**SHIP/SHORE SAFETY CHECKLIST / RECURRING ITEM CHECKLIST**

Vessel: VLGC PERTAMINA GAS 1  
Berth: STS with ARIMBI  
Port: KALBUT  
Date: 03 SEPTEMBER 2016  
Time: LT (All Fast)

**INSTRUCTIONS FOR COMPLETION:**

The safety of operations requires that all questions should be answered affirmatively by clearly ticking (√) the appropriate box. If an affirmatively answer is not possible, the reason should be given, and agreement reached upon appropriate precautions to be taken between the ship and the terminal. Where any questions is considered to be not applicable, and then a note to that effect should be inserted in the remarks column.

A box in the column 'ship' and 'terminal' indicates that the party concerned should carry out checks.

The presence of the letters A, P or R in the column 'Code' indicates the following:

A – ('Agreement'). This indicates an agreement or procedure that should be identified in the 'Remarks' column of the Check-list or communicated in some other mutually acceptable form.

P – ('Permission'). In the case of a negative answer to the statements coded, 'P', operations should not be conducted without the written permission from the appropriate authority.

R – ('Re-check'). This indicated items to be re-checked at appropriate intervals, as agreed between both parties, at periods stated in the declaration.

The joint agreement should not be signed until both parties have checked and accepted their assigned responsibilities, at periods stated in the declaration.

**PART ‘A’ – BULK LIQUID GENERAL – Physical Checks**

<table>
<thead>
<tr>
<th>Bulk Liquid - General</th>
<th>Loading Ship</th>
<th>Discharge Ship</th>
<th>Code</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. There is safe access between the ship and shore.</td>
<td></td>
<td></td>
<td>R</td>
<td>Access by Personal basket / Tugs</td>
</tr>
<tr>
<td>2. The ship is securely moored.</td>
<td></td>
<td></td>
<td>R</td>
<td>F &amp; A :</td>
</tr>
<tr>
<td>3. The agreed ship/shore communication system is operative.</td>
<td></td>
<td></td>
<td>A</td>
<td>System: VHF Ch. 09</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>R</td>
<td>Backup System: UHF Ch. 01</td>
</tr>
<tr>
<td>4. Emergency towing-off pennants are correctly rigged and positioned.</td>
<td></td>
<td></td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>5. The ship's fire hoses and fire-fighting equipment are positioned and ready for immediate use.</td>
<td></td>
<td></td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>6. The terminal's fire-fighting equipment is positioned and ready for immediate use.</td>
<td></td>
<td></td>
<td>R</td>
<td>Ready for immediate use</td>
</tr>
<tr>
<td>7. The ship's cargo and bunker hoses, pipelines and manifolds are in good condition, properly rigged and appropriate for the service intended.</td>
<td></td>
<td></td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>8. The terminal's cargo and bunker hoses or arms are in good condition, properly rigged and appropriate for the service intended.</td>
<td></td>
<td></td>
<td>R</td>
<td>All cargo hose are in good condition &amp; press test done as per certificate</td>
</tr>
<tr>
<td>9. The cargo transfer system is sufficiently isolated and drained to allow safe removal of blank flanges prior to connection.</td>
<td></td>
<td></td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>10. Scuppers and save-alls on board are effectively plugged and drip trays are in position and empty.</td>
<td></td>
<td></td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>11. Temporarily removed scupper plugs will be constantly monitored.</td>
<td></td>
<td></td>
<td>R</td>
<td>When raining only</td>
</tr>
<tr>
<td>12. Shore spill containment and sumps are correctly managed.</td>
<td></td>
<td></td>
<td>R</td>
<td>Secure unused blank flanges with fully bolted</td>
</tr>
<tr>
<td>13. The ship's unused cargo and bunker connections are properly secured with blank flanges fully bolted.</td>
<td></td>
<td></td>
<td>R</td>
<td></td>
</tr>
</tbody>
</table>

Page 1 of 6
14. The terminal's unused cargo and bunker connections are properly secured with blank flanges fully bolted.

15. All cargo, ballast and bunker tank lids are closed.

16. Sea and overboard discharge valves, when not in use, are closed and visibly secured.

17. All external doors, ports and windows in the accommodation, stores and machinery spaces are closed. Engine room vents may be open.

18. The ship's emergency fire control plans are located externally.

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If the ship is fitted, or is required to be fitted with an inert gas system (IGS), the following points should be physically checked.

<table>
<thead>
<tr>
<th>Inert Gas System</th>
<th>Loading Ship</th>
<th>Discharge Ship</th>
<th>Code</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>19. Fixed IGS pressure and oxygen content recorders are working.</td>
<td>P</td>
<td>R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. All cargo tank atmospheres are at positive pressure with oxygen content of 8% or less by volume.</td>
<td>P</td>
<td>R</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

PART 'B' – BULK LIQUID GENERAL – Verbal Verification

<table>
<thead>
<tr>
<th>Bulk Liquid - General</th>
<th>Loading Ship</th>
<th>Discharge Ship</th>
<th>Code</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>21. The ship is ready to move under its own power.</td>
<td>P</td>
<td>R</td>
<td></td>
<td>Ready for short notice 30 minute</td>
</tr>
<tr>
<td>22. There is an effective deck watch in attendance on board and adequate supervision of operations on the ship and in the terminal.</td>
<td>R</td>
<td></td>
<td></td>
<td>Double Watch</td>
</tr>
<tr>
<td>23. There are sufficient personnel on board and ashore to deal with an emergency.</td>
<td>R</td>
<td></td>
<td></td>
<td>Stand by at Discharging Ship</td>
</tr>
<tr>
<td>24. The procedures for cargo, bunker and ballast handling have been agreed.</td>
<td>A</td>
<td>R</td>
<td></td>
<td>Attach on Discharging plan</td>
</tr>
<tr>
<td>25. The emergency signal and shutdown procedure to be used by the ship and shore have been explained and understood.</td>
<td>A</td>
<td></td>
<td></td>
<td>1(one) Long Blast on ship whistle, &quot;STOP.STOP.STOP&quot; on VHF Radio, ESD Pendant tested and ready to use</td>
</tr>
<tr>
<td>26. Material Safety Data Sheets (MSDS) for the cargo transfer have been exchanged where requested.</td>
<td>P</td>
<td>R</td>
<td></td>
<td>Yes, exchanged &amp; understood</td>
</tr>
<tr>
<td>27. The hazards associated with toxic substances in the cargo being handled have been identified and understood.</td>
<td>N/A</td>
<td>H2S Content : N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>28. An International Shore Fire Connection has been provided.</td>
<td>ISC stand by at Manifold</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29. The agreed tank venting system will be used.</td>
<td>N/A</td>
<td>A</td>
<td>R</td>
<td>Method: No venting</td>
</tr>
<tr>
<td>30. The requirements for closed operations have been agreed.</td>
<td>R</td>
<td></td>
<td></td>
<td>Agreed by closed gauging system</td>
</tr>
<tr>
<td>31. The operation of the P/V system has been verified.</td>
<td></td>
<td></td>
<td></td>
<td>FOR HOLD SPACE ONLY</td>
</tr>
<tr>
<td>32. Where a vapour return line is connected, operating parameters have been agreed.</td>
<td>N/A</td>
<td>A</td>
<td>R</td>
<td>NOT CONNECTED</td>
</tr>
<tr>
<td>33. Independent high level alarms, if fitted, are operational and have been tested.</td>
<td>A</td>
<td></td>
<td>R</td>
<td>Prior each cargo operation Checked and record</td>
</tr>
<tr>
<td>34. Adequate electrical insulating means are in place in the ship/shore connection.</td>
<td>A</td>
<td>R</td>
<td>Connect to shuttle ship by bonding cables</td>
<td></td>
</tr>
<tr>
<td>35. Shore lines are fitted with a non-return valve, or procedures to avoid back filling have been discussed.</td>
<td>P</td>
<td>R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36. Smoking rooms have been identified and smoking requirements are being observed.</td>
<td>A</td>
<td>R</td>
<td></td>
<td>Nominated smoking rooms: Crew Recreation room</td>
</tr>
<tr>
<td>37. Naked light regulations are being observed.</td>
<td>A</td>
<td>R</td>
<td></td>
<td>Warning was posted &amp; no naked lights</td>
</tr>
<tr>
<td>38. Ship/shore telephones, mobile phones and pager requirements are being observed.</td>
<td>A</td>
<td>R</td>
<td></td>
<td>Inspected &amp; switch off , no mobile phones are allowed on deck</td>
</tr>
<tr>
<td>39. Hand torches (flashlights) are of an approved type.</td>
<td>A</td>
<td>R</td>
<td></td>
<td>All hand torch are intrinsically safe &amp; approved type</td>
</tr>
</tbody>
</table>
40. Fixed VHF/UHF transceivers and AIS equipment are on the correct power mode or switched off.  A   R  Switch to 1 W Low power mode
41. Portable VHF/UHF transceivers are of an approved type.  A   R  Are all intrinsically safe & approved type
42. The ship’s main radio transmitter aerials are earthed and radars are switched off.  N/A
43. Electric cables to portable electrical equipment within the hazardous area are disconnected from power.  N/A
44. Window type air conditioning units are disconnected.  N/A
45. Positive pressure is being maintained inside the accommodation, and air conditioning intakes, which may permit the entry of cargo vapours, are closed.  A   R  Maintained positive pressure inside accommodation
46. Measures have been taken to ensure sufficient mechanical ventilation in the pump room.  N/A  R  No pump room
47. There is provision for an emergency escape.  A   P  P/S Lifeboat
48. The maximum wind and swell criteria for operations have been agreed.  A   R  Stop cargo at : 25 knts Disconnect at : 30 knts Unberth at : 35 knts
49. Security protocols have been agreed between the Ship Security Officer and the Port Facility Security Officer, if appropriate.  A   R  Present Security Level : 1 (One)
50. Where appropriate, procedures have been agreed for receiving nitrogen supplied from shore, either for inerting or purging ship’s tanks, or for line clearing into the ship.  N/A  A   P  Hose Clearing by: Discharge Ship

If the ship is fitted, or is required to be fitted, with an inert gas system (IGS) the following statements should be addressed.

<table>
<thead>
<tr>
<th>Inert Gas System</th>
<th>Loading Ship</th>
<th>Discharge Ship</th>
<th>Code</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>51. The IGS is fully operational and in good working order.</td>
<td>P</td>
<td></td>
<td>IGS IN GOOD OPERATIONS</td>
<td></td>
</tr>
<tr>
<td>52. Deck seals, or equivalent, are in good working order.</td>
<td>R</td>
<td></td>
<td>BUT NOT TO BE USE DURING</td>
<td></td>
</tr>
<tr>
<td>53. Liquid levels in pressure/vacuum breakers are correct.</td>
<td>R</td>
<td></td>
<td>DISCHARGING</td>
<td></td>
</tr>
<tr>
<td>54. The fixed are portable oxygen analysers have been calibrated and are working properly.</td>
<td>R</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>55. All the individual tank IG valves (if fitted) are correctly set and locked.</td>
<td>R</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>56. All personnel in charge of cargo operations are aware that, in the case of failure of the inert gas plant, discharge operations should cease and the terminal be advised.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If the ship is fitted with a Crude Oil Washing (COW) system, and intends to crude oil wash, the following statements should be addressed.

<table>
<thead>
<tr>
<th>Crude Oil Washing</th>
<th>Loading Ship</th>
<th>Discharge Ship</th>
<th>Code</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>57. The Pre-Arrival COW check-list, as contained in the approved COW manual, has been satisfactorily completed.</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>58. The COW check-lists for use before, during and after COW, as contained in the approved COW manual, are available and being used.</td>
<td>N/A</td>
<td>R</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If the ship is planning to tank clean alongside, the following statements should be addressed.

<table>
<thead>
<tr>
<th>Inert Gas System</th>
<th>Loading Ship</th>
<th>Discharge Ship</th>
<th>Code</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>59. Tank cleaning operations are planned during the ship’s stay alongside the shore installation.</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>60. If yes, the procedures and approvals for tank cleaning have been agreed.</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>61. Permission has been granted for gas freeing operations</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Delete yes or no as appropriate

PART ‘C’ – BULK LIQUID CHEMICALS – Verbal Verification
# Bulk Liquid Chemicals

<table>
<thead>
<tr>
<th>Loading Ship</th>
<th>Discharge Ship</th>
<th>Code</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>N/A</td>
<td>P</td>
</tr>
</tbody>
</table>

1. Material Safety Data Sheets are available giving the necessary data for the safe handling of the cargo.

2. A manufacturer’s inhibition certificate, where applicable, has been provided.

3. Sufficient protective clothing and equipment (including self-contained breathing apparatus) is ready for immediate use and is suitable for the product being handled.

4. Countermeasures against accidental personal contact with the cargo have been agreed.

5. The cargo handling rate is compatible with the automatic shutdown system, if in use.

6. Cargo system gauges and alarms are correctly set and in good order.

7. Portable vapour detection instruments readily available for the products being handled.

8. Information on fire-fighting media and procedures has been exchanged.

9. Transfer hoses are of suitable material, resistant to the action of the products being handled.

10. Cargo handling is being performed with the permanent installed pipeline system.

11. Where appropriate, procedures have been agreed for receiving nitrogen supplied from shore, either for inerting or purging ship’s tanks, or for line clearing into the ship.

---

# Bulk Liquefied Gases

<table>
<thead>
<tr>
<th>Loading Ship</th>
<th>Discharge Ship</th>
<th>Code</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>N/A</td>
<td>P</td>
</tr>
</tbody>
</table>

1. Material Safety Data sheets are available giving the necessary data for the safe handling of the cargo.

2. A manufacturer’s inhibition certificate, where applicable, has been provided.

3. The water spray system is ready for immediate use.

4. There is sufficient suitable protective equipment (including self-contained breathing apparatus) and protective clothing ready for immediate use.

5. Hold and inter-barrier spaces are properly inerted or filled with dry air, as required.

6. All remote control valves are in working order.

7. The required cargo pumps and compressors are in good order, and the maximum working pressures have been agreed between ship and shore.

8. Re-liquefaction or boil-off control equipment is in good order.

9. The gas detection equipment has been properly set for the cargo, is calibrated, has been tested and inspected and in good order.

10. Cargo system gauges and alarms are correctly set and in good order.

11. Emergency shutdown systems have been tested and are working properly.

12. Ship and shore have informed each of the closing rate of ESD valves, automatic valves or similar devices.

13. Information has been exchanged between ship and shore on the maximum/minimum temperatures/pressures of the cargo to be handled.

14. Cargo tanks are protected against inadvertent overfilling at all times while any cargo operations are in progress.

15. The compressor room is properly ventilated, the electrical motor room is properly pressurized and the alarm system is working.

---

A Pertamina Gas 1: Bars

Ship: Terminal: _______
16. Cargo tank relief valves are set correctly and actual relief valve settings are clearly and visibly displayed. (Record settings below)

<table>
<thead>
<tr>
<th>Tank No.1</th>
<th>400 MB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tank No.2</td>
<td>400 MB</td>
</tr>
<tr>
<td>Tank No.3</td>
<td>400 MB</td>
</tr>
<tr>
<td>Tank No.4</td>
<td>400 MB</td>
</tr>
<tr>
<td>Tank No.5</td>
<td></td>
</tr>
<tr>
<td>Tank No.6</td>
<td></td>
</tr>
<tr>
<td>Tank No.7</td>
<td></td>
</tr>
<tr>
<td>Tank No.8</td>
<td></td>
</tr>
<tr>
<td>Tank No.9</td>
<td></td>
</tr>
<tr>
<td>Tank No.10</td>
<td></td>
</tr>
</tbody>
</table>

**DECLARATION:**

We the undersigned, have checked the above items in Parts A and B, and where appropriate Part C or D, in accordance with the instructions, and have satisfied ourselves that the entries we have made are correct to the best of our knowledge.

We have also made arrangements to carry out repetitive checks as necessary and agreed that those items with code ‘R’ in the Check-list should be rechecked at intervals not exceeding 4 hours.

<table>
<thead>
<tr>
<th>For Loading Ship</th>
<th>For Discharging Ship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name :</td>
<td>Name : Hadi Wibowo</td>
</tr>
<tr>
<td>Position : Chief Officer</td>
<td>Position : Chief Officer</td>
</tr>
<tr>
<td>Signature :</td>
<td>Signature :</td>
</tr>
<tr>
<td>Date :</td>
<td>Date : 03 SEPTEMBER 2016</td>
</tr>
<tr>
<td>Time :</td>
<td>Time :</td>
</tr>
</tbody>
</table>

Record of repetitive checks :

<table>
<thead>
<tr>
<th>Date :</th>
<th>Time :</th>
<th>Initials for Ship :</th>
<th>Initials for Shore :</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date :</td>
<td>Time :</td>
<td>Initials for Ship :</td>
<td>Initials for Shore :</td>
</tr>
<tr>
<td>RECURRING ITEMS CHECKLIST</td>
<td>REMARKS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------------------------------------------------------</td>
<td>---------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the ship securely moored?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are emergency towing wires correctly positioned?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is there safe access between ship and shore?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is there an efficient deck watch in attendance on board and adequate supervision on the terminal and on the ship?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the agreed ship/shore communication system operative?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have the procedures for cargo, bunker and ballast been agreed.?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are fire hoses and fire fighting equipment on board and ashore positioned and ready for immediate use?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are scuppers effectively plugged and drip trays in position, both on board and ashore.?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the agreed tank venting system being used?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are all external doors and ports in the accommodation closed?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are the requirements for use of galley equipment and other cooking appliances being observed?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are smoking regulations being observed?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are naked light regulations being observed?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are sufficient personnel on board and ashore to deal with an emergency?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have measures been taken to ensure sufficient pump room ventilation?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If the ship is capable of closed loading, have the requirements for closed operations been agreed?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**INERT GAS SYSTEM**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Are deck seals in good working orders?</td>
<td></td>
</tr>
<tr>
<td>Are liquid levels in P/V breakers correct?</td>
<td></td>
</tr>
<tr>
<td>Have the fixed and portable oxygen analyzers been calibrated and are they working properly?</td>
<td></td>
</tr>
<tr>
<td>Are fixed IG pressure and oxygen content recorders working?</td>
<td></td>
</tr>
<tr>
<td>Are all cargo tank atmospheres at positives pressure with oxygen content of 8% or less by volume?</td>
<td></td>
</tr>
<tr>
<td>Are all individual tank IG valves (if fitted) correctly set and locked?</td>
<td></td>
</tr>
</tbody>
</table>

**ADDITIONAL**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Has the pump room been checked for leakages?</td>
<td></td>
</tr>
<tr>
<td>Has the cargo deck area been checked for leakages or any other abnormality?</td>
<td></td>
</tr>
<tr>
<td>Are the drip trays free of any liquid?</td>
<td></td>
</tr>
</tbody>
</table>

**Officer of the Watch**

To be performed at least 4 times per cargo operation

Maximum 4 hrs between rechecks