general knowledge | C |
| | <p>During the transport of dangerous goods, the cargo is sometimes covered with nitrogen. Why is this done?</p> <p>A To prevent the cargo from shifting B To cool the cargo C To insulate the cargo from the outside air D To keep the temperature of the cargo constant</p> | |
| TV 6030 | 7.2.4.10.1 | D |
| | <p>When may loading or unloading of tank vessels be started?</p> <p>A Once the loading journal has been checked by the competent authority B Once the person responsible for trans-shipment operations at the shore facility has checked the cargo tanks C Once the gas return piping has been connected D Once the checklist has been satisfactorily completed</p> | |
| TV 6031 | 3.2, Table C | B |
| | <p>What is the maximum degree of filling with UN No. 1203 MOTOR SPIRIT or GASOLINE or PETROL with more than 10% BENZENE?</p> <p>A 91% B 95% C 97% D 98%</p> | |
| TV 6032 | 3.2, Table C, 7.2.4.21.3 | B |
| | <p>You are on board a tank vessel. You have to load UN No. 1230 METHANOL. According to the certificate of approval, the permitted density is 1.1. What is maximum degree of filling to which the cargo tanks may be filled?</p> <p>A 97% B 95% C 91% D 85%</p> | |

TRANSPORT BY TANK VESSELS
Examination objective 6: Loading, unloading and transport

| Number | Source | Correct answer |
|---------|--|----------------|
| TV 6033 | 3.2, Table C, 7.2.4.21.3 You are on board a tank vessel. You have to load UN No. 1662 NITROBENZENE. According to the certificate of approval, the permitted density is 1.1. What is the maximum degree of filling to which the cargo tanks may be filled? A 95% B 90.9% C 93.3% D 85% | B |
| TV 6034 | 3.2, Table C, 7.2.4.21.3 You are on board a tank vessel. You have to load UN No. 1999 TARS, LIQUID. The temperature of the substance is 85° C. What is the maximum degree of filling to which the cargo tanks may be filled? A 95% B 91% C 97% D 85% | C |
| TV 6035 | 3.2, Table C, column (20) A vessel of type N has to transport UN No. 1780 FUMARYL CHLORIDE. Why should the double-hull spaces not be filled with water ballast during the voyage? A Because the substance has a violent reaction with water B Because double-hull spaces should not be used as ballast tanks C Because double-hull spaces may be used as ballast tanks only when the cargo tanks are empty D Because double-hull spaces of vessels of type N should always be able to be ventilated | A |

TRANSPORT BY TANK VESSELS
Examination objective 6: Loading, unloading and transport

| Number | Source | Correct answer |
|---------|---|----------------|
| TV 6036 | 3.2, Table C, column (20) | B |
| | <p>You have to transport 145 m³ of UN No. 2796 SULPHURIC ACID in your tank vessel of type N, which has a displacement of 2,000 m³. To improve stability in strong winds, are you permitted to fill the adjoining double-hull spaces with ballast water?</p> <p>A Yes, this is permitted B No, this is prohibited with this cargo C Yes, this is permitted, provided that the double-hull spaces are no more than 90% full D Yes, this is permitted, provided that the double-hull spaces are completely full</p> | |
| TV 6037 | 1.2.2.1 | C |
| | <p>You are given a cargo with an indicated temperature of 279 K. To enable you to calculate the degree of filling, this temperature has to be expressed in degrees Celsius. How many degrees Celsius equal 279 kelvin?</p> <p>A 276° C B 552° C C 6° C D 12° C</p> | |
| TV 6038 | Basic general knowledge | D |
| | <p>You have to load UN No. 1307 p-XYLENE. The temperature of the cargo is 75° C. What data do you need to be able to calculate the maximum degree of filling at 15° C?</p> <p>A The coefficient of sublimation at the temperature indicated B The density and volume of the substance C The coefficient of expansion and the density of the substance D The coefficient of expansion, the temperature difference and the volume</p> | |

TRANSPORT BY TANK VESSELS
Examination objective 6: Loading, unloading and transport

| Number | Source | Correct answer |
|---------|---|----------------|
| TV 6039 | 7.2.4.1.1 How many cargo samples may be carried on a vessel transporting UN No. 1294 TOLUENE and what are the maximum contents per receptacle? A 30 receptacles of 1,000 cl B 10 receptacles of 1,000 cl C 10 receptacles of 500 ml D 30 receptacles of 500 ml | D |
| TV 6040 | 7.2.4.1.2 On board an oil separator vessel, is it permitted to have receptacles for oily and greasy wastes? A No, this is not permitted B Yes, this is permitted if the gross quantity does not exceed 5,000 kg and the receptacles are properly secured in the cargo area C Yes, this is permitted if the maximum capacity does not exceed 2 m ³ and the receptacles are properly secured in the cargo area D Yes, this is permitted without restriction | C |
| TV 6041 | 7.2.4.10.4 According to ADN, when a supply vessel delivers products for the operation of vessels to a tank vessel loaded with flammable chemicals, should a checklist be completed? A Yes, a checklist must be completed for every loading or unloading operation B No, this is not required under ADN C Yes, since the vessel is loaded with flammable substances D Yes, but only when the quantity delivered exceeds 30 m ³ | B |

TRANSPORT BY TANK VESSELS
Examination objective 6: Loading, unloading and transport

| Number | Source | Correct answer |
|---------|--|----------------|
| TV 6042 | 7.2.4.16.6 What pressure should not be exceeded at the connection point when a vessel is unloaded and the gas recovery pipe is connected to the vessel? A 30 kPa B 40 kPa C The opening pressure of the high velocity vent valve D The opening pressure of the high velocity vent valve should not be exceeded by more than 10 kPa | C |
| TV 6043 | 7.2.4.19 According to ADN, how should tank vessels be inerted? A In such a way as to ensure that the oxygen content is less than 10% in volume B In such a way as to ensure that the oxygen content is less than 5% in volume C In such a way as to ensure that the oxygen content is less than 9% in volume D In such a way as to ensure that the oxygen content is less than 8% in volume | D |
| TV 6044 | 9.3.1.18, 9.3.3.18 What overpressure should an inerting system be capable of maintaining in cargo tanks when a vessel has such a system on board? A 7 kPa B 8 kPa C 10 kPa D 15 kPa | A |

TRANSPORT BY TANK VESSELS
Examination objective 6: Loading, unloading and transport

| Number | Source | Correct answer |
|---|-------------|----------------|
| TV 6045 | 7.2.4.28.3 | B |
| <p>You are transporting UN No. 1230 METHANOL. The internal pressure of the cargo tank is over 40 kPa. What should you do?</p> | | |
| <p>A Open the high velocity vent valves of the cargo tank so that the overpressure can be reduced</p> <p>B Immediately activate the water-spray system</p> <p>C Get the water-spray system ready so that it can be activated once the internal pressure of the cargo tank exceeds 50 kPa</p> <p>D Safely release the internal overpressure by using the cargo tank release device</p> | | |
| TV 6046 | 7.2.4.16.13 | D |
| <p>May the bulwark ports of vessels carrying UN No. 2448 be closed off?</p> | | |
| <p>A The bulwark ports may be closed off during loading</p> <p>B The bulwark ports may be closed off during loading and unloading</p> <p>C The bulwark ports may be closed off only during the voyage</p> <p>D The bulwark ports may not be closed off during loading</p> | | |
| TV 6047 | 7.2.4.16.13 | B |
| <p>May the bulwark ports of vessels carrying UN No. 1993 be closed off?</p> | | |
| <p>A The bulwark ports may be closed off only during loading</p> <p>B The bulwark ports may be closed off during loading and unloading</p> <p>C The bulwark ports may be closed off only during the voyage</p> <p>D The bulwark ports may not be closed off during loading</p> | | |

TRANSPORT BY TANK VESSELS
Examination objective 6: Loading, unloading and transport

| Number | Source | Correct answer |
|---------|---|----------------|
| TV 6048 | 7.2.4.16.13 | D |
| | <p>May the bulwark ports of vessels carrying UN No. 1993 be closed off during the voyage?</p> <p>A The bulwark ports may be closed off only during loading</p> <p>B The bulwark ports may be closed off only during loading or unloading</p> <p>C The bulwark ports may be closed off only during the voyage</p> <p>D The bulwark ports may not be closed off during the voyage</p> | |
| TV 6049 | 3.2.3 | B |
| | <p>What code is used in column (5), "Danger", of Table C for substances with long-term effects on health (carcinogenic, mutagenic or toxic to reproduction)?</p> <p>A N1, N2 or N3</p> <p>B CMR</p> <p>C F or S</p> <p>D unst.</p> | |
| TV 6050 | 3.2.3 | C |
| | <p>What code is used in column (5), "Danger", of Table C for substances that float on the surface water, do not evaporate and are not readily soluble in water?</p> <p>A N1, N2 or N3</p> <p>B CMR</p> <p>C F</p> <p>D unst.</p> | |

TRANSPORT BY TANK VESSELS
Examination objective 6: Loading, unloading and transport

| Number | Source | Correct answer |
|---------|---|----------------|
| TV 6051 | 3.2.3 What code is used in column (5), “Danger”, of Table C for substances that sink to the bottom of the water and are not readily soluble? A N1, N2 or N3 B CMR C S D F | C |
| TV 6052 | 3.2.3 What code is used in column (5), “Danger”, of Table C for substances that are environmentally hazardous, meeting the criteria for acute or chronic toxicity? A N1, N2 or N3 B CMR C S D F | A |
| TV 6053 | 1.6.7.4.2 May UN No. 1987 ALCOHOLS, N.O.S. (CYCLOHEXANOL) be carried in an open type N tank vessel with flame arresters and type 2 cargo tank (single-hull tank vessel)? A No B Yes, but only until 31.12.2012 C Yes, but only until 31.12.2015 D Yes, but only until 31.12.2018 | C |
| TV 6054 | 1.6.7.4.2 May UN No. 1223 KEROSENE be carried in an open type N tank vessel with flame arresters and type 2 cargo tank (single-hull tank vessel)? A No B Yes, but only until 31.12.2012 C Yes, but only until 31.12.2015 D Yes, but only until 31.12.2018 | D |

TRANSPORT BY TANK VESSELS
Examination objective 6: Loading, unloading and transport

| Number | Source | Correct answer |
|---|-----------|----------------|
| TV 6055 | 1.6.7.4.2 | C |
| <p>You are on board a closed tank type N tank vessel with type 2 cargo tanks (single-hull tank vessel). Are you permitted to carry UN No. 1203 MOTOR SPIRIT or GASOLINE or PETROL in this vessel if the substance appears in the list annexed to the certificate of approval?</p> <p>A Yes, without restriction B Yes, but only until 31.12.2012 C Yes, but only until 31.12.2015 D Yes, but only until 31.12.2018</p> | | |
| TV 6056 | 1.6.7.4.2 | D |
| <p>You are on board a closed type N tank vessel with type 2 cargo tanks (single-hull tank vessel). Are you permitted to carry UN No. 1202 GAS OIL or DIESEL FUEL or HEATING OIL (LIGHT) in this vessel if the substance appears in the list annexed to the certificate of approval?</p> <p>A Yes, without restriction as to the date B Yes, but only until 31.12.2012 C Yes, but only until 31.12.2015 D Yes, but only until 31.12.2018</p> | | |

TRANSPORT BY TANK VESSELS
Examination objective 7: Documents

| Number | Source | Correct answer |
|---------|---|----------------|
| TV 7001 | 8.1.8 All tank vessels permitted to carry flammable liquid substances are provided with a certificate of approval. What does the certificate of approval attest? A That the vessel's construction and equipment comply with the relevant requirements of ADN B That the vessel's construction, arrangement and equipment comply with the general technical requirements C That the vessel has been built under the supervision of a recognized classification society and that it has been approved by it for the transport of dangerous goods D That the vessel's construction, arrangement and equipment and the composition of the crew comply with international requirements for the carriage of liquid fuels | A |
| TV 7002 | 7.2.4.10, 8.6.3 Where in ADN is the checklist and its use described? A In Part 1, 1.2.1 B In Part 3, Table C C In Part 7, 7.2.4.10 and Part 8, 8.6.3 D In Part 9, 9.3.3.10 | C |
| TV 7003 | 7.2.4.10.1 At what stage should the checklist conforming to the model given in 8.6.3 be completed? A During loading and unloading of dangerous goods for which the maximum quantity is limited under 7.1.4.1.3 B During the transfer of dangerous goods of Class I C Before loading or unloading of a tank vessel D During the transfer of dangerous goods for which the transport documents require a checklist to be drawn up | C |

TRANSPORT BY TANK VESSELS
Examination objective 7: Documents

| Number | Source | Correct answer |
|---------|--|----------------|
| TV 7004 | 7.2.4.10.1 | B |
| | <p>How many copies of the checklist conforming to the model given in 8.6.3 should be completed?</p> <p>A One copy B Two copies C Three copies D As indicated by the cargo transfer station</p> | |
| TV 7005 | 7.2.4.10.1 | B |
| | <p>Who should sign the checklist?</p> <p>A The master and another member of the crew B The master or a person mandated by himself and the person responsible for loading and unloading at the shore facilities C The master or a person mandated by himself and a representative of the local competent authority D The checklist does not need to be signed; it simply acts as an aide-memoire for the master so that the transfer may be carried out without any problems</p> | |
| TV 7006 | 7.2.4.10.1 | D |
| | <p>According to ADN 7.2.4.10, before loading or unloading of dangerous goods on tank vessels may start, a checklist must be completed and signed. By whom?</p> <p>A It must be completed by the person responsible for the shore facilities and signed by the master or a person on board mandated by himself B It must be completed by the master and signed by the person responsible for the shore facilities C It must be completed and signed by the master or the person responsible for the shore facilities D It must be completed and signed by the master or a person on board mandated by himself and by the person responsible for the handling at the shore facilities</p> | |

TRANSPORT BY TANK VESSELS
Examination objective 7: Documents

| Number | Source | Correct answer |
|---------|--|----------------|
| TV 7007 | 7.2.4.10.3 | C |
| | <p>In what language or languages is the checklist printed?</p> <p>A In an official language of the country where loading or unloading takes place</p> <p>B In Dutch, English and French</p> <p>C In languages understood by the master and the person responsible for the handling at the shore facilities</p> <p>D In the case of international transport, in English and French; in the case of national transport, in an official language of the country where the transport takes place</p> | |
| TV 7008 | 8.6.3 | D |
| | <p>In ADN, where would you find a model for the checklist referred to in 7.2.4.10?</p> <p>A In 1.2.1</p> <p>B In 3.2.3</p> <p>C In 8.6.2</p> <p>D In 8.6.3</p> | |
| TV 7009 | Deleted (03.12.2008) | |
| TV 7010 | 7.2.2.19.1, 8.1.8.1 | D |
| | <p>You are on an empty tank vessel, where the last cargo was UN No. 1202 GAS OIL. Are you permitted to a pushed barge loaded with 200 tonnes of wheat in a side-by-side formation?</p> <p>A Yes, but only if the two vessels are properly marked with cones</p> <p>B No, this is prohibited</p> <p>C Yes, the barge does not need a certificate of approval in this case</p> <p>D Yes, but only if the barge is also provided with a certificate of approval</p> | |

TRANSPORT BY TANK VESSELS
Examination objective 7: Documents

| Number | Source | Correct answer |
|---------|--|----------------|
| TV 7011 | 7.2.2.19.1, 8.1.8.1 | A |
| | <p>An empty, gas-freed self-propelled tank vessel, with a certificate attesting to its gas-free condition, has engine damage. May it be towed to the nearest shipyard by a self-propelled dry cargo vessel?</p> <p>A Yes, a self-propelled dry cargo vessel does not need a certificate of approval</p> <p>B Yes, a self-propelled dry cargo vessel needs a certificate of approval</p> <p>C No, a tank vessel may in no circumstances be towed in a side-by-side formation</p> <p>D Yes, so long as the self-propelled dry cargo vessel is also empty</p> | |
| TV 7012 | Deleted (03.12.2008) | |
| TV 7013 | 5.4.3.2 | A |
| | <p>Who, on board a tank vessel, must ensure that the relevant members of the crew understand and are capable of carrying out the instructions in writing properly?</p> <p>A The master of the tank vessel</p> <p>B The consignor of the dangerous substances</p> <p>C The filler of the dangerous substances</p> <p>D The owner of the tank vessel</p> | |
| TV 7014 | 7.2.2.19.1 | D |
| | <p>In a convoy, a self-propelled tank vessel is carrying dangerous goods. A tank barge is carrying a non-dangerous substance, which is therefore not subject to ADN. Should the two vessels have certificates of approval?</p> <p>A Only the self-propelled tank vessel</p> <p>B No</p> <p>C Only the tank barge</p> <p>D Yes</p> | |

TRANSPORT BY TANK VESSELS
Examination objective 7: Documents

| Number | Source | Correct answer |
|---------|---|----------------|
| TV 7015 | 8.6.1.3, 9.3.3.25.9 | A |
| | Which document sets out the maximum permissible loading and unloading flows for an open type N tank vessel? | |
| | A The certificate of approval or the loading instructions | |
| | B The vessel certificate | |
| | C The checklist | |
| | D The list of substances and the instructions on the loading and unloading flows | |
| TV 7016 | Basic general knowledge | C |
| | When does a certificate issued by a recognized expert attesting that a vessel is gas-free become invalid? | |
| | A When the repairs mentioned in the certificate have been done | |
| | B Three months from the date of issuance | |
| | C When for any reason a substance, gas or vapour has spilt | |
| | D After repairs, once the vessel leaves the shipyard | |
| TV 7017 | 7.2.4.11.1 | B |
| | What is the master of a tank vessel required to record in the loading journal? | |
| | A The UN number or the identification number and class for each cargo tank and, where known, the number of the certificate of approval | |
| | B The UN number or identification number and the proper shipping name of the substance, the class and, where known, the packing group for each cargo tank | |
| | C The UN number or the identification number for each cargo tank and the length and width of the tank vessel | |
| | D The UN number or the identification number, mass and class | |

TRANSPORT BY TANK VESSELS
Examination objective 7: Documents

| Number | Source | Correct answer |
|---------|---|----------------|
| TV 7018 | 5.4.1.1.6.5 | A |
| | <p>According to ADN, under what circumstances should the master complete a transport document himself?</p> <p>A When the cargo tanks are empty or discharged</p> <p>B After loading, when the consignor sends the transport documents to the consignee</p> <p>C Only when the cargo tanks are discharged but not yet gas-free and the vessel has to take on another cargo</p> <p>D Only when the cargo tanks are discharged but not yet gas-free and the vessel is going to another country</p> | |
| TV 7019 | 7.2.4.11.1 | B |
| | <p>According to ADN, if applicable, what should be recorded in the loading journal?</p> <p>A All activities relating to loading and unloading</p> <p>B All activities relating to loading, unloading, cleaning, discharge of washing water and reception or discharge of ballast water (in cargo tanks)</p> <p>C All activities relating to loading, unloading, cleaning and reception or discharge of ballast water</p> <p>D All activities relating to loading, unloading and cleaning</p> | |
| TV 7020 | 8.1.10 | C |
| | <p>By whom should the first loading journal be issued, where ADN requires a loading journal?</p> <p>A The classification society that inspects the vessel</p> <p>B The owner of the vessel</p> <p>C The competent authority which issued the certificate of approval</p> <p>D A recognized loaders' organization</p> | |

TRANSPORT BY TANK VESSELS
Examination objective 7: Documents

| Number | Source | Correct answer |
|---------|--|----------------|
| TV 7021 | 1.16.1.2.5 The classification society issues a certificate to a vessel built under its supervision. The certificate contains an additional list of substances. What does the list of substances show? A Which dangerous goods may not be carried in the vessel B Which dangerous goods may be carried in addition to those in Table C of Chapter 3.2 C To what degree of filling the cargo tank may be filled D Which dangerous goods may be carried in the vessel | D |
| TV 7022 | 8.1.8.2 What is the purpose of a tank vessel's certificate of approval? A It attests that the vessel complies with the relevant requirements of ADN B It attests that the vessel has been deemed suitable for the carriage of all kinds of goods C It attests that the vessel has been deemed suitable by the loaders' organization for the carriage of dangerous goods D It attests that the vessel complies with the general provisions of the general technical requirements | A |
| TV 7023 | 8.1.9.1 What is the maximum duration of a tank vessel's provisional certificate of approval? A 2 months B 3 months C 6 months D 12 months | B |

TRANSPORT BY TANK VESSELS
Examination objective 7: Documents

| Number | Source | Correct answer |
|---------|--|----------------|
| TV 7024 | 5.4.3.2 A vessel is carrying petrol from Rotterdam to Amsterdam. The master understands only German. In what language or languages should the instructions in writing be given? A In the language of the filler only B In at least the language of the filler C In at least one of the languages that the master and the expert can read and understand D In English, French and German | C |
| TV 7025 | 8.1.10 What is the minimum amount of time that the original of the loading journal is kept on board after the last entry is made? A 1 year B 2 years C 5 years D 10 years | A |

TRANSPORT BY TANK VESSELS
Examination objective 8: Hazards and measures of prevention

| Number | Source | Correct answer |
|---------|---|----------------|
| TV 8001 | 8.3.5 You wish to carry out in the cargo area of a tank vessel maintenance or repair work requiring the use of an open flame or electric current or liable to cause sparks. Under what conditions may such work be undertaken? A After the necessary gas-freeing B When the tank vessel is carrying substances of Class 3 or Class 8 for which protection against explosion is not required in Table C, column (17) C When the tank vessel is furnished with an authorization from the competent authority or a certificate attesting to the totally gas-free condition of the vessel D When, following gas-freeing, the absence of gas has been ascertained beyond any doubt by the master or an authorized agent of the shipping company using an instrument to measure the concentration of gases | C |
| TV 8002 | 3.2, Table C, 8.1.5.1 What sort of shoes should be worn for safety purposes during the trans-shipment of combustible liquids? A Protective leather shoes B Closed protective boots with anti-static soles C Rubber boots D Light sports shoes | B |
| TV 8003 | 8.3.5 What tools may be used in the cargo area of a loaded tank vessel of type N? A When the vessel is carrying dangerous goods, it is generally prohibited to carry out repairs in the cargo area B Tools not made with chromium C Tools whose use does not cause sparks D Any metal tool | C |

TRANSPORT BY TANK VESSELS
Examination objective 8: Hazards and measures of prevention

| Number | Source | Correct answer |
|---------|---|----------------|
| TV 8004 | 7.2.3.1.2, 7.2.3.1.3 | A |
| | Is access to the double-hull spaces and double bottoms of tank vessels permitted? | |
| | A Yes, but only for carrying out inspections or cleaning operations and not while the vessel is under way | |
| | B No, there is a general prohibition on such access | |
| | C No, access is permitted only for carrying out inspections while the vessel is under way | |
| | D There are no stipulations in this regard | |
| TV 8005 | 8.3.2 | D |
| | Are you permitted to use a portable lamp with cable, protected against explosion, on the deck of a tank vessel? | |
| | A Yes, provided that it is of a “certified safe” type, it may be used without restriction | |
| | B Yes, but only outside the cargo area and not during gas-freeing. It should, as a minimum, be of a “certified safe” type | |
| | C Yes, but only during the loading, unloading and gas-freeing of the tank vessel | |
| | D No, only portable lamps of a “certified safe” type having their own source of power are permitted on the deck | |
| TV 8006 | 8.3.5 | A |
| | May work liable to cause sparks be carried out on board an open type N tank vessel? | |
| | A No, this is prohibited on board all tank vessels | |
| | B Yes, but if sparks should nonetheless be caused, the work should be halted immediately | |
| | C Yes, 7.2.3.8 does not apply to type N tank vessels | |
| | D ADN contains no stipulations in this regard | |

TRANSPORT BY TANK VESSELS
Examination objective 8: Hazards and measures of prevention

| Number | Source | Correct answer |
|--|---------|----------------|
| TV 8007 | 8.3.4 | A |
| <p>Are you permitted to smoke on the deck of an open type N tank vessel loaded with 1,000 tonnes of UN No. 1202 GAS OIL, while it is under way?</p> <p>A No, the prohibition on smoking is applicable on the deck of all type N tank vessels</p> <p>B No, smoking is permitted on type N tank vessels only when the vessel is carrying substances of Class 8</p> <p>C Yes, it is permitted to smoke anywhere on board an open type N tank vessel</p> <p>D Yes, the prohibition on smoking applies only to the deck in the cargo area</p> | | |
| TV 8008 | 8.3.4 | C |
| <p>Is it permitted to smoke in the accommodation of an open type N tank vessel carrying a substance for which no marking with blue cones or blue lights is required while it is under way?</p> <p>A Yes, in such cases it is permitted to smoke anywhere on board</p> <p>B Yes, the accommodation is considered a private area</p> <p>C Yes, provided that windows and doors are closed</p> <p>D No, the prohibition on smoking applies throughout the vessel</p> | | |
| TV 8009 | 8.1.6.1 | B |
| <p>On a type N tank vessel, how often should hand fire-extinguishers be inspected?</p> <p>A Every five years, when the certificate of approval is renewed</p> <p>B At least once every two years</p> <p>C Every three years</p> <p>D It is left to the master's discretion, but, if possible, an inspection should be carried out every two years</p> | | |

TRANSPORT BY TANK VESSELS
Examination objective 8: Hazards and measures of prevention

| Number | Source | Correct answer |
|---------|--|----------------|
| TV 8010 | 7.2.4.41 | C |
| | <p>An open type N tank vessel is carrying UN No. 1202 HEATING OIL (LIGHT). Is it permitted to cook on a diesel-fired stove or use an oil lamp in the accommodation during unloading?</p> <p>A Yes, but only by prior agreement with the cargo transfer station</p> <p>B Yes, this is not dangerous during the transfer of UN No. 1202 HEATING OIL (LIGHT)</p> <p>C No, during loading, unloading or gas-freeing operations, fires and naked lights are prohibited on board the vessel</p> <p>D Yes, provided that all the entrances and openings of the accommodation are closed</p> | |
| TV 8011 | 7.2.4.41 | B |
| | <p>A closed type N tank vessel is carrying UN No. 1203 MOTOR SPIRIT or GASOLINE or PETROL. Is it permitted to use an oil lamp in the accommodation during the voyage?</p> <p>A No, fires and naked lights are prohibited on board the vessel</p> <p>B On type N tank vessels, fires and naked lights are prohibited on board during loading, unloading or gas-freeing operations; they are permitted while the vessel is under way</p> <p>C No, when the cargo is UN No. 1203 MOTOR SPIRIT or GASOLINE or PETROL, fires and naked lights are prohibited during the voyage</p> <p>D Yes, but only where this has been expressly authorized by the competent authority</p> | |

TRANSPORT BY TANK VESSELS
Examination objective 8: Hazards and measures of prevention

| Number | Source | Correct answer |
|---------|---|----------------|
| TV 8012 | 9.3.3.52.4 During loading or unloading of UN No. 1203 MOTOR SPIRIT or GASOLINE or PETROL and during gas-freeing of tank vessels, certain electrical equipment should not be used. How is such equipment marked? A It has a sign in Dutch, French and German B It carries a sticker with an appropriate warning sign (e.g., a burning light bulb with a red line through it, like a “No smoking” sign) C It is marked in red D It is coloured yellow or has a yellow sticker | C |
| TV 8013 | 7.2.3.1.6 Under what circumstances may a self-contained breathing apparatus be used to enter a tank? A Self-contained breathing apparatuses may be used anywhere with or without supervision B The person wearing the self-contained breathing apparatus must wear the necessary protective equipment, be secured by a line and be supervised C A self-contained breathing apparatus may be used only if the master has been informed beforehand D There are no special provisions regarding the use of self-contained breathing apparatuses. However, before being used to enter a tank, a self-contained breathing apparatus must be checked to ensure that it is in working order | B |

TRANSPORT BY TANK VESSELS
Examination objective 8: Hazards and measures of prevention

| Number | Source | Correct answer |
|---------|--|----------------|
| TV 8014 | Basic general knowledge | B |
| | How is static electricity produced? | |
| | A By the slow, continuous charging of batteries | |
| | B By the friction with each other of substances or objects that are bad conductors of electricity. This may well take place during loading of cargo tanks using cargo transfer hoses that are not electrically earthed | |
| | C By the creation of an electrical connection between the shore facility and the vessel | |
| | D By the impact of metal against metal | |
| TV 8015 | Basic general knowledge | B |
| | What can you do during loading of a cargo tank to keep the electrostatic charge as low as possible? | |
| | A Take down the flame arresters | |
| | B Start the filling at a slower rate, until the head of the filling hose is immersed in the liquid | |
| | C Start the filling at a faster rate so that the head of the filling hose is quickly immersed in the liquid | |
| | D Constantly vary the loading rate | |
| TV 8016 | 7.2.3.31.2 | D |
| | You wish to take a car or a motor boat with you on board a tank vessel of type N. What procedure should you follow? | |
| | A Authorization must be obtained from the competent authority | |
| | B There are no provisions regarding this for tank vessels of type N | |
| | C If the battery has been removed beforehand and the engine is cold, the location of the car is immaterial | |
| | D The car must be kept outside the cargo area | |

TRANSPORT BY TANK VESSELS
Examination objective 8: Hazards and measures of prevention

| Number | Source | Correct answer |
|---------|--|----------------|
| TV 8017 | 8.3.5 You are on board a tank vessel carrying dangerous goods. You wish to carry out on the deck, outside the cargo area, repair work requiring the use of an open flame. Are you permitted to do this? A No, this is not permitted unless the vessel is furnished with an authorization from the competent authority or a certificate attesting to the totally gas-free condition of the vessel B Yes, but only if a distance of 3 m from the cargo area is maintained when the work is carried out C Yes, but only if two additional fire-extinguishers are available D No, the work should be carried out by an expert authorized to do so | A |
| TV 8018 | 8.3.5 A tank vessel under way is carrying UN No. 1203 MOTOR SPIRIT or GASOLINE or PETROL. Some welding work needs to be done in the engine room. Is this permitted? A Yes, provided that the doors and openings are closed B Yes, but only if the engine room has been pronounced gas-free by an expert C No, under no circumstances D No, not while the vessel is under way, only in a shipyard | A |
| TV 8019 | Basic general knowledge Why should the hoses on machines for washing tanks be regularly inspected for their electrical conductivity? A To prevent electrostatic charges B To prevent the heating coils from charging C To prevent the washing water from charging D To prevent the cargo tanks from charging | A |

TRANSPORT BY TANK VESSELS
Examination objective 8: Hazards and measures of prevention

| Number | Source | Correct answer |
|---------|---|----------------|
| TV 8020 | 8.3.5 | A |
| | <p>On board an open type N tank vessel with flame arresters, some work needs to be done on a tank cover using an electric drill. Is this permitted?</p> <p>A Only with an authorization from the local competent authority or with a certificate attesting to the totally gas-free condition of the vessel</p> <p>B Only if a 24 V drill is used</p> <p>C Only if it is carried out by authorized persons who are specially qualified</p> <p>D Only if the crew has taken the necessary measures and there is no danger of explosion</p> | |
| TV 8021 | Basic general knowledge | A |
| | <p>Cargo tanks should be spray cleaned only if they have been ventilated beforehand. What is the reason for this?</p> <p>A There is a danger of electrostatic charges</p> <p>B There is already too much lead residue sticking to the walls</p> <p>C Because the cargo residues will become too diluted</p> <p>D Otherwise the slops cannot be removed from rusty tanks</p> | |
| TV 8022 | 7.2.3.1.5, 7.2.3.1.6 | A |
| | <p>In an empty cargo tank where the previous cargo is unknown, the concentration of flammable gases has to be measured. The flammable gas detector does not work. Is it permitted to enter the cargo tank without a self-contained breathing apparatus?</p> <p>A No, because the presence of toxic gases has not been verified and the oxygen level has not been measured</p> <p>B Yes, since the cargo tank is now gas-free</p> <p>C No, since measurements have to be taken at least twice in the course of 10 minutes</p> <p>D Yes, but only if the person entering the cargo tank wears a security harness and a filter mask</p> | |

TRANSPORT BY TANK VESSELS
Examination objective 8: Hazards and measures of prevention

| Number | Source | Correct answer |
|---------|---|----------------|
| TV 8023 | 7.2.3.1.6 To carry out some cleaning work, a crew member has to enter a cargo tank. Which of the following pieces of safety equipment should never be used? A A full mask with filter B Protective boots C A safety harness D A protective suit | A |
| TV 8024 | 3.2, Table C, 7.2.4.16.8 You need to connect or disconnect the loading and unloading piping. What, according to ADN, should you wear, if this is prescribed under Table C of Chapter 3.2? A Full protective clothing B A pair of protective gloves C A self-contained breathing apparatus D A pair of protective shoes | B |
| TV 8025 | 3.2, Table C, 8.1.5.1 A tank vessel is carrying dangerous goods of Class 3 for which protection against explosion is required. What sort of mask or breathing apparatus should be kept on board for each member of the crew? A An ambient-air-dependent breathing apparatus B An apparatus using pressurized air C A half mask with filter D A dust mask | A |

TRANSPORT BY TANK VESSELS
Examination objective 8: Hazards and measures of prevention

| Number | Source | Correct answer |
|---------|--|----------------|
| TV 8026 | 3.2, Table C, 7.2.4.16.8 | C |
| | When should filter masks be used? | |
| | A In the course of work in a cargo tank that has not been cleaned | |
| | B When entering a cargo tank, this is required under Table C of Chapter 3.2 | |
| | C When taking samples, if this is required under Table C of Chapter 3.2 | |
| | D When the volume of oxygen in the cargo tank is 21% | |
| TV 8027 | Basic general knowledge | A |
| | Petrol gets into the water during loading of a tank vessel. What happens to the liquid? | |
| | A The liquid will expand on the surface of the water and then evaporate | |
| | B The liquid will mix with the water | |
| | C The liquid will sink to the bottom | |
| | D The liquid will expand on the surface of the water and not evaporate | |
| TV 8028 | 7.2.3.44 | C |
| | On a tank vessel, is it permitted to carry out cleaning work with liquids having a flashpoint below 55° C? | |
| | A Yes, but only outside the cargo area | |
| | B Yes, but only in the engine room | |
| | C Yes, but only in the cargo area | |
| | D Yes, but only if a fire-extinguisher is at hand | |

TRANSPORT BY TANK VESSELS
Examination objective 8: Hazards and measures of prevention

| Number | Source | Correct answer |
|---------|---|----------------|
| TV 8029 | 3.2, Table C, 7.2.4.16.8 You are on a tank vessel and have to load UN No. 1202 GAS OIL. The previous cargo was also UN No. 1202 GAS OIL. According to ADN, should the persons connecting the loading pipe or arm wear a breathing apparatus? A No, this is not required for this product B No, ADN does not contain such a requirement C Yes, this is required for this product also D Yes, this is required unless the competent authorities waive the requirement | A |
| TV 8030 | 3.2, Table C, 7.2.4.16.8 You are on a tank vessel and have to load UN No. 2079 DIETHYLENETRIAMINE. The previous cargo was UN No. 1202 GAS OIL and the cargo tanks have been cleaned and gas-freed. According to ADN, should the persons connecting the loading pipe or arm wear a breathing apparatus? A No, there is no such requirement in ADN B No, this is not required for this product C Yes, this is required for this product also D This is required only for vessels of type C but not for vessels of type N | B |
| TV 8031 | 3.2, Table C, 7.2.4.16.8 You are on a tank vessel of type N and have to load UN No. 2289 ISOPHORONEDIAMINE. According to ADN, should the persons connecting the loading pipe or arm wear protective equipment? A No, this is no such requirement in ADN B No, this is not required for this product C Yes, this is required for this product also D No, this is not required, since on tank vessels of type N it is not required to have safety equipment on board | C |

TRANSPORT BY TANK VESSELS
Examination objective 8: Hazards and measures of prevention

| Number | Source | Correct answer |
|---------|---|----------------|
| TV 8032 | 3.2, Table C, 8.1.5.1 | A |
| | <p>According to ADN, must a tank vessel carrying dangerous goods always have a flammable gas detector on board?</p> <p>A No, only when this is required under Table C of Chapter 3.2</p> <p>B Yes, this is part of the basic equipment</p> <p>C Yes, otherwise the vessel is not given a certificate of approval</p> <p>D No, this is required only when a vessel carries goods of Class 3</p> | |
| TV 8033 | 1.2.1 | A |
| | <p>According to ADN, what is “steady burning”?</p> <p>A Combustion stabilized for an indeterminate period</p> <p>B Combustion stabilized for a short period</p> <p>C Fire followed by an explosion</p> <p>D Fire so intense that it produces a shockwave</p> | |
| TV 8034 | 3.2, Table C, 8.1.5.1 | C |
| | <p>According to ADN, should a tank vessel carrying dangerous goods have an escape device for each person on board?</p> <p>A No, this is not obligatory unless expressly required in the instructions in writing</p> <p>B Yes, since, when dangerous goods are transported, there is always the risk that there will be a need to escape after a disaster</p> <p>C No, only if this is required under Table C of Chapter 3.2</p> <p>D No, except if this is required in the transport document</p> | |

TRANSPORT BY TANK VESSELS
Examination objective 8: Hazards and measures of prevention

| Number | Source | Correct answer |
|---------|--|----------------|
| TV 8035 | 3.2, Table C, 8.1.5.1 | C |
| | According to ADN, should all tank vessels carrying dangerous goods have a pair of protective boots on board for each member of the crew? | |
| | A Yes, this applies to all vessels carrying dangerous goods | |
| | B No, this does not apply to dry cargo vessels | |
| | C Yes, this applies to all tank vessels | |
| | D No, according to ADN, only protective shoes are required | |
| TV 8036 | 3.2, Table C, 8.1.5.1 | D |
| | According to ADN, is a self-contained breathing apparatus required on board? | |
| | A Yes, on board all tank vessels carrying flammable liquids | |
| | B Yes, on board both dry cargo vessels and tank vessels | |
| | C Yes, but only on board tank vessels | |
| | D No, it depends on whether there is a need to enter enclosed spaces | |
| TV 8037 | 3.2, Table C, 8.1.5.1 | A |
| | ADN states that, in certain specific cases, there must be an ambient-air-dependent breathing apparatus. Where does it say which type of filter should be used? | |
| | A In the manufacturer's instructions for the filter | |
| | B In Table C of Chapter 3.2 of ADN | |
| | C In the transport document | |
| | D In Table B of Chapter 3.2 of ADN | |
