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ADN CHECKLIST

concerning the observance of safety provisions and the implementation of the necessary measures for loading/unloading. The Explanation section has to be available for the persons filling in the Checklist.

Particulars of vessel			
Name of vessel		Official number	
Vessel type			

Particulars of loading or unloading operations			
Shore loading or unloading installation		Place	
Date		Time	

Particulars of the cargo as indicated in the transport document				
Quantity in m^3 (planned)	Proper shipping name*	UN Number or Identification number	Dangers**	Packing Group

Particulars of last cargo***					
Cargo tank number(s) of vessel	Proper shipping name*	UN Number or Identification number	Dangers**	Packing Group	Discharged/ Empty/ gas free

* The proper shipping name given in column (2) of Table C of Chapter 3.2, supplemented, when applicable, by the technical name in parenthesis.
** Dangers indicated in column (5) of Table C, as relevant (as mentioned in the transport document in accordance with 5.4.1.1.2 (c)).
*** To be filled in only if vessel is to be loaded.

EXAMPLE

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Particulars of loading/unloading

Loading/unloading rate (not to be filled in if vessel is to be loaded with gas or have gas unloaded)

Cargo tank number(s) of vessel	agreed rate of loading/unloading					
	start		half way		end	
	rate m^3/h	quantity m^3	rate m^3/h	quantity m^3	rate m^3/h	quantity m^3

Completion of loading*

Will the cargo piping be drained to the shore facility/to the vessel after the end of loading?**

by blowing** by stripping** by gravity**

If drained by blowing, how? (e.g. air, inert gas, sleeve)	
(permissible maximum pressure in the cargo tank)	kPa
(estimated residual quantity)	litres

Completion of unloading***

Will the cargo piping be drained to the shore facility/to the vessel after unloading?**

by blowing** by stripping**

If drained by blowing, how? (e.g. air, inert gas, sleeve)	
(permissible maximum pressure in the cargo tank)	kPa
(estimated residual quantity)	litres

* To be filled in only if vessel is to be loaded.
** Delete as appropriate.
*** To be filled in only if the vessel is to be unloaded.

EXAMPLE

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Questions to the master or the person mandated by him and the person responsible for the handling at the shore facility.

Loading/unloading shall only be started after all questions on the checklist have been checked off by "X", i.e. answered with YES and the list has been signed by both persons.

Non-applicable questions shall be crossed out.

If not all questions can be answered with YES, loading/unloading is only permitted with the prior consent of the competent authority.

		vessel	shore facility
1.	Is the vessel permitted to carry this cargo?	☐*	☐*
2.	(Reserved)		
3.	Is the vessel well moored in view of local circumstances?	☐	-
4.	Have suitable means in accordance with 7.2.4.77 been provided for leaving the vessel, including in cases of emergency?	☐	☐
5.	Are the escape routes and the loading/unloading place adequately lighted?	☐	☐
6.	**Vessel/shore connections**		
6.1	Is the piping for loading or unloading in satisfactory condition?	-	☐
6.2	Is the piping for loading or unloading properly connected?	-	☐
6.3	Are all the connecting flanges fitted with suitable gaskets?	-	☐
6.4	Are all the connecting bolts (or equivalent) properly fitted and tightened?	☐	☐
6.5	Are the shoreside loading/unloading arms free to move in all directions and (if present) do the hose assemblies have enough room for easy movement?	-	☐
7.	**Vessel piping systems**		
7.1	Are all flanges of the connections of the piping for loading and unloading and of the venting piping not in use, correctly blanked off?	☐	-
7.2	Have all valves and other closing devices been checked for correct position?	☐	-
8.	Are suitable means of collecting leakages placed under the pipe connections which are in use and are they empty?	☐	☐
9.	**Connections between piping**		
9.1	Are the movable connecting pieces between the ballast and bilge piping on the one hand and the piping for loading and unloading on the other hand disconnected?	☐	-
9.2	Are the moveable connecting pieces between the suitable venting equipment on the one hand and the piping for loading and unloading on the other hand disconnected?	☐	-
10.	**Supervision**		
10.1	Is continuous and suitable supervision of loading/unloading ensured for the whole period of the operation?		
10.1.1	At the vessel?	☐	-
10.1.2	At the shore facility?	-	☐
10.1.3	At the connection interface	☐	☐
11.	**Communication**		
11.1	Is communication between vessel and shore ensured?	☐	☐
11.2	The language used for operational verbal communication is	☐	☐

* To be filled in only if vessel is to be loaded.

EXAMPLE

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		vessel	shore facility
12.	**Venting and vapour return piping**		
12.1	Is the venting piping, where required, connected with the vapour return piping?	☐	☐
12.2	Is it ensured that the shore installation is such that the pressure at the connecting-point of the vapour return piping and the venting piping cannot exceed the opening pressure of the pressure relief devices/high velocity vent valves (pressure at connecting point ____ kPa)?	☐	☐
12.3	When anti-explosion protection is required in Chapter 3.2, Table C, column (17) does the shore installation ensure that its vapour return piping protects the vessel against detonations and flame fronts from the shore?	-	☐
13.	**Working pressure**		
13.1	Has the working pressure of the vessel's cargo discharge pump been adjusted to the permissible working pressure of the shore installation? (agreed pressure ____ kPa)	☐	☐
13.2	Has the working pressure of the shore pump been adjusted to the permissible working pressure of the on-board installation? (agreed pressure ____ kPa)	☐	☐
14.	Are the Emergency Procedures known in the event of an “Emergency-stop” and an “Alarm”?	☐	☐
15.	**Check on the most important operational requirements on board:**		
15.1	Are the required fire extinguishing systems and appliances operational?	☐	-
15.2	Has smoking been generally prohibited?	☐	☐
15.3	Is the radar installation switched off?	☐	-
15.4	Are the ventilation systems (overpressure system) and gas detection systems switched on and operational?	☐	-
15.5	Are all electrical installations and equipment marked red switched off or are they connected to the ventilation systems (overpressure system) / gas alarm system?	☐	-
15.6	Are all windows and doors closed?	☐	-
15.7	Is the shower and the eye and face bath checked and operational?	☐	-
16.	Is the liquid level alarm-installation operational?	☐	-
17.	**Overflow prevention**		
17.1	In the case of loading, is the overflow prevention device plugged in, in working order and tested?	☐*	☐*
17.2	In case of unloading, is the overflow prevention device plugged in, in working order and tested?	☐**	☐**
17.3	In case of unloading, is the device for switching off the on-board pump from the shore facility plugged in, in working order and tested?	☐**	☐**
18.	Are the cargo tank hatches and cargo tank inspection and sampling openings closed or protected by flame arresters fulfilling the requirements of column (16) of Table C of Chapter 3.2?	☐	-

* To be filled in only if vessel is to be loaded.
** To be filled in only if vessel is to be unloaded.

EXAMPLE

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		vessel	shore facility
19.	**To be filled in case of transport of refrigerated liquefied gases**		
19.1	Has the holding time been determined according to 7.2.4.16.16, and is known and documented on board?	☐*	-
19.2	Is the loading temperature within the range of the maximum permissible temperature as prescribed in 7.2.3.28? (agreed temperature ___ °C)	☐*	☐*
19.3	Are suitable facilities to collect leaked liquids provided underneath the refrigerated liquefied gas connections?	☐	☐
19.4	Is a water film as mentioned in 9.3.1.21.11 activated?	☐	-

* To be filled in only if the vessel is to be loaded.

Checked, filled in and signed		
	for the vessel:	**for the shore facility:**
(name in capital letters)		
(signature)		

EXAMPLE

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Explanation

General information

Particulars of vessel

For “vessel type”, state the type of vessel, cargo tank design, type of cargo tank and opening pressure of the pressure relief valves/high-velocity vent valves/safety valves following the definitions given in 1.2.1 and the certificate of approval (for example, C-2-2-50).

Particulars of last cargo

This concerns the last cargo of all tanks to be loaded.

For “Discharged/empty/gas free” indicate whether the cargo tank is discharged, empty or gas free according to the definition of 1.2.1.

Particulars of loading/unloading

It must be clear to which cargo tank the “cargo tank number(s) of vessel” refers. Where necessary, add additional information to distinguish between cargo tanks (e.g. “starboard 1-1”).

The “estimated residual quantity” is the maximum quantity of product that will flow after active loading or unloading has stopped. It is the amount of product remaining in the hose or loading arm estimated from the last closed valve, expressed in litres. Operationally, the quantity at which loading is stopped in the final stage should be agreed upon in order to safely receive the residual quantity.

The “permissible maximum pressure in the cargo tank” refers to the maximum pressure of the high-velocity vent valve.

Questions

The list must be completed, after the pipes intended for the handling are connected and prior to the handling, in duplicate and signed by the master or a person mandated by the designated responsible persons on board and at the shore facility, as described in 7.2.4.10.1.

Question 1

Prior to loading, both parties will check whether the vessel is permitted to carry this cargo by means of the vessel substance list.

See also 1.4.2.2.1 (a), 1.4.3.3 (n), 7.2.1.21.

Question 2

(Reserved)

Question 3

“Well moored” means that the vessel is fastened to the pier or the cargo transfer station in such a way that, without intervention of a third person, movements of the vessel in any direction that could hamper the operation of the cargo transfer gear will be prevented. Established or predictable variations of the water-level at that location and special factors have to be taken into account.

See also 1.1.4.6, 7.2.4.76, 7.2.5.3.

Question 4

It must be possible to escape safely from the vessel at any time. If there is none or only one protected escape route available at the shoreside for a quick escape from the vessel in case of emergency, a suitable means of escape has to be provided on the vessel side if required in accordance with 7.2.4.77.

See also 1.4.3.3 (q), 1.4.3.7.1 (g), 7.2.4.77.

Question 5

See also 7.2.4.53.

Question 6

In case the hose assemblies are to be used during loading or unloading a valid inspection certificate for the hose assemblies must be available on board. The material of the piping for loading and unloading must be able to withstand the expected loads and be suitable for cargo transfer of the respective substances. The piping for loading and unloading between vessel and shore must be placed so that it cannot be damaged by ordinary movements of the vessel during the loading and unloading process or by variations of the water. In addition, all flanged joints must be fitted with appropriate gaskets and sufficient bolt connections or other types of suitable couplings (e.g. claw coupling) in order to exclude the possibility of leakage.

For 6.1, see also 9.3.x.25.

For 6.3, see also 1.4.3.3 (t), 1.4.3.7.1 (k).

Question 7

All openings of the venting piping and connections to shore installations used for loading and unloading, through which the loading and unloading operation is carried out, must be provided with safety valves. All openings, when not in use for loading and unloading, must be fitted with a blind flange.

For 7.1, see also 9.3.x.25.2 (f).

EXAMPLE

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Question 8

Pipe connections must be relieved of pressure prior to connection or disconnecting and the minimal amount of product that may be released must be caught in the receptacle.

See also 7.2.4.16.5.

Question 9

The suitable venting equipment (fan, flame arresters and connecting pieces) should be disconnected from the piping for loading and unloading before the loading and unloading starts.

For 9.1, see also 7.2.3.25.1, 7.2.3.25.2.

For 9.2, see also 7.2.3.7, 7.2.3.25.1, 7.2.3.25.3.

Question 10

Loading/unloading must be supervised on board and ashore so that dangers which may occur in the vicinity of piping for loading and unloading between vessel and shore can be recognized immediately. When supervision is effected by additional technical means it must be agreed between the shore installation and the vessel how it is to be ensured.

For 10.1, see also 1.4.3.7.1 (l), 1.4.3.3 (u).

For 10.2, see also 7.2.4.40.

For 10.3, see also 7.2.4.41.

Question 11

For a safe loading/unloading operation good communications between vessel and shore are required. For this purpose telephone and radio equipment may be used only if of an explosion protected type and located within reach of the supervisor. Communication must be ensured for the entire duration of the loading/unloading operation. It must take place in a language both persons can understand.

Question 12

In addition to the requirement of 7.2.4.25.5 of ADN, other regulations could prescribe the use of the vapour return piping and the venting piping, such as local regulations or permits.

For 12.1, see also 7.2.4.25.5.

For 12.2, see also 1.4.3.3 (s), 1.4.3.7.1 (j), 7.2.4.16.6.

For 12.3, see also 1.4.3.3 (r), 1.4.3.7.1 (i), 7.2.4.16.12.

Question 13

13.1: The pressure to be filled in, is determined in agreement, the vessel ensures that the maximum working pressure of the vessel's cargo discharge pump(s) does not exceed the agreed pressure.

13.2: The pressure to be filled in, is determined in agreement, the loading place ensures that the maximum working pressure of the shore pump does not exceed the agreed pressure.

See also 7.2.4.16.1.

Question 14

Before the start of the loading/unloading operation the representative of the shore facility and the master or the person mandated by him must agree on the applicable procedure. The specific properties of the substances to be loaded/unloaded have to be taken into account.

See also 7.2.4.16.16.

Question 15

The systems mentioned in 15.3 must remain switched on during the operation.

“Ventilation systems” refers to systems for the accommodation, wheelhouse and service spaces as described in 9.3.x.12.4.

For 15.6, see also 7.2.3.51.6, 9.3.x.12.4.

Question 16

See also 9.3.x.21.4.

Question 17

To prevent backflow from the shore, it is also necessary to activate the overflow prevention device on the vessel under certain circumstances when unloading. It is obligatory during loading and optional during unloading. Delete this item if it is not necessary during unloading.

For 17.1 and 17.2, see also 7.2.4.13.3, 9.3.x.21.5.

Question 18

See also 7.2.3.22.

EXAMPLE

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Question 19

For 19.2: The loading temperature is determined in agreement, the loading place ensures that the permissible maximum loading temperature is within the permissible temperatures as described in instruction on maximum loading temperature (7.2.3.28).

For 19.2, see also 7.2.3.28.

For 19.3, see also 7.2.4.29, 9.3.1.21.11.

For 19.4, see also 7.2.4.2.9.

EXAMPLE