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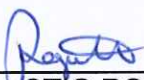
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**Amendment Table**

Rev.No	Date	Description	Prepared by	Reviewed by	Approved by
00	30 <sup>th</sup> Dec 2016	Initial release	N. Q. Viet	H. Kobayashi	S. Eguchi
01	11 <sup>th</sup> Sep 2017	Add procedure: JTY-7.4.3-78 Loading Diesel to 170-P-003A/B/C  Update from Rev 00 to Rev 1 of 4 procedures: JTY-7.4.3-71; JTY-7.4.3-74; JTY-7.4.3-75 and JTY-7.4.3-77 to ensure compliance of 90% requirement for diesel level	N.V. Minh	N.D. Hien P.T. Hai	S. Eguchi
02	30 <sup>th</sup> Apr 2018	Revise: JTY-7.4.1-02 Procedure for ship loading operation loss control and commercial delivery  Delete 3 procedures: JTY-7.4.3-61.4 VRU1 Line up to absorbent column; absorbent column ready JTY-7.4.3-61.5 VRU1 Three phase separator ready JTY-7.4.3-61.6 VRU1 Line up regeneration adsorber  Add 1 procedure: JTY-7.4.3-62 VRU 1 Normal Operation	N.N. Thanh	N.V.Hung P.T. Hai	Stig Roger Haglund
03	11 <sup>th</sup> Feb 2019	Revise: JTY-7.4.3-13: Loading Arm_VRA Connection JTY-7.4.3-18: Loading Arm_VRA Disconnection	L.T.Hanh	N.D. Hien, P.T. Hai	Stig Roger Haglund

04	22 <sup>nd</sup> Jul 2019	Revise: OM JTY-7.4.3-16: Liquid Product Loading Procedure	L.T.Hanh	N.V. Hung, P.T. Hai	Stig Roger Haglund
05	01 <sup>st</sup> Oct 2020	<b>Revise:</b> JTY-7.4.1-01: NSRP Terminal Information Safety Regulation JTY-7.4.1-03: Ship Vetting Procedure for tankers without SIRE Inspection Report JTY-7.4.1-04: Ship Vetting Procedure for Tankers with SIRE Inspection Report JTY-7.4.1-05: Ship Vetting Procedure for Dry Bulk carriers & container vessels JTY-7.4.1-06: NSRP Ship Vetting Policy	N.V. Minh	N.D. Hien, P.T. Hai	Stig Roger Haglund

**AMENDMENT REPORT FORM**

Rev. No.	Item	Original	Revised	Reason
05	JTY-7.4.1-01	None	<p>Chapter 0:INTRODUCTION</p> <p>Add: "Terminal Information and Safety Regulation"</p> <hr/> <p>Chapter 2: TERMINAL INFORMATION</p> <ul style="list-style-type: none"> <li>➤ 1.1 NSRP LLC Terminal Update: Tel/Fax No</li> <li>➤ 1.2 Port Authority Update: Tel/Fax No</li> <li>➤ 1.3 PILOT INFORMATION Update: Tel/Fax No</li> <li>➤ 1.4 Emergency Contact List Update: Tel Add Hop Luc Hospital</li> <li>➤ 2.4.1 Access Channel Update: information</li> <li>➤ 2.4.2 Turning Basin Update: information</li> <li>➤ 3.1.1 For JETTY Update: information</li> <li>➤ 7.1 Anchorage and Pilot Station Update: latitude and longitude</li> </ul> <hr/> <p>Chapter 9: REGULATIONS AND INSTRUCTION ON SAFETY PRECAUTION</p> <ul style="list-style-type: none"> <li>➤ 10. Garbage Add: Garbage could be collected by NSRP outsourcing provider and will be treated by them</li> </ul>	Update latest information
		Tel: Old Phone no Fax: Old fax no VHF: CH 16		
		None		

		None	<p>Chapter 2: TERMINAL INFORMATION</p> <ul style="list-style-type: none"> <li>➤ 2.4.3 Berthing Limitation Add: Maximum Swell height: 1.2 meter</li> <li>➤ 6.2.1 JETTY Add: or wave swell higher than 1.2meter</li> </ul>	To reflect based on Mooring Parted Incident (IN-2019-1328 & IN-2020-080)
	None	<p>Chapter 5: FIRE AND EMERGENCY PROCEDURE</p> <ul style="list-style-type: none"> <li>➤ 8.2 Contact the jetty Add: ACTION-BERTH-ERC activated Add: EMERGENCY ASHORE-ERC activated</li> <li>➤ 6.2.1 JETTY Add: or wave swell higher than 1.2meter</li> </ul>		
	None	<p>Chapter 7: MOORINGS</p> <ul style="list-style-type: none"> <li>➤ 2. Mooring Equipment Update info on Design Mooring load</li> <li>➤ 3. Mooring Requirement – Change the mooring line requirement</li> </ul>		
JTY-7.4.1-03		9 – 12 month	<p>2. SCOPE</p> <p>Update: Adjust vetting validation time: From 9 -12 months to 6 -9 months.</p>	
		None	<p>4. TERM AND DEFINATION</p> <ul style="list-style-type: none"> <li>➤ Add: “NSRP Vessel Inspection Team: Team to conduct Pre- inspection prior to issue a new / extent Notice of Acceptance. The Team including but not limited: - A Maintenance electrical</li> </ul>	

			<p>Engineer</p> <ul style="list-style-type: none"> <li>- A Firefighting Engineer</li> <li>- A Berth Master”</li> </ul>	<p>To reflect based on:          Fire at MT. Southern Thriving Incident (IN-2020-504)</p>
	None	<p>5.1 SHIP VETTING WORKFLOW CHART</p> <ul style="list-style-type: none"> <li>➤Add: Revised and add information in the flow chart</li> </ul>		
	None	<p>5.2.1 SHIP INSPECTION REQUEST</p> <ul style="list-style-type: none"> <li>➤Add: Update Third Party Inspection Company information.</li> </ul>		
	None	<p>5.2.2 SHIP VETTING REQUEST</p> <ul style="list-style-type: none"> <li>➤Add: email for Vetting team and Commercial Team</li> </ul>		
	None	<p>5.2.8 PRE-BERTHING INSPECTION BY NSRP VESSEL INSPECTION TEAM</p> <ul style="list-style-type: none"> <li>➤Add: Pre-berthing Inspection will also be executed for nominated vessels calling at NSRP Terminals as the first time or extent Notice of Acceptance.</li> <li>➤Add: Pre-berthing Inspection will be done in the daytime prior to entering NSRP terminal</li> </ul>		
		None	<p>5.2.9 NSRP INFORMS TO ACCEPT OR REJECT THE SHIP</p> <ul style="list-style-type: none"> <li>➤Add: Operations Division Manager.</li> <li>➤Add:The Notice to Accept or not accept will be stored on NSRP common folder.</li> </ul>	

		JTY-7.4.1-03-AX2A JTY-7.4.1-03-AX2B	<ul style="list-style-type: none"> <li>➤ Combine 2 attachment become 1 and used updated version of SIRE OCIMF for Inspection</li> </ul>	Both attachments have same content
JTY-7.4.1-04		9 – 12 month	<b>2. SCOPE</b> <b>5. REQUIREMENT</b> <ul style="list-style-type: none"> <li>➤ Update: Adjust vetting validation time: From 9 -12 months to 6 -9 months.</li> </ul>	To reflect based on: Fire at MT. Southern Thriving Incident (IN-2020-504)
		None	<b>4. TERM AND DEFINATION</b> <ul style="list-style-type: none"> <li>➤ Add: <b>“NSRP Vessel Inspection Team:</b> Team to conduct Pre- inspection prior to issue a new / extent Notice of Acceptance. The Team including but not limited:            - A Maintenance electrical Engineer            - A Firefighting Engineer            - A Berth Master”</li> </ul>	
		None	<b>5. REQUIREMENT</b> <ul style="list-style-type: none"> <li>➤ Add: After every 3 consecutive times as maximum of SIRE report, the next vetting inspection will be conducted by Third Party Inspection Company which nominate by NSRP</li> </ul>	
		None	<b>6.10. SIRE REPORT REVIEW FLOW CHART</b> <ul style="list-style-type: none"> <li>➤ Add: Revised and add information in the flow chart</li> </ul>	
		None	<b>6.11.1 SHIP VETTING REQUEST</b> <ul style="list-style-type: none"> <li>➤ Add: email for Vetting team and Commercial Team</li> </ul>	

		None	<p>6.11.3 PRE-BERTHING INSPECTION BY NSRP VESSEL INSPECTION TEAM</p> <ul style="list-style-type: none"> <li>➤ Add: Pre-berthing Inspection will also be executed for nominated vessels calling at NSRP Terminals as the first time or extent Notice of Acceptance.</li> <li>➤ Add: Pre-berthing Inspection will be done in the daytime prior to entering NSRP terminal</li> </ul>	
		None	<p>6.11.4 NSRP INFORMS TO ACCEPT OR REJECT THE SHIP</p> <ul style="list-style-type: none"> <li>➤ Add: Operations Division Manager.</li> <li>➤ Add: The Notice to Accept or not accept will be stored on NSRP common folder.</li> </ul>	
	JTY-7.4.1-05	None	<p>4. TERM AND DEFINATION</p> <ul style="list-style-type: none"> <li>➤ Add: <b>“NSRP Vessel Inspection Team:</b> Team to conduct Pre- inspection prior to issue a new / extent Notice of Acceptance. The Team including but not limited:           <ul style="list-style-type: none"> <li>- A Maintenance electrical Engineer</li> <li>- A Firefighting Engineer</li> <li>- A Berth Master”</li> </ul> </li> </ul>	
		None	<p>5.1 SIRE REPORT REVIEW FLOW CHART</p> <ul style="list-style-type: none"> <li>➤ Add: Revised and add information in the flow chart</li> </ul>	
		None	<p>5.2.1 SHIP INFORMATION REGISTRATION</p> <ul style="list-style-type: none"> <li>➤ Add: email for Vetting team and Commercial Team</li> </ul>	



		None	<p>5.2.3 PRE-BERTHING INSPECTION BY NSRP VESSEL INSPECTION TEAM</p> <ul style="list-style-type: none"> <li>➤ Add: Pre-berthing Inspection will also be executed for nominated vessels calling at NSRP Terminals as the first time or extent Notice of Acceptance.</li> <li>➤ Add: Pre-berthing Inspection will be done in the daytime prior to entering NSRP terminal</li> </ul>	
		None	<p>5.2.4 NSRP INFORMS TO ACCEPT OR REJECT THE SHIP</p> <ul style="list-style-type: none"> <li>➤ Add: Operations Division Manager.</li> <li>➤ Add: The Notice to Accept or not accept will be stored on NSRP common folder.</li> </ul>	
	JTY-7.4.1-06	None	<p>2. SCOPE</p> <ul style="list-style-type: none"> <li>➤ Add: NSRP Vessel Inspection Team</li> </ul>	
		None	<p>3. DEFINATION</p> <ul style="list-style-type: none"> <li>➤ Add: “NSRP Vessel Inspection Team: Team to conduct Pre- inspection prior to issue a new / extent Notice of Acceptance. The Team including but not limited:             <ul style="list-style-type: none"> <li>- A Maintenance electrical Engineer</li> <li>- A Firefighting Engineer</li> <li>- A Berth Master</li> </ul> </li> </ul>	To reflect based on:
		9 – 12 month	<p>5.2.1 SIRE INSPECTION REPORT            5.4.2 VALIDITY OF ACCEPTANCE</p> <ul style="list-style-type: none"> <li>➤ Update: Adjust vetting validation time: From 9 -12 months to 6 -9 months.</li> </ul>	Fire at MT. Southern Thriving Incident (IN-2020-504)

		None	<ul style="list-style-type: none"> <li>➤Add: After every 3 consecutive times as maximum of SIRE report, the next vetting inspection will be conducted by Third Party Inspection Company which nominate by NSRP.</li> </ul>	
		None	<b>5.3.1 SHIP VETTING REQUEST</b> <ul style="list-style-type: none"> <li>➤Add: email for Vetting team and Commercial Team</li> </ul>	
		None	<b>5.3.7 PRE-BERTHING INSPECTION</b> <ul style="list-style-type: none"> <li>➤Add: Pre-berthing Inspection will also be executed for nominated vessels calling at NSRP Terminals as the first time or extent Notice of Acceptance.</li> <li>➤Add: Pre-berthing Inspection will be done in the daytime prior to entering NSRP terminal</li> </ul>	
		None	<b>5.2.5 VAPOR RECOVERY</b> <ul style="list-style-type: none"> <li>➤Add: The vessel with the last cargo containing reactive chemicals such asketones, aldehydes, organic acids, or ammonium nitrate are not accepted to enter our terminal.</li> </ul>	To reflect based on: VRU Incident (IN-2020-558 & 566)
		None	<b>ADD 5.2.7 SWITCH LOADING</b>	
		None	<b>ADD 5.2.12 MOORING ROPE</b> <b>ADD 5.2.13 MOONSON SEASON</b>	Mooring Parted Incident (IN-2019-1328 & IN-2020-080)
		None	<b>5.3.8 ISSUE NOTIFICATION</b> <ul style="list-style-type: none"> <li>➤Add: Operations Division Manager.</li> <li>➤Add:The Notice to Accept or not accept will be stored on NSRP common folder.</li> </ul>	

**Chapter-2 Operating Manual**

**Sec-7 Normal Operation Procedure**

**7.4 Normal Operation**

**Contents**

**1. General Procedure**

No		Title	Rev. No:	Date of Rev
1	JTY-7.4.1-01	Terminal Information and Safety Regulation	1	01-Jan-2021
2	JTY-7.4.1-02	Loss Control and Commercial Delivery	1	30-Apr-2018
3	JTY-7.4.1-03	Ship Vetting Procedure for Tankers without SIRE Inspection Report	1	01-Jan-2021
4	JTY-7.4.1-04	Ship Vetting Procedure for Tankers with SIRE Inspection Report	1	01-Jan-2021
5	JTY-7.4.1-05	Ship Vetting Procedure for Dry bulk Carriers & Container Vessels	1	01-Jan-2021
6	JTY-7.4.1-06	NSRP Ship Vetting Policy	1	01-Jan-2021
7	JTY-7.4.1-07	Service Vessel Vetting Procedure	0	1-Nov-16
8	JTY-7.4.1-08	NSRP Access Channel Operating Procedure	1	1-Sep-17

## 2. Arrow Chart

No		Title	Rev.No:	Date of Rev
1	JTY-7.4.2-01	Normal Operation Arrow Chart for Liquid Product loading	0	19-Dec-15
2	JTY-7.4.2-02	Normal Operation Arrow Chart for product unloading	0	19-Dec-15
3	JTY-7.4.2-03	Normal Operation Arrow Chart for PP vessel berthing and Unberthing	0	19-Dec-15
4	JTY-7.4.2-04	Normal Operation Arrow Chart for Sulphur vessel berthing and Unberthing	0	19-Dec-15

## 3. Normal Operation Procedure

No		Title	Rev.No:	Date of Rev
1	JTY-7.4.3-01	Receive Ship Information	0	25-Dec-15
2	JTY-7.4.3-02	Check Loading Facility	0	25-Dec-15
3	JTY-7.4.3-03	Co-ordinate with Port Authorities	0	25-Dec-15
4	JTY-7.4.3-04	Receive NOR from ship	0	25-Dec-15
5	JTY-7.4.3-05	Give access channel clearance	0	25-Dec-15
6	JTY-7.4.3-06	Pre-berthing arrangement for pilot	0	25-Dec-15
7	JTY-7.4.3-07	Pre-berthing arrangement for outsourcing	0	25-Dec-15
8	JTY-7.4.3-08	Check line up from tank farm to Berth	0	25-Dec-15
9	JTY-7.4.3-09	Cargo readiness for loading	0	25-Dec-15
10	JTY-7.4.3-10	Mooring and berthing	0	25-Dec-15
11	JTY-7.4.3-11	Gangway set up	0	25-Dec-15
12	JTY-7.4.3-12	Ship and shore interface management	0	25-Dec-15
13	JTY-7.4.3-13	Loading Arm / VRA connection	1	11-Jun-19
14	JTY-7.4.3-14	Commence cargo loading	0	25-Dec-15
15	JTY-7.4.3-15	1st Foot Sampling	0	25-Dec-15

16	JTY-7.4.3-16	Ship loading monitoring	2	22-Jul-19
17	JTY-7.4.3-17	Complete loading	0	25-Dec-15
18	JTY-7.4.3-18	Loading Arm / VRA disconnection	1	11-Jun-19
19	JTY-7.4.3-19	Ship loading document	0	25-Dec-15
20	JTY-7.4.3-20	Gangway secured	0	25-Dec-15
21	JTY-7.4.3-21	Unmooring and unberthing	0	25-Dec-15
22	JTY-7.4.3-22	Update time and event to logbook	0	25-Dec-15
23	JTY-7.4.3-23	Weather Condition appraisal and monitoring	0	25-May-16
24	JTY-7.4.3-24	Check for Any Demurrage	0	25-May-16
25	JTY-7.4.3-31	Receive Ship Information	0	25-Dec-15
26	JTY-7.4.3-32	Check Unloading Facility	0	25-Dec-15
27	JTY-7.4.3-33	Co-ordinate with Port Authorities	0	25-Dec-15
28	JTY-7.4.3-34	Receive NOR from ship	0	25-Dec-15
29	JTY-7.4.3-35	Give access channel clearance	0	25-Dec-15
30	JTY-7.4.3-36	Pre-berthing arrangement for pilot	0	25-Dec-15
31	JTY-7.4.3-37	Pre-berthing arrangement for outsourcing	0	25-Dec-15
32	JTY-7.4.3-38	Confirmation route from berth to tank	0	25-Dec-15
33	JTY-7.4.3-39	Mooring and berthing	0	25-Dec-15
34	JTY-7.4.3-40	Gangway set up	0	25-Dec-15
35	JTY-7.4.3-41	Ship and shore interface management	0	25-Dec-15
36	JTY-7.4.3-42	Loading arm connection	0	25-Dec-15
37	JTY-7.4.3-43	Cargo sampling	0	25-Dec-15
38	JTY-7.4.3-44	Commence unloading	0	25-Dec-15
39	JTY-7.4.3-45	Ship unloading monitoring	0	25-Dec-15
40	JTY-7.4.3-46	Complete unloading	0	25-Dec-15
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43	JTY-7.4.3-49	Gangway secure	0	25-Dec-15
44	JTY-7.4.3-50	Unmooring and unberthing	0	25-Dec-15
45	JTY-7.4.3-51	Update record	0	25-Dec-15
46	JTY-7.4.3-62	VRU1 Normal Operation	0	30 Apr 18
47	JTY-7.4.3-71	Prepare Jetty fire water pumps-Normal Operation	1	11-Sep-17
48	JTY-7.4.3-72	Start Jetty fire water pump-Normal Operation	0	25-Dec-15

49	JTY-7.4.3-73	Monitor Jetty fire water pumps-Normal Operation	0	25-Dec-15
50	JTY-7.4.3-74	Stop Jetty fire water pumps-Normal Operation	1	11-Sep-17
51	JTY-7.4.3-75	Prepare Jetty fire water pumps for test run	1	11-Sep-17
52	JTY-7.4.3-76	Start Jetty fire water pumps for test run (Startup)	0	25-Dec-15
53	JTY-7.4.3-77	Stop Jetty fire water pumps for test run and resume Jetty Fire Water Pump system	1	11-Sep-17
54	JTY-7.4.3-78	Loading Diesel to 170-P-003A/B/C	0	12-Sep-17
55	JTY-7.4.3-80	Line Sampling Procedure	0	18-Aug-16
56	JTY-7.4.3-81	Water draining from Jet fuel filter	0	22-Aug-16
57	JTY-7.4.3-82	Water draining and Cleaning for mesh strainer of Jet A1 CFMS	0	30-Aug-16



**JTY-7.4.1-01**

# **NSRP TERMINAL INFORMATION AND SAFETY REGULATION**

**Section 6- Operations Division**

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## CHAPTER 0: INTRODUCTION

This 'Terminal Information and Safety Regulation' booklet supplements the Operation Manual of Terminal of Nghi Son Refinery & Petrochemical Limited Liability Company (herein after known as 'NSRP').

This document is produced in an effort to provide a reference tool to meet the information needs of users of the NSRP Port Area (herein after known as 'Port') such as Thanh Hoa Port Authority, ship Masters, agents and shore staffs.

This document is not intended to replace any of the official regulation and publication of certain information, including information about the Maritime Safety Regulations, but is provided solely as a courtesy.

The term 'Users' includes (but not limited to) a ship calling or intending to call at the Port, the ship owners, the operators, the charterers (including sub-charterers of such a ship) who has entered into a separate contract with NSRP.

The Users shall independently verify any such information and may not rely on the Terminal Operators to provide such information. The information contained herein may be reviewed periodically by the Terminal Operators as required.

## CHAPTER 01: GENERAL TERMS

### 1. GENERAL TERMS

Port shall ensure that substructures, superstructures, and facilities are safe and suitable for vessels permitted or invited to use them. All facilities, substructures, superstructures, and assistance provided by Terminal when used will be subjected to the following conditions:

- Port shall not be responsible for damage caused due to rendering of any assistance while berthing at and/or un-berthing from vessel at Jetty and SPM. The Master shall at all times remain solely responsible for the safe navigation of his vessel. Port shall not be held responsible for any loss, damage or delay with vessel, and her cargo caused by bad weather, delay due to any act, neglect, omission by any servant/agent or damage of substructures, facilities of terminal.
- The owner of a vessel at berth, use of any part of the premises, of any gear or equipment provided by Port shall be liable for and shall indemnify from damage of this property or delay due to any neglect, omission by any servant/agent.
- Port shall not be responsible for any complain from any third party that caused by vessel or agents.
- Port shall not be responsible for any loss, damage, or delay, directly or indirectly caused by, or arising from strikes, lockout, or labours disputes whether or not by Port.
- If any vessel sinks, grounds or otherwise become in the opinion of Port an obstruction or danger in any part of the port, access channel or the approaches thereto, and the Owner of the vessel fails to remove the obstruction or danger, Port shall remove the obstruction and any expenses of such removal shall be recoverable from the Owner of the vessel causing the danger or obstruction.
- The Master is responsible to navigate the vessel to designated berth found to be suitable for loading cargo by Berth Master and his superiors' instruction in addition to the observance of the Port's Regulations as printed herewith, Master should note the By-laws of the port authority. He should familiarize himself with these By-laws and must ensure that both By-laws and Port Regulations are brought to the attention of crewmembers and their provisions strictly observed.
- All the ship berthing at the Port must comply with dispatching orders from the Port.
- If for any reason whatsoever, NSRP Terminal requires the ship to depart from Jetty/ SPM immediately, the Master or the person in charge of the ship shall give his/her full co-operation in the execution of the said order.

- Users are responsible for any damage, loss or destruction to any property of any kind or character owned by NSRP Terminal and shall hold accountabilities for and charged with the cost and expense of the replacement or repair of the property so damaged or destroyed.

## 2. DEFINITIONS AND INTERPRETATIONS

- Terminal Facilities: includes (Jetty, SPM, and subsea pipeline facilities)
- NSRP terminal means the storage, Jetty and SPM facilities owned, operated and/or managed by Nghi Son Refinery & Petrochemical LLC, located at Nghi Son – Thanh Hoa Province Vietnam.
- Terminal Representative: Berth Master or his superior
- SPM: Single Point Mooring where the crude oil tanker comes for berthing and cargo operation.
- Jetty: means the berths and mooring facilities at NSRP Terminal.
- Jetty Controller: Included Berth Master or his superior, Field Operators, lead operator, Panel operator who are in charge of jetty controlling.
- Pipeline facilities: means the interconnecting pipelines, facilities, and equipment (including the pipelines, pumps, pressure devices, pipe connection, loading arm, valves and related equipment, instruments and infrastructure) at NSRP terminal
- Berth Master: The NSRP appointed and authorized person that is responsible for Terminal facilities and operation.
- Mooring team: A team of workers engaged with the terminal responsible for handling mooring and unmooring of seagoing vessels at Jetty and SPM.
- Operations: The loading/unloading and transfer of petroleum and chemicals, ballasting/de-ballasting, bunkering, tank cleaning and gas freeing and any other activities normally associated with handling petroleum cargoes.
- Port Authority: Refers to the Thanh Hoa Maritime Administration.
- Vessel: Any ship or craft or other floating navigable object.
- Tanker: A vessel designed to carry crude oil and/or petroleum product and/or chemical and/or LPG in bulk, including a combination carrier when being used for this purpose.

- Small craft: Vessel not over 100 gross registered tons (GRT) such as any agent/crew ferry boats, lighter boats, barge, tugboats, mooring boats and other than those operated by Thanh Hoa Port Authority for tanker operations.
- Naked lights: Open flames and fires, exposed incandescent material, lamps and electrical equipment of a non-approved pattern of any other unconfined source of ignition.

### 3. ABBREVIATIONS AND TERMINOLOGY

- ISGOTT: International Safety Guide for Oil Tankers and Terminals (Fifth Edition). It is the standard and basis reference for some procedures developed at NSRP
- NSRP: Nghi Son Refinery & Petrochemical LLC
- SPM: Single Point Mooring (For the Terminal Crude Oil Unloading)
- API: American Petroleum Institute
- B/L: Bill of Lading (Document issued by the cargo supplier stating the quantity of material delivered to the vessel).
- OCIMF: Oil Companies International Marine Forum
- VIQ: Vessel Inspection Questionnaire
- SOLAS: Safety of life at sea
- THMA: Thanh Hoa Marine Administration
- ETA: Estimated Time of Arrival
- ETD: Estimated Time of Departure
- LOA: Length Overall (Length of a vessel taken over all extremities)
- LOP: Letter of Protest
- MLA: Marine Loading Arm
- BM: Berth Master of NSRP Terminal.
- VHF/UHF: Very High Frequency/Ultra High Frequency
- PPE: Personal Protective Equipment
- MBL: Minimum Breaking Load
- CD: Chart Datum

#### 4. REFERENCE DOCUMENT

- OCIMF: Mooring Equipment Guidelines (Second Edition 1997)
- MARPOL: International Convention for the Prevention of Pollution from Ships 1973 as modified by the protocol of 1978.
- SOLAS: International Convention for Safety of Life at Sea 1974 and its protocol of 1988.
- VIQ: Vessel Inspection Questionnaires.
- SIRE: Ship Inspection Report Programme.
- OCIMF edition – Port and terminal regulations



## CHAPTER 2: TERMINAL INFORMATION

### 1. IMPORTANT PHONE NUMBER & VHF CHANNEL

#### 1.1.NSRP LLC TERMINAL

- Name of Terminal: Nghi Son Refinery & Petrochemical Limited Liability Company Terminal (NSRP Terminal)
- Address: Nghi Son –Tỉnh Gia- Thanh Hoa Province- Vietnam
- Tel/Fax: +84(0)237 873 8540, Ext: 6211/ +84(0)237 873 8540
- VHF: 17
- Website: www.nsrp.vn

#### 1.2. PORT AUTHORITY

- Name of Port Authority: Maritime Administration of Thanh Hoa (THMA)
- Address: Le Loi Avenue, Dong Huong Ward, Thanh Hoa City, Thanh Hoa Province
- Tel: +84(0)237 3722265/ +84(0)912 439 167
- Fax: +84(0)237 3722 264
- Email: [cangvu.tha@vinamarine.gov.vn](mailto:cangvu.tha@vinamarine.gov.vn)
- Website: <http://cangvuhhthanhhoa.com.vn>

#### Nghi Son Office:

- Address: Hai Yen Ward, Tinh Gia District, Thanh Hoa Province
- Tel: +84 (0) 2373 862 289
- Fax: +84 (0) 2373 862 291
- VHF: 14/16
- Email: [cangvunghison@gmail.com](mailto:cangvunghison@gmail.com)

#### 1.3.PILOT INFORMATION

- Name: The Sixth Zone Maritime Pilotage Single- Member Limited Liability Company (PILOTCO VI)
- Address: 41 Dinh Le- Hung Phuc Ward, Vinh city - Nghe An
- Tel: +84 (0) 238. 352 2305 – (0)238. 352 0310- (0)238.3.520309
- Fax: +84 (0) 238.3.520 311
- VHF: 09
- Website: NA

## 1.4. EMERGENCY CONTACT LIST

- Thanh Hoa Hospital
  - Address: 181 Hai Thuong Lan Ong –Thanh Hoa city
  - Tel: +84 (0) 237.3951 467
  - Fax: +84 (0) 237 3950 325
- Hop Luc International Hospital
  - Address: Nguyen Binh, Tinh Gia District, Thanh Hoa
  - Tel: +84 (0) 237 2221 115. Or 19009012
- Medical Assistances contact: VHF 17 / Tinh Gia Hospital: +84 (0) 237 3861 093
- Firefighting contact: VHF 17 / FF Police: +84 (0) 237 3917 308
- NSRP emergency contact: VHF 17 / Section 6 Manager: 0901 785 369
- Oil spill contact: VHF 17 / Section 6 Manager: 0901 785 369

When within range of VHF communication, vessel can communicate to the Port on VHF channel 17. All communication to the Port is in English and Vietnamese language.

## 2. NSRP TERMINAL DESCRIPTION

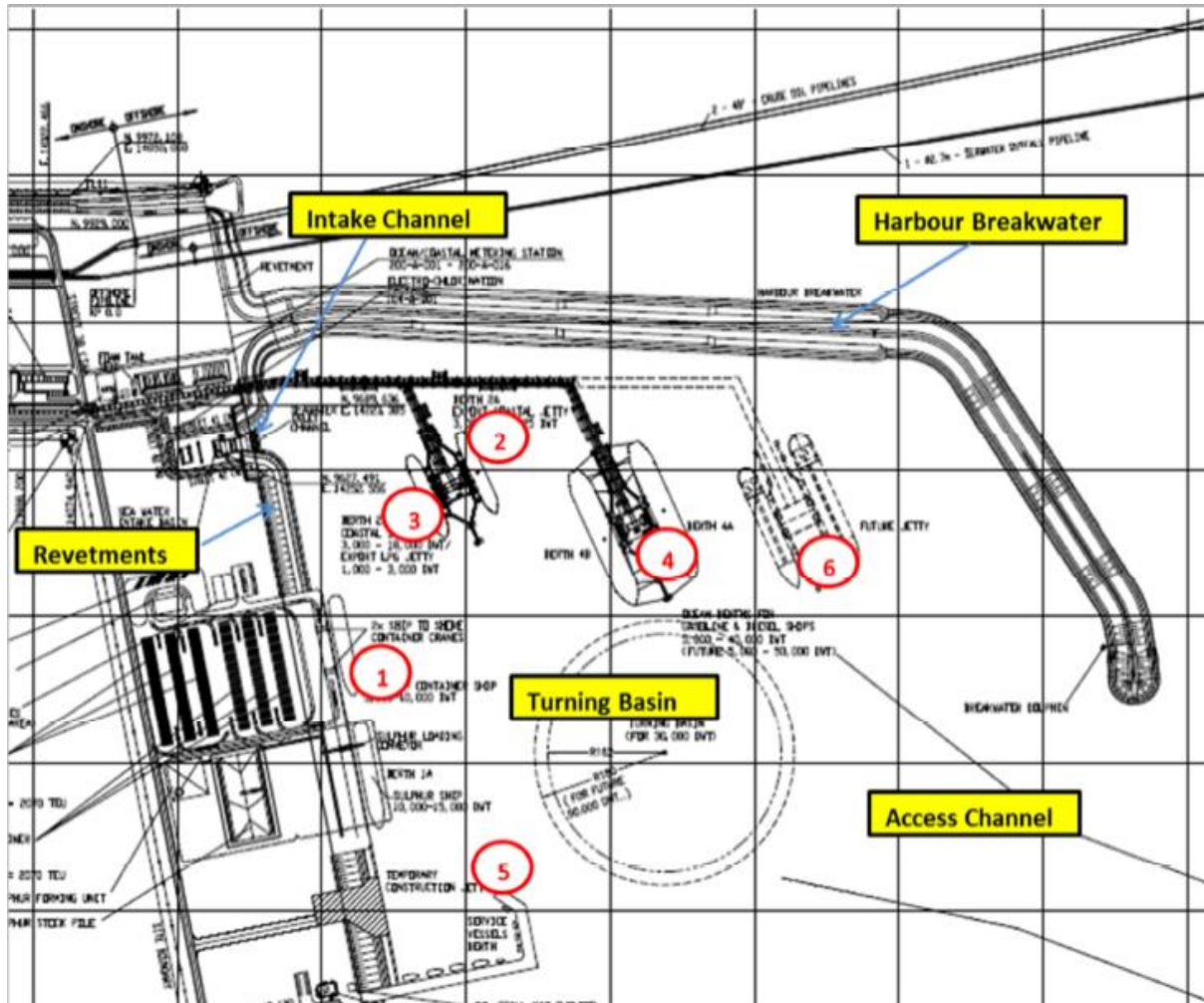
### 2.1.EXPORT PRODUCT JETTY

The Nghi Son Refinery & Petrochemical Jetty area is located approximately at geographical coordinate N19° 22' 00", E 105° 47' 40". The Jetty provides 6 product berths in the Jetty. The berths shall be capable of exporting liquid bulk products and solid products for container transfer. Four liquid berths are located at jetties with loading platforms and two solid berths are located at the quay structure. These berths shall be provided with all facilities and installations for safe and reliable operations at the required capacity. The berths shall be suitable for a range of vessels from 1.000 DWT up to 40.000 DWT. Handling of specific products is designated at specific berths.

### 2.2.JETTY FACILITIES

Name of Jetty:	Nghi Son Refinery & Petrochemical Port
Owner:	Nghi Son Refinery & Petrochemical Limited Liability Company
Location:	Nghi Son Economic Zone - Tinh Gia – Thanh Hoa Province, Vietnam
Jetty type:	Fender
Type of bottom:	Mud and sand
Jetty operator:	Nghi Son Refinery & Petrochemical Limited Liability Company

## 2.3. JETTY LAYOUT



Legend:

- ① Berth 1A and 1B
- ② Berth 2A
- ③ Berth 2B/(3)
- ④ Berth 4A and 4B
- ⑤ Service vessel berth
- ⑥ Future berth (up to 50.000DWT)

### 2.3.1. LIQUID AND SOLID BERTHS INCLUDING TRESTLES

- Berth 1A: This berth is dedicated for the transfer of dry bulk solid sulphur.
- Berth 1B: This berth is dedicated for the transfer of containerized solid polypropylene.
- Berth 2A and 2B/3: These berths are capable of accommodating vessels for transfer of below products:

- Gasoline, jet fuel, fuel oil, diesel, paraxylene and benzene (No. 2A).
- Gasoline, jet fuel, fuel oil, diesel, paraxylene, benzene and LPG/Propylene (No. 2B/3).
- Berth 4A and 4B: These berths are capable of accommodating vessels for transfer of the products: Crude Oil, Gasoline, and diesel.
  - Gasoline, diesel, and crude oil (No. 4A).
  - Gasoline, diesel (No. 4B).
- Service berth: this berth is designated for service boats such as: tugboats, mooring boats, diving boats, mooring boats and oil spill response boats.

### 2.3.2. Berth information

General Information	Berth 1A	Berth 1B	Berth 2A	Berth 2B Berth 3	Berth 4A	Berth 4B
Berth position	N19° 22' 00", E 105° 47' 40					
Berth length (m)	166	192	170	170	222	222
Max height L.A flange of water						
Min height L.A flange of water						

### 2.3.3. Design vessel

Berth No	Max design vessel				Min design vessel			
	DWT max (MT)	Disp. max (MT)	LOA max (m)	Draft max (m)	DWT min (MT)	Disp. min (MT)	LOA min (m)	Draft min (m)
1A	15000	19100	145	8.4	10000	13000	129	7.5
1B	10000	14300	134	7.7	5000	7400	103	6.2
2A/B/3	12825	16780	132.5	8.8	3000	4140	83	5.3
4A/4B	40000	48984	176	11.1	5000	6740	97	6.1

## 2.4. ACCESS CHANNEL, TURNING BASIN AND BERTH LIMITATION

### 2.4.1. Access Channel:

Access channel length	Approximately 6775 m
Chanel width	4.8*Beam (120m- 150m), R = 1215m
Access Chanel depth	CD-1.2* Loaded Draft (-13.8m)
Overall depth	1.0 m

**2.4.2. Turning Basin:**

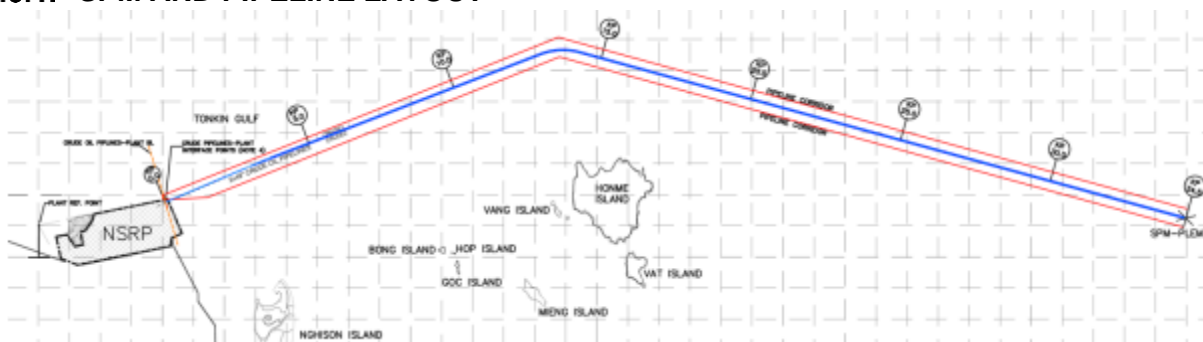
Turning basin Depth	CD-1.1* Loaded Draft (-12.8m)
Over depth	0.5 m
Turning Basin Diameter	1.8 * LOA (40,000 DWT) =324 m

**2.4.3. Berthing Limitation:**

Maximum speed of berthing	0.2 m/s
Maximum angle alongside	10°
Maximum wind speed	12.5 m/s
Maximum wave height	2.0 m
Maximum Swell height	1.2 m

**2.5. SINGLE POINT MOORING (FOR TERMINAL CRUDE OIL IMPORT)**

**2.5.1. SPM AND PIPELINE LAYOUT**



**2.5.2. SPM INFORMATION**

Location (N/E) (VN2000 System Coordination)	N19° 21' 59.48", E 106° 05'57.57" (2,141,751 N / 615,454 E)
Max DWT	320,000 MT
Max LOA	333 m
Max Draft	20.5 m
Max Beam	60 m
Maximum loading rate	13750 m <sup>3</sup> /h
Maximum operation pressure	19.6 bars
Crude oil temperature	10-50°C
Maximum current speed @ surface	1.2 m/s
Maximum wave height	2.5 m
Maximum wind speed	12 m/s

### 3. SERVICE VESSELS

NSRP shall take responsibility for arranging the scheduling and deployment of service vessels for berthing and un-berthing. Service vessels are available at Service Vessel Berth.

#### 3.1. TUGBOAT

##### 3.1.1. For JETTY:

The use of tugboat is compulsory during berthing/un-berthing of tankers/ships calling to the Port.

All berthing/un-berthing activities at Jetty must be assisted by at least two tugboats.

The following regulations pertaining to the tugboat assistance during berthing/un-berthing of tankers/ships as set out by Port Authority must be adhered to:

- Vessel with Length of Overall (LOA) of 80m to less than 115m; shall be assisted by at least one tugboat of minimum capacity of 1.000 HP.
- Vessel with LOA of 115m to less than 145m: shall be assisted by at least two Tugboats with total capacity 3.000 HP, of which one with the minimum capacity is 1.500 HP.
- Vessel with LOA of 145m to less than 175m: shall be assisted by at least two Tugboats with total capacity 4.100 HP, of which one with the minimum capacity is 1.500 HP
- Vessel with LOA of 175m and over: shall be assisted by at least two Tugboats with total capacity 5.200 HP, of which one with the minimum capacity is 2.600 HP.

##### 3.1.2. For SPM:

- All tankers/ships berthing/ unberthing at SPM shall be assisted at least one multi-purpose tugboat with engine capacity at least 4.000HP.

##### 3.1.3. TUGBOAT RESPONSIBILITIES

- All crew members of tugboats are certified and competent seafarers.
- Main and auxiliary engines of all tugboats are always in good conditions and ready for service.
- Capstans, towing wires and equipment on all the tugboats are in good order and good conditions.
- Emergency plans and rescue apparatus to cater for emergency and accident must be in good conditions.
- Tugboats are always ready on VHF for information update.

### 3.2. MOORING BOATS/ MOORING TEAM

- NSRP Terminal utilize mooring boats to support vessels for safe mooring and unmooring at NSRP's berths. Mooring boats are always available at Service berth.
- Mooring operations are carried out by marine operators (during berthing, un-berthing and emergency cases).
- They are managed by NSRP Terminal and arrangement can be made 24/7.

## 4. ENVIRONMENT INFORMATION

Refer to Notice to Mariner or sailing direction (NP30 China sea pilot - volume I)

## 5. CUSTOMS, BORDER GUARD AND QUARANTINE HEALTH OFFICER

The boarding party of Customs, Border Guard and Quarantine Health Officer would embark and disembark the vessels for their official practice according to Vietnamese law and Thanh Hoa Sea Port Regulation.

Vessel owners, operators, charterers, or ship agent are responsible for updating the information for such activities.

## 6. LIMIT CONDITION FOR OPERATION

### 6.1. WIND RESTRICTIONS

#### 6.1.1. JETTY

- No berthing operation: No berthing activities shall be carried out when the wind speed exceeds 12.5 m/s or whenever the wind speed has been officially forecasted to exceed 20 m/s.
- Cargo operations stop at: Operation shall be stopped and Loading arms /and vapour recovery arms drained empty when wind speed reaches 18 m/s for all vessels alongside the Jetty and additional mooring lines to be put out as necessary.
- MLA/Ship Loader disconnection: Loading Arm and Ship Loader shall be disconnected when wind speed exceeds 18.5 m/s.
- If the weather forecast is bad and wind above 18.5 m/s is expected loading arm/ vapour recovery arm/ conveyor should be disconnected.
- Vessel un-berthing at: above 20 m/s there is risk that the vessel's mooring will not hold the vessel in position. The vessel should then be ready for sailing or wait terminal's instruction or pilot. Tugs should be called for standby if necessary, as evaluated by the vessel's Master and pilot.

#### 6.1.2. SPM

- No mooring operation: No mooring activities shall be carried out when the wind speed exceeds or whenever the wind speed has been officially forecasted to exceed 12 m/s

- Cargo operations stop at: Cargo operation shall be stopped, floating hoses disconnection and vessel is unmoored from SPM when wind speed reaches or is foreseen to reach 12 m/s

## 6.2. WAVE RESTRICTION

### 6.2.1. JETTY

- No berthing operation when the wave height is higher than 2.0m or wave swell higher than 1.2m

### 6.2.2. SPM

- No mooring operation when the wave height is higher than 2.5 m
- Cargo operation shall be stopped, and the vessel is unmoored when the wave height is exceeding or is foreseen to exceed higher than 2.5 m

## 6.3. CURRENT RESTRICTION

### 6.3.1. JETTY

- No applicable

### 6.3.2. SPM

- No mooring operation when the current at the surface is higher than 1.2 m/s
- Cargo operation shall be stopped, and the vessel is unmoored when the current is exceeding or is foreseen to exceed higher than 1.2 m/s

## 7. ANCHORAGE AND PILOTAGE

### 7.1. ANCHORAGE AND PILOT STATION

For JETTY: The centre of circle of Anchorage area and Pilotage water has the following position:

- Latitude: 19°19'12" N
- Longitude: 105°52'12" E
- With the Radius is 01 nautical mile.

For SPM: The centre of circle of Anchorage area and Pilotage water has the following position:

- Latitude : 19°18'49,2" N
- Longitude: 106°07'02,6" E
- With the Radius is 01 nautical mile.



## 7.2.PILOT REGULATION AND WORKING TIME

Referring to the Decree 173/2007/NĐ-CP 28/11/2007, pilot service is compulsory for all vessels entering or leaving NSRP Terminal.

Tankers/ships are permitted to berth/un-berth at Jetty 24/7 and at SPM from 06:00 hours to 16:00 hours

Pilot embarkation on board a vessel does not imply that the responsibility of Master of vessel has been relieved or ceased in any manner as the responsibility for safe maneuvering of the vessel during the approach always lies on Master of vessel. The duty of a pilot is limited to advising Master whilst vessel is underway to approach the Jetty.

## 7.3.PILOT BOARDING

Pilots will board from a fast launches boat marked 'Pilots'. The launches boat is equipped with VHF Radio with standby VHF channel 09 call sign 'Nghị Sơn Pilot'.

Outbound ships should advise the pilot at least one hour prior to departure. Vessel leaving the jetty shall advise the Pilot Station at least one hour before departure. Master's Report given by inward Pilot to the Master during berthing shall be returned to the outward Pilot. The outward Pilot shall not un-berth the vessel until the Immigration Clearance Certificate is presented.

## CHAPTER 3: COMMUNICATIONS

### 1. PRE-ARRIVAL COMMUNICATION

#### 1.1. ESTIMATED TIME OF ARRIVAL (ETA) ADVICE

The Ship's Agent shall advise/update Thanh Hoa Marine Administration and NSRP Terminal at least 72 hours prior to ship arrival on the following information:

- Vessel name, previous name (if any), call sign, flag.
- ETA (P/S) date and local time (GMT + 7).
- Master's name/Nationality.
- GT, NT, SDWT and Light Displacement Tonnage.
- Last port of call.
- Next port of call.
- The Number of Crew and Nationality.
- Number of passengers (if any).
- Grade and quantity of cargo on arrival or previous cargo and cargo to be loaded at NSRP Terminal and max loading/discharging rate.
- Whether previous cargo or any cargo on board has high H<sub>2</sub>S content and H<sub>2</sub>S concentration in tank vapour spaces.
- Arrival draft (Fwd/Aft).
- Estimated Departure Draft (Fwd/Aft).
- Any leaks which would cause pollution or affect loading/discharging.
- Pratique granted (Place/Date). If any sickness on board or clean Bill of health.
- Ship owner or Charterers.
- Confirm inert gas system operational and all cargo tanks are inerted on arrival.
- Length of overall, breadth and the distance from bow to the centre of manifold.
- Confirm manifold arrangements comply with OCIMF standard for oil vessel manifold standard and associated equipment.
- Is vessel fitted with segregated ballast tank?
- For crude oil vessel it must be confirm that bow-mooring equipment is available.

The ETA should be confirmed at least 02 hours prior to arrival at Nghi Son pilot station.

## 1.2. PRE-BERTHING QUESTIONNAIRE (PBQ)

This questionnaire must be completed within 72 hours prior to the ship's arrival. Ship's agent shall fax or email to Section 6, NSRP's Terminal Operation - Vetting Team at the following email addresses:

- Email: BM@nsrp.com.vn
- Email: vettingteam@nsrp.com.vn

## 2. SHIP SHORE COMMUNICATION – ON ARRIVAL

Communications for ship/shore operations shall be via VHF radio communication.

Call Sign: NSRP Terminal.

Identification of ship name should always be included in ship to shore voice communications to avoid misunderstandings.

## 3. COMMUNICATION WHILE BERTHING AND MOORING

### 3.1. BERTHING AT JETTY

- On arrival at the berth, ashore portable VHF transceiver should be given to the ship during loading or discharging. This VHF transceiver will be the primary communication link between the vessel and the Jetty Controller or Terminal Representative.
- Primary: Communication between ship/shore will be via VHF nominated channel.
- Secondary: Communication will be communicated verbally with Berth Master and Shift Supervisor.
- Emergency: NSRP Terminal's JCB (Jetty Control Building) telephone line at: (0237.873.8540, Ext: 6211 as a back-up in case of shore VHF communication breaks down.

### 3.2. MOORING AT SPM

- Primary: Communication between ship and concern parties will be via VHF nominated channel by Berth Master.
- Secondary: Communication will be communicated verbally with Berth Master and SPM team.
- Emergency: NSRP Terminal's JCB (Jetty Control Building) telephone line at: 0237.873.8540, Ext: 6211 as a back-up in case of shore VHF communication breaks down.

#### 4. SHIP/SHORE CHECKLIST AND OPERATION AGREEMENT

On arrival at the berth, the Berth Master will present each vessel with a copy of the above document folders. The various forms, information and procedures laid out in the document formalise the conduct and procedures governing ship/shore operations at the Jetty and SPM, which are to be mutually agreed before operations commence. This document is made up from:

- Terminal regulation and safety information
- Emergency Procedure Notice
- Ship Shore Safety Checklist
- Floating hoses/Loading arms and Pipeline declaration.
- Loading and Discharging Plans.
- Ship/shore pollution Prevention checklist
- Declaration of Security

All the agreed documents remain in force throughout the ship remained alongside the Jetty. Any changes made to these agreements during the course of the cargo operations shall be again established in writing.

All items contained in the ship shore checklist must remain constantly under review however, the ship and shore, must jointly recheck those items requiring formal recheck at agreed intervals. Rechecking should be indicated in the appropriate box by additional ticks. The personnel carrying out the checks should then sign and note the date and time in the appropriate boxes. The maximum period between joint ship and shore rechecking should be not more than 4 hours.

#### 5. SHIP AND SHORE COMMUNICATION DURING CARGO OPERATIONS

Good communications between ship and shore is an integral part of a successful operations. However, during cargo operations, if for any reason it becomes necessary to stop cargo due to an emergency, the Jetty Panel Operator/ Terminal representative should be immediately notified by VHF radio or Walkie-Talkie (name of ship) – STOP- STOP- STOP.

Likewise, ship's personnel on deck can raise the alarm to shore personnel who can activate the Jetty emergency stops.

At this time all pumps must be stopped, and manifolds closed until the situation is investigated fully and agreement is made between the Master and Berth Master to resume operations.



At times when ship tanks are to be filled at a ship stop, the Ship Officer will offer a countdown as agreed between the Terminal Representative and Ship's Officer in pre-loading discussions. Generally, this would be 30 minutes, 15 minutes, 5 minutes, 2 minutes, and then STOP.

## CHAPTER 4: SAFETY REQUIREMENT

All Ships call at NSRP Port, in addition to the Vietnam's Regulations, NSRP's regulations and procedures, shall also in compliance to the International's Regulations such as:

- International Convention for the Safety of Life at Sea (SOLAS)
- International Convention for the Prevention of Pollution from Ships (MARPOL)
- International Ship & Port Facility Security Code (ISPS Code)
- Protection and indemnity insurance (P&I)
- International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGC Code)
- Oil Companies International Marine Forum (OCIMF) – Sire Report Programme
- The Ship's documents are full, suitable, and available on tanker.
- Vessel must be vetted successfully by Oil Major or by nominated inspector.
- International Safety Guidelines for Oil Tankers and Terminals (ISGOTT)

NSRP Terminal reserve the right to suspend operations and require the removal of any vessel from terminal for flagrant or continued disregard of statutory and Terminal Regulations.

Defects in tankers/ships, equipment, manning, or operations which in the reasonable opinion of the terminal present a hazard to the terminal's operations.

Responsibility for the safe conduct of operations whilst a ship is at this terminal rests jointly with the Master of the ship, and the responsible terminal representative. (Terminal Shift Supervisor or Berth Master). Therefore, before operations start, it is important that full co-operations and understanding between ship and shore for the safety requirements set out in the **Ship/Shore Safety Check List**, which are based on safe practices widely accepted by the oil and tanker industries.

The Master is expected to adhere strictly to these requirements throughout the stay alongside this terminal and NSRP personnel will do likewise and co-operate fully with the ship in the mutual interest of safe and efficient operations.

Before the start of operations, and from time to time thereafter, for our mutual safety, the Berth Master with a responsible Ship's Officers will make a routine inspection of the ship to ensure that the questions on the Ship/Shore Safety Check List can be firmly answered.



Where corrective action is needed, the terminal may cease operations or should they have been started, may require them to be stopped.

Similarly, if the ship's Master considers safety is violated by any action on the part of NSRP Terminal engaged staff or by any equipment under NSRP Terminal control, the Master should demand immediate cessation of operations until the situation is rectified.

Repeated checks of those items marked in the Ship Shore Safety Checklist must be carried out by both ship and shore personnel at the agreed intervals noted in the agreement.

## CHAPTER 5: FIRE AND EMERGENCY PROCEDURE

### 1. ALARM SIGNAL

The NSRP Terminal's alarm signal for a fire or other emergencies on terminal is a continuous pitch note on the electric sirens; while the evacuation signal is a variable pitch note on the electric siren for a duration of 2 minutes.

### 2. SHIP'S ACTION

When the fire or evacuation alarm is sounded, ship should stand by for possible stoppage of operations. Ship personnel must not initiate any action on their own concerning shutdown of valves etc. Unless the fire is on board their ship or directly endangering the ship; she must await instructions from shore before taking action regarding cargo operation.

Ship's Master will be advised by the Berth Master or Shift Supervisor regarding the movement of their ship. No attempt should be made to unmoor and leave the Jetty without instructions from any one of them.

### 3. COMMUNICATIONS

Upon hearing the fire or evacuation alarm, the Ship's Master or Officer should liaise with the Berth Master for further information and action.

### 4. SHIP CREWMEMBERS

Ship's personnel who went ashore on NSRP Terminal should make their best endeavour to return to their ships on hearing the alarm signal and remain on board until "all clear" signal has been declared.

### 5. MAN OVERBOARD

In the event of a person falls into the sea, The Shift Supervisor must be immediately informed, and he will in turn alert Berth Master. Berth Master will dispatch all available boats to the scene to assist in the search and rescue operations.

Life buoy with attached line is available on the Jetty. They should be deployed as soon as possible.

### 6. FIREFIGHTING EQUIPMENT ON THE JETTY

For the firefighting purpose, each berth is equipped with:

- Remote controlled water/ foam monitors
- Water monitor with hose connection on the Jetty decks
- A number of portable fire extinguishers and hoses
- An International Shore Connection for ship/shore fire connection



**7. FIREFIGHTING VESSEL AT SPM:**

Firefighting vessels shall on stand-by 24/7 at SPM when SPM is in operations.

**8. INSTRUCTION IN CASE OF FIRE AND EMERGENCY**

IN CASE OF FIRE AND EMERGENCY DON'T HESITATE TO RAISE THE ALARM IN THE EVENT OF THE FOLLOWING OCCUR:

- FIRE
- EXPLOSION
- OIL SPILL
- ESCAPE OR TOXIC and/or FLAMMABLE GASES & LIQUIDS

**8.1. RAISE THE ALARM**

Sound one or more blasts of the ship's whistle with each blast of not less than 10 seconds duration, supplemented by a continuous sound of the general alarm system.

**8.2. CONTACT THE JETTY**

Emergency contact: VHF CH 17

VHF communication channel: **Nghi Son Port Authority VHF Channel 17**

ACTION-SHIP	ACTION-BERTH
Emergency on your ship	Emergency on a ship
<ul style="list-style-type: none"> <li>▪ Raise the alarm</li> </ul>	<ul style="list-style-type: none"> <li>▪ Raise the alarm</li> </ul>
<ul style="list-style-type: none"> <li>▪ Cease all cargo/ballast operations and close all valves</li> </ul>	<ul style="list-style-type: none"> <li>▪ Contact ship</li> </ul>
<ul style="list-style-type: none"> <li>▪ Inform to Jetty personnel</li> </ul>	<ul style="list-style-type: none"> <li>▪ Cease all cargo/ballast operations and close all valves</li> </ul>
<ul style="list-style-type: none"> <li>▪ In case of fire, fight fire and prevent from spreading</li> </ul>	<ul style="list-style-type: none"> <li>▪ Stand by to disconnect hoses or loading arms or <b>ERC activated</b></li> </ul>
<ul style="list-style-type: none"> <li>▪ Stand by to disconnect hoses or loading arms</li> </ul>	<ul style="list-style-type: none"> <li>▪ If necessary, stand by to assist fire fighting</li> </ul>
<ul style="list-style-type: none"> <li>▪ Bring engines to standby</li> </ul>	<ul style="list-style-type: none"> <li>▪ Inform all ships in the vicinity</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Implement berth emergency plan</li> </ul>
EMERGENCY ON ANOTHER SHIP	EMERGENCY ASHORE
Stand by, and when instructed:	<ul style="list-style-type: none"> <li>▪ Raise alarm</li> </ul>
<ul style="list-style-type: none"> <li>▪ Cease all cargo/ballast operations and close all valves</li> </ul>	<ul style="list-style-type: none"> <li>▪ Cease all cargo/ballast operations and close all valves</li> </ul>
<ul style="list-style-type: none"> <li>▪ Disconnect hoses or loading arms</li> </ul>	<ul style="list-style-type: none"> <li>▪ In case of fire, fight fire and prevent it from spreading</li> </ul>
<ul style="list-style-type: none"> <li>▪ Bring engines and crew to standby, ready to un-berth</li> </ul>	<ul style="list-style-type: none"> <li>▪ If required, stand by to disconnect hoses or loading arms or <b>ERC activated</b></li> </ul>
	<ul style="list-style-type: none"> <li>▪ Implement berth emergency plan</li> </ul>

## CHAPTER 6: WARNINGS

### 1. SMOKING

Smoking is strictly prohibited in the Jetty area and on-board vessels alongside except in those spaces on board specifically designated by the Ship's Master and Berth Master as 'Smoking Area'. Failure to comply with this regulation can result in cessation of operations or vessel vacating the Jetty pending a complete investigation and receipt of written assurance from the Ship's Master that effective controls have been established.

NSRP Terminal reserves the right, to prohibit smoking, at any time, in any place on board a vessel and adjacent to the Jetty area. Smoking is also prohibited in any place within the Terminal and Jetty areas, except designated areas as directed.

### 2. ALCOHOL AND DRUG

Ship's Master is advised that operations will cease, when a person or persons involved in operations whose actions are not under proper control as a result of the use of alcohol/drugs and or fatigue.

If it is suspected that use of drugs and/or alcohol may affect safety at the terminal, operations will cease until the matter has been reported to and fully investigated by relevant authorities. Operations will not resume until the company considers it is safe to do so and delay or cancellation in a vessel's departure could result and will be for the account of the vessel.

Any personnel suspected of being affected by alcohol/drugs shall be prohibited from entering Jetty restricted areas.

### 3. ENVIRONMENT PROTECTION

The Master of a vessel berthed at NSRP Terminal must comply with the requirements of MARPOL and:

- Not allow or permit of any kind of oil to be discharged from the vessel or its scuppers into open waters.
- Not allow or permit a person to pump or discharge any oil, spirit or any flammable liquid into open waters.
- Not allow the vessel to emit excessive funnel smoke

Spillages and vapour release will be investigated by the appropriate authorities and, apart from the Master and/or Owners of the vessel being charged with the cost of cleaning up any spill or in dealing with a vapour release emanating from the vessel and the sequences thereof, the Master and/or Owner may be liable to prosecution and delay to the vessel could

well arise. Master is thereof required to ensure that every precaution is taken to prevent spillages and vapour releases at NSRP Port.

Masters are advised they will be charged full costs for any clean-up operations incurred.

The Berth Master may instruct offending vessels to vacate the berth or prohibit them from returning to NSRP Terminal.

#### **4. ELECTRICAL EQUIPMENT INCLUDING CAMERA AND MOBILE PHONE**

Only approved intrinsically safe or EX rated electrical equipment can be used at the Jetty within the hazardous zone around the ship.

Portable computers, mobile phones, pagers and cameras must be switched off and may only be used in or on:

- Areas on the shore as nominated by the Berth Master.
- Areas on the ship nominated by the Ship's Master.

Note: In special circumstances certain types of cameras may be used with the approval of the Master and Berth Master; however, before this approval is given a permit for the use of the camera must be obtained from a certified hot work permit officer.

Use or possession of these devices in other than the areas stated above will be considered as a serious breach of the safety rules.

No attempt shall be made to change a battery for mobile phone, pager, and UHF/VHF radio unless it is inside the vessel's accommodation or a permanent building.

## CHAPTER 7: MOORINGS

### 1. GENERAL MOORING GUIDELINES

The mooring facilities are designed to permit a tanker to remain safely moored during all expected environmental conditions.

Vessels will normally be berthed at NRSP Terminal by the mooring boats which are always available and operational.

### 2. MOORING EQUIPMENT

Mooring lines of the same size and material must always be used for all leads in the same service, i.e. all spring lines must be of the same size and material. Mixed mooring lines in the same service are not permitted.

Berth	Mooring Items	Mooring lines Case	Design Mooring Load (T)	Remark
BERTH 1A/1B	Bollards		70	<ul style="list-style-type: none"> <li>Line pull force on the bollard for vessel 20,000T displacement assumed as 600 KN</li> <li>All bollards are situated every 10.77 m</li> </ul>
Berth 2A / 2B/3	Breasting Dolphins BD1 to BD6	Breast line	60	
		Spring Lines	60	Breasting dolphins are situated every 12.5 m
	Mooring Dolphins MD1 and MD2	Breast lines case	60	Mooring dolphins are situated 25 m each other
		Head/ Stern line case	60	
Berth 4A / 4B	Berthing Dolphins BD1 & BD2	Spring line case	75	
		Breasting line case	75	
	Mooring Dolphin MD 1-MD6	Breasting case	75	
		Head/ Stern line case	75	

### 3. MOORING REQUIREMENT

Berth No	Ship Size (DWT)		Mooring lines		Mooring line Material	Min. Breaking Load (MBL)
Berth 1A/1B	5000	15000	2 headlines/ 2 Fore Breast lines/ 2 Fore spring lines	2 Stern lines/ 2 Aft Breast line/ 2 Aft spring lines	Synthetic	400 kN
Berth 2A/2B/3	1000	12,825	2 headlines/ 2 Fore Breast lines/ 2 Fore spring lines	2 Stern lines/ 2 Aft Breast line/ 2 Aft spring lines	Synthetic	400 kN
Berth 4A/4B	5000	40000	2 headlines/ 2 Fore Breast lines/ 2 Fore spring lines	2 Stern lines/ 2 Aft Breast line/ 2 Aft spring lines	Synthetic	500 kN

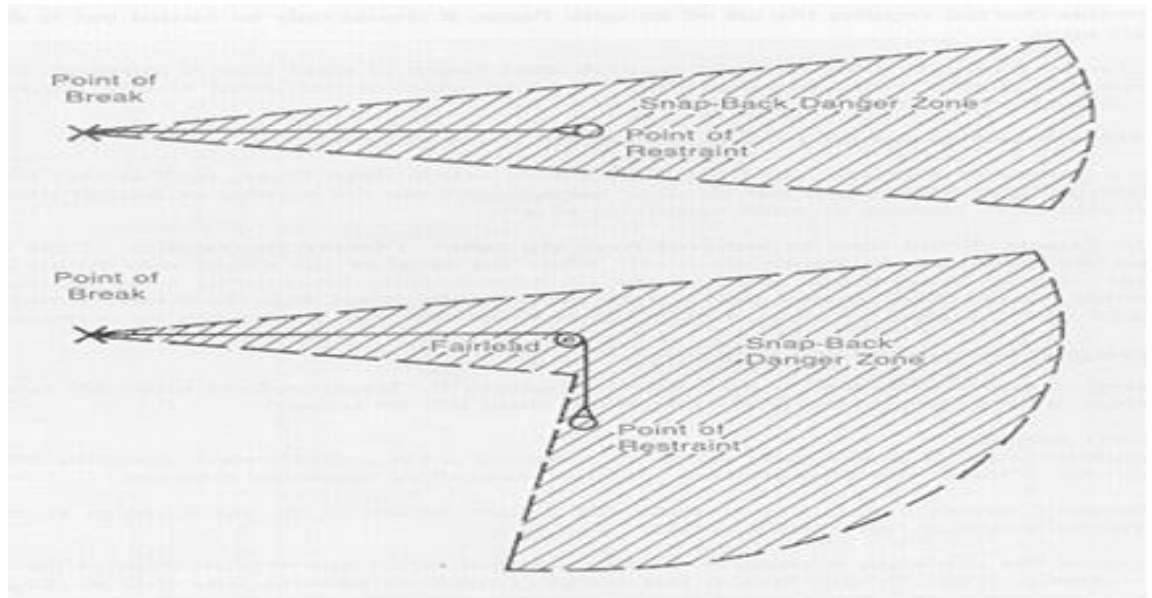
**Note:** In adverse weather conditions, additional ropes may be required to keep the vessels safe alongside. All mooring points (Berths 2/3/4 A/B) are equipped with 2 QRH each. If 2 mooring lines will be used on the same hook, both lines should be set from the winches with a BHC at maximum 60% of the MBL. In such case the SWL of the hook must be more than 1.2 x MBL.

### 4. SNAP BACK ZONES

Ship's mooring lines can cause a great danger to personnel ashore and aboard. Handling of mooring lines has a higher potential accident risk than most other shipboard activities. The most serious danger is snap back, the sudden release of the static energy stored in both synthetic lines and flexible steel wires.

Shore personnel must stay back at least 2.5 metres during berthing and un-berthing operations.

Line handlers must stand well clear of the potential path of snap back, which extends to the sides and far beyond the ends of the tensioned line.



## 5. FIRE WIRE – EMERGENCY TOWING OFF PENNANTS

Use of 'fire wire' or 'Emergency Tow-off Pennant System' (ETOPS) is required by NSRP Terminal for the emergency case.

All ships alongside berths at NSRP Terminal must be equipped with fire wires and rat guards. Fire wires shall be positioned by 2 metres from water level.

## CHAPTER 8: CARGO OPERATION

NSRP Port accepts vessels for cargo handling at her terminal on the understanding that operations are conducted safely and expeditiously and that berths are vacated as soon as practicable after operations are completed.

### 1. RECEIPT OF REGULATION – WARNING NOTICE

Loading or discharging must not start until the Master or Chief Officer has:

- Signed a certificate acknowledging receipt of: ‘Information and Regulation for the Use of Nghi Son Refinery and Petrochemical Port’.
- Displayed warning notices in prominent locations on board: ‘No Smoking’, ‘No Naked Lights’ and ‘No Visitor’.

### 2. CARGO HANDLING INFORMATION

#### 2.1 SPM FLOATING HOSE MANIFOLD FOR CRUDE TANKER:

SPM	Product	Outer line (inch)	Inner line (inch)	Loading Capacity max. (m <sup>3</sup> /h)
SPM Manifold	Crude oil	20"	20"	13,750

#### 2.2 LOADING ARM / MANIFOLD DETAIL

Berth	Product	Loading/ Vapor Arm no.	Loading Arm (inch)	Vapor Arm (inch)	Loading Capacity max. (m <sup>3</sup> /h)
Coastal Jetty 2 A/ 2 B	Gasoline 92	200-Z-001/018 200-Z-002/021	8"	4"	600
Coastal Jetty 2 A/ 2 B	Gasoline 95	200-Z-001/018 200-Z-002/021	8"	4"	600
Coastal Jetty 2 A/ 2 B	Diesel (Regular)	200-Z-005 200-Z-006	8"	N/A	600
Coastal Jetty 2 A/ 2 B	Diesel (Premium)	200-Z-005 200-Z-006	8"	N/A	600
Coastal Jetty 2 A/ 2 B	Fuel Oil	200-Z-012 200-Z-013	8"	N/A	500
Coastal Jetty 2 A/ 2 B	Jet Fuel	200-Z-010 200-Z-011	8"	N/A	600
Coastal Jetty 2 A/ 2 B	Benzene	200-Z-014/019 200-Z-015/022	8"	4"	750
Coastal Jetty 2 A/ 2 B	Par xylene	200-Z-016/020 200-Z-017/023	10"	6"	1,200
Jetty 3 (LPG Jetty)	LPG	200-Z-009A/026A 200-Z-009B/026B	6"	4"	300
Ocean Jetty 4A/4 B	Gasoline 92	200-Z-003A/024A 200-Z-003B/024B 200-Z-004A/025A	10"	6"	1,500

		200-Z-004B/025B			
Ocean Jetty 4A/4 B	Gasoline 95	200-Z-003A/024A 200-Z-003B/024B 200-Z-004A/025A 200-Z-004B/025B	10"	6"	1,500
Ocean Jetty 4A/4 B	Diesel (Regular)	200-Z-007A 200-Z-007B 200-Z-008A 200-Z-008B	10"	N/A	1,500
Ocean Jetty 4A/4 B	Diesel (Premium)	200-Z-007A 200-Z-007B 200-Z-008A 200-Z-008B	10"	N/A	1,500
Ocean Jetty 4A	Crude Oil	200-Z-027	16"	N/A	3,000

### 3. CARGO OPERATION

#### 3.1 NOTICE OF READINESS

- Notice of Readiness (NOR) to load or discharge is a warranty that the vessel is ready in all respects to load or discharge, and all equipment (including, but not limited to tanks, pumps, valves and pipelines) is ready and fit to load or discharge cargo.
- NSRP LLC reserves the right to refuse acceptance of such Notice of Readiness unless the vessel is in all respects ready to load or discharge.

#### 3.2 CONSTANT READINESS

- While alongside, vessel shall be adequately manned, watches kept, and the vessel's engine and propulsion machinery shall be maintained in constant readiness to leave the pier under full power in the event of an emergency.
- No repairs are permitted which would interfere with this requirement.
- Masters, ships Owners and Operators are reminded that the safety of the vessel is their responsibility at all times

#### 3.3 OPERATION REQUIREMENT

- Vessel must keep sufficient crew on board to be able to deal with emergency and assist all operations. Make sure that crews to be on watch are enough and necessary for full safety of vessel.
- Emergency towing wires (Fire wires) are to be positioned on the offshore bow and quarter. The eyes of the wires should be maintained not more than 2m above the waterline and adjusted during operations they should be made fast on the ship's bits while having sufficient slack on deck to provide towing length of 50m



- Vessels alongside the port must comply with the Marine Environmental Regulation of The Vietnam Maritime Code.
- Berth Master and his Superior will check for safety, oil pollution prevention in accordance with the ship/shore safety checklists. The ship/shore safety checklists are strictly observed whilst vessels are alongside berth.
- The time of safety check will be carried out on berth after formalities completed, and on the contraries if Vessels make formality on berths after the formality are completed. The Master is responsible for inform to the Supervisor of port's safety which Articles were not complied or unsatisfactory on board the ship and can be carry out to reduce/ adjust.
- Port Safety personnel shall have the rights to board any vessel whilst the vessel is alongside berth; at any time to ensure that Port Regulations are observed and have the right to order for stop pumping in the event of flagrant ignorance of the Regulations.
- Entry into a vessel's tank or any enclosed space is not permitted while vessel is alongside the port unless Berth Master has been clearly advised/confirmed.
- Vessel has established that, in principle, the proper safety procedures will be adopted by the vessel and in accordance with the provisions of ISGOTT and ICS vessel safety guide as appropriate. It must be understood that the Master will remain fully responsible for ensuring that all operations are carried out safely.
- All tankers/ships must by day show flag 'B' or the international code of signal and by night exhibit an all-round red light.

### **3.4 CARGO RECEIVING RATES**

Projected receiving flow rates will be agreed upon in the Ship/Shore Safety and Operational Agreement, which will be signed by the Chief Officer and Berth Master before commencement of any cargo operations. The agreements in cargo operation form should be completed and to be check by Berth Master and Chief Officer such as:

- Initial Pumping Rate at:
- Time required to be stopped at:
- Maximum Pumping Rate at:
- Maximum allowable pressures at ship's manifold
- Others

### 3.5 SHIP'S LOADING CONTROL

Chief Officer and Deck Officers are required to have full understanding of Terminal cargo operation equipment such as MLA and gangway and they must establish good communication among crews and Terminal at all times during cargo operation.

- NSRP will use Automation Monitoring System to monitor and control cargo movement such as loading rate, pressure, quantity and temperatures.
- Ship's officer must monitor and control its cargo operation on board from the ship's Cargo Control Room at all times during pumping operation. Chief Officer must ensure actual cargo distribution into ship's tanks will strictly adhere to the duly agreed Loading Plan.

### 3.6 EMERGENCY SHUTDOWN / STOP

In case of emergency, during pumping operation, ship's crew or officer shall never close any valve on board the Vessel without prior consent from Berth Master.

NSRP Terminal shall undertake to activate Emergency Shutdown Stop.

### 3.7 DRY CERTIFICATES

Dry Certificates will not be issued before or after any cargo operations by Independent Surveyor.

### 3.8 IG OPERATION

- All vessels are required to be equipped with Inert Gas Systems in accordance with Solas Chapter II-2, Regulation 4.5.5 ship/tanker shall ensure Inert Gas Systems is in proper operation prior to berthing at NSRP Terminal.
- Cargo operations will not be permitted to commence on any vessel fitted with an Inert Gas System unless the Berth Master is satisfied that the system is fully operational and it has been confirmed that all cargo tanks are maintained slightly above the atmospheric and their oxygen content is maintained at 8% by volume or less.
- In the event of failure of the Inert Gas System after operations have commenced, Terminal will stop all operations until either the Inert Gas System is restored or an alternative source of Inert Gas is provided.

## 4. CARGO CALCULATION

An independent surveyor will determine cargo quantity on board.

## 5. DOCUMENT ONBOARD

All documents and Bill of Lading will be presented on-board within 2 hours upon completion of MLA disconnection if there is no dispute in quantity discrepancy by any party.

## CHAPTER 9: REGULATIONS AND INSTRUCTION ON SAFETY PRECAUTION

### 1. SHIP'S TANK PREPARATION

Ship's tanks must have undergone a proper tank cleaning prior to loading different product grade from its previous voyage.

### 2. ULLAGE & SAMPLE

Wherever possible, ullage and sample of ships tanks should be achieved by the use of closed sampling equipment. Under no circumstances are shore personnel or surveyor to open any tank or vapour lock without approval from the ship's officer on duty.

When it is not possible to undertake closed gauging and/or sampling operations, open gauging systems will need to be employed and the precautions detailed in ISGOTT 7.2 (7.2.1, 7.2.2, 7.2.3, 7.2.4 including Fig 7-1 on page 63) adhered to.

Ship's crew and independent surveyor shall jointly carry out manual gauging of the ship's tanks and draw samples accordingly without any unnecessary delay. All delays pertaining to gauging and sampling must be recorded.

### 3. IMMOBILISATION OF MAIN ENGINE

The immobilization of main engines is not permitted whilst alongside.

### 4. PERMIT TO WORK ON BOARD A VESSEL AT THE BERTH

When any repair or maintenance is to be done on board a vessel moored at the berth, the Master must inform the Berth Master in writing. Agreement should be reached on the safety precautions to be taken, with due regard to the nature of the work.

### 5. REPAIR

Maintenance works involving 'Hot Work' such as gas cutting, chipping, welding and scraping are not allowed whilst ships are alongside. Any other repair other than Hot Work must be agreed between the responsible Ship's Officers and Berth Master.

### 6. TESTING RADIO AND RADAR EQUIPMENT

Testing of radio and radar equipment is not permitted.

### 7. VHF/UHF RADIO

Only VHF/UHF radio units which are of an approved design, intrinsically safe and explosion proof type are permitted.

### 8. TANK CLEANING, PURGING AND GAS FREEING

The Master of any vessels requiring cleaning, purge or gas free tanks which have previously contained liquid hydrocarbons, must obtain permission from the Berth Master.

## 9. CREW CHANGE AND SHORE LEAVE

Ship's agent is not allowed to arrange for crew change & shore leave throughout the period whilst ship is alongside NSRP Jetty or moored at SPM.

## 10. GARBAGE

Approved garbage reception facilities are not available in NSRP Terminal. Garbage could be collected by NSRP outsourcing provider and will be treated by them.

## 11. STORE AND SPARE

Ships are not allowed to deliver stores & spares on-board whilst alongside.

## 12. SMALL CRAFT

Vessels and small craft are not allowed alongside a vessel at the berth without prior permission of the Berth Master.

## 13. GANGWAY, LOADING ARM, VAPOR RECOVERY AND FENDER

Gangway, loading arm, vapour recovery arm and fender are vulnerable to damage when ship range along the Jetty. To prevent accidents of such nature, mooring lines should be regularly monitored and adjusted throughout ship's stay alongside.

## 14. TANK HATCH

Tank hatches must not be opened under any circumstances.

## 15. BONDING WIRE

They are not to be used at NSRP Jetty. Insulating flanges are provided on MLA.

## 16. BUNKERING FROM LIGHTERS / BARGES

This operation must not be carried out at NSRP Terminal. No double banking shall be allowed whilst Vessels are alongside NSRP Jetty or moored at SPM

## CHAPTER 10: INTERNATIONAL SHIP AND PORT FACILITY SECURITY (ISPS CODE)

The ISPS code is mandatory under the international Convention for safety of Life at Sea (SOLAS) which came into force on 1<sup>st</sup> July 2004. The Code applies to all ships of 500 GT and above engaged on international voyages and to all port facilities serving these ships. It requires ships and ports to have counter-terrorist contingency plans. Appoint security officers, keep security records and comply with the security requirements set out in the ISPS Code. NSRP terminal to be certified by Viet Nam Maritime Administration (VMA) to be in compliance with ISPS CODE.

### 1. DECLARATION OF SECURITY (DOS)

DOS (See Appendix) is a document on agreement reached between ship and port facility or another ship with it interface specifying the security measures each will implement.

### 2. SECURITY INCIDENT

Any suspicious act or circumstance threatening the security of a ship, including a mobile offshore drilling unit and a high-speed craft, or of a port facility or of any ship/terminal interface or any ship to ship activity.

### 3. SECURITY LEVEL

Qualification of the degree of risk that a security incident will be attempted or will occur – there are 3 security levels:

- **Security Level 1:** The level for which minimum appreciate security protective measures shall be maintained at all times
- **Security Level 2:** The level of which additional security protective measures shall be maintained for period of times as a result of heightened risk of a security incident.
- **Security Level 3:** The level for which further specific protective security measures shall be maintained for a limited period of time when a security incident is probable or imminent, although it may not be possible to indemnify the specific target.

## CHAPTER 11: POLLUTION PREVENTION

### 1. CAUSE OF POLLUTION

Experiences has shown that the majority of the cause of pollution by ships are follows:

- a) Overflow cargo, bunkers and /or ballast during loading, bunkering or ballasting
- b) Discharge of dirty ballast/ bilge water over-side
- c) Leakage of oil through sea valves at commencement of ballasting
- d) Failure of flanges and joint in manifolds and deck pipe- work
- e) Overflow of cargo tanks during loading (which is due to open drop line valves, change of trim, slop tank overflow)
- f) Spillage of oil after fire/explosion

Consequently, Master is required to draw the special attention of deck crews to these causes.

### 2. EMERGENCY OIL POLLUTION CLEAN UP

Whenever oil is spilled and pollution of sea occurs or may occurs, immediate action must be taken to prevent further spillage and to minimize clean-up operations. The Thanh Hoa Port Authority will be informed by NSRP Terminal and in the event of large spills, clean up facilities will be bought into action supplement those of NSRP Terminal.

### 3. POLLUTION PREVENTION CHECKLIST

The checklist shown in the Appendix, while primary used as a joint ship and shore check out prior to commencing operations should also be used by ship's officers to self-examine their ship for pollution control as an on- going basics.

### 4. POLLUTION PREVENTION REQUIREMENTS

The pollution requirement must be clearly understood and observed as applicable before start of cargo operations.

### 5. SCUPPERS

Scuppers must always be closed and made oil tight before operations commence. Those ship which have wooden scupper plugs must have plugs cemented cover.

### 6. WATER FREEING DECK

All surplus rainwater or clean water spilling on deck from ballasting operations must be drained off periodically and scupper replaced immediately after the water have been run off. Continuous monitoring during this time is required.

**7. UNUSED CARGO / BUNKER CONNECTION**

All unused cargo/bunker connections shall be closed and blanked off using a fully bolted blank flange.

**8. OVERBOARD VALVES & SEA VALVES**

All overboard valves and sea valves not being used shall be closed and lashed or sealed. Overboard discharge lines which have a swing-blind arrangement shall be blinded.

**9. DRIP PANS OR TRAY**

It is the ship responsibility to provide drip pans or trays under the ship manifold connections and keep these pans/trays emptied or drained.

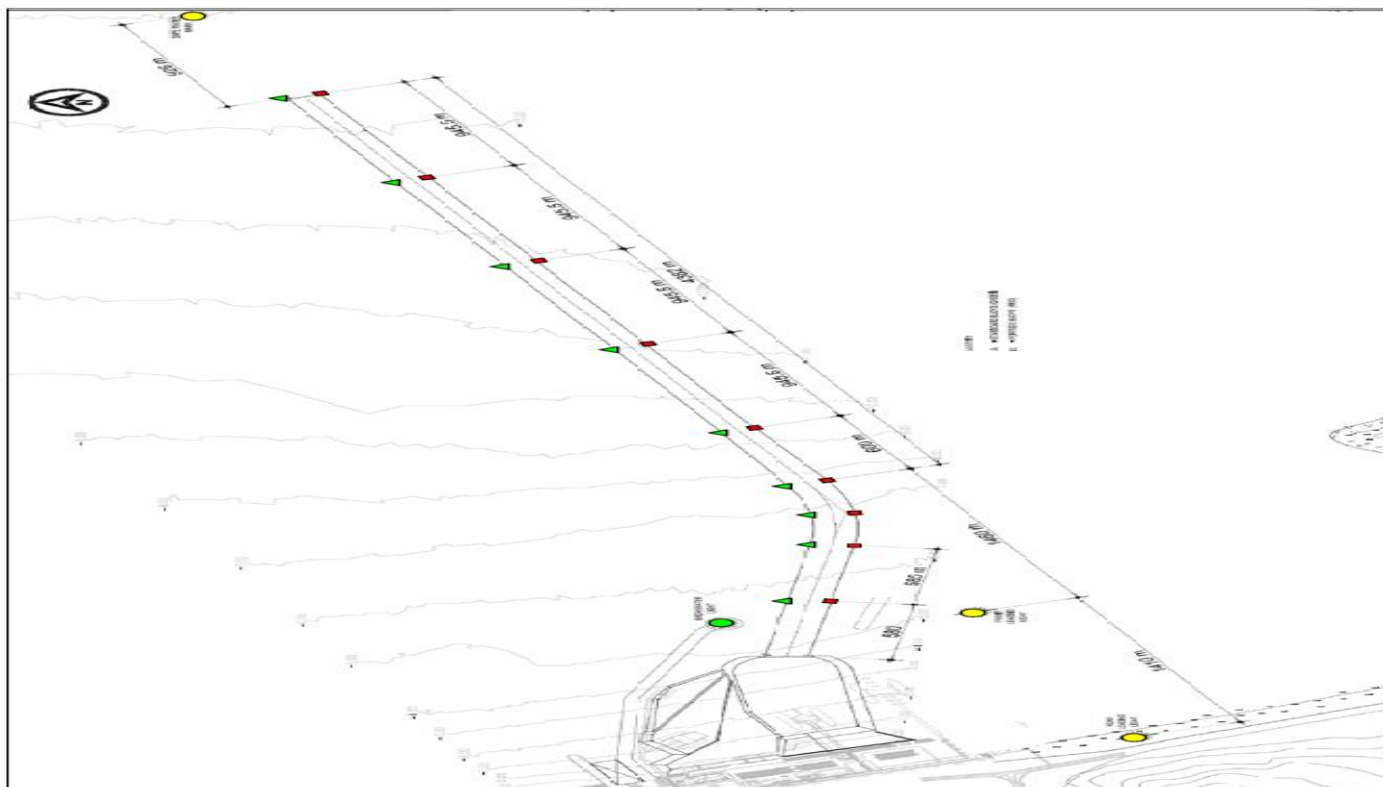
**10. OIL ABSORBING MATERIAL**

The ship shall keep an adequate supply of sawdust or the oil absorbing material at or near the manifold.

**11. ADEQUATE DECK WATCH, COMMUNICATIONS WITH SHORE**

The ship shall be having an adequate deck watch during all cargo and ballasting operations. The emergency stop procedure must be understood and agreed by ship and shore.

### APPENDIX 01: ACCESS CHANNEL & AID NAVIGATION AT NSRP TERMINAL





## APPENDIX 02: MOORING ARRANGEMENT

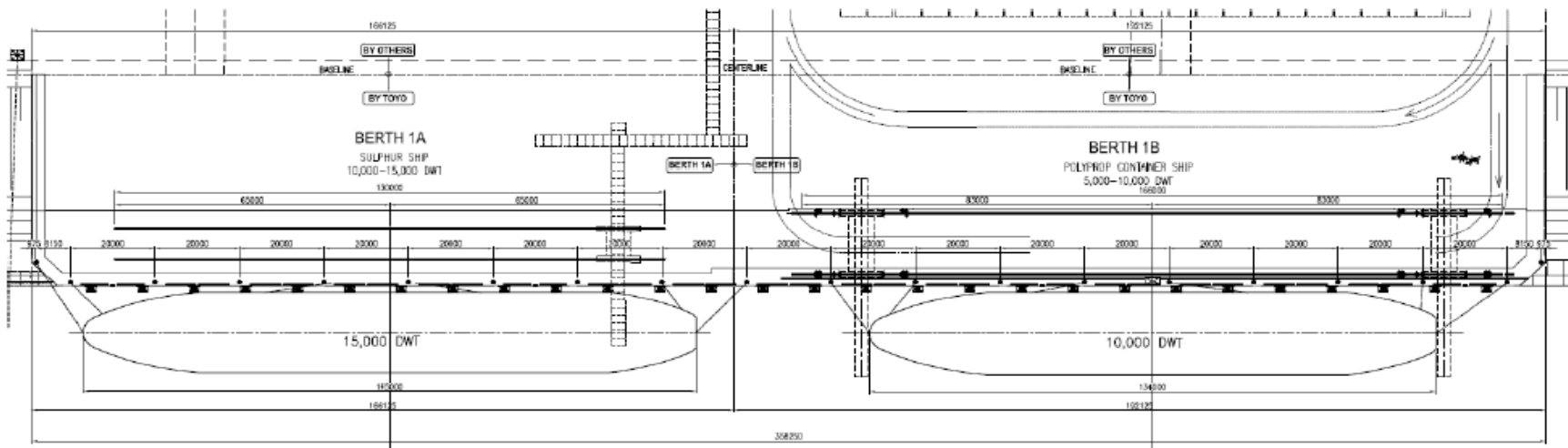
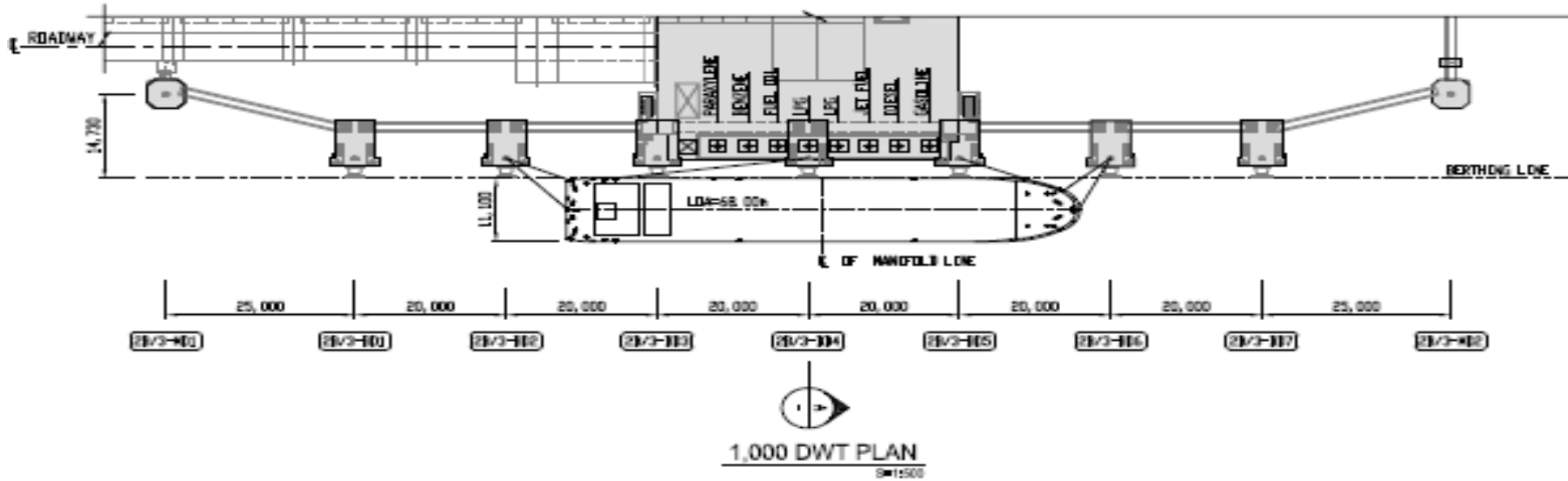
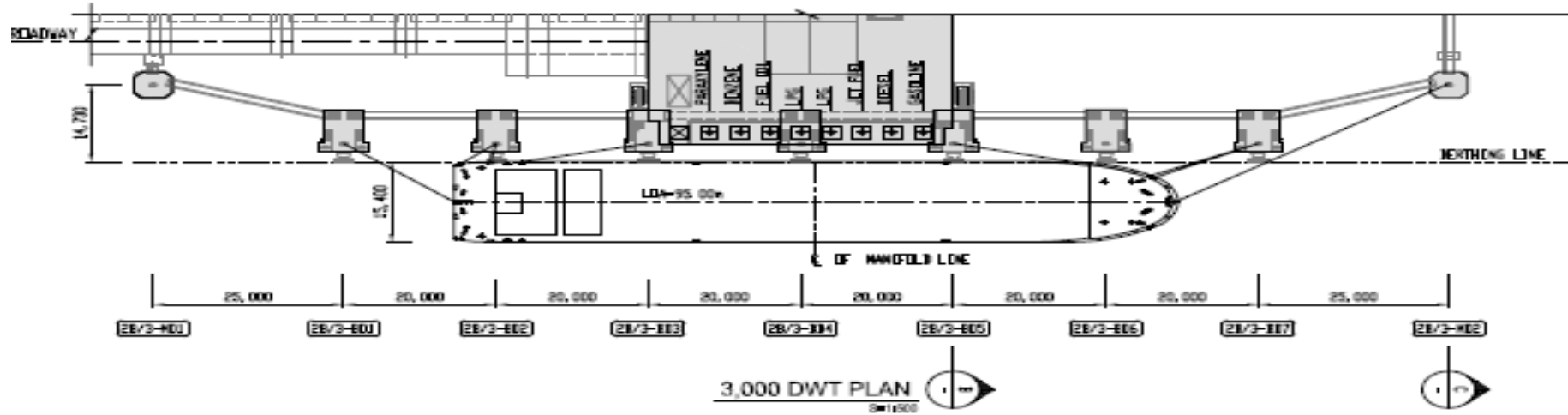
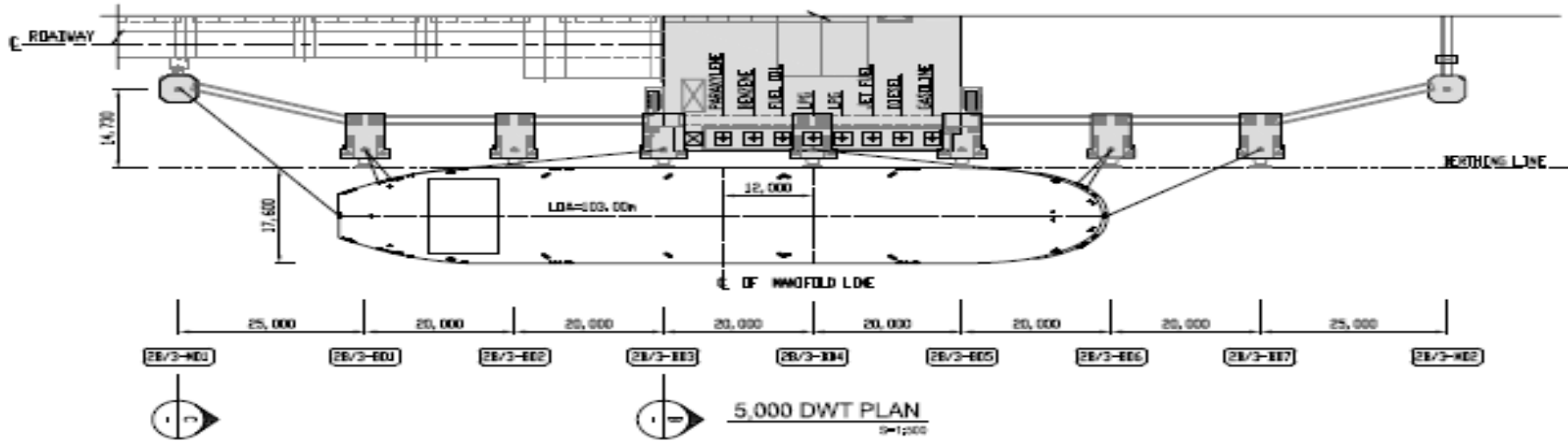
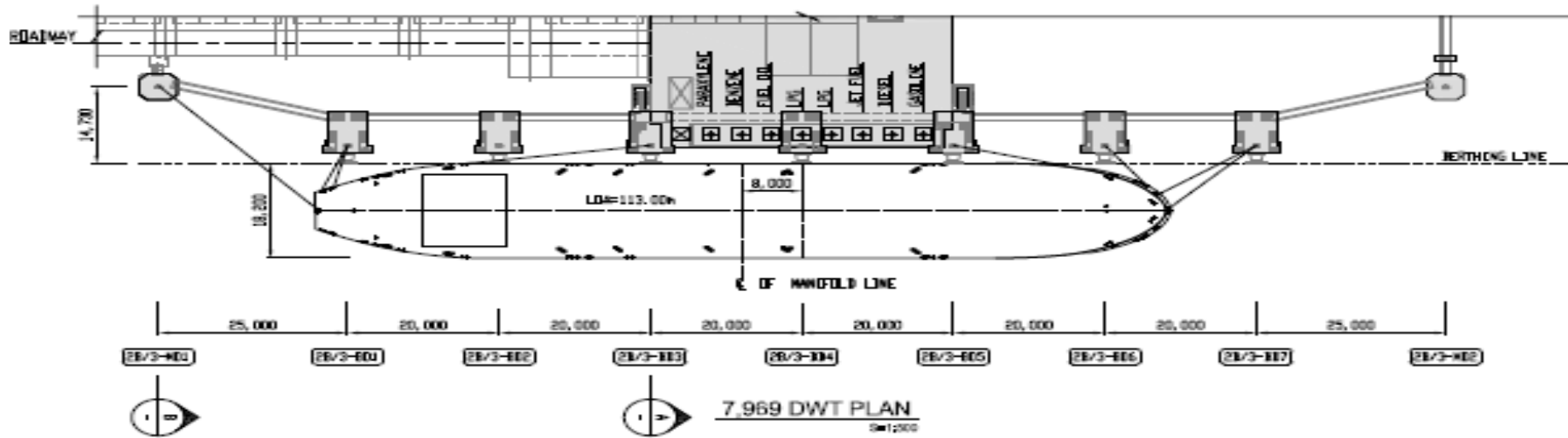


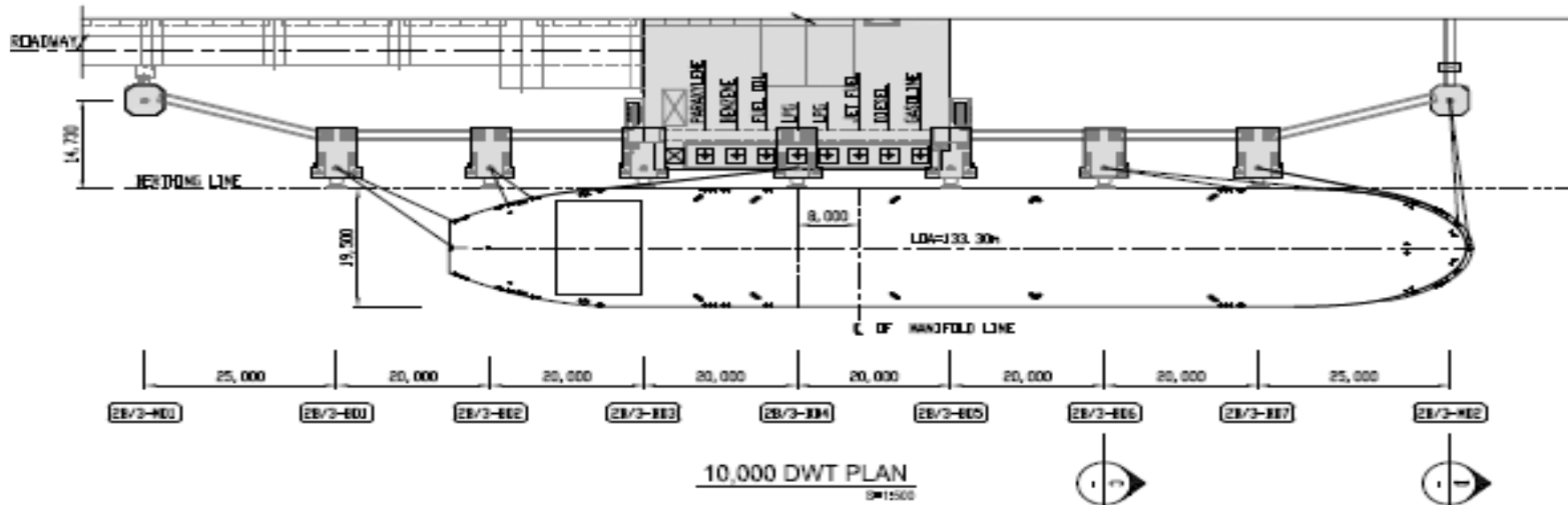
Figure 1 Typical Mooring pattern

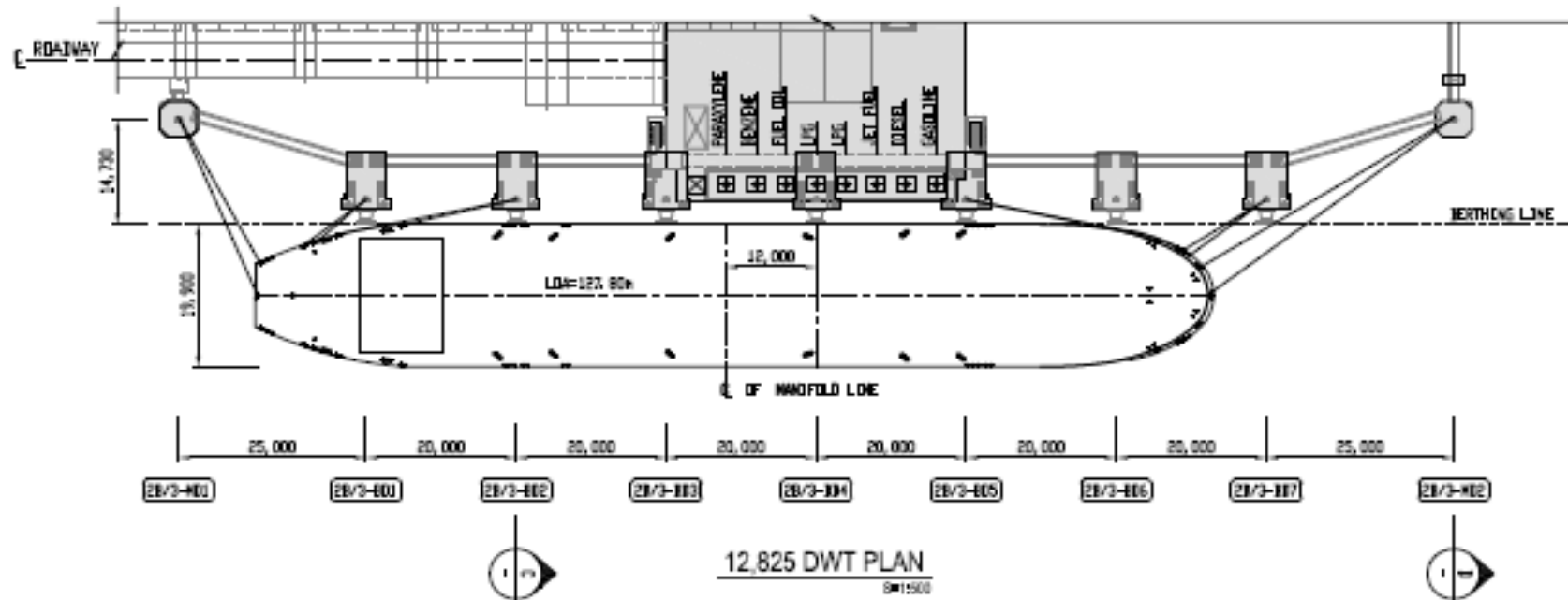


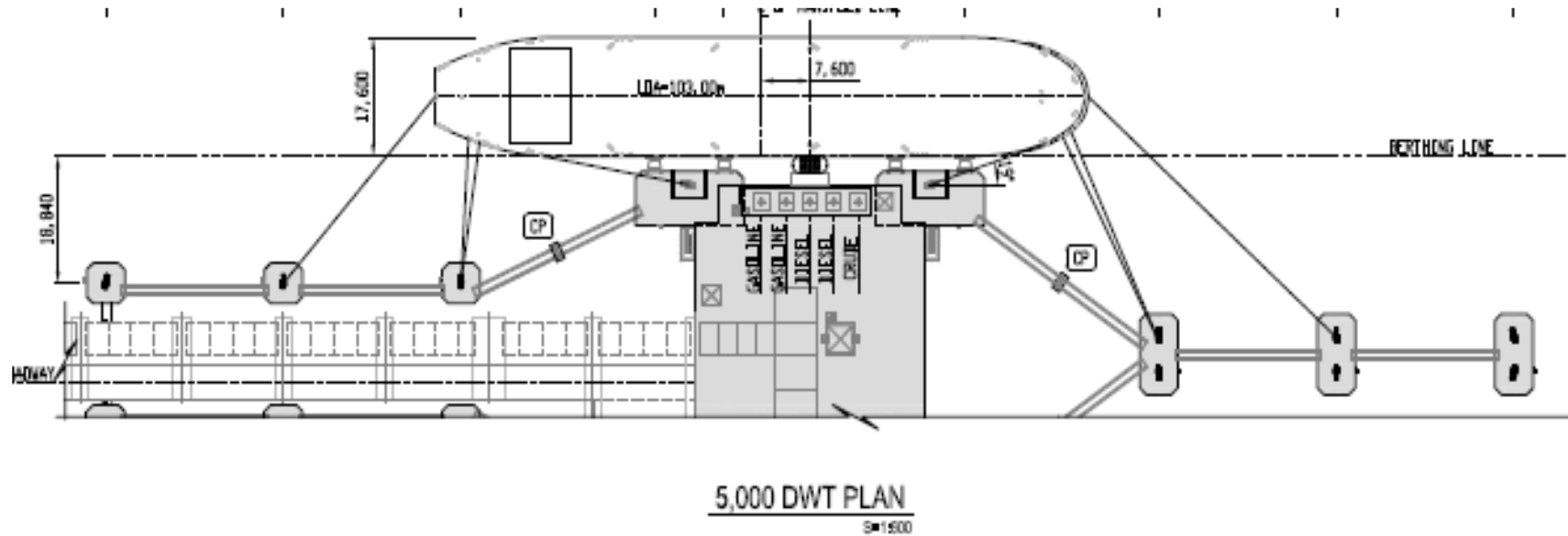




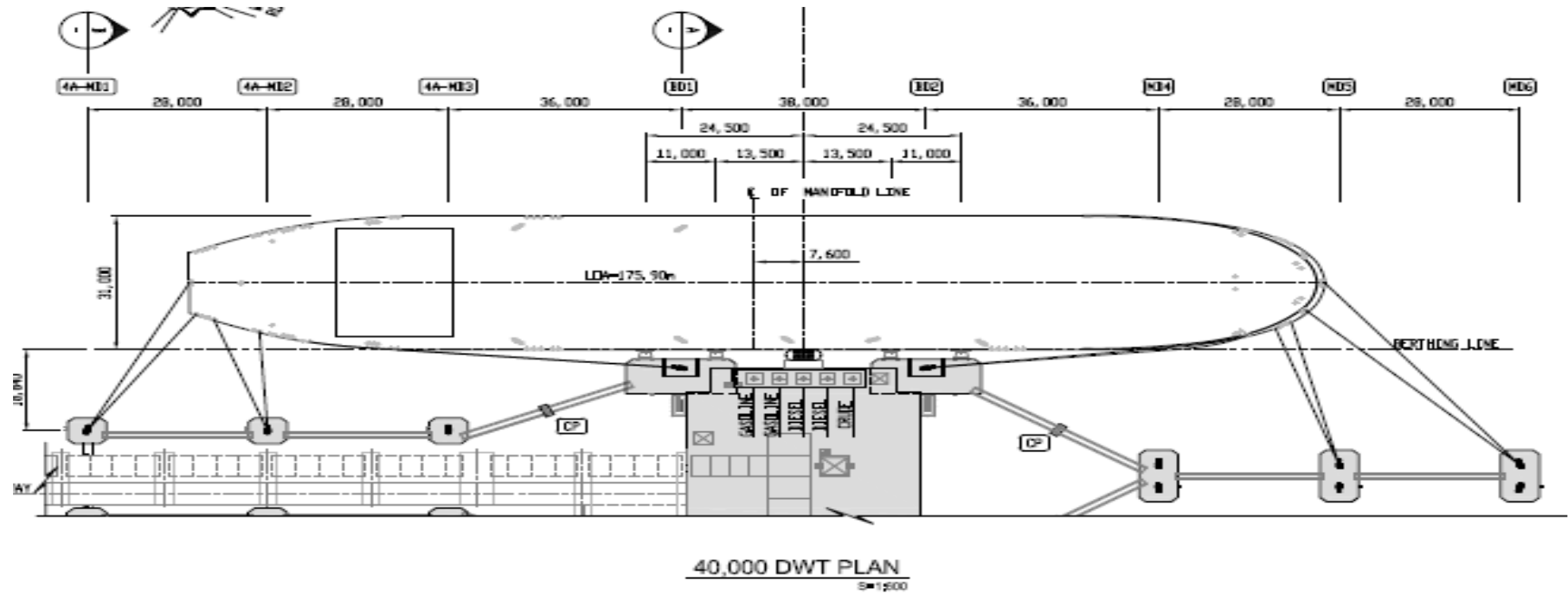


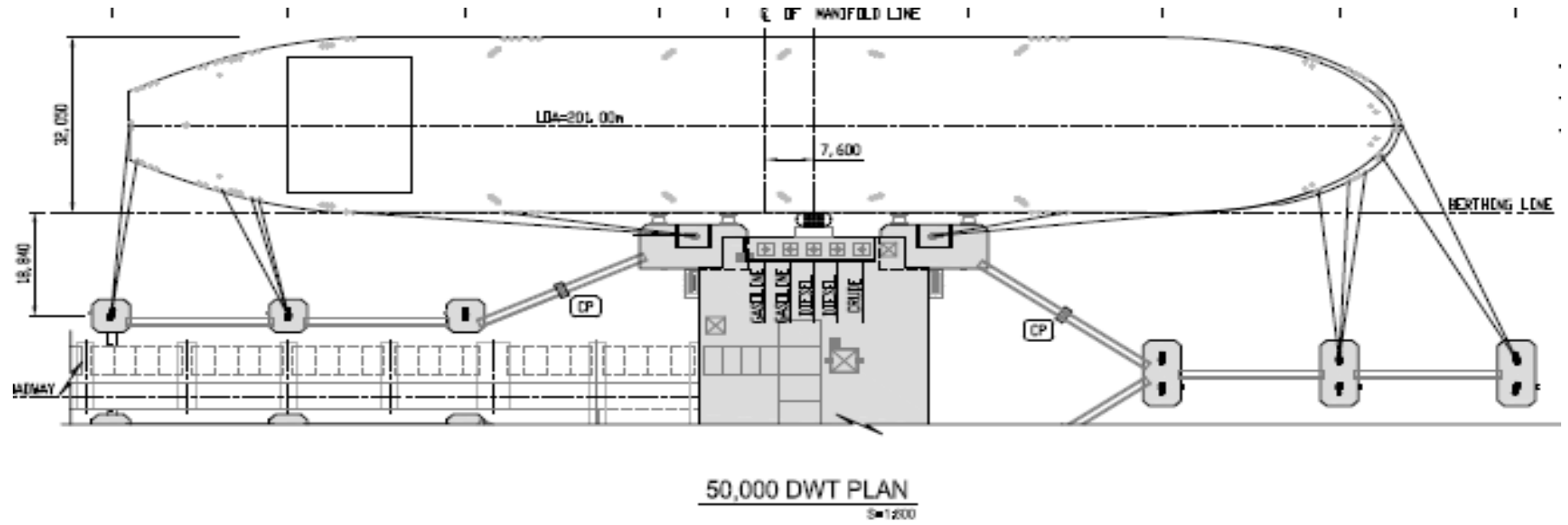




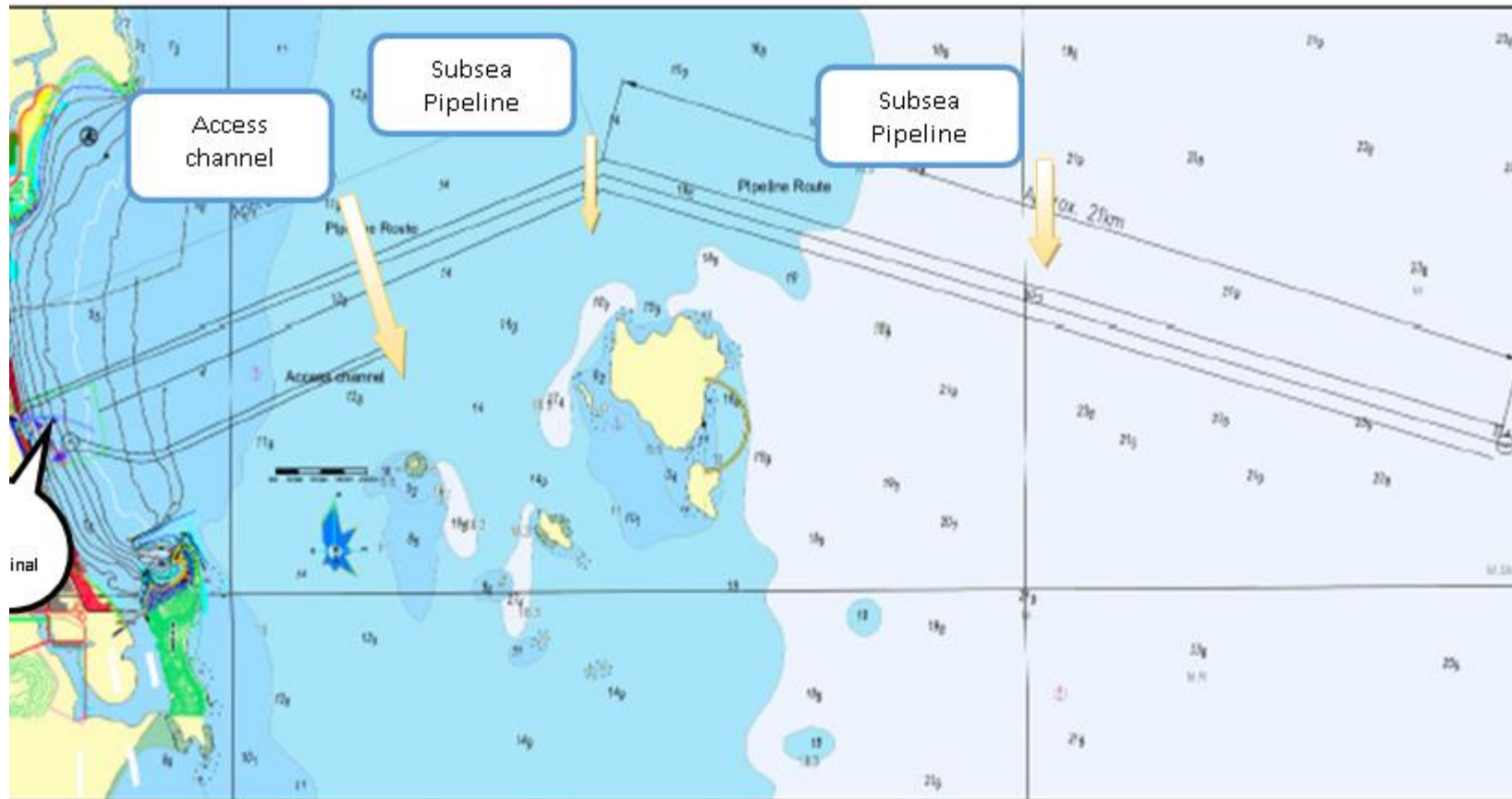








### APPENDIX 03: GENERAL LAYOUT OF NSRP TERMINAL





**JTY-7.4.1-03**

# **Ship Vetting Procedure for Tankers without SIRE Inspection Report**

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## 1. PURPOSE

Ensure the vessel to meet the requirements of the dossier, technical, security, maritime safety, and pollution prevention at the request of Vietnam maritime law, international conventions, the safety requirements of NSRP and suitable with NSRP Terminal condition.

## 2. SCOPE

This procedure is applicable for Tankers have not SIRE reports or have SIRE reports which their validity are more than 6 months from issuance date for more than 10 year old vessels, more than 9 months from issuance date for not greater than 10 year old vessels, calling at NSRP Terminal for cargo operation.

Applied responsibilities:

- Nghi Son Refinery & Petrochemical Limited Liability Company (NSRP Terminal)
- Offtakers
- Third Party Inspection Company
- Ship Owners/ Operators of the vessel transporting NSRP's cargoes.

## 3. REFERENCE DOCUMENT

- Vietnam Marine Code
- Decision No. 54/2005/QĐ - BGTVT October 27, 2005 by the Minister of Transport issued a certificate lists and documentation of Vietnam ship and authority boats.
- OCIMF - Vessel Inspection Questionnaires (VIQs)
- OCIMF – Harmonized Vessel Particular Questionnaires (HVPQs).





## 4. TERM AND DEFINITION

- **NSRP:** Nghi Son Refinery & Petrochemical Limited Liability Company.
- **NSRP Vetting Team:** A Team in charge of Ship Inspection/Condition Assessment. This Team belongs to Section 6, Operations Division, NSRP.
- **NSRP Vessel Inspection Team:** Team to conduct Pre- inspection prior to issue a new / extent Notice of Acceptance. The Team including but not limited:
  - A Berth Master
  - A Maintenance electrical Engineer
  - A Firefighting Engineer
- **NSRP E&C:** NSRP Economy and Commercial Division.
- **Ship Inspection:** The inspection conducted by Third Party Inspection Company.
- **Third Party Inspection Company:** A Company nominated by NSRP to carry out Ship Inspection.

- **NSRP Vessel Particular Questionnaires:** Harmonized Vessel Particular Questionnaires are the questionnaires for Ship Owner/Operator to provide details of ship particular data, ship equipment, technical and trading certificates.
- **NSRP Vessel Inspection Questionnaires:** Vessel Inspection Questionnaires are the questionnaires issued by NSRP in consideration of safety standards of OCIMF. These questionnaires are considered to meet with the actual condition of Vietnamese tanker fleet and applied by the Inspector during Ship Inspection.
- **Ship Inspection Report:** report made by Third Party Inspection Inspector based on NSRP Vessel Inspection Questionnaires.
- **Observations:** Non-compliance with other safety guidelines & which are the defects observed by Inspectors at the time of Ship Inspection with reference to NSRP VIQs.
- **Ship Rectification Report:** Report made by Ship Owners/Operators/Crews to explain rectification method for Observations noted by Third Party Inspector.
- **Ship Management Officer:** Captain, Chief Officer, Chief Engineer and First Engineer (or Second Engineer) of tanker.
- **Ship/Shore Safety Check:** safety check carried out by Berth Master with Chief Officer on board by using Ship/Shore Safety Check List.
- **Ship/Shore Safety Check List (SSSCL):** the checklist developed by NSRP based on ISGOTT, the SSSCL may be revised to better reflect the individual and joint responsibilities of the tanker and the terminal.

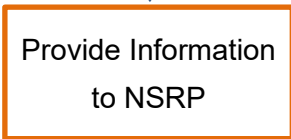
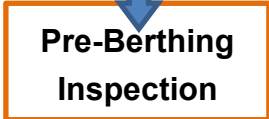
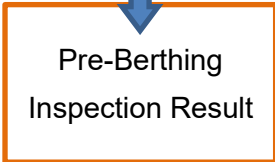
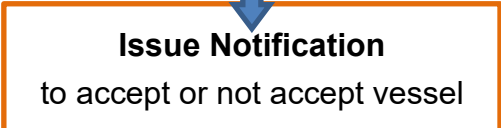
## 5. SHIP VETTING PROCESS

### 5.1. SHIP VETTING WORKFLOW CHART

Responsibility	Diagram	Description	Timeline
Off-Taker or Ship Owner/ Operator	<div style="border: 1px solid orange; padding: 5px; width: fit-content; margin: 0 auto;">Request Ship Inspection to Third Party Inspection Company</div> 	<ul style="list-style-type: none"> <li>- Off-Taker or Ship Owner/ Operator register through Third Party Inspection Company's website or send official Inspection Request to Third Party Inspection Company.</li> <li>- NSRP Vessel Particular Questionnaires &amp; Appendix-1 to be submitted.</li> </ul>	At least 01 week before inspection date.
Off taker or Ship Owner/ Operator	<div style="border: 1px solid orange; padding: 5px; width: fit-content; margin: 0 auto;">Register Ship Info to NSRP Vetting Team, Commercial Team.</div> 	<ul style="list-style-type: none"> <li>- Off-taker/Ship Owner register Ship Info to NSRP Vetting Team, Commercial Team.</li> <li>- Off-taker/Ship Owner periodically update ship information to NSRP Vetting Team</li> </ul>	At the nomination
Third Party Inspection Company	<div style="border: 1px solid orange; padding: 5px; width: fit-content; margin: 0 auto;">Information confirmed and reviewed by Third Party Inspection</div> 	<ul style="list-style-type: none"> <li>- Confirm all the document and information registered or submitted by Off-Taker or Ship Owner/ Operator.</li> <li>- Agree time &amp; location for Ship Inspection.</li> </ul>	02 working days
Third Party Inspection Company	<div style="border: 1px solid orange; padding: 5px; width: fit-content; margin: 0 auto;"> <b>Ship Inspection</b> Executed onboard at another Terminal         </div> 	<ul style="list-style-type: none"> <li>- <b>Third Party</b> Inspector to apply NSRP Vessel Inspection Questionnaires.</li> <li>- Off-Taker or Ship Owner/ Operator to coordinate with Inspector to complete the inspection and sign to confirm observation noted.</li> </ul>	06 to 10 hrs. daylight



<p><b>Ship Owner/ Operator</b></p>	<p>Submit explanation materials and/or rectification plan to Observation noted</p>	<p>- Ship Owner/Operator can submit explanation materials and rectification plan to Observations noted to Third Party Inspection Company within 14 calendar days from Ship Inspection.</p>	<p>Within 14 calendar days from Ship Inspection</p>
<p><b>Third Party Inspection Company</b></p>	<p>Submit Ship Inspection Report to NSRP</p>	<p>- Make detailed "Ship Inspection Report" within 15 calendar days from Ship Inspection, submit to NSRP, and maintain it in Third Party Inspection Company website-database.</p>	<p>Within 15 calendar days from Ship Inspection</p>
<p><b>Vetting Team</b></p>	<p>Collect Ship Information</p>	<p>- Receive Ship Inspection Report.          - Collect external information such as Q88, PSC, IHS, TMSA, Previous SIRE Report, Info of previous works in another terminal if available.</p>	<p>Max 04 hrs./ship</p>
<p><b>Vetting Team</b></p>	<p>Ship Condition Assessment</p>	<p>- Violate non- High-Risk observations on Ship Inspection Result and other info but all observations are rectified: <b>"Accepted"</b> .          - Violate non- High-Risk observations on Ship Inspection Result and other info but some observations are on pending: <b>"Accepted subject to Pre-berthing Inspection"</b> .          - Violate High Risk observations on Ship Inspection Report or other info: <b>"Not Accepted"</b> .</p>	<p>02 hrs./ship</p>
<p><b>Vetting Team DM / GMR</b></p>	<p>Issue Notification to "Accepted subject to Pre-berthing Inspection" or "not Accepted" vessel</p>	<p>- Judgment <b>"Accepted"</b>, <b>"Accepted subject to Pre-berthing Inspection"</b> or <b>"Not Accepted"</b> will be issued</p>	<p>02 hrs. /ship</p>

Ship Owner/ Operator		- Provide adequate information by filling “Pre-berthing Questionnaires” as in the form and corrective action status to NSRP Vetting Team for review.	01 day
NSRP Vessel Inspection Team		- Pre-berthing Inspection at anchorage area to re-check corrective actions against Observations reported on Ship Inspection Report (if any) and also conduct Inspection based on “NSRP Inspection for Tankers for Pre-Berthing Inspection”.	01 - 03 Hrs./ ship
NSRP Vessel Inspection Team		- If Ship Rectification Report is correct and not violate High-Risk observations on Pre-Berthing Inspection Result: <b>“Accepted”</b>  - If Ship Rectification Report is not correct or violate High Risk observations on Pre-Berthing Inspection Result: <b>“Not Accepted”</b>	01 hr./ship
NSRP Vetting Team DM / GMR		- <b>“Accepted”</b> or <b>“Not Accepted”</b> will be issued.	01 hr./ship

## 5.2. IMPLEMENTATION OF SHIP VETTING

### 5.2.1. Ship Inspection Request

Off-Taker or Ship Owners/Operators apply Ship Inspection Request by registering through website or send official Ship Inspection Request to the email address or the fax number of Third-Party Inspection Company at least 01 week before inspection execution. Provide adequate information by filling “NSRP Vessel Particular Questionnaires” & Appendix-1 to Third Party Inspection Company.

- Name: PETROVIETNAM MAINTENANCE AND REPAIR, CORPORATION (PVMR)

- Address: Suite 701, Petrovietnam Tower, 1-5 Le Duan Street, Ben Nghe Ward, District 1, Ho Chi Minh City, Viet nam
- Tel: +84(0)283 9118565
- Fax: +84(0)283 9118567
- Email: [info@pvmr.vn](mailto:info@pvmr.vn)
- Website: <http://www.pvmr.vn/>

Note: Third Party Inspection Company will be nominated by NSRP, any changes of the company will be informed by NSRP.

### 5.2.2. Ship Vetting Request

Off Takers/Ship owners register ship information & send the ship vetting request to NSRP Vetting Team ([Vettingteam@nsrp.com.vn](mailto:Vettingteam@nsrp.com.vn)), Commercial Team ([Commercialteam@nsrp.com.vn](mailto:Commercialteam@nsrp.com.vn))

- Provide adequate information by filling in the form and send to NSRP Vetting Team.
  - MD-04-OP-S6JTY-PD-0704/JTY-7.4.1-03\_AP-001 Appendix 1
  - MD-04-OP-S6JTY-PD-0704/JTY-7.4.1-03\_F-001 Inspection Checklist for Tanker
  - MD-04-OP-S6JTY-PD-0704/JTY-7.4.1-03\_F-002 Pre -berthing questionnaires

### 5.2.3. Receive ship inspection application

Once receiving the Ship Inspection Request, the Third-Party Inspection Company sends confirmation email and the Ship Inspector for inspection execution. Below are the steps which will take place during this ship inspection process:

- Confirmation of vetting implementation as ordered.
- Request Ship Owners/Ship Operators to provide information prepared for inspection.
- Confirmation of vetting fee payment.
- Ship Owners/Operators send replied email to Third Party Inspection Company.
- Ship Owners/Operators fill up the ship information into NSRP Vessel Particular Questionnaires form, and then sends to Third Party Inspection Company.
- Self-check and answer questionnaires in NSRP Vessel Inspection Questionnaires form.
- Continue updating latest information of the ship as requested.
- Agree with Third Party Inspection Company about the time and place of inspection.

After receiving sufficient information, Third Party Inspection Company informs Ship Owners/Operators the full name, phone number, email address and inspection schedule of Inspector.

#### 5.2.4. Ship Inspection

Ship Inspection is full progress for all safety and security management system of the vessel based on the questionnaires system issued and updated by NSRP.

Ship Inspection must be executed during cargo loading/ discharging operation status (other status will be considered by NSRP) and not be allowed from 20:00 to 05:00 hrs. except for the special condition which is agreed by NSRP.

Inspection procedure includes:

- Conduct the meeting with Ship Management Officers.
- Review self-check and answer of Ship Owner/Operator according to NSRP Vessel Inspection Questionnaires.
- Check the details and note all observations during inspection progress.
- Hold the meeting with Ship Management Officers and representative of Ship Owner/Operator (if available) and note the content/sign Observations list.

#### 5.2.5. Ship Owner/Operator explains the observations to be noted

Based on observations noted in the list, Ship Owner/Operator explains and plans to rectify observations and remedies to avoid repetition. Time for rectification/explanation is within 14 calendar days from the date of Observations. Rectification/explanation and plan must be sent to Third Party Inspection Company.

Ship Owner/Operator coordinates with Third Party Inspection Company to complete inspection report in order to send to NSRP before the previous approval validity expires.

#### 5.2.6. Third Party Inspection Company sends Ship Inspection Report to NSRP

Third Party Inspection Company receives and processes additional information from Ship Owner/Operator within 14 calendar days from the date of inspection and prepares the detailed Inspection Report and sends it to NSRP within 15 calendar days from the date of inspection.

Third Party Inspection Company informs the content of Article 4.2.5 to Ship Owner/Operator for their proper acknowledge and implementation.

Third Party Inspection Company compiles documentation to record the Ship Inspection Result.

#### 5.2.7. NSRP Vetting Team reviews and evaluates the Inspection Report to give conclusion

Once received Ship Inspection Report, Vetting Team shall:

- Review Ship Inspection Report.

- Collect external information such as HVPQ, Q88, PSC, IHS, previous Inspection Report (SIRE, NON-SIRE), info of previous works in other Terminal. (Collected information will be compared with NSRP Terminal design parameters which described in Appendix-1, NSRP High Risk Observation List. Additionally, PSC inspection Code 30 is also considered as High-Risk observation).
- Conclude Ship Condition Assessment Result as follows:
  - Violate non- High-Risk observations on Ship Inspection Result and other info but all observations are rectified: **“Accepted”**.
  - Violate non- High-Risk observations on Ship Inspection Result and other info but some observations are on pending: **“Accepted subject to Pre-berthing Inspection”**.
  - Violate High Risk observations on Ship Inspection Report or other info: **“Not Accepted”**.

#### 5.2.8. Pre-berthing Inspection by NSRP Vessel Inspection Team

Pre-berthing Inspection will also be executed for nominated vessels calling at NSRP Terminal as the first time or extent Notice of Acceptance.

Ship Owner/Operator shall provide adequate information by filling Pre-berthing Questionnaires for Tankers as in the form and corrective action status to NSRP for review.

NSRP Vessel Inspection Team shall execute Pre-berthing Inspection at anchorage area near NSRP Terminal to re-check corrective actions against Observation reported on Ship Inspection Report, and also conduct Inspection based on “Inspection Checklist for Tankers for Pre-berthing Inspection”.

Pre-berthing Inspection will be done in the daytime prior to entering NSRP terminal.

- If Ship Rectification Report is correct and not violate High-Risk observations on Pre-Berthing Inspection Result: **“Accepted”**
- If Ship Rectification Report is not correct or violate High-Risk observations on Pre-Berthing Inspection Result: **“Not Accepted”**.

#### 5.2.9. NSRP informs to accept or reject the ship

Based on the Ship Condition Assessment Result or Pre-berthing Inspection Result, NSRP will notify final acceptance/rejection to Ship Owner/Operator in the name of General Manager of Refinery (GMR)/ Operations Division Manager.

The Notice to Accept or not accept will be stored on NSRP common folder.

#### 5.2.10. Ship/Shore Safety Check

Based on ship loading schedule, accepted vessel on section 5.2.8 and/or 5.2.9 must be

executed Ship/Shore Safety Check before cargo operation, during cargo operation, before un-berthing to ensure smoothly co-operation and safety operation of Terminal. The details are described in Guideline for Ship/Shore Safety Inspection.

## 6. ATTACHMENT

No	Document code	Document name
1	MD-04-OP-S6JTY-PD-0704/JTY-7.4.1-03/AP-001	Appendix 1
2	MD-04-OP-S6JTY-PD-0704/JTY-7.4.1-03/AX-001	NSRP Vessel Particular Questionnaire
3	MD-04-OP-S6JTY-PD-0704/JTY-7.4.1-03/AX-002	NSRP Vessel Inspection Questionnaire for tankers
4	MD-04-OP-S6JTY-PD-0704/JTY-7.4.1-03/AX-003	NSRP High Risk Observation List
5	MD-04-OP-S6JTY-PD-0704/JTY-7.4.1-03/ F-001	Inspection Checklist for Tanker for Pre-berthing Inspection
6	MD-04-OP-S6JTY-PD-0704/JTY-7.4.1-03/ F-002	Pre-berthing Questionnaire for Tankers
7	MD-04-OP-S6JTY-PD-0704/JTY-7.4.1-03/ F-003	Ship Inspection evaluation result
8	MD-04-OP-S6JTY-PD-0704/JTY-7.4.1-03/ F-004	Notice to accept vessel
9	MD-04-OP-S6JTY-PD-0704/JTY-7.4.1-03/ F-005	Notice not to accept vessel



**JTY-7.4.1-03/AX-001**

# **NSRP VESSEL PARTICULAR QUESTIONNAIRE**

## Table of content

Chapter 1.	General Information
Chapter 2.	Certificates
Chapter 3.	Crew
Chapter 4.	Navigation
Chapter 5.	Safety
Chapter 6.	Pollution Prevention
Chapter 7.	Structural Condition
Chapter 8.	Cargo
Chapter 9.	Cargo Specific
Chapter 10.	Mooring
Chapter 11.	Communications and Electronics
Chapter 12.	Propulsion
Chapter 13.	Ship to Ship Transfer
Chapter 14.	Combination Carriers



Number	Title	Type	Type/ Unit
<b>Chapter 1. General Information</b>			
<b>1.1</b>	<b>General Information</b>		
1.1.1	Date this HVPOQ document completed	[Date]	
1.1.2	Vessel identification		
1.1.2.1	Name of ship	[Text]	
1.1.2.2	LR/IMO number	[Text]	
1.1.2.3	Company IMO number	[Text]	
1.1.3	Previous name	1.1.3.1 Name	1.1.3.2 Date of change
	Last previous	[Name]	[Date]
	Second last previous	[Name]	[Date]
	Third last previous	[Name]	[Date]
	Fourth last previous	[Name]	[Date]
1.1.4	Flag		
1.1.4.1	Flag	Lookup	
1.1.4.2	Has the flag been changed?	Yes/No	
1.1.4.3	What was the previous flag?	Lookup	
1.1.5	Port of Registry	[Text]	
1.1.6	Call sign	[Text]	
1.1.7	Ship contacts		
1.1.7.1	INMARSAT number	[Text]	
1.1.7.2	Ship's fax number	[Text]	
1.1.7.3	Ship's telex number	[Text]	
1.1.7.4	Mobile phone number	[Text]	
1.1.7.5	Ship's email address	[Text]	
1.1.8	What is the type of ship as described in Form A or Form B Q1.11 of the IOPPC?	Lookup	
1.1.9	What is the Ship's Maritime Mobile Selective Call Identity (MMSI) number?	[Text]	
1.1.10	Type of Hull	Lookup	
1.1.11	Name of P and I Club	[Text]	
1.1.12	EEL rating number	[Text]	
<b>1.2</b>	<b>Ownership and Operation</b>		
1.2.1	<b>Registered owner</b>		
1.2.1.1	Name	[Text]	
1.2.1.2	Full address	Memo	
1.2.1.3	Country	Lookup	
1.2.1.4	Office telephone number	[Text]	
1.2.1.5	Office telex number	[Text]	
1.2.1.6	Office fax number	[Text]	
1.2.1.7	Office email address	[Text]	
1.2.1.8	Contact person	[Text]	
1.2.1.9	Contact person after hours telephone	[Text]	
1.2.2	Number of years this ship has been owned by Registered Owner	[Integer]	Years
1.2.3	<b>Technical operator (if different from registered owner)</b>		
1.2.3.1	Name	[Text]	
1.2.3.2	Full address	Memo	
1.2.3.3	Country	Lookup	
1.2.3.4	Office telephone number	[Text]	
1.2.3.5	Office telex number	[Text]	
1.2.3.6	Office fax number	[Text]	
1.2.3.7	Office email address	[Text]	
1.2.3.8	Name of Designated Person Ashore (DPA)	[Text]	
1.2.3.9	After-hours telephone number of DPA	[Text]	
1.2.3.10	Emergency callout number	[Text]	
1.2.3.11	Emergency callout pager number	[Text]	
1.2.4	Date current operator assumed technical control of the ship	[Date]	
1.2.5	Total number of ships operated by this Technical Operator	integer	
1.2.6	<b>Commercial operator (if different from registered owner)</b>		
1.2.6.1	Name	[Text]	
1.2.6.2	Full Address	Memo	
1.2.6.3	Country	Lookup	
1.2.6.4	Office telephone number	[Text]	
1.2.6.5	Office telex number	[Text]	
1.2.6.6	Office fax number	[Text]	
1.2.6.7	Office email address	[Text]	
1.2.6.8	Contact person	[Text]	
1.2.6.9	Contact person after hours telephone	[Text]	

<b>1.3</b>	<b>Builder</b>				
1.3.1	Builder name		[Text]		
1.3.2	Date of building contract		[Date]		
1.3.3	Hull number		[Text]		
1.3.4	Date on which keel was laid or ship was at a similar stage of construction		[Date]		
1.3.5	Date launched		[Date]		
1.3.6	Delivery date as recorded in Form A or Form B Q1.8.3 of the IOPPC		[Date]		
1.3.7	Major hull change				
1.3.7.1	Has a major hull change been undertaken?		Yes/No		
1.3.7.2	What was the date of completion of the conversion as recorded in Form A or Form B Q1.9.3 of the IOPPC?		[Date]		
1.3.7.3	List what changes were made		Memo		
<b>1.4</b>	<b>Classification</b>				
1.4.1	Classification Society		Lookup		
1.4.2	Class notation		[Text]		
1.4.3	Change of classification Society				
1.4.3.1	Has Classification Society changed?		Yes/No		
1.4.3.2	What was the previous Classification Society?		Lookup		
1.4.3.3	Date of change		[Date]		
1.4.4	Dry dock				
1.4.4.1	Date of last dry dock		[Date]		
1.4.4.2	Date of second last dry dock		[Date]		
1.4.4.3	Date next dry dock due		[Date]		
1.4.5	Special survey				
1.4.5.1	Date of last special survey		[Date]		
1.4.5.2	Was last special survey an enhanced special survey		Yes/No		
1.4.5.3	Date next special survey due		[Date]		
1.4.6	Condition Assessment Program				
1.4.6.1	Does the ship have a Condition Assessment Program (CAP) rating?		Yes/No		
1.4.6.2	What is the latest rating?		Integer		
1.4.7	Date of last annual survey		[Date]		
1.4.8	Date of last boiler survey				
1.4.8.1	Port boiler		[Date]		
1.4.8.2	Starboard boiler		[Date]		
1.4.9	Is the ship subject to a Continuous Machinery Survey		Yes/No		
<b>1.5</b>	<b>Dimensions</b>				
1.5.1	Length overall (LOA)		[Decimal]	Meters	
1.5.2	Length between perpendiculars (LBP)		Decimal	Meters	
1.5.3	Extreme breadth		Decimal	Meters	
1.5.4	Molded breadth		Decimal	Meters	
1.5.5	Molded depth		Decimal	Meters	
1.5.6	Keel to masthead		Decimal	Meters	
1.5.7	Distance bow to bridge		Decimal	Meters	
1.5.8	Distance bridge front - mid-point manifold		Decimal	Meters	
1.5.9	Distance bow to mid-point manifold		Decimal	Meters	
1.5.10	Distance stern to mid-point manifold		Decimal	Meters	
1.5.11	Parallel mid-body diagram		1.5.11.1	1.5.11.2	
			Forward to mid-point	Aft to mid-point	
	Light ship		[Decimal]	[Decimal]	
	Normal ballast		[Decimal]	[Decimal]	
	At loaded summer		[Decimal]	[Decimal]	
1.5.12	Does ship have a bulbous bow?		Yes/No		
<b>1.6</b>	<b>Tonnages</b>				
1.6.1	Net registered tonnage (NRT)		[Decimal]	Tones	
1.6.2	Gross tonnage		[Decimal]	Tones	
1.6.3	Suez tonnage				
1.6.3.1	Suez tonnage		[Decimal]	tones	
1.6.3.2	Suez Canal Gross Tonnage (SCGT)		[Decimal]	tones	
1.6.3.3	Suez Canal Net Tonnage (SCNT)		[Decimal]	tones	
1.6.3.4	Panama Tonnage		[Decimal]	tones	
<b>1.7</b>	<b>Load line information</b>				
1.7.1	Load line information	Freeboard (m)	Draft (m)	Deadweight (mt)	Displacement (mt)
		1.7.1.1	1.7.1.2	1.7.1.3	1.7.1.4
	Summer	[Decimal]	[Decimal]	[Decimal]	[Decimal]
	Winter	[Decimal]	[Decimal]	[Decimal]	[Decimal]
	Tropical	[Decimal]	[Decimal]	[Decimal]	[Decimal]
	Lightship	[Decimal]	[Decimal]	[Decimal]	[Decimal]
	Normal Ballast Condition	[Decimal]	[Decimal]	[Decimal]	[Decimal]
	Segregated Ballast Condition	[Decimal]	[Decimal]	[Decimal]	[Decimal]
1.7.2	Fresh Water Allowance (FWA) at summer Draft		[Decimal]	Millimeters	
1.7.3	tones per Centimeter Immersion (TPC) at Summer Draft		[Decimal]	tones	
1.7.4	Normal ballast conditions		Draft (m)	Freeboard (m)	
			1.7.4.1	1.7.4.2	
	Forward		[Decimal]	[Decimal]	
	Aft		[Decimal]	[Decimal]	
1.7.5	Multiple deadweights				
1.7.5.1	Have multiple deadweights been assigned?		Yes/No		
1.7.5.2	If yes, what is the maximum assigned?		[Decimal]		

<b>1.8</b>	<b>Recent Operational History</b>					
1.8.1	What is the max. height of mast above waterline (air draft) in normal SBT condition?		[Decimal]	Meters		
1.8.2	Has the ship traded continuously without requirement for unscheduled repairs since the last dry-dock, except for normal maintenance?		Yes/No			
1.8.3	Unscheduled repairs					
1.8.3.1	Have unscheduled repairs been carried out?		Yes/No			
1.8.3.2	What was the nature of the repairs?		Memo			
1.8.4	Has ship been involved in a pollution incident during the past 12 months?		Yes/No			
1.8.5	Has ship been involved in a grounding incident during the past 12 months?		Yes/No			
1.8.6	Has ship been involved in a collision during the past 12 months?		Yes/No			
1.8.7	If there is additional information relating to features of the ship or operational characteristics that may be of interest, please record details here.		Memo			
<b>Chapter 2. Certificates</b>						
<b>2.1</b>	<b>Certificates</b>					
2.1.1	Register number		[Text]			
2.1.2	Does the ship comply with the International Convention for the Control and Management of Ships' Ballast Water and Sediments?		Yes/No			
2.1.3	Type of tanker. If the ship is not an oil tanker specify the type as recorded in Part B Sect 1.11 of the IOPPC		[Text]			
2.1.4	Certificate dates	2.1.4.1	2.1.4.2	2.1.4.3	2.1.4.4	2.1.4.5
		Date issued	Date expires	Last annual	Last intermediate	Date of endorsement
	Safety equipment certificate	[Date]	[Date]	[Date]	[Date]	[Date]
	Safety radio certificate	[Date]	[Date]	[Date]	[Date]	[Date]
	Safety construction certificate	[Date]	[Date]	[Date]	[Date]	[Date]
	Load-line certificate	[Date]	[Date]	[Date]	[Date]	[Date]
	International Oil Pollution Prevention Certificate (IOPP)	[Date]	[Date]	[Date]	[Date]	[Date]
	Safety management certificate (SMC)	[Date]	[Date]	[Date]	[Date]	[Date]
	Document of compliance (DOC)	[Date]	[Date]	[Date]	[Date]	[Date]
	International ship security certificate	[Date]	[Date]	[Date]	[Date]	[Date]
	USCG letter of compliance	[Date]	[Date]	[Date]	[Date]	[Date]
USCG certificate of compliance	[Date]	[Date]	[Date]	[Date]	[Date]	
2.1.5	Minimum safe manning document		[Date]			
2.1.6	Civil Liability Convention Certificate (1992)		[Date]			
2.1.7	U.S. Certificate of Financial Responsibility		[Date]			
2.1.8	Certificate of Fitness		[Date]			
2.1.8.1	Chemicals		[Date]			
2.1.8.2	Gas		[Date]			
2.1.9	Noxious Liquids Certificate		[Date]			
2.1.10	Date of issuance of the Unattended Machinery Space (UMS) Certificate		[Date]			
2.1.11	Date of issuance of the International Tonnage Certificate		[Date]			
<b>2.2</b>	<b>Publications</b>					
2.2.1	Publications		2.2.1.1			
			Present			
	IMO Safety of Life at Sea Convention (SOLAS 74)		Yes/No			
	International Life Saving Appliance Code (LSA Code)		Yes/No			
	International Code for Fire Safety Systems (FSS Code)		Yes/No			
	IMO International Code of Signals (SOLAS V-Reg 21)		Yes/No			
	IMO International Convention for the Prevention of Pollution from Ships (MARPOL 73/78)		Yes/No			
	IMO Ships Routing		Yes/No			
	IMO International Regulations for Preventing Collisions at Sea (COLREGS)		Yes/No			
	IMO Standards of Training, Certification and Watchkeeping (STCW Convention)		Yes/No			
	ICS Guide to Helicopter/Ship Operations		Yes/No			
	OCIMF/ICS/IAPH International Safety Guide for Oil Tankers and Terminals (ISGOTT)		Yes/No			
	OCIMF/ICS Ship to Ship Transfer Guide (Petroleum)		Yes/No			
	OCIMF Recommendations for Oil Tanker Manifolds and Associated Equipment		Yes/No			
	OCIMF Mooring Equipment Guidelines		Yes/No			
	OCIMF Effective Mooring		Yes/No			
	Guidance Manual for tanker structures		Yes/No			
	Recommendations for equipment employed in the bow mooring of ships at SPM moorings		Yes/No			
	Anchoring Systems and Procedures		Yes/No			
	USCG Regulations for Tankers (USCG 33 CFR/46 CFR)		Yes/No			
	International Safety Management Code (ISM Code)		Yes/No			
	Oil Transfer Procedures (USCG 33 CFR 155-156)		Yes/No			
	Operator's ISM Manuals		Yes/No			
	Is the publication IMO-Inert Gas Systems, or Ship Technical Operator's equivalent manual on board?		Yes/No			
	Is the publication IMO-Cow Systems, or Ship Technical Operator's equivalent manual on board?		Yes/No			
	ICS Bridge Procedures Guide		Yes/No			
	IAMSAR Vol.3		Yes/No			
	Nautical Institute Bridge Team Management		Yes/No			
	International Medical Guide for Ships (or equivalent)		Yes/No			
	ISPS Code		Yes/No			
	Guidelines for the control of Drugs and alcohol on board ships		Yes/No			
	Row: Guidelines on Fatigue		Yes/No			
	RIMO Code for Construction & Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code)		Yes/No			
	IMO Index of Dangerous Chemicals Carried in Bulk		Yes/No			
	ICS Tanker Safety Guide (Chemicals)		Yes/No			
	IMO Code for Construction & Equipment of Ships Carrying Dangerous Chemicals in Bulk (BCH Code)		Yes/No			
	Chemical Data Guide (USCG 1990 CIM 16616.6A)		Yes/No			
	Medical First Aid Guide for Use in Accidents involving Dangerous goods (MFAAG)		Yes/No			
	Procedures and Arrangements (P&A) Manual		Yes/No			
	IMO Code for Construction & Equipment of Ships Carrying Liquefied Gases in Bulk (IGC Code)		Yes/No			
ICS Tanker Safety Guide (Liquefied Gas)		Yes/No				
SIGTTO Liquefied Gas Handling Principles on Ships and in Terminals		Yes/No				
SIGTTO Guide to Pressure Relief Valve Maintenance and Testing		Yes/No				
ICS Ship to Ship Transfer Guide (Liquefied Gases)		Yes/No				
IMO International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGC Code)		Yes/No				
IMO Code for Existing Ships Carrying Liquefied Gases in Bulk (EGC Code)		Yes/No				

<b>2.3</b>	<b>Publications - Gas tanker specific</b>		
2.3.1	Publications - Gas tanker specific	2.3.1.1	
	Row: Liquefied petroleum gas sampling procedures	Present	
	Row: Manifold recommendations for liquefied gas carriers	Yes/No	
<b>Chapter 3. Crew</b>			
<b>3.1</b>	<b>Crew Management</b>		
3.1.1	Number of Officers/Ratings on board		
3.1.1.1	What is the minimum number of officers/ratings to be carried as recorded in the Minimum Safe Manning Document?	[Integer]	
3.1.1.2	What is the actual number of officers/ratings on board?	[Integer]	
3.1.2	Crew employment by the Ship Operator		
3.1.2.1	Is the Master employed by the Ship Operator?	Yes/No	
3.1.2.2	Are the officers employed by the Ship Operator?	Yes/No	
3.1.2.3	Are the ratings employed by the Ship Operator?	Yes/No	
3.1.3	What is the common language used on the Ship?	[Text]	
3.1.4	Manning agent for Officers		
3.1.4.1	Name	[Text]	
3.1.4.2	Full address	Memo	
3.1.4.3	Office telephone number	[Text]	
3.1.4.4	Office telex number	[Text]	
3.1.4.5	Office fax number	[Text]	
3.1.4.6	Office email address	[Text]	
3.1.5	Manning agents		
3.1.5.1	Are manning agent(s) wholly or partially owned by Operator?	Yes/No	
3.1.5.2	If No, does Operator have selection rights?	Yes/No	
3.1.6	Does the Operator maintain personnel files on officers assigned to its vessels?	Yes/No	
3.1.7	What is the retention rate for officers for the past 3 years?	[Decimal]	Years
3.1.8	Ratings on board		
3.1.8.1	What is the minimum number of ratings to be carried as specified in the Minimum Safe Manning Document?	[Integer]	
3.1.8.2	What is the actual number of ratings on board?	Integer	
3.1.8.3	List nationality of ratings	Memo	
3.1.9	Manning agent for Ratings (if different to Officers)		
3.1.9.1	Name	[Text]	
3.1.9.2	Full address	Memo	
3.1.9.3	Office telephone number	[Text]	
3.1.9.4	Office telex number	[Text]	
3.1.9.5	Office fax number	[Text]	
3.1.9.6	Office email address	[Text]	
3.1.10	Does the Operator maintain personnel files on ratings assigned to its ships?	Yes/No	
3.1.11	What is the retention rate for ratings for the past 3 years?	Integer	Years
<b>3.2</b>	<b>Continuity</b>		
3.2.1	Do senior officers return to the same ship on a rotational basis?	Yes/No	
3.2.2	Are senior officers rotated on ships of similar class within company fleet?	Yes/No	
3.2.3	Are junior officers and ratings rotated on ships of similar class within company fleet?	Yes/No	
3.2.4	If senior officers do not return to same ship on a rotational basis, are changes of Master, Chief Officer and Second Engineer organized to avoid a full change of officers at same time?	Yes/No	
<b>3.3</b>	<b>Training</b>		
3.3.1	List Operator sponsored training courses available:		
3.3.1.1	To officers (Bridge Management etc.)	Memo	
3.3.1.2	To ratings (Fire Fighting etc.)	Memo	
3.3.2	Are Masters and Chief Engineers required to attend company office before and after each tour of duty?	Yes/No	
3.3.3	Does operator hold regular training seminars ashore for officers?	Yes/No	
3.3.4	Are training seminars provided on board for officers and ratings?	Yes/No	
3.3.5	What courses, exceeding statutory requirements, are provided:		
3.3.5.1	For senior officers	Memo	
3.3.5.2	For junior officers	Memo	
3.3.5.3	For ratings	Memo	
<b>Chapter 4. Navigation</b>			
<b>4.1</b>	<b>Navigation</b>		
4.1.1	Navigation equipment	4.1.1.1	4.1.1.2
		Installed	Type
	Magnetic compass	Yes/No	[Text]
	Gyro compass	Yes/No	[Text]
	Gyro autopilot	Yes/No	[Text]
	4.1.1.3	Number installed	
	Radar 1	Yes/No	[Text]
	Radar 2	Yes/No	[Text]
	Radar plotting equipment	Yes/No	[Text]
	ARPA	Yes/No	[Text]
	Depth sounder with recorder	Yes/No	[Text]
	Speed/distance indicator	Yes/No	[Text]
	Doppler log	Yes/No	[Text]
	Docking approach Doppler	Yes/No	[Text]
	Rudder angle indicator	Yes/No	[Text]
	RPM indicator	Yes/No	[Text]
	Controllable pitch propeller indicator	Yes/No	[Text]
	Bow thruster indicator	Yes/No	[Text]
	Stern thrust indicator	Yes/No	[Text]
	Rate of turn indicator	Yes/No	[Text]
	Navtex indicator	Yes/No	[Text]
	Global positioning system (GPS)	Yes/No	[Text]
	Differential GPS	Yes/No	[Text]
	Electronic Charts Display and Information System (ECDIS)	Yes/No	[Text]
	Course Recorder	Yes/No	[Text]
Integrated Navigation System (INS)	Yes/No	[Text]	
Off-course Alarm Gyro	Yes/No	[Text]	
Off-course Alarm Magnetic	Yes/No	[Text]	
Engine Order Logger	Yes/No	[Text]	

	Anemometer	Yes/No	[Text]	Integer
	Weather fax	Yes/No	[Text]	Integer
4.1.2	Is a repeating magnetic compass fitted?		Yes/No	
4.1.3	Is there at least one radar operating in the 9 GHz frequency band (3cm/x band)?		Yes/No	
4.1.4	Are the 3 GHz (10cm/S band) and 9GHz (3cm / X band) radars fitted with an electronic switching unit?		Yes/No	
4.1.5	Are the Radars fitted with ARPA?		Yes/No	
4.1.6	Is the ECDIS an approved system?		Yes/No	
4.1.7	Does ship carry sextant(s)?		Yes/No	
4.1.8	Does ship carry a signal lamp?		Yes/No	
4.1.9	Is each bridge wing fitted with?			
4.1.9.1	Rudder angle indicator		Yes/No	
4.1.9.2	RPM indicator		Yes/No	
4.1.9.3	Gyro repeater		Yes/No	
4.1.10	If the ship is fitted with a controllable pitch propeller, are indicators fitted on the bridge wings?		Yes/No	
4.1.11	Are steering controls and engine controls fitted on bridge wings?		Yes/No	
4.1.12	Is a Bridge Watch Navigation Alarm (BWNAS) system fitted?		Yes/No	
<b>Chapter 5. Safety</b>				
<b>5.1 Safety Management</b>				
5.1.1	Quality management system:			
5.1.1.1	Is the ship operated under a Quality management system?		Yes/No	
5.1.1.2	If Yes, what type of system? (ISO9002 or IMO Resolution A.741(18))?		[Text]	
5.1.1.3	If Yes, who is the certifying authority?		[Text]	
5.1.1.4	Date of the ship's certification		[Date]	
<b>5.2 Helicopters</b>				
5.2.1	ICS Guide to Helicopter/Ship Operations			
5.2.1.1	Does the ship comply with the ICS Guide to Helicopter/Ship Operations?		Yes/No	
5.2.1.2	If yes, state whether winching or landing area provided		[Text]	
5.2.1.3	If yes, what is the diameter of the circle provided		Decimal	
<b>5.3 Fire Fighting and Lifesaving equipment</b>				
5.3.1	Fixed foam fire fighting			
5.3.1.1	Is a fixed foam firefighting system installed for the cargo area?		Yes/No	
5.3.1.2	If yes, what is the type of foam?		Lookup	
5.3.1.3	What was the date of supply of the foam, or the date of the last Test Analysis Certificate?		Date	
5.3.2	What type of fixed firefighting system is provided for?			
5.3.2.1	The paint locker?		[Text]	
5.3.2.2	The pump rooms?		[Text]	
5.3.2.3	The engine rooms?		[Text]	
5.3.2.4	The void spaces?		[Text]	
5.3.3	Is a fixed dry powder firefighting system installed for the cargo area?		Yes/No	
5.3.4	Is a fixed water spray firefighting system installed for the cargo area?		Yes/No	
5.3.5	Is the ship equipped with a compressor for recharging breathing apparatus air cylinders?		Yes/No	
5.3.6	What type of lifeboat(s) is/are fitted?		Lookup	
5.3.7	Dedicated rescue boats			
5.3.7.1	Is a dedicated rescue boat provided?		Yes/No	
5.3.7.2	If a dedicated rescue boat is carried, what is its construction?		Lookup	
<b>Chapter 6. Pollution Prevention</b>				
<b>6.1 Pollution Prevention</b>				
6.1.1	Continuous deck edge fishplate			
6.1.1.1	Is ship fitted with a continuous deck edge fishplate enclosing the deck area?		Yes/No	
6.1.1.2	If Yes, what is its minimum vertical height above the deck plating?		Decimal	
6.1.1.3	What is maximum vertical height above deck plating at the position where the fish plate adjoins the aft thwart ships coaming?		Decimal	
6.1.1.4	How far forward of the athwartships coaming is this height maintained?		Decimal	
6.1.1.5	Is an athwartship deck coaming fitted adjacent to accommodation and service areas?		Yes/No	
6.1.1.6	What is the height of the coaming?		Decimal	
6.1.2	Is spill containment fitted			
6.1.2.1	Under the cargo manifold?		Yes/No	
6.1.2.2	Under all bunker manifolds?		Yes/No	
6.1.2.3	Under the bunker tank vents?		Yes/No	
6.1.2.4	Around the deck machinery?		Yes/No	
6.1.3	What type of scupper plugs are provided?		[Text]	
6.1.4	Preventing spill out entering the sea			
6.1.4.1	Are means provided to prevent spilled oil entering the sea?		Yes/No	
6.1.4.2	If yes, what means are provided?		[Text]	
6.1.5	Is the following pollution control equipment available to clean up oil spilled on deck:			
6.1.5.1	Sorbents		Yes/No	
6.1.5.2	Non-sparking hand scoops/shovels		Yes/No	
6.1.5.3	Containers		Yes/No	
6.1.5.4	Emulsifiers		Yes/No	
6.1.5.5	Non-sparking pumps		Yes/No	
6.1.6	Is the cargo piping system fully segregated from the sea chest?		Yes/No	
6.1.7	What type of sea valves are fitted?		[Text]	
6.1.8	Pre-MARPOL tankers			
6.1.8.1	Is the ship a pre-MARPOL tanker?		Yes/No	
6.1.8.2	If yes, is a cargo sea chest valve testing arrangement fitted which meets OCIMF recommendations?		Yes/No	
6.1.9	Are dump valves fitted to the slop tanks which will operate with normal inert gas pressure in the tank vapors space?		Yes/No	
6.1.10	Are overboard discharges fitted with blanks or alternatively, is there a testing arrangement for the overboard valves?		Yes/No	
6.1.11	Is there a discharge below the waterline for Annex II substances		Yes/No	
6.1.12	Is there a discharge above the waterline for Annex I oily mixtures		Yes/No	
6.1.13	Cargo piping pressure tests:			
6.1.13.1	On oil and chemical tankers, does the Operator have a policy to pressure test cargo piping at intervals no greater than 12 months?		Yes/No	
6.1.13.2	If yes, specify pressure		Decimal	
6.1.14	Bunker piping pressure tests:			
6.1.14.1	Does Operator have policy to pressure test bunker piping at intervals no greater than 12 months?		Yes/No	
6.1.14.2	If yes, specify pressure		Decimal	
6.1.15	Is garbage incinerator fitted?		Yes/No	

<b>6.2</b>	<b>OPA 90 Requirements</b>					
6.2.1	Has the Operator submitted a Vessel Spill Response Plan to the US Coast Guard which has been approved by official USCG letter?			Yes/No		
6.2.2	Has a Geographic Specific Appendix been filed with the Captain of the Port for each Port Zone the ship expects to enter or transit?			Yes/No		
6.2.3	Has the Operator deposited a letter with the US Coast Guard confirming that the Operator has signed a service contract with an oil spill removal organization for responding to a 'worst case scenario'?			Yes/No		
<b>Chapter 7. Structural Condition</b>						
<b>7.1 Structural Condition</b>						
7.1.1	Cargo tank coating					
7.1.1.1	Are cargo tanks coated?			Yes/No		
7.1.1.2	If yes, specify type of coating			[Text]		
7.1.1.3	If all tanks are not coated, specify those tanks which are not coated			Memo		
7.1.1.4	If cargo tanks are coated, specify to what extent			[Text]		
7.1.1.5	What is the condition of coating?			[Text]		
7.1.2	Ballast tank coating					
7.1.2.1	Are ballast tanks coated?			Yes/No		
7.1.2.2	If yes, specify type of coating			[Text]		
7.1.2.3	If yes, specify to what extent			[Text]		
7.1.2.4	What is the condition of the ballast tank coating?			[Text]		
7.1.3	Tank anodes					
7.1.3.1	Are anodes fitted to the cargo tanks?			Yes/No		
7.1.3.2	Are anodes fitted to the ballast tanks?			Yes/No		
7.1.3.3	What type of anodes are fitted			[Text]		
7.1.3.4	What is the extent of wastage of the anodes in the cargo tanks			[Decimal]		
7.1.3.5	What is the extent of wastage of the anodes in the ballast tanks			[Decimal]		
7.1.3.6	If anodes are aluminum, what is the height above tank bottom?			[Decimal]		
7.1.4	Is a formal program in place for regular inspection of void spaces, cargo and ballast tanks?			Yes/No		
7.1.5	Planned Prevention Maintenance Program					
7.1.5.1	Does ship have planned prevention maintenance program (PPM)?			Yes/No		
7.1.5.2	Is PPM manual (card system) or computerized?			Lookup		
7.1.5.3	What areas of the ship does the PPM cover?			[Text]		
7.1.5.4	If the PPM is Class-approved, what is the Class notation?			[Text]		
<b>Chapter 8. Cargo</b>						
<b>8.1 Ballast Tanks</b>						
8.1.1	Ballast capacities at 100% full (M3)					
8.1.1.1	Tank Number			[Text]		
8.1.1.2	Identity			[Text]		
8.1.1.3	Capacity			Decimal	M3	
8.1.2	Total Ballast Tank Capacities at 100% full			Decimal	M3	
8.2	Ballast Handling					
8.2.1	Ballast Handling Data	8.2.1.1 Number	8.2.1.2 Type	8.2.1.3 Type of prime mover	8.2.1.4 Capacity	8.2.1.5 At what head?
	Main Pump	[Text]	[Text]	[Text]	[Text]	[Text]
	Stripping	[Text]	[Text]	[Text]	[Text]	[Text]
	Educators	[Text]	[Text]	[Text]	[Text]	[Text]
8.2.2	Ballast handling Main Pump					
8.2.2.1	Normal back pressure			Decimal		
8.2.2.2	Max RPM			Decimal		
8.2.3	Bunker connections					
8.2.3.1	What is the number of bunker connections per side?			Integer		
8.2.3.2	What is the size of the bunker connection?			Decimal		
<b>Chapter 9. Cargo Specific</b>						
<b>9.1 Cargo Handling (Oil)</b>						
9.1.1	Tank Plan			Memo		
<b>9.2 Double Hull Vessels</b>						
9.2.1	Centerlines bulkhead					
9.2.1.1	Is the ship constructed with a centerline bulkhead to all cargo tanks?			Yes/No		
9.2.1.2	If Yes, is bulkhead solid or perforated?			Lookup		
9.2.2	'U' shaped ballast tanks					
9.2.2.1	Is the ship fitted with any full breadth 'U' shape ballast tanks?			Yes/No		
9.2.2.2	If Yes, how many ballast tanks are full breadth?			Integer		
<b>9.3 Cargo Tank Capacities</b>						
9.3.1	Cargo Tank Capacities At 98% Full (M3) - Centre					
9.3.1.1	Tank Number			[Text]		
9.3.1.2	Capacity			[Text]		
9.3.2	Centre Tank Total Capacity (98%)			Decimal		
9.3.3	Cargo Tank Capacities At 98% Full (M3) Wings (P and S Combined)					
9.3.3.1	Column: Tank Number			[Text]		
9.3.3.2	Column: Capacity			[Text]		
9.3.4	Wings (P and S combined) Total Capacity (98%)			Decimal		
9.3.5	Slops tank capacities (98%)					
9.3.5.1	Tank Number			[Text]		
9.3.5.2	Capacity			[Text]		
9.3.6	Grand Total Capacity (98%)			Decimal		
9.3.7	Ballast Capacities At 100% Full (M3)			Decimal		
<b>9.4 SBT Tanker</b>						
9.4.1	What is the total volume of the SBT tanks			Decimal	M3	
9.4.2	What percentage of summer deadweight can the ship maintain with SBT only?			Decimal	Percent	
9.4.3	Does the ship meet the requirements of MARPOL Reg 13 (2)?			Yes/No		
9.4.4	Can segregated ballast be discharged through the cargo manifold?			Yes/No		
9.4.5	Is a spool piece to connect the ballast system to the cargo system provided?			Yes/No		
9.4.6	Dedicated/segregated ballast tanks					
9.4.6.1	Do cargo lines pass through any dedicated or segregated ballast tanks?			Yes/No		
9.4.6.2	If Yes, what type of expansion is fitted?			[Text]		
9.4.7	Cargo tanks					
9.4.7.1	Do ballast lines pass through any cargo tanks?			Yes/No		
9.4.7.2	If Yes, what type of expansion is fitted?			[Text]		



9.4.8.1	Can the ship pump water ashore for line clearing?	Yes/No	
9.4.8.2	If Yes, what is maximum attainable discharge rate?	Decimal	M3/Hour
9.4.8.3	If Yes, what is maximum acceptable back pressure?	Decimal	Bar
9.4.9	Which cargo tanks are designated for the carriage of heavy weather ballast?	Memo	
<b>9.5</b>	<b>Cargo Handling</b>		
9.5.1	How many grades of cargo can be loaded or discharged with double valve segregation?	Integer	
9.5.2	How many grades of cargo can be loaded or discharged using blank flanges?	Integer	
9.5.3	If deep well pumps and heat exchangers are fitted, can the pumps and heat exchangers be by-passed during loading?	Yes/No	
9.5.4	Oil Discharge Monitoring Equipment (ODME)		
9.5.4.1	Is there Oil Discharge Monitoring Equipment (ODME) fitted?	Yes/No	
9.5.4.2	Is an Oil Discharge Monitoring System connected to the above waterline discharge?	Yes/No	
9.5.4.3	If yes, is the Oil Discharge Monitoring system designed to automatically stop the discharge of effluent when its oil content exceeds permitted levels?	Yes/No	
9.5.5	Stability computer		
9.5.5.1	If the ship is >100m LOA, is it provided with a class-approved or class-certified stability computer?	Yes/No	
9.5.5.2	Does this stability program consider damaged stability conditions?	Yes/No	
<b>9.6</b>	<b>Cargo Handling Systems</b>		
9.6.1	Is computer integrated with cargo system and equipped with alarm to monitor loading and discharging operations?	Yes/No	
9.6.2	Are dedicated cargo stripping lines and pumps provided?	Yes/No	
9.6.3	State location of cargo pump emergency stops	Table (Variable)	
9.6.3.1	Column: Stop Number	[Text]	
9.6.3.2	Column: Location	[Text]	
9.6.4	High temperature alarms/trips	9.6.4.1	9.6.4.2
	Row: Bearings of cargo pumps	High temperature alarms	High temperature trips
	Row: Bearings of ballast pumps	Yes/No	Yes/No
	Row: Casings of cargo pumps	Yes/No	Yes/No
	Row: Casings of ballast pumps	Yes/No	Yes/No
Row: Pump room shaft glands through bulkheads	Yes/No	Yes/No	
9.6.5	What is the principal type of cargo valve?	[Text]	
9.6.6	What type of cargo valve actuator is fitted?	[Text]	
<b>9.7</b>	<b>Cargo Room Control</b>		
9.7.1	Is ship fitted with a Cargo Control Room? (CCR)	Yes/No	
9.7.2	Can cargo and ballast pumps be controlled from the CCR?	Yes/No	
9.7.3	Can all valves be controlled from the CCR?	Yes/No	
9.7.4	Can tank innage/ullage be read from the CCR?	Yes/No	
9.7.5	Is ODME readout fitted in the CCR?	Yes/No	
9.7.6	Can the inert gas system be controlled from the CCR?	Yes/No	
<b>9.8</b>	<b>Gauging and Sampling</b>		
9.8.1	Can cargo be transferred under closed loading conditions in accordance with ISGOTT 11.1.6.6?	Yes/No	
9.8.2	What type of fixed closed tank level gauging system is fitted?	[Text]	
9.8.3	Is the tank level gauging system provided with local readouts at each tank?	Yes/No	
9.8.4	Is the tank gauging system calibrated by an Internationally recognized cargo inspection company?	Yes/No	
9.8.5	If it is a portable system does the sounding pipe extend to full tank depth?	Yes/No	
9.8.6	Are bunker tanks fitted with a full depth gauging system?	Yes/No	
9.8.7	High-level alarms		
9.8.7.1	Are high-level alarms fitted to the cargo tanks?	Yes/No	
9.8.7.2	If Yes, are the high-level alarms fitted to all cargo tanks?	Lookup	
9.8.7.3	Are the high-level alarms independent of the gauging system?	Yes/No	
9.8.8	Bunker tanks high-level alarms		
9.8.8.1	Are bunker tanks fitted with high-level alarms?	Yes/No	
9.8.8.2	If Yes, are bunker tank high-level alarms part of the primary tank gauging system?	Yes/No	
9.8.9	Is closed-sampling equipment provided?	Yes/No	
9.8.10	Are cargo tanks fitted with dipping points as per IMO Res 497 4.4.4?	Yes/No	
9.8.11	Vapor lock calibration		
9.8.11.1	If portable equipment for gauging uses vapors locks, are vapor locks calibrated by a recognized cargo inspection company?	Yes/No	
9.8.11.2	If Yes, what is the name of the cargo inspection company	[Text]	
9.8.11.3	If Yes, by whom are vapor locks certified?	[Text]	
9.8.12	Portable gauging equipment		
9.8.12.1	Is portable equipment used for gauging?	Yes/No	
9.8.12.2	If yes, who is the manufacturer?	[Text]	
9.8.12.3	How many units are supplied?	integer	
9.8.13	What is the name of the manufacturer of the vapor locks?	[Text]	
9.8.14	What is the nominal (internal) diameter of the vapor lock?	[integer]	Millimeters
9.8.15	vapor locks		
9.8.15.1	To what standard is the thread of the vapor lock manufactured?	[Text]	
9.8.15.2	Can vapor lock be used for ullaging?	Yes/No	
9.8.15.3	Can vapor lock be used for temperature?	Yes/No	
9.8.15.4	Can vapor lock be used for interface?	Yes/No	
9.8.15.5	Can vapor lock be used for cargo sampling?	Yes/No	
9.8.15.6	If the vapor lock can be used for cargo sampling, what is the volume of the sample that can be drawn?	[Text]	
9.8.16	Specify portable equipment for checking oil/water interface	[Text]	
9.8.17	Can cargo samples be taken at the manifold?	Yes/No	
9.8.18	What is the means of taking cargo temperatures?	[Text]	
<b>9.9</b>	<b>Vapor Emission Control</b>		
9.9.1	Is a vapor return system fitted?	Yes/No	
9.9.2	If fitted, is vapour line return manifold in compliance with OCIMF Guidelines?	Yes/No	
9.9.3	Does the ship possess Vapour Emission Control (VEC) Certification?	Yes/No	
9.9.4	If yes, state the issuing authority?	[Text]	
<b>9.1</b>	<b>Venting</b>		
9.10.1	What type of venting system is fitted	[Text]	
9.10.2	What is the maximum venting capacity?	Decimal	M3/Hour
9.10.3	What is the P/V valve opening pressure?	Decimal	MM/WG
9.10.4	What is the P/V valve vacuum setting?	Decimal	MM/WG
9.10.5	Are isolating valves fitted to each cargo tank?	Yes/No	
9.10.6	Does the secondary venting arrangement provide for each tank, a full a flow P/V valve (or valves) on the tank side of the isolation valve or pressure sensing equipment with the readouts in the CCR?	Yes/No	
9.10.7	Are pressure sensors, having readouts in the cargo control position, provided in each cargo tank?	Yes/No	



9.10.8	<b>Mast risers</b>		
9.10.8.1	Is venting through a mast riser?	Yes/No	
9.10.8.2	Are mast risers fitted with high velocity vents?	Yes/No	
9.10.8.3	If Yes, state opening pressure	Decimal	MM/WG
9.10.8.4	What is the vacuum setting of the mast riser P/V valve?	Decimal	MM/WG
9.10.8.5	What is the maximum capacity of the mast riser venting system?	Decimal	M3/Hour
9.10.9	What is the maximum loading rate for homogenous cargo?	Decimal	M3/Hour
<b>9.11</b>	<b>Cargo Manifolds</b>		
9.11.1	Does the cargo manifold arrangement comply with the latest edition of the OCIMF 'Recommendations for Oil Tanker Manifolds and Associated Equipment'?	Yes/No	
9.11.2	Manifold Valves		
9.11.2.1	What type of valves are fitted at manifold?	[Text]	
9.11.2.2	If hydraulic valves fitted, what are closing times?	Decimal	Seconds
9.11.3	What is the number of cargo connections per side?	integer	
9.11.4	What is the size of cargo connections?	Decimal	Millimeters
9.11.5	Are pressure gauges fitted with valves or cocks located outboard of manifold valves?	Yes/No	
9.11.6	What is the material of the manifold?	[Text]	
9.11.7	Is a cargo line crossover fitted at the manifold?	Yes/No	
<b>9.12</b>	<b>Manifold Arrangement</b>		
9.12.1	Measurements		
9.12.1.1	Distance A bunker manifold to cargo manifold	Decimal	Millimeters
9.12.1.2	Distance B cargo manifold to cargo manifold	Decimal	Millimeters
9.12.1.3	Distance C cargo manifold to vapour return manifold	Decimal	Millimeters
9.12.1.4	Distance D manifolds to ship's rail	Decimal	Millimeters
9.12.1.5	Distance E spill tank grating to center of manifold	Decimal	Millimeters
9.12.1.6	Distance F main deck to centre of manifold	Decimal	Millimeters
9.12.1.7	Distance G main deck to top of rail	Decimal	Millimeters
9.12.1.8	Distance H top of rail to centre of manifold	Decimal	Millimeters
9.12.1.9	Distance J manifold to ship side	Decimal	Millimeters
9.12.1.10	What is the height of the manifold connections above the waterline at loaded (Summer Deadweight) condition?	Decimal	Meters
9.12.1.11	What is the height of the manifold connections above the waterline in normal ballast?	Decimal	Meters
9.12.1.12	What is the height of manifold connections above the waterline in lightship condition?	Decimal	Meters
9.12.1.13	What is the distance between the keel and centre of manifold?	Decimal	Meters
9.12.2	Is a stern discharge manifold fitted?	Yes/No	
9.12.3	If stern manifold fitted, state size	Decimal	Millimeters
9.12.4	Is a bow manifold fitted?	Yes/No	
9.12.5	If bow manifold fitted, state size	Decimal	Millimeters
9.12.6	if bow manifold is fitted, to what Standard is it manufactured?	[Text]	
<b>9.13</b>	<b>Gas Monitoring</b>		
9.13.1	Is a fixed system fitted to continuously monitor potentially flammable atmospheres?	Yes/No	
9.13.2	What spaces are monitored?	Memo	
9.13.3	Where are sensors/sampling points located in pump room?	Memo	
9.13.4	What is the rank of the person or persons who are responsible for testing sensors/sampling points?	[Text]	
9.13.5	Who is responsible for testing sensors/sampling points?	[Text]	
<b>9.14</b>	<b>Cargo Heating</b>		
9.14.1	Heating coils		
9.14.1.1	Are the cargo tanks fitted with heating coils?	Yes/No	
9.14.1.2	If Yes, how many independent heating coil sets are fitted to each cargo tank?	[Text]	
9.14.1.3	If Yes, are all the cargo tanks fitted with heating coils?	Yes/No	
9.14.1.4	What is the height of the heating coils above the tank bottom?	Decimal	Millimeters
9.14.1.5	What is the total heating surface of the heating coils, per tank?	Decimal	Sq Meters
9.14.1.6	What is the ratio of the heating surface to the volume of the tank?	[Text]	
9.14.1.7	Are heating coils welded or coupled?	Lookup	
9.14.2	Are heat exchangers external to cargo tanks?	Yes/No	
9.14.3	Are there external ducts?	Yes/No	
9.14.4	What type of material is used for the heating coils?	Lookup	
9.14.5	Inlet heating		
9.14.5.1	Inlet heating medium to coils	Lookup	
9.14.5.2	With Sea temperature	Decimal	Deg C
9.14.5.3	With air temperature	Decimal	Deg C
9.14.6	Heating agent	Lookup	
9.14.7	Number of heaters		
9.14.7.1	Number of heaters	integer	
9.14.7.2	Able to raise temperature from	Decimal	Deg C
9.14.7.3	Able to raise temperature to	Decimal	Deg C
9.14.7.4	Time taken to raise temperature	Decimal	Hours
9.14.8	Total capacity of boilers	Decimal	KCal
<b>9.15</b>	<b>Inert Gas and Crude Oil Washing</b>		
9.15.1	Is an inert gas system (IGS) fitted? (If No, ignore remainder of this section)	Yes/No	
9.15.2	Is a P/V breaker fitted?	Yes/No	
9.15.3	Do the inert gas distribution lines have natural segregations that match the cargo pipeline segregations?	Yes/No	
9.15.4	Is the inert gas supplied by flue gas, inert gas generator and/or stored nitrogen?	Lookup	
9.15.5	Are fixed O2 alarms fitted in inert gas generating spaces?	Yes/No	
9.15.6	What is the capacity of the IGS?	Decimal	M3/Hour
9.15.7	How many fans does it have?	integer	
9.15.8	What is the total combined fan capacity?	Decimal	M3/Hour
9.15.9	IG generator		
9.15.9.1	Is a top-up IG generator fitted?	Yes/No	
9.15.9.2	If Yes, what is its capacity?	Decimal	M3/Hour
9.15.10	Is an IGS operating manual on board?	Yes/No	
9.15.11	What type of deck seal is fitted?	[Text]	
9.15.12	How many segregations does the IGS have?	integer	
9.15.13	What method is used to isolate individual tanks?	[Text]	
9.15.14	What type of non-return valve is fitted?	[Text]	
9.15.15	If the cargo tanks can be individually isolated from the IGS/Vent line, what means of secondary protection is fitted?	Memo	

9.15.16	If ship has double hull or sides, are facilities available to inert ballast tanks and other void spaces?	Yes/No	
9.15.17	How is inert gas supplied to the ballast tanks or other void spaces?	[Text]	
9.15.18	Can these tanks/spaces be purged with air?	Yes/No	
9.15.19	Emergency IGS Connection		
9.15.19.1	Where is the location of the emergency IGS connection?	[Text]	
9.15.19.2	What is the size of the emergency IGS connection?	Decimal	Millimeters
9.15.20	Crude Oil Washing		
9.15.20.1	Is a Crude Oil Washing (COW) installation fitted?	Yes/No	
9.15.20.2	Are COW drive units fixed or portable?	Lookup	
9.15.20.3	Are COW drive units programmable?	Yes/No	
9.15.20.4	Can COW be conducted at the same time as cargo discharge?	Yes/No	
9.15.20.5	Is there an approved COW Manual on board?	Yes/No	
9.15.20.6	What is the working pressure of the COW lines?	Decimal	Bar
<b>9.3</b>	<b>Chemical Tankers</b>		
9.30.1	In the case of a Chemical Carrier carrying oil, does the vessel comply fully with the requirements of MARPOL as per Section 8 of the IOPP Supplement (Form B)?	Yes/No	
9.30.2	Is at least one emergency portable cargo pump provided?	Yes/No	
9.30.3	Are independent high-level alarms fitted?	Yes/No	
9.30.4	Is a tank overflow control system fitted?	Yes/No	
9.30.5	Are these also fitted to deck tanks?	Yes/No	
9.30.6	Cargo tank filling restrictions		
9.30.6.1	Are there cargo tank filling restrictions?	Yes/No	
9.30.6.2	Filling restrictions	Memo	
9.30.7	Is the ship fitted with a fixed remote reading temperature system?	Yes/No	
9.30.8	Is the ship fitted with a fixed remote pressure gauging equipment?	Yes/No	
9.30.9	Specify other cargo measurement equipment available	Memo	
9.30.10	Tank stripping system		
9.30.10.1	Is an effective tank stripping system fitted?	Yes/No	
9.30.10.2	Are independent stripping lines fitted?	Yes/No	
9.30.10.3	What is the material of the stripping lines?	Lookup	
9.30.10.4	What is the diameter of the stripping lines?	Decimal	
<b>9.31</b>	<b>Inert Gas Systems</b>		
9.31.1	By what means is inert gas supplied?	Lookup	
9.31.2	IGS Composition of gas supplied by		
9.31.2.1	Nitrogen	Decimal	Percent
9.31.2.2	Carbon Dioxide	Decimal	Percent
9.31.2.3	Oxygen	Decimal	Percent
9.31.2.4	Sulphur Dioxide	Decimal	Percent
9.31.2.5	Carbon Monoxide	Decimal	Percent
9.31.2.6	Oxides of Nitrogen	Decimal	Percent
9.31.2.7	Dew Point	Decimal	Deg C
9.31.3	Cargo Tank Drier		
9.31.3.1	Is Cargo Tank Drier fitted?	Yes/No	
9.31.3.2	If yes, manufacturer name	[Text]	
9.31.3.3	If yes, Capacity	Decimal	M3/Hour
9.31.4	Is nitrogen in cylinders provided for use on deck?	Yes/No	
9.31.5	Is steam available on deck?	Yes/No	
<b>9.32</b>	<b>Tank Conditioning</b>		
9.32.1	Fixed ventilation system		
9.32.1.1	Is there a fixed ventilation system?	Yes/No	
9.32.1.2	What is the total capacity?	Decimal	M3/Hour
9.32.2	Dehumidifiers		
9.32.2.1	Is the fixed ventilation system fitted with a dehumidifier?	Yes/No	
9.32.2.2	What is the total capacity?	Decimal	M3/Hour
9.32.2.3	Is independent piping fitted?	Yes/No	
9.32.3	Is ventilation provided through the cargo lines?	Yes/No	
9.32.4	Are portable fans provided?	Yes/No	
9.32.5	Portable Fans		
9.32.5.1	Number	[Text]	
9.32.5.2	Type	[Text]	
9.32.5.3	Capacity	[Text]	
9.32.6	Gas freeing standpipes		
9.32.6.1	Are standpipes to assist gas freeing provided?	Yes/No	
9.32.6.2	Are the gas freeing standpipes portable?	Yes/No	
9.32.6.3	Are the gas freeing standpipes permanently fixed?	Yes/No	
<b>9.33</b>	<b>Safety</b>		
9.33.1	Is there Protective equipment for the protection of crew members available as per IBC 14.1.1 / BCH 3.16.1.?	Yes/No	
9.33.2	When required by the Chemical Code, is respiratory and eye protection for every person on board available for emergency escape purposes?	Yes/No	
9.33.3	When required by the Chemical Code, is there on board at least three sets of personnel protection safety equipment (IBC 14.2.1 / BCH 3.16)?	Yes/No	
9.33.4	Is an Oxygen resuscitator available on board?	Yes/No	
9.33.5	Are there at least two decontamination showers available on deck?	Yes/No	
<b>9.34</b>	<b>Cargo and Other Manifolds</b>		
9.34.1	Total number of cargo manifold connections on each side		
		9.34.1.1	9.34.1.2
		Number	Size
	Port		
	Starboard		
9.34.2	Is a crossover line fitted to interconnect all cargo lines?	Yes/No	
9.34.3	Designed Max. loading rate	Decimal	M3/Hour
9.34.4	Height of cargo vapour connections above keel	Decimal	Meters
9.34.5	Located on both sides?	Yes/No	
9.34.6	Additional connection to cargo system		
9.34.6.1	Is there an additional connection to cargo system on deck?	Yes/No	
9.34.6.2	If yes, position (distance from bow)	Decimal	Meters
9.34.7	Are manifold cross-connections made by hard or flexible piping?	[Text]	
9.34.8	Cargo and Other Manifold Diagram	Table (Variable)	
9.34.8.1	Column: Dimension	[Text]	

9.34.8.2	Column: Value		[Text]			
<b>9.35</b>	<b>Tank Cleaning Systems</b>					
9.35.1	Is tank cleaning equipment fixed in cargo tanks?		Yes/No			
9.35.2	Is portable tank cleaning equipment provided?		Yes/No			
9.35.3	What is the capacity of each tank cleaning machine at its design operating pressure?		Table (Variable)			
9.35.3.1	Column: Machine Number		[Text]			
9.35.3.2	Column: Design Operating Pressure		[Text]			
9.35.3.3	Column: Duration of Complete Cycle		[Text]			
9.35.3.4	Column: Nozzle Diameter		[Text]			
9.35.4	Tank washing pump capacity		Decimal	M3/Hour		
9.35.5	Washing Water Heater					
9.35.5.1	Is a washing water heater fitted?		Yes/No			
9.35.5.2	What is the Max. washing water temperature?		Decimal	Deg C		
9.35.6	What is the maximum number of machines that can be operated at their designed max pressure?		Integer			
9.35.7	Where differing types of equipment are provided, what is the manufacturer, type, and capacity of each?		Memo			
<b>9.5</b>	<b>LPG Tanker Information</b>					
9.50.1	Does Form B of the IOPPC identify the ship as a product carrier?		Yes/No			
9.50.2	Do the Safety Construction and Safety Equipment Certificates identify the ship as a 'tanker engaged in the trade of carrying oil other than crude oil'?		Yes/No			
9.50.3	List products which the ship is certified to carry		Memo			
9.51	Transport and Carriage Conditions					
9.51.1	What is the minimum permissible tank temperature?		Decimal	Deg C		
9.51.2	What is the maximum permissible tank pressure?		Decimal	KP/CM2		
9.51.3	What is the minimum permissible tank pressure?		Decimal	KP/CM2		
9.51.4	What is the maximum number of grades that can be loaded/ carried/discharged simultaneously with complete segregation and without risk of contamination?		Integer			
9.51.5	What is the number of products that can be conditioned by reliquefaction simultaneously?		Integer			
9.51.6	State the number of natural segregations (NB: Separation must be by the removal of spools or the insertion of blanks)		Integer			
9.51.7	Material of construction of cargo piping system		Lookup			
9.51.8	Cargo Piping Filters					
9.51.8.1	Is the cargo piping system fitted with filters?		Yes/No			
9.51.8.2	If yes, can cargo piping filters be by-passed or removed?		Yes/No			
9.51.9	Are expansion loops fitted?		Yes/No			
9.51.10	Are liquid cargo lines free of expansion bellows?		Yes/No			
9.51.11	Location of booster pumps?		Lookup			
<b>9.52</b>	<b>Cargo Tanks</b>					
9.52.1	What type and of what material are the cargo tanks constructed?		Memo			
9.52.2	Relief valve settings					
9.52.2.1	Maximum allowable relief valve setting		Decimal	Bar		
9.52.2.2	IMO Setting		Decimal	Bar		
9.52.2.3	USCG Setting		Decimal	Bar		
9.52.3	Safety valve set pressure					
9.52.3.1	Safety valve set pressure		Decimal	Bar		
9.52.3.2	If variable give range of pilot valves - from		Decimal	Bar		
9.52.3.3	If variable give range of pilot valves - to		Decimal	Bar		
9.52.4	Maximum Vacuum		Decimal	KP/CM2		
9.52.5	Maximum cargo specific density		Decimal			
9.52.6	Maximum rate of cool down		Decimal	Deg C		
9.52.7	State any limitations regarding partially filled tanks		Memo			
9.52.8	State allowable combinations of filled and empty tanks		Memo			
<b>9.53</b>	<b>Cargo Tank Capacities</b>					
9.53.1	Total Tank Capacities					
9.53.1.1	Butane Tanks		Decimal	Tones		
9.53.1.2	Propane Tanks		Decimal	Tones		
9.53.1.3	Ammonia Tanks		Decimal	Tones		
9.53.1.4	Other Tanks		Decimal	Tones		
9.54	Loading Rates					
9.54.1	From Refrigerated Storage					
9.54.1.2	State 'other' storage		[Text]			
		9.54.1.2.1	9.54.1.2.2			
		With vapour return	Without vapour return	Unit		
	Butane	Decimal	Decimal	Tones/Hour		
	Other	Decimal	Decimal	Tones/Hour		
9.54.2	From Pressure Storage		9.54.2.1	9.54.2.2		
			With vapour return	Without vapour return		
	Butane 0-30 deg C	Decimal	Decimal	Decimal		
	Propane 0 deg C	Decimal	Decimal	Decimal		
	Propane 10 deg C	Decimal	Decimal	Decimal		
	Propane 20 deg C	Decimal	Decimal	Decimal		
	Propane 30 deg C	Decimal	Decimal	Decimal		
9.54.3	Special Remarks		Memo			
9.55	Discharging General					
9.55.1	Cargo and Booster Pumps	9.55.1.1	9.55.1.2	9.55.1.3	9.55.1.4	9.55.1.5
		Type of Cargo Pumps	Number of pumps per tank	Rate per pump (m3/hr.)	At delivery head (mlc) Meters	Maximum density KH/m3
		Cargo Pumps	[Text]	Integer	Decima	Decimal
	Booster Pumps	[Text]	Integer	Decimal	Decimal	Decimal
9.56	Discharging Performance					
9.56.1	Total discharge time using all main cargo pumps		9.56.1.1	9.56.1.2	9.56.1.3	
			Back Press 1 kP/cm2	Back Press 5 kP/cm2	Back Press 10 kP/cm2	
	Fully refrigerated (with vapour return)					
	Fully refrigerated (without vapour return)					
	Pressurized (with vapour return)					
	Pressurized (without vapour return)					
9.57	Un-pumpable					

9.57.1	Tank Capacities		Table (Variable)	
9.57.1.1	Column: Tank Number		Integer	
9.57.1.2	Column: Capacity		Decimal	
9.57.2	Total Tank Capacity		Decimal	
9.58	Vaporizing Un-pumpable			
9.58.1	Process used		Lookup	
9.58.2	Time to vaporize liquid un-pumpable remaining after full cargo discharge			
9.58.2.1	Propane		Decimal	Hours
9.58.2.2	Butane		Decimal	Hours
9.58.2.3	Ammonia		Decimal	Hours
9.58.2.4	Other cargo 1		[Text]	
9.58.2.5	Time for other cargo 1		Decimal	Hours
9.58.2.6	Other cargo 2		[Text]	
9.58.2.7	Time for other cargo 2		Decimal	Hours
9.58.2.8	Other cargo 3		[Text]	
9.58.2.9	Time for other cargo 3		Decimal	Hours
9.59	Reliquefaction Plant			
9.59.1	Plant design conditions			
9.59.1.1	Air temperature		Decimal	Deg C
9.59.1.2	Sea temperature		Decimal	Deg C
9.59.2	Is the plant single stage/direct?		Yes/No	
9.59.3	Is the plant two stage/direct?		Yes/No	
9.59.4	Is the plant simple cascade?		Yes/No	
9.59.5	Coolant type		[Text]	
9.59.6	Compressors			
9.59.6.1	Compressor type		Lookup	
9.59.6.2	Compressor makers name		[Text]	
9.59.6.3	Number of compressors		Integer	
9.59.6.4	Capacity per unit		Decimal	
9.59.6.5	Are they Oil Free?		Yes/No	
9.6	Cooling Capacity			
9.60.1	State cooling capacities	9.60.1.1 @ -42 degrees C	9.60.1.2 @ -20 degrees C	9.60.1.3 @ -5 degrees C
	Propane	Decimal	Decimal	Decimal
	Butane	Decimal	Decimal	Decimal
9.61	Cargo Temperature Lowering Capability			
9.61.1	Time taken to lower the temperature of cargo			
9.61.1.1	Cargo		[Text]	
9.61.1.2	Temp From		[Text]	
9.61.1.3	Temp To		[Text]	
9.61.1.4	Hours		[Text]	
9.61.2	Emergency discharge			
9.61.2.1	Is there an emergency discharge method available?		Yes/No	
9.61.2.2	If yes, state method		[Text]	
9.61.3	Sample points			
9.61.3.1	Are sample points provided for vapour?		Yes/No	
9.61.3.2	Are sample points provided for liquid?		Yes/No	
9.62	Deck Tank Capacities			
9.62.1	Are deck pressure tanks fitted?		Yes/No	
9.62.2	Capacities			
9.62.2.1	Propane Capacity		Decimal	M3
9.62.2.2	Butane Capacity		Decimal	M3
9.62.2.3	Ammonia Capacity		Decimal	M3
9.62.3	Maximum allowable relief valve setting		Decimal	Bar
9.62.4	Material of tank		Lookup	
9.63	Pre-loading Cool Down			
9.63.1	Time required to cooldown cargo tanks from ambient temperature	9.63.1.1 Quantity of coolant required	9.63.1.2 Time with vapour line return	9.63.1.3 Time without vapour line return
		M3	Hours	Hours
	Row: Propane	Decimal	Decimal	Decimal
	Row: Butane	Decimal	Decimal	Decimal
	Row: Ammonia	Decimal	Decimal	Decimal
Row: VCM	Decimal	Decimal	Decimal	
9.64	Vaporizer			
9.64.1	Type of vaporizer		Lookup	
9.64.2	Number of vaporizers fitted		Integer	
9.64.3	Unit details	9.64.3.1 Capacity per unit	9.64.3.2 Liquid supply rate	9.64.3.3 Delivery temperature
		M3	M3/Hour	Deg C
	Row: Propane	Decimal	Decimal	Decimal
	Row: Ammonia	Decimal	Decimal	Decimal
Row: Nitrogen	Decimal	Decimal	Decimal	
9.65	Blower			
9.65.1	Blower			
9.65.1.1	Type of blower		[Text]	
9.65.1.2	Rated capacity		Decimal	M3
9.65.1.3	Delivery pressure		Decimal	KP/CM2
9.66	Cargo Re-Heater			
9.66.1	Cargo Re-Heater			
9.66.1.1	Type of re-heater		Lookup	
9.66.1.2	Number fitted		Integer	
9.66.1.3	Heating medium		Lookup	
9.66.2	Discharge rates with sea water at 15 degrees C to raise product temperature of Propane from -42 degrees C to -5 degrees C		Decimal	M3/Hour
9.66.3	Discharge rates with sea water at 15 degrees C to raise product temperature of Ammonia from -42 degrees C to -5 degrees C		Decimal	M3/Hour
9.67	Hydrate Control			
9.67.1	What is the type of depressant?		Lookup	
9.67.2	What is the freezing point temperature?		Decimal	Deg C

9.67.3	What is the quantity of depressant carried?	Decimal	Liters
9.67.4	What is the means of injection?	[Text]	
9.67.5	Name any other system used	[Text]	
9.67.6	Is an additional pressure relief system fitted?	Yes/No	
9.67.7	Emergency cargo jettison		
9.67.7.1	Is emergency cargo jettison provided?	Yes/No	
9.67.7.2	If yes, can emergency cargo jettisoning be isolated from the cargo system when not in use?	Yes/No	
9.68	Cargo Measurement		
9.68.1	Level gauges		
9.68.1.1	Are level gauges local or remote?	Lookup	
9.68.1.2	Name of manufacturer	[Text]	
9.68.1.3	Type	Lookup	
9.68.1.4	Rated accuracy	integer	Percent
9.68.1.5	Certifying authority	[Text]	
9.68.1.6	Are slip tubes installed?	Yes/No	
9.68.2	Temperature gauges		
9.68.2.1	Name of manufacturer	[Text]	
9.68.2.2	Type	[Text]	
9.68.2.3	Rated accuracy	integer	Percent
9.68.2.4	Certifying authority	[Text]	
9.68.3	Pressure gauges		
9.68.3.1	Name of manufacturer	[Text]	
9.68.3.2	Type	[Text]	
9.68.3.3	Rated accuracy	integer	Percent
9.68.3.4	Certifying authority	[Text]	
9.68.4	Oxygen analyzer		
9.68.4.1	Name of manufacturer	[Text]	
9.68.4.2	Type	[Text]	
9.68.4.3	What is the lowest level measurable?	Decimal	Percent
9.68.5	Fixed gas analyzer		
9.68.5.1	Name of manufacturer	[Text]	
9.68.5.2	Type	[Text]	
9.68.6	Cargo tank calibration		
9.68.6.1	Are cargo tank calibration tables provided?	Yes/No	
9.68.6.2	Name of measuring company	[Text]	
9.68.6.3	Name of certifying company	[Text]	
9.68.6.4	Calibration calculated to cm?	Yes/No	
9.68.6.5	Calibration calculated to 1/2 cm?	Yes/No	
9.68.6.6	Tables established to cm?	Yes/No	
9.68.6.7	Tables established to mm?	Yes/No	
9.68.6.8	Tables established to 'other'	[Text]	
9.68.7	Are trim and list corrections provided?	Yes/No	
9.68.8	Are temperature corrections provided?	Yes/No	
9.68.9	Are float gauge tape corrections provided?	Yes/No	
9.69	Cargo Sampling		
9.69.1	Indicate whether cargo samples may be obtained from the levels specified	Table (Variable)	
9.69.1.1	Column: Tank Number	[Text]	
9.69.1.2	Column: Top	Yes/No	
9.69.1.3	Column: Middle	Yes/No	
9.69.1.4	Column: Bottom	Yes/No	
9.69.2	Can samples be drawn from?		
9.69.2.1	Tank vapour outlet?	Yes/No	
9.69.2.2	Manifold liquid line?	Yes/No	
9.69.2.3	Manifold vapour line?	Yes/No	
9.69.2.4	Pump discharge line?	Yes/No	
9.69.3	Sample connection		
9.69.3.1	State type	Lookup	
9.69.3.2	State size	Decimal	Millimeters
9.69.4	Number of ESD actuation points	integer	
9.7	Connection to Shore for ESD and Communications Systems		
9.7.0.1	ESD Shore connection		
9.7.0.1.1	Is ESD connection to shore available?	Yes/No	
9.7.0.1.2	If yes, is the system pneumatic?	Yes/No	
9.7.0.1.3	If yes, is the system electrical?	Yes/No	
9.7.0.1.4	If yes, is the system fiber optic?	Yes/No	
9.7.0.2	What is the type of plug used?	[Text]	
9.7.0.3	ESD hoses/cables		
9.7.0.3.1	Are ESD hoses or cables available on board?	Yes/No	
9.7.0.3.2	If yes, length of pneumatic	Decimal	Millimeters
9.7.0.3.3	If yes, length of electrical	Decimal	Millimeters
9.7.0.3.4	If yes, length of fiber optic	Decimal	Millimeters
9.7.0.4	Is there a connection available for a telephone line?	Yes/No	
9.7.0.5	Are ESD connections available on both sides of the ship?	Yes/No	
9.7.0.6	ESD fusible plugs		
9.7.0.6.1	Are ESD fusible plugs fitted at tank domes?	Yes/No	
9.7.0.6.2	Are ESD fusible plugs fitted at manifolds?	Yes/No	
9.7.0.7	Is the link compatible with the SIGTTO guidelines?	Yes/No	
9.7.0.8	Manifold valve		
9.7.0.8.1	Type of manifold valve	Lookup	
9.7.0.8.2	Closing time in seconds	Decimal	Seconds
9.7.0.8.3	Is closing time adjustable?	Yes/No	
9.7.0.9	Independent high-level shut down system		
9.7.0.9.1	Is independent high-level shut down system fitted (overflow control)?	Yes/No	
9.7.0.9.2	If yes, does the independent high-level shutdown system also trip running cargo pumps?	Yes/No	
9.7.0.9.3	Shut down level %	Decimal	Percent
9.71	Inert Gas		
9.71.1	Main IG Plant		

9.71.1.1	Type of system	Lookup			
9.71.1.2	Capacity	Decimal	M3		
9.71.1.3	Type of fuel used	Lookup			
9.71.1.4	Composition of IG - oxygen	Decimal	Percent		
9.71.1.5	Composition of IG - CO2	Decimal	Percent		
9.71.1.6	Composition of IG - NOx	Decimal	Percent		
9.71.1.7	Composition of IG - N2	Decimal	Percent		
9.71.1.8	Lowest dewpoint achievable	Decimal	Deg C		
9.71.1.9	Used for	Memo			
9.71.2	Auxiliary IG or Nitrogen plant				
9.71.2.1	Type of system	Lookup			
9.71.2.2	Capacity	Decimal	M3		
9.71.2.3	Composition of IG - oxygen	Decimal	Percent		
9.71.2.4	Composition of IG - CO2	Decimal	Percent		
9.71.2.5	Composition of IG - NOx	Decimal	Percent		
9.71.2.6	Composition of IG - N2	Decimal	Percent		
9.71.2.7	Lowest dewpoint achievable	Decimal	Deg C		
9.71.2.8	Used for	Memo			
9.71.3	Nitrogen				
9.71.3.1	Liquid storage capacity	Decimal	M3		
9.71.3.2	Daily boil-off loss	Decimal	M3		
9.71.3.3	Maximum supply pressure	Decimal	KP/CM3		
9.71.3.4	Supply capacity	Decimal	M3		
9.71.3.5	Used for	Memo			
9.72	Cargo Tank Inerting				
9.72.1	What is the time taken to inert from fresh air to under 5% O2 at -25 degree C?	Decimal	Hours		
9.72.2	What is the time taken to inert from cargo vapour to fully inert at -25 degrees dewpoint when IG density is less than product?	Decimal	Hours		
9.72.3	What is the time taken to inert from cargo vapour to fully inert at -25 degrees dewpoint when IG density is greater than product?	Decimal	Hours		
9.72.4	Relief valves				
9.72.4.1	Do relief valves discharging liquid cargo from the cargo piping system, discharge to the cargo vent mast?	Yes/No			
9.72.4.2	If yes, is the vent mast equipped with liquid sensor and alarm?	Yes/No			
9.72.4.3	If yes, does the alarm activate the pump stop?	Yes/No			
9.72.5	ESD valves				
9.72.5.1	Is there one ESD valve per manifold?	Yes/No			
9.72.5.2	If no, state arrangement	Memo			
9.72.6	Is a hand operated valve fitted outboard of the manifold ESD valve?	Yes/No			
9.72.7	Does inert gas piping pass through accommodation spaces, service spaces or control stations?	Yes/No			
9.72.8	Can the Inert Gas System be fully segregated from the cargo system?	Yes/No			
9.72.9	Are liquid drains fitted in cargo piping?	Yes/No			
9.72.10	Are purge points fitted?	Yes/No			
9.72.11	Are local pressure gauges fitted outboard of the manifold valves?	Yes/No			
9.72.12	Is a temperature sensor fitted at or near the manifold?	Yes/No			
9.72.13	Is a cargo compressor room fitted?	Yes/No			
9.72.14	Protective equipment				
9.72.14.1	Is protective equipment for the protection of crew members available on board?	Yes/No			
9.72.14.2	When required by the Gas Code, is respiratory and eye protection for every person on board available for emergency escape purposes?	Yes/No			
9.72.14.3	Are two additional sets of respiratory and eye protection available on the navigating bridge?	Yes/No			
9.72.15	Gas detection				
9.72.15.1	Is there a permanently installed system of gas detection fitted?	Yes/No			
9.72.15.2	Is the gas detection system fitted with high and low sampling heads/sensors?	Yes/No			
9.73	Gas freeing to fresh air				
9.73.1	Plant used	Memo			
9.73.2	What is the time taken from fully inert condition to fully breathable fresh air?	Decimal	Hours		
9.74	Changing Cargo Grades				
9.74.1	Indicate number of hours needed to change grades from the removal of pumpable to tanks fit to load and the quantity of inert gas consumed during the operation	9.74.1.1	9.74.1.2	9.74.1.3	9.74.1.4
		From grade	To grade	Number of hours	Quantity of inert gas (m3)
		[Text]	[Text]	Decimal	Decimal
9.74.2	Restrictions	Memo			
9.74.3	Note any operations that cannot be carried out at sea	Memo			
9.75	Cargo Manifold				
9.75.1	Dimensions				
9.75.1.1	Center of manifold to bow	Decimal	Meters		
9.75.1.2	Center of manifold to stern	Decimal	Meters		
9.75.1.3	Dimension A	Decimal	Millimeters		
9.75.1.4	Dimension B	Decimal	Millimeters		
9.75.1.5	Dimension C	Decimal	Millimeters		
9.75.1.6	Dimension D	Decimal	Millimeters		
9.75.1.7	Dimension E	Decimal	Millimeters		
9.75.1.8	Dimension F	Decimal	Millimeters		
9.75.1.9	Dimension G	Decimal	Millimeters		
9.75.1.10	Dimension H	Decimal	Millimeters		
9.75.2	Pipe Flanges				
9.75.2.1	Pipe Flange letter	[Text]			
9.75.2.2	Duty	[Text]			
9.75.2.3	Rating	Decimal	Bar		
9.75.2.4	Size	Decimal	Millimeters		
9.75.2.5	Raised/Flat face	[Text]			
9.75.3	Height above uppermost continuous deck	Decimal	Millimeters		
9.75.4	Distance from ship side	Decimal	Millimeters		
9.75.5	Height above load waterline	Decimal	Millimeters		
9.75.6	Height above light waterline	Decimal	Millimeters		
9.76	Manifold Arrangements on top of compressor				
9.76.1	Distance from rail of compressor room/platform to presentation flanges	Decimal	Millimeters		

9.76.2	Distance from deck of compressor room/platform/try to centre of manifold			Decimal	Millimeters	
9.77	<b>Cargo Manifold Reducers</b>					
9.77.1	Cargo manifold reducers	type	9.77.1.1	9.77.1.2	9.77.1.3	
			Number of reducers carried	Flange rating (bar)	Size (mm)	9.77.1.4
		ANSI Class 300	[Integer]	[Decimal]	[Decimal]	[Decimal]
		ANSI Class 300 to 150	[Integer]	[Decimal]	[Decimal]	[Decimal]
	ANSI Class 150	[Integer]	[Decimal]	[Decimal]	[Decimal]	
9.9	<b>General</b>					
9.90.1	Cargo tank Containment System					
9.90.1.1	Type of Cargo tank Containment System				[Text]	
9.90.1.2	If other, then specify				[Text]	
9.90.2	Propulsion Type					
9.90.2.1	What is the Propulsion Type				[Text]	
9.90.2.2	If other, then specify				[Text]	
9.91	Transport and Carriage Conditions					
9.91.1	What is the designed natural boil-off rate for fully laden condition?					
9.91.1.1	By value			Decimal	M3/Hour	
9.91.1.2	By percentage of NBOG			Decimal	Percentage NBOG	
9.91.2	What are the means for handling boil-off gas?			9.91.2.1	9.91.2.2	
					Means	Designed capacity (m3/hr)
				Primary	[Text]	[Decimal]
	Secondary	[Text]	[Decimal]			
9.91.3	Material of construction of cargo piping system				[Text]	
9.91.4	Filters					
9.91.4.1	Is cargo system fitted with filters				Yes/No	
9.91.4.2	State which cargo piping system is fitted with filters				[Text]	
9.91.4.3	If yes, can cargo filters be by-passed or removed				Yes/No	
9.91.5	What expansion arrangements are fitted?					
9.91.5.1	To cargo liquid lines				[Text]	
9.91.5.2	To cargo vapour lines				[Text]	
9.91.5.3	To cargo gas fuel				[Text]	
9.91.6	Line protection					
9.91.6.1	Are liquid lines protected from overpressure?				Yes/No	
9.91.6.2	Liquid lines relief valves set pressure				Decimal	
9.91.6.3	Vapour lines relief valves set pressure				Decimal	
9.91.6.4	Where do LNG lines relief valve vent to?				[Text]	
9.92	Cargo tanks					
9.92.1	Tank type					
9.92.1.1	Type of cargo tanks				[Text]	
9.92.1.2	If Independent, then Type				[Text]	
9.92.2	What is the minimum design tank temperature?				Decimal	
9.92.3	Design tank pressure					
9.92.3.1	What is the minimum design tank pressure?				Decimal	
9.92.3.2	What is the maximum design tank pressure?				Decimal	
9.92.4	Maximum cargo specific gravity				Decimal	
9.92.5	Maximum rate of cool down of cargo tanks				[Text]	
9.92.6	State any limitations regarding partially filled cargo tanks				[Text]	
9.92.7	State allowable combinations of filled and empty cargo tanks				[Text]	
9.92.8	Membrane materials					
9.92.8.1	Primary membrane material				[Text]	
9.92.8.2	Secondary membrane material				[Text]	
9.92.9	Moss tanks					
9.92.9.1	Tank construction material				[Text]	
9.92.9.2	Is secondary barrier available?				Yes/No	
9.92.9.3	Type of secondary barrier				[Text]	
9.92.9.4	Secondary barrier / drip pan material				[Text]	
9.92.10	Are inter-barrier spaces/ insulation spaces inerted?				Yes/No	
9.92.11	Inerting medium				[Text]	
9.93	Cargo tank capacities					
9.93.1	Cargo tank capacities					
9.93.1.1	Tank number			Integer		
9.93.1.2	Capacity (100%) at specified temp			Decimal	M3	
9.93.1.3	Specified temperature			Decimal	Deg C	
9.93.1.4	Capacity at max permissible filling limit			Decimal	M3	
9.93.1.5	Lower sloshing limit			Decimal	M3	
9.93.1.6	Upper sloshing limit			Decimal	M3	
9.93.2	Total Capacity of all tanks (100%) at reference temperature			Decimal	M3	
9.94	Cargo sampling					
9.94.1	Indicate whether cargo samples may be obtained from the levels specified?					
9.94.1.1	Tank top level			Yes/No		
9.94.1.2	Tank middle level			Yes/No		
9.94.1.3	Tank bottom level			Yes/No		
9.94.2	Can samples be drawn from tank vapour outlet?			Yes/No		
9.94.3	Can samples be drawn from manifold vapour line?			Yes/No		
9.94.4	Connection type/size					
9.94.4.1	State sample connection type			[Text]		
9.94.4.2	State sample connection size			[Text]		
9.95	Cargo tank protection					
9.95.1	Tank relief valves					
9.95.1.1	Number of cargo tank relief valves per cargo tank			[Text]		
9.95.1.2	Maximum allowable relief valve set pressure			Decimal	Mbar	
9.95.1.3	Normal allowable relief valve set pressure (Moss)			Decimal	Mbar	
9.95.1.4	Vacuum set pressure of relief valve			Decimal	Mbar	
9.95.1.5	Flow rate of individual relief valve			Decimal	Nm3/Hour	
9.95.1.6	Where does the tank cargo relief valves vent to?			[Text]		
9.95.1.7	Are snuffers available in vent masts?			Yes/No		
9.95.1.8	Is gas detection available in vent masts?			Yes/No		

9.95.2	Common tanks venting system					
9.95.2.1	What means of common tanks venting systems is available?				[Text]	
9.95.2.2	Maximum venting capacity				Decimal	Nm3/Hour
9.95.2.3	Set pressure of mast riser				Decimal	Mbar
9.95.3	Relief valves	9.95.3.1	9.95.3.2	9.95.3.3	9.95.3.4	9.95.3.5
		Number of valves per tank/hold	Set pressure Mbar	Min pressure Mbar	vacuum set pressure Mbar	Flow rate Nm3/Hour
	Inter-barrier space relief					
	Insulation space relief					
	Row: Hold relief					
9.96	Inner hull protection					
9.96.1	Cofferdam heating					
9.96.1.1	Is cofferdam heating available?				Yes/No	
9.96.1.2	Heating medium for cofferdam heating				[Text]	
9.96.1.3	If other, then specify				[Text]	
9.96.2	Is Inner hull temperature detection system available?				Yes/No	
9.97	Insulation spaces humidity detection					
9.97.1	Insulation spaces water/humidity detection available?				Yes/No	
9.97.2	Insulation spaces water removal					
9.97.2.1	Are means of water removal from insulation spaces available?				Yes/No	
9.97.2.2	If yes, then specify				[Text]	
9.98	Inter-barrier spaces					
9.98.1	Inter-barrier spaces LNG drainage					
9.98.1.1	Is Inter-barrier spaces LNG drainage system available?				Yes/No	
9.98.1.2	If yes, then specify				[Text]	
9.99	Loading operations					
9.99.1	Tank temperature criteria to commence full load				[Text]	
9.99.2	Typical ships liquid line cool down duration?				Decimal	Hours
9.99.3	Is the vessel capable of cooling down ships liquid lines prior arrival load port?				Yes/No	
9.99.4	Loading rates/duration			9.99.4.1	9.99.4.2	
				Maximum loading rate M3/Hour	Typical loading duration M3/Hour	
	Row: With vapour return					
	Row: Without vapour return					
9.1	Discharging operations					
9.100.1	Discharging rates/duration	9.100.1.1	9.100.1.2	9.100.1.3		
		Maximum discharging rate M3/Hour	Typical time to discharge fully laden M3/Hour	Time to heel out M3/Hour		
	With vapour return					
	Without vapour return					
9.100.2	Ship maximum discharging rate				Decimal	M3/Hour
9.100.3	Full Cargo Discharge Times (using all main pumps)			9.100.3.1	9.100.3.2	
				Back Press 1 kP/cm2 (hrs)	Back Press 5 kP/cm2 (hrs)	
		With vapour return				
	Without vapour return					
9.100.4	Emergency discharge					
9.100.4.1	Is there an emergency discharge method available?				Yes/No	
9.100.4.2	If yes, method of discharge				[Text]	
9.100.4.3	If other, then specify				[Text]	
9.100.5	Maximum Pressure at Manifold				Decimal	Bar
9.100.6	Counters fitted			9.100.6.1	9.100.6.2	
	Gas to shore			Counter fitted	Type	
	Gas from shore			Yes/No	[Text]	
	Gas to engine			Yes/No	[Text]	
9.101	Un-pumpable					
9.101.1	Un-pumpable					
9.101.1.1	Tank Number				Integer	
9.101.1.2	Un-pumpable				Decimal	M3
9.101.2	Total un-pumpable				Decimal	M3
9.102	Vaporizing un-pumpable					
9.102.1	Time to vaporize liquid un-pumpable remaining after full cargo discharge				Decimal	Hours
9.103	Pre refit cargo operations					
9.103.1	Time required to warm up cargo tanks till the temperature of coldest point of insulation space of each tank reaches + 5 deg C in membrane ships OR in Moss when the equator profile and tank bottom shell				Decimal	Hours
9.103.2	Gas freeing					
9.103.2.1	Time required to gas free to less than 2% Hydrocarbon by volume by displacement method?				Decimal	Hours
9.103.2.2	Time required to gas free to less than 2% Hydrocarbon by volume by dilution method?				Decimal	Hours
9.103.2.3	Plant Used				[Text]	
9.103.2.4	If other, specify plant				[Text]	
9.103.3	Time taken to aerate all cargo Tanks, cargo piping and cargo machinery from inerted condition till Oxygen is above 20% by Volume, CO2 less than 0.5%, CO less than 50ppm and dew point less than -40 de				Decimal	Hours
9.104	Post refit cargo operations					
9.104.1	Drying cargo tanks					
9.104.1.1	Time taken to dry cargo tanks, piping and machinery till dew point is reduced to -20 deg C or lower?				Decimal	Hours
9.104.1.2	Plant used				[Text]	
9.104.1.3	If other, specify plant				[Text]	
9.104.2	Inerting cargo tanks					
9.104.2.1	Time taken to inert cargo tanks, piping and machinery till Oxygen content is below 2% by volume and dew point below -40 deg C?				Decimal	Hours
9.104.2.2	Plant used				[Text]	
9.104.2.3	If other, specify plant				[Text]	
9.104.3	Gassing-up					
9.104.3.1	Time taken to gas up cargo tanks, piping and machinery till Hydrocarbon at tank tops, cargo piping and machinery exceed 95% by volume and CO2 content reduced to less than 1% by volume?				Decimal	Hours
9.104.3.2	Volume of LNG required to gas up?				Decimal	M3
9.104.4	Cooling Down					
9.104.4.1	Time required to cool down cargo tanks from ambient temperature with vapour return line				Decimal	Hours
9.104.4.2	What is the ambient temperature				Decimal	Deg C



9.104.4.3	Cool Down Volume of LNG required (from ambient and after gassing up)		Decimal	M3	
9.104.4.4	Time required to cool down cargo tanks from ambient temperature without vapour return line		Decimal	Hours	
9.104.4.5	Cool Down Volume of LNG required (from ambient)		Decimal	M3	
9.105	Cargo machinery				
9.105.1	Is there a cargo compressor room?		Yes/No		
9.105.2	Is there a separate Electric motor room?		Yes/No		
9.105.3	Main cargo pumps				
9.105.3.1	Type of main cargo pumps		[Text]		
9.105.3.2	Number of main cargo pumps per tank		Integer		
9.105.3.3	Total number of main cargo pumps		Integer		
9.105.3.4	Rated Flow		Decimal	M3/Hour	
9.105.3.5	At Delivery Head		Decimal	Meters	
9.105.3.6	Maximum density		Decimal	KH/Cu M	
9.105.3.7	Minimum Flow		Decimal	M3/Hour	
9.105.3.8	Rated motor power		Decimal	KW	
9.105.3.9	Motor restarting limitations (Starts per hour, delay )		[Text]		
9.105.4	Stripping/spray pumps				
9.105.4.1	Type of stripping/spray cargo pumps		[Text]		
9.105.4.2	Number of stripping/spray cargo pumps per tank		Integer		
9.105.4.3	Rated Flow		Decimal	M3/Hour	
9.105.4.4	At Delivery Head		Decimal	Meters	
9.105.4.5	Maximum density		Decimal	KH/Cu M	
9.105.4.6	Minimum Flow		Decimal	M3/Hour	
9.105.5	Emergency cargo pump				
9.105.5.1	Type of emergency cargo pumps		[Text]		
9.105.5.2	Location where emergency pump is kept?		[Text]		
9.105.5.3	Rated Flow		Decimal	M3/Hour	
9.105.5.4	At Delivery Head		Decimal	Meters	
9.105.5.5	Maximum density		Decimal	KH/Cu M	
9.105.5.6	Minimum Flow		Decimal	M3/Hour	
9.105.6	Fuel gas pump				
9.105.6.1	Number of fuel gas pumps		[Text]		
9.105.6.2	Installed location (for example Cargo tank 3/4)		[Text]		
9.105.6.3	Rated Flow		Decimal	M3/Hour	
9.105.6.4	At Delivery Head		Decimal	Meters	
9.105.7	Gas compressors - high duty				
9.105.7.1	Number of High Duty compressors (Also referred to as Vapour Return (VR) compressors on some ships)		Integer		
9.105.7.2	Type of compressor		[Text]		
9.105.7.3	Prime mover type		[Text]		
9.105.7.4	If other, then specify		[Text]		
9.105.7.5	Rated motor power		Decimal	KW	
9.105.7.6	Rated volumetric Capacity		Decimal	M3/Hour	
9.105.7.7	Delivery pressure		Decimal	Bar	
9.105.8	Gas compressors - low duty				
9.105.8.1	Number of Low Duty compressor (Also referred to as Fuel Gas (FG) compressors on some ships)		Integer		
9.105.8.2	Type of compressor		[Text]		
9.105.8.3	Prime mover type		[Text]		
9.105.8.4	If other, then specify		[Text]		
9.105.8.5	Rated motor power		Decimal	KW	
9.105.8.6	Rated volumetric Capacity		Decimal	M3/Hour	
9.105.8.7	Delivery pressure		Decimal	Bar	
9.105.9	Vacuum pumps				
9.105.9.1	Number		Integer		
9.105.9.2	Gas handling		[Text]		
9.105.9.3	Designed vacuum capacity		Decimal	Mbar	
9.105.10	Vaporizer				
9.105.10.1	Number		Integer		
9.105.10.2	Maximum heat exchange capacity		Decimal	KW	
9.105.10.3	Heating medium of LNG vaporizer		[Text]		
9.105.11	Forcing vaporizer				
9.105.11.1	Number		Integer		
9.105.11.2	Rated capacity		[Text]		
9.105.11.3	Heating medium of forced vaporizer		[Text]		
9.105.12	Cargo heaters	9.105.12.1 Number	9.105.12.2 Type	9.105.12.3 Heating medium	9.105.12.4 Maximum heating capacity (KW)
	High duty cargo heater	Integer	[Text]	[Text]	[Text]
	Low duty cargo heater	Integer	[Text]	[Text]	[Text]
9.106	Inert gas				
9.106.1	Does inert gas piping pass through accommodation spaces, service spaces or control stations?		Yes/No		
9.106.2	Can the Inert Gas System be fully segregated from the cargo system where it is not needed?		Yes/No		
9.106.3	Source of inert gas for tank-changeover/preparation for Refit?		[Text]		
9.106.4	Type of system fitted		[Text]		
9.106.5	Capacities				
9.106.5.1	Capacity IG		Decimal	M3/Hour	
9.106.5.2	Capacity air		Decimal	M3/Hour	
9.106.6	Type of fuel used		[Text]		
9.106.7	Discharge Pressure		Decimal	Bar	
9.106.8	Composition of IG				
9.106.8.1	Oxygen		Decimal	Perc by vol.	
9.106.8.2	CO2		Decimal	Perc by vol.	
9.106.8.3	CO		Decimal	PPM	
9.106.8.4	Sox		Decimal	PPM	
9.106.8.5	N2		Decimal	Perc by vol.	
9.106.9	Lowest dewpoint achievable		Decimal	Deg C	
9.107	Nitrogen generating plant				
9.107.1	Type of System Nitrogen		[Text]		
9.107.2	Number of N2 generating systems?		Integer		

9.107.3	Capacity	Decimal	M3/Hour
9.107.4	Working pressure of N2 system	Decimal	Bar
9.107.5	Outlet Oxygen content	Decimal	Percent
9.107.6	Outlet N2 content	Decimal	Percent
9.107.7	Lowest dewpoint achievable	Decimal	Deg C
9.108	Liquid nitrogen storage		
9.108.1	Does vessel have Nitrogen storage capacity?	Yes/No	
9.108.2	Liquid Nitrogen storage capacity	Decimal	M3
9.108.3	Daily boil-off loss	Decimal	Percent
9.108.4	Maximum supply pressure	Decimal	Bar
9.108.5	Supply capacity	Decimal	M3/Hour
9.109	Reliquefaction plant - General		
9.109.1	Is electric motor room separate to compressor house?	Yes/No	
9.109.2	If electric motors fitted in Compressor house are the motors Ex rated?	Yes/No	
9.109.3	Is an Airlock fitted for the electric motor room?	Yes/No	
9.109.4	Is the reliquefaction plant designed to trip in case of failure of positive pressure in Air-lock space?	Yes/No	
9.109.5	Delay for trip of Re-liq Plant?	Decimal	Seconds
9.109.6	Can reliquefaction plant be operated concurrent with loading?	Yes/No	
9.109.7	Can reliquefaction plant be operated concurrent with discharging?	Yes/No	
9.109.8	What is the time needed for reliq plant to reach 'idle' condition?	Decimal	Hours
9.109.9	Time needed to reach full load condition from Idle	Decimal	Hours
9.109.10	Partial load operation restriction on reliquefaction plant		
9.109.10.1	Any partial load operation restriction on reliquefaction plant?	Yes/No	
9.109.10.2	If Yes, then specify	[Text]	
9.109.11	Time needed to bring back Reliq plant to IDLE		
9.109.11.1	Time needed to bring back Reliq plant to IDLE after trip under IDLE condition?	Decimal	Hours
9.109.11.2	Time needed to bring back Reliq plant to IDLE after trip under Full load condition?	Decimal	Hours
9.109.12	Joint use of Re-liq plant and CGU		
9.109.12.1	Can Re-liq plant and GCU be used concurrently?	Yes/No	
9.109.12.2	Is there any other means of tank pressure control if reliq plant and GCU are not operational?	Yes/No	
9.109.12.3	If Yes, then specify	[Text]	
9.109.13	Are gas detection sensors installed in Compressor house steam condensate returns?	Yes/No	
9.109.14	High voltage electric motors		
9.109.14.1	Are high voltage electric motors used?	Yes/No	
9.109.14.2	If Yes, specify voltage	[Text]	
9.109.15	Are low insulation detectors/alarms available for high voltage cargo equipment?	Yes/No	
9.109.16	Oxygen sensors in compressor house		
9.109.16.1	Are Oxygen sensor installed in compressor house?	Yes/No	
9.109.16.2	Are Oxygen readings indication available outside compressor house entry points?	Yes/No	
9.109.16.3	Are gas sensors installed in compressor house?	Yes/No	
9.109.16.4	Are gas readings indication available outside compressor house entry points?	Yes/No	
9.109.17	Compressor room/electric motor room fire protection system		
9.109.17.1	Is a compressor room/electric motor room fire protection system available?	Yes/No	
9.109.17.2	If Yes, which system is available?	[Text]	
9.109.18	Emergency manual trips for Re-liq plant		
9.109.18.1	Are emergency manual trips for the Re-liq plant available?	Yes/No	
9.109.18.2	If Yes, location of trips?	[Text]	
9.109.19	What protection is in place to prevent high level/overflowing situation in the tanks due to re liq returns?	[Text]	
9.11	Reliquefaction plant - Machinery		
9.110.1	Plant design conditions		
9.110.1.1	Air temperature	Decimal	Deg C
9.110.1.2	Sea temperature	Decimal	Deg C
9.110.2	Compandor		
9.110.2.1	Number of Commanders	Integer	
9.110.2.2	Coolant type	[Text]	
9.110.2.3	Compressor Maker/Type	[Text]	
9.110.2.4	Is compandor multi staged	Yes/No	
9.110.2.5	Number of compandor stages	Integer	
9.110.2.6	Motor Rated Duty	Decimal	KW
9.110.2.7	If more than one system is fitted, are they fully redundant?	Yes/No	
9.110.2.8	If no, then specify	[Text]	
9.110.3	BOG Compressor		
9.110.3.1	Number	Integer	
9.110.3.2	Type of compressor	[Text]	
9.110.3.3	Prime mover type	[Text]	
9.110.3.4	If other, then specify	[Text]	
9.110.3.5	Rated motor power, if applicable	Decimal	KW
9.110.3.6	Rated Capacity (Mass flow)	Decimal	KG/Hour
9.110.3.7	Delivery pressure	Decimal	Bar
9.110.4	BOG Condenser		
9.110.4.1	Coolant Medium	[Text]	
9.110.4.2	Design heat transfer	Decimal	KW
9.110.4.3	Vapour flow rate	Decimal	KG/Hour
9.110.4.4	Coolant	[Text]	
9.110.5	BOG Heater		
9.110.5.1	Numbers	[Text]	
9.110.5.2	Max heat transfer	Decimal	KW
9.110.5.3	Heating medium	[Text]	
9.110.6	BOG high duty heater		
9.110.6.1	Numbers	[Text]	
9.110.6.2	Max heat transfer	Decimal	KW
9.110.6.3	Heating medium	[Text]	
9.110.7	LNG Transfer pump		
9.110.7.1	Numbers	[Text]	
9.110.7.2	Flow rate	Decimal	M3/Hour
9.110.8	LNG Flash drum		
9.110.8.1	Number	Integer	

9.110.8.2	Maximum pressure	Decimal	Bar
9.110.8.3	Minimum temperature	Decimal	Deg C
9.110.8.4	Designed heat transfer	Decimal	KW
9.110.9	Counter Current Heat Exchanger		
9.110.9.1	Coolant	[Text]	
9.110.9.2	Heat transfer	Decimal	KW
9.110.10	Nitrogen Booster Compressor		
9.110.10.1	Number	Integer	
9.110.10.2	Rated capacity	[Text]	
9.111	Reliquification plant - Gas Combustion Unit		
9.111.1	Make of Equipment	[Text]	
9.111.2	Designed Gas burning Capacity (BOG compressor running)	Decimal	KG/Hour
9.111.3	Can GCU run in free flow?	Yes/No	
9.111.4	Designed Gas burning Capacity (Free flow)	Decimal	KG/Hour
9.111.5	Designed Gas burning waste gas flow	Decimal	KG/Hour
9.111.6	Support oil		
9.111.6.1	Support oil type?	[Text]	
9.111.6.2	Support oil flow rate?	Decimal	KG/Hour
9.111.7	Startup of main burner		
9.111.7.1	Time for Main burner to start from stopped condition	Decimal	Hours
9.111.7.2	Time for Main burner to start after trip	Decimal	Hours
9.111.8	Gas to GCU counter		
9.111.8.1	Gas to GCU counter fitted	Yes/No	
9.111.8.2	Type	[Text]	
9.112	Manifold - General		
9.112.1	Manifold flanges are in accordance with BS 1560/ANSI B16.5	Yes/No	
9.112.2	Number of Cargo liquid connections at each Manifold	Integer	
9.112.3	Number of Vapour line connections at each manifold	Integer	
9.112.4	Are ESD valves manually operable?	Yes/No	
9.112.5	Is manually operated double shut off valve provided for each manifold ESD valve?	Yes/No	
9.112.6	Are liquid drains fitted at cargo piping at Manifolds?	Yes/No	
9.112.7	Are purge points fitted at cargo piping at Manifolds?	Yes/No	
9.112.8	Are local pressure gauges fitted outboard of the manifold valves?	Yes/No	
9.112.9	Is a temperature sensor fitted at or near the manifold?	Yes/No	
9.112.10	Stern and bow manifolds		
9.112.10.1	Is vessel fitted with a stern manifold?	Yes/No	
9.112.10.2	If stern manifold fitted, state size	[Text]	
9.112.10.3	Is vessel fitted with a bow manifold?	Yes/No	
9.112.10.4	If bow manifold fitted, state size	[Text]	
9.112.11	Does ships presentation flange conform to ASME/ANSI B16.5, Class 150?	Yes/No	
9.112.12	Does vessel utilize distance pieces at manifold?	Yes/No	
9.112.13	Are distance pieces welded to manifold valve?	Yes/No	
9.112.14	Are manifold blanks available and rated to same pressure as presentation flange?	Yes/No	
9.112.15	Does vessel utilize manifold cargo strainers	Yes/No	
9.112.16	Bunker connections		
9.112.16.1	Number of bunker connections available on the manifold?	Integer	
9.112.16.2	Are same bunker connections available on both sides?	Yes/No	
9.112.16.3	Is segregated drip tray available for bunkers?	Yes/No	
9.112.16.4	Does capacity and specification meet IMO and USCG recommendations/requirements?	Yes/No	
9.112.17	Is lighting in the Manifold Area adequate? (Minimum intensity of 70 Lux)	Yes/No	
9.112.18	Vapour and liquid cargo line centerlines		
9.112.18.1	Are vapour and liquid cargo line centerlines marked on manifold gratings?	Yes/No	
9.112.18.2	Are vapour and liquid cargo line centerlines marked on manifold handrails?	Yes/No	
9.112.19	Gutter plate		
9.112.19.1	Is a Gutter plate installed at Manifold	Yes/No	
9.112.19.2	Height of Gutter Plate	Decimal	Millimeters
9.112.20	Height of Shipside Rails at Manifold Drip tray	Decimal	Millimeters
9.112.21	Obstructions and inclinations		
9.112.21.1	There are no obstructions from 1 meter forward of the forward most liquid line to 1 meter aft of the after most liquid line outward of the manifold to shipside	Yes/No	
9.112.21.2	Describe if any	[Text]	
9.112.21.3	Are there any obstructions between railing stanchions and manifold platform?	Yes/No	
9.112.21.4	If any, are the obstructions removable?	Yes/No	
9.112.21.5	Is there any inclination between ship's manifold and manifold platform?	Yes/No	
9.112.21.6	If any, state degree of inclination	Decimal	Deg C
9.112.22	Is a water deluge system installed to protect ship's hull?	Yes/No	
9.112.23	Service lines		
9.112.23.1	Are air service lines on manifolds clearly marked?	Yes/No	
9.112.23.2	Are nitrogen service lines on manifolds clearly marked?	Yes/No	
9.112.23.3	Are freshwater service lines on manifolds clearly marked?	Yes/No	
9.112.24	Cargo operations		
9.112.24.1	Are there provisions for cordoning off the manifold area during cargo operation?	Yes/No	
9.112.24.2	Are there provisions for remote monitoring of cargo manifold pressures during cargo operation?	Yes/No	
9.112.24.3	Are there provision for remote monitoring of differential pressures across the manifold strainers during cargo operation?	Yes/No	
9.112.25	STS		
9.112.25.1	If involved in STS, Is a water deluge system is installed under drip tray?	Yes/No	
9.112.25.2	If involved in STS, are temporary means of holding water under the manifold drip-tray available?	Yes/No	
9.112.25.3	If involved in STS, are centerline of liquid and vapour lines marked on manifold gratings?	Yes/No	
9.113	Manifold - Connections		
9.113.1	Pipe flanges	Table (Variable)	
9.113.1.1	Column: Pipe flange	[Text]	
9.113.1.2	Column: Duty	[Text]	
9.113.1.3	Column: Rating	Decimal	Bar
9.113.1.4	Column: Face size	Decimal	Inches
9.113.1.5	Column: Thickness	Decimal	Millimeters
9.113.1.6	Column: Face	[Text]	
9.113.1.7	Column: Distance to neighbor	Decimal	Millimeters

9.113.2	Dimensions DD1 to DD7		
9.113.2.1	Vertical height of cargo manifold centre above Keel (DD1)	Decimal	Millimeters
9.113.2.2	Vertical height from main deck to centre of cargo/vapour manifold (DD2)	Decimal	Millimeters
9.113.2.3	Diameter of handrails (DD3)	Decimal	Millimeters
9.113.2.4	Distance of presentation flange from ship side (DD4)	Decimal	Millimeters
9.113.2.5	Distance of manifold face to first restraining bracket (DD5)	Decimal	Millimeters
9.113.2.6	Length of distance piece installed (if applicable) (DD6)	Decimal	Millimeters
9.113.2.7	Height of handrails from grating of manifold (DD7)	Decimal	Millimeters
9.113.3	Vapour manifold distances		
9.113.3.1	Distance of midship to centre of vapour manifold	Decimal	Meters
9.113.3.2	Distance of centre of vapour manifold to bow	Decimal	Meters
9.113.3.3	Distance of centre of vapour manifold to stern	Decimal	Meters
9.113.4	Height above waterline		
9.113.4.1	Height of the centre of cargo manifold connections above the waterline at loaded (Summer Deadweight) condition	Decimal	Millimeters
9.113.4.2	Height of the centre of manifold connections above the waterline in normal ballast condition	Decimal	Millimeters
9.114	Cargo strainers		
9.114.1	Cargo/vapour manifold diameter (Without reducers)	Decimal	Inches
9.114.2	Confirm Strainer is not obstructing any valves	Yes/No	
9.114.3	Are Strainers onboard designed in accordance with ASME B31.3 Code	Yes/No	
9.114.4	The designed pressure drops in dual direction strainers in clean state at maximum flow rate in either direction is less than 0.5 bar	Yes/No	
9.114.5	Cargo strainers onboard	Table (Variable)	
9.114.5.1	Type number	Integer	
9.114.5.2	Mesh size	[Text]	
9.114.5.3	Strainer type	[Text]	
9.114.5.4	Maximum flow rate	Decimal	M3/Hour
9.114.5.5	Maximum design pressure drops across clean strainer at maximum flow rate?	Decimal	Mbar/bars
9.114.5.6	Are strainers designed in accordance with ASME B31.3 process piping code?	Yes/No	
9.115	Bonding cable and connector		
9.115.1	Position of connector	[Text]	
9.115.2	Connector type	[Text]	
9.116	Reducers		
9.116.1	Are Certificates for reducers/spool pieces carried onboard	Yes/No	
9.116.2	Description of ANSI Class 150 reducers carried onboard	Table (Variable)	
9.116.2.1	Column: Number	[Text]	
9.116.2.2	Column: From - Diameter	Decimal	Millimeters
9.116.2.3	Column: To - Diameter	Decimal	Millimeters
9.116.2.4	Column: Flange rating	Decimal	Bar
9.116.2.5	Column: Length	Decimal	Millimeters
9.117	Cargo measurement		
9.117.1	Level Gauges - Remote Gauging system		
9.117.1.1	Make of Remote Gauging system	[Text]	
9.117.1.2	Type	[Text]	
9.117.1.3	Rated Accuracy (+/-)	Decimal	Millimeters
9.117.1.4	Certifying Authority	[Text]	
9.117.1.5	Are there any limitations on CTMS regarding measurable minimum liquid level in tanks?	Yes/No	
9.117.1.6	If Yes, specify what are the limitations?	[Text]	
9.117.2	Level Gauges - Local Gauging system		
9.117.2.1	Make of Local Gauging system	[Text]	
9.117.2.2	Type	[Text]	
9.117.2.3	Rated Accuracy (+/-)	Decimal	Millimeters
9.117.2.4	Certifying Authority	[Text]	
9.117.2.5	Is the local gauging independent of the remote gauging system?	Yes/No	
9.117.2.6	If yes, Is remote read-out for Local gauges available?	Yes/No	
9.117.2.7	Are there any limitations on local gauging system regarding measurable minimum liquid level in tanks?	Yes/No	
9.117.2.8	If Yes, specify what are the limitations?	[Text]	
9.117.3	Temperature Gauges		
9.117.3.1	No of Sensors per tank	Integer	
9.117.3.2	Type	[Text]	
9.117.3.3	Rated Accuracy	[Text]	
9.117.3.4	Certifying Authority	[Text]	
9.117.4	Pressure Gauges		
9.117.4.1	Type	[Text]	
9.117.4.2	Rated Accuracy	[Text]	
9.117.4.3	Certifying Authority	[Text]	
9.117.5	Trim and List Indicators	[Text]	
9.117.6	Independent High-Level Alarm		
9.117.6.1	Is independent high-level alarm installed in each cargo tank?	Yes/No	
9.117.6.2	Is independent high-high-level alarm installed in each cargo tank?	Yes/No	
9.117.6.3	High-level alarm activation level setting	Decimal	Percentage full
9.117.6.4	High-high-level alarm activation level setting	Decimal	Percentage full
9.117.6.5	Does High-high-level alarm shut the loading valve of the individual tank?	Yes/No	
9.117.7	Calibrations		
9.117.7.1	Are Cargo tank calibration tables available?	Yes/No	
9.117.7.2	Name of Measuring Company	[Text]	
9.117.7.3	Name of Certifying Authority	[Text]	
9.117.7.4	Calibration calculated to cm	Yes/No	
9.117.7.5	Calibration calculated to 1/2 cm	Yes/No	
9.117.7.6	Tables established to cm	Yes/No	
9.117.7.7	Tables established to mm	Yes/No	
9.117.7.8	Are trim and list corrections available?	Yes/No	
9.117.7.9	Are temperature corrections available?	Yes/No	
9.117.7.10	Are float gauge tape corrections available?	Yes/No	
9.117.8	Gas Detection system		
9.117.8.1	Is there a permanently installed system of gas detection fitted?	Yes/No	
9.117.8.2	Type of equipment for gas hazardous area	[Text]	
9.117.8.3	Response time	Decimal	Minutes
9.117.8.4	Areas monitored	[Text]	

9.117.8.5	Type of equipment for gas safe areas	[Text]	
9.117.8.6	Response time	Decimal	Seconds
9.117.8.7	Areas monitored	[Text]	
9.117.8.8	Does compressor house gas detection alarm isolate the gas to compressor house?	Yes/No	
9.117.8.9	Are gas detection sensors available in vent masts?	Yes/No	
9.117.9	Does vessel carry portable gas detection equipment?	Yes/No	
9.117.10	Portable gas detection equipment carried		
9.117.10.1	Item number	[Text]	
9.117.10.2	Name	[Text]	
9.117.10.3	Number of units	[Text]	
9.117.11	Does vessel carry personal gas detection equipment?	Yes/No	
9.117.12	Personal gas detection equipment carried		
9.117.12.1	Item number	[Text]	
9.117.12.2	Name	[Text]	
9.117.12.3	Number of units	[Text]	
9.117.13	Tension Monitoring System		
9.117.13.1	Manufacturer	[Text]	
9.117.13.2	System Type	[Text]	
9.117.13.3	FO Connection Type	[Text]	
9.117.13.4	Electric Connection Type	[Text]	
9.117.13.5	Connection position from centre of Vapour Manifold (F+ / A-)	Decimal	Meters
9.118	ESD System and Communication		
9.118.1	ESD System Connections		
9.118.1.1	Is ESD connection to shore available?	Yes/No	
9.118.1.2	Are ESD connections available on both sides of vessel?	Yes/No	
9.118.1.3	Is the ESD link compatible with SIGTTO guidelines?	Yes/No	
9.118.1.4	If yes, is the system pneumatic?	Yes/No	
9.118.1.5	If yes, is the system electrical?	Yes/No	
9.118.1.6	If yes, is the system fiber optic?	Yes/No	
9.118.2	ESD System hoses and cables		
9.118.2.1	Are ESD hoses or cables available on board?	Yes/No	
9.118.2.2	If yes, length of pneumatic	Decimal	Millimeters
9.118.2.3	If yes, length of electrical	Decimal	Millimeters
9.118.2.4	If yes, length of fiber optic	Decimal	Millimeters
9.118.3	Make of Optical Fiber System		
9.118.3.1	Connector type	[Text]	
9.118.3.2	Connection position from centre of vapour manifold (F+ / A-)	Decimal	Meters
9.118.3.3	Telephone provided	Yes/No	
9.118.3.4	Hotline	Yes/No	
9.118.3.5	Internal (PABX)	Yes/No	
9.118.3.6	Public Line	Yes/No	
9.118.3.7	Others (Specify)	[Text]	
9.118.4	Make of Pneumatic System		
9.118.4.1	Connector type	[Text]	
9.118.4.2	Connection position from centre of vapour manifold (F+ / A-)	Decimal	Meters
9.118.5	Make of Electric System		
9.118.5.1	Connector Pyle	[Text]	
9.118.5.2	Connector Miyaki	[Text]	
9.118.5.3	Connector ITT	[Text]	
9.118.5.4	Connector Other	[Text]	
9.118.5.5	Connection position from centre of Vapour Manifold (F+ / A-)	Decimal	Meters
9.118.5.6	Make of telephone, if provided	[Text]	
9.118.5.7	Hotline line	Yes/No	
9.118.5.8	Internal (PABX)	Yes/No	
9.118.5.9	Public line	Yes/No	
9.118.5.10	Others (Specify)	[Text]	
9.118.5.11	Is Independent overflow protection which activates ESD, fitted?	Yes/No	
9.118.5.12	If yes, does the overflow protection shutdown system also switch off running cargo pumps?	Yes/No	

9.118.5.13	Shut down level		Decimal		Percentage full						
9.118.6	ESD activated by										
9.118.6.1	Manual Switches		Yes/No								
9.118.6.2	Fusible Plug		Yes/No								
9.118.6.3	Cargo Tank Level, High- High		Yes/No								
9.118.6.4	Hydraulic Oil low Pressure (Manifold Valve)		Yes/No								
9.118.6.5	Control air pressure low (Manifold valve)		Yes/No								
9.118.6.6	Cargo Switchboard Electric Power Failure		Yes/No								
9.118.6.7	ESDS Signal from Shore		Yes/No								
9.118.6.8	ESDS CPU Failure		Yes/No								
9.118.6.9	Vapour Header Pressure low		Yes/No								
9.118.6.10	Manifold valves open less than 100 %		Yes/No								
9.118.6.11	Pneumatic Pressure low in Ship/Shore connection		Yes/No								
9.118.6.12	Others (Specify)		[Text]								
9.118.7	ESD fusible plugs										
9.118.7.1	Are ESD Fusible plugs fitted at tank domes?		Yes/No								
9.118.7.2	Are ESD Fusible plugs fitted at manifolds?		Yes/No								
9.118.8	Manifold ESD valve										
9.118.8.1	Type of manifold ESD valve		[Text]								
9.118.8.2	Closing time		Decimal		Seconds						
9.118.8.3	Is closing time adjustable?		Yes/No								
9.118.9	Communication										
9.118.9.1	Is VHF provided in CCR?		Yes/No								
9.118.9.2	Specify numbers		[Text]								
9.118.9.3	Specify frequencies (including Private)		[Text]								
<b>9.119</b>	<b>Ship to ship transfer</b>										
<b>9.119.1</b>	<b>Hose handling cranes</b>										
9.119.1.1	Hose handling cranes available?		Yes/No								
9.119.1.2	Load carrying capacity SWL		Decimal		Tones						
9.119.1.3	Maximum outreach out of ships side?		Decimal		Meters						
9.119.1.4	Location of crane from manifold vapour centerline (F+ / A-)		Decimal		Meters						
9.119.2	Transfer hoses										
9.119.2.1	Are transfer hoses available onboard?		Yes/No								
9.119.2.2	Is hose saddle available?		Yes/No								
9.119.2.3	Is Personnel transfer arrangement available?		Yes/No								
9.119.3	If involved in STS operations, state the maximum time needed to re-arrange the cargo tanks to be out of sloshing limits, at any moment during discharging at a rate of 5400 m3/hr?		Decimal		Hours						
9.119.4	Maximum BOG handling/burning capacity		Decimal		Tones/Hour						
9.12	Safety protection										
9.120.1	Are cargo areas covered by water-spray system?		Yes/No								
9.120.2	Are accommodation areas covered by water-spray system?		Yes/No								
9.120.3	Rated flow of Water Spray System		Decimal		M3/Hour						
9.120.4	Is Emergency cargo jettison equipment provided?		Yes/No								
9.120.5	If yes, can Emergency cargo jettisoning be isolated from the cargo system when not in use?		Yes/No								
9.120.6	Is personal protective equipment for the protection of crew members available on board?		Yes/No								
9.120.7	Are two additional sets of respiratory and eye protection available on the navigating bridge?		Yes/No								
<b>Chapter 10. Mooring</b>											
<b>10.1</b>	<b>Mooring</b>										
10.1.1	Does the ship meet the recommendations contained in the latest edition of OCIMF Mooring Equipment Guidelines?		Yes/No								
10.1.2	Mooring Winches										
10.1.2.1	Is brake testing equipment on board?		Yes/No								
10.1.2.2	When were the brakes last tested?		Date								
10.1.3	Mooring Wires (on drums)	10.1.3.1	Number	10.1.3.2	Diameter	10.1.3.3	Material	10.1.3.4	Length	10.1.3.5	Breaking Strength
					Millimeters				Meters		Tones
	Forecastle	Integer	Decimal	Text	Decimal	Decimal	Decimal	Decimal	Decimal	Decimal	
	forward Main Deck	Integer	Decimal	Text	Decimal	Decimal	Decimal	Decimal	Decimal	Decimal	
	Main Deck	Integer	Decimal	Text	Decimal	Decimal	Decimal	Decimal	Decimal	Decimal	
	Aft Main Deck	Integer	Decimal	Text	Decimal	Decimal	Decimal	Decimal	Decimal	Decimal	
Poop	Integer	Decimal	Text	Decimal	Decimal	Decimal	Decimal	Decimal	Decimal		
10.1.4	Type of shackle				[Text]						
10.1.5	Synthetic Tails	10.1.5.1	Number	10.1.5.2	Diameter	10.1.5.3	Material	10.1.5.4	Length	10.1.5.5	Breaking Strength
					Millimeters				Meters		Tones
	Forecastle	Integer	Decimal	[Text]	Decimal	Decimal	Decimal	Decimal	Decimal	Decimal	
	forward Main Deck	Integer	Decimal	[Text]	Decimal	Decimal	Decimal	Decimal	Decimal	Decimal	
	Main Deck	Integer	Decimal	[Text]	Decimal	Decimal	Decimal	Decimal	Decimal	Decimal	
	Aft Main Deck	Integer	Decimal	[Text]	Decimal	Decimal	Decimal	Decimal	Decimal	Decimal	
Poop	Integer	Decimal	[Text]	Decimal	Decimal	Decimal	Decimal	Decimal	Decimal		
10.1.6	Mooring Ropes (on drums)	10.1.6.1	Number	10.1.6.2	Diameter	10.1.6.3	Material	10.1.6.4	Length	10.1.6.5	Breaking Strength
					Millimeters				Meters		Tones
	Forecastle	Integer	Decimal	[Text]	Decimal	Decimal	Decimal	Decimal	Decimal	Decimal	
	forward Main Deck	Integer	Decimal	[Text]	Decimal	Decimal	Decimal	Decimal	Decimal	Decimal	
	Main Deck	Integer	Decimal	[Text]	Decimal	Decimal	Decimal	Decimal	Decimal	Decimal	
	Aft Main Deck	Integer	Decimal	[Text]	Decimal	Decimal	Decimal	Decimal	Decimal	Decimal	
Row: Poop	Integer	Decimal	[Text]	Decimal	Decimal	Decimal	Decimal	Decimal	Decimal		
10.1.7	Other Mooring Lines	10.1.7.1	Number	10.1.7.2	Diameter	10.1.7.3	Material	10.1.7.4	Length	10.1.7.5	Breaking Strength
					Millimeters				Meters		Tones
	Forecastle	Integer	Decimal	[Text]	Decimal	Decimal	Decimal	Decimal	Decimal	Decimal	
	forward Main Deck	Integer	Decimal	[Text]	Decimal	Decimal	Decimal	Decimal	Decimal	Decimal	
	Main Deck	Integer	Decimal	[Text]	Decimal	Decimal	Decimal	Decimal	Decimal	Decimal	
	Aft Main Deck	Integer	Decimal	[Text]	Decimal	Decimal	Decimal	Decimal	Decimal	Decimal	
Poop	Integer	Decimal	[Text]	Decimal	Decimal	Decimal	Decimal	Decimal	Decimal		

10.1.8	Spare Mooring Wires								
10.1.8.1	Storage location							[Text]	
10.1.8.2	Number							Integer	
10.1.8.3	Diameter							Decimal	Millimeters
10.1.8.4	Material							[Text]	
10.1.8.5	Length							Decimal	Meters
10.1.8.5	MBL							Decimal	Tones
10.1.9	Spare Mooring Ropes								
10.1.9.1	Storage location							[Text]	
10.1.9.2	Number							Integer	
10.1.9.3	Diameter							Decimal	Millimeters
10.1.9.4	Material							[Text]	
10.1.9.5	MBL							Decimal	Tones
10.1.9.5	Length							Decimal	Meters
10.1.10	Spare Mooring Tails								
10.1.10.1	Storage location							[Text]	
10.1.10.2	Number							Integer	
10.1.10.3	Diameter							Decimal	Millimeters
10.1.10.4	Material							[Text]	
10.1.10.5	Length							Decimal	Meters
10.1.10.5	MBL							Decimal	Tones
10.1.11	Mooring Winches	10.1.11.1	10.1.11.2	10.1.11.3	10.1.11.4	10.1.11.5	10.1.11.6	10.1.11.7	
		Number	Sgl/Dbf drum	Split drum	Motive power	Brake capacity	Heaving power	Type of brake	
				Tones	Tones	M/Min			
	Forecastle	Integer	Yes/No	[Text]	Decimal	Decimal	Decimal	[Text]	
	forward Main Deck	Integer	Yes/No	[Text]	Decimal	Decimal	Decimal	[Text]	
	Main Deck	Integer	Yes/No	[Text]	Decimal	Decimal	Decimal	[Text]	
Aft Main Deck	Integer	Yes/No	[Text]	Decimal	Decimal	Decimal	[Text]		
Poop	Integer	Yes/No	[Text]	Decimal	Decimal	Decimal	[Text]		
10.1.12	What type of winch brakes are fitted?							[Text]	
10.2	Mooring Bits								
10.2.1	How many sets of mooring bits are fitted?								
10.2.1.1	On forecastle							Integer	
10.2.1.2	On forward main deck							Integer	
10.2.1.3	On aft main deck							Integer	
10.2.1.4	On poop deck							Integer	
10.2.2	Distance of mooring chock for breast/spring lines								
10.2.2.1	Forward of center of manifold							Decimal	Meters
10.2.2.2	Aft of center of manifold							Decimal	Meters
10.3	Anchors and Windlass								
10.3.1	What is the motive power of the windlass?							Decimal	
10.3.2	What is the cable diameter?							Decimal	Millimeters
10.3.3	Number of Shackles								
10.3.3.1	Port cable							Integer	
10.3.3.2	Starboard cable							Integer	
10.3.4	Are bitter end connections to both cables capable of being slipped?							Yes/No	
10.4	Emergency Towing Arrangements								
10.4.1	Is an Emergency Towing Arrangement (ETA) fitted? If not, ignore remainder of this section.							Yes/No	
10.4.2	Details of ETA				10.4.2.1	10.4.2.2			
	Type of System				Forward	Aft			
	Safe Working Load (SWL) of System				Text	Text			
	Is pick-up gear provided?				Text	Text			
	Towing pennant length				Text	Text			
	Towing pennant diameter				Text	Text			
	Type of strong point (e.g. Smit bracket)				Text	Text			
	Chafing Chain Size				Text	Text			
Fairlead size (in format ABC mm x XYZ mm)				Text	Text				
Is a pedestal roller fitter?				Text	Text				
10.4.4	How many sets of bits are fitted in the bow area?							Integer	
10.4.5	What is the height of the bits in the bow area?							Decimal	Millimeters
10.4.6	What is the Safe Working Load (SWL) of the bits in the bow area?							Decimal	Tones
10.4.7	What is the distance between bow fairleads and nearest bits?							Decimal	Millimeters
10.4.8	Is the bow area clear of any obstructions which would hamper towing connections?							Yes/No	
10.5	Escort Tug								
10.5.1	SWL of closed chock on stern							Decimal	Tones
10.5.2	SWL of bollard on poop-deck suitable for escort tug							Decimal	Tones
10.5.3	Are stern chock and bollard capable of towing astern to 90 degrees?							Yes/No	
10.6	Single Point Mooring (SPM) Equipment								

10.6.1	Does the ship meet the recommendations contained in the latest edition of OCIMF 'Recommendations for Equipment Employed in the Bow Mooring of Conventional Tankers at Single Point Moorings'?	Yes/No	
10.6.2	Bow chain stoppers		
10.6.2.1	Are bow chain stoppers fitted?	Yes/No	
10.6.2.2	If Yes, how many?	Integer	
10.6.2.3	If Yes, state type	[Text]	
10.6.2.4	If Yes, what is the Safe Working Load (SWL)?	Decimal	Tones
10.6.2.5	What is the maximum size chain diameter the bow stopper(s) can handle?	Decimal	Millimeters
10.6.3	Closed fairleads		
10.6.3.1	Are closed fairleads of OCIMF recommended size (600mm x 450mm)?	Yes/No	
10.6.3.2	If not, give details of size (in format ABCmm x XYZmm)	[Text]	
10.6.4	If two forward bow fairleads are fitted give distance between them	Decimal	Millimeters
10.6.5	What is the distance between the bow fairlead and stopper/bracket?	Decimal	Meters
10.6.6	What is the distance from the stopper bracket to roller lead/winch drum?	Decimal	Meters
10.6.7	Is there a direct lead from the bow stopper to the winch drum (not the warping end)?	Yes/No	
10.6.8	Is the winch storage drum capable of safely accommodating 150m X 80mm fiber pick up rope?	Yes/No	
10.6.9	Is the winch storage drum capable of safely accommodating 200m X 80mm fiber pick up rope?	Yes/No	
10.7	Bow mooring arrangement diagram		
10.7.1	Bow mooring arrangement diagram	Memo	
10.8	Manifold arrangement		
10.8.1	Manifold Arrangement Diagram	Memo	
10.8.2	Distance K end of drip tray to center line of deck cleat	Decimal	Millimeters
10.8.3	Distance L spill tray to centre line of bollard	Decimal	Millimeters
10.8.4	Distance M length of bollard	Decimal	Millimeters
10.9	Lifting equipment		
10.9.1	Cargo handling derricks		
10.9.1.1	How many derricks are fitted?	Integer	
10.9.1.2	What is their safe working load (SWL)?	Decimal	Tones
10.9.1.3	Date last tested	Date	
10.9.2	Cargo handling cranes		
10.9.2.1	If cranes are fitted, how many?	Integer	
10.9.2.2	What is their safe working load (SWL)?	Decimal	Tones
10.9.2.3	Date last tested	Date	
10.9.3	Other derricks or cranes		
10.9.3.1	If cranes are fitted, how many?	Integer	
10.9.3.2	What is their safe working load (SWL)?	Decimal	Tones
10.9.3.3	Date last tested	Date	
10.9.4	Is Safe Working Load (SWL) clearly marked on all lifting equipment?	Yes/No	
10.9.5	Can the derricks or crane(s) maintain their design SWL when plumbing a point one-meter outboard from the ship's side over the full length of the manifold including bunker and vapour connections?	Yes/No	
10.9.6	If the ship is equipped to operate at Single Buoy Moorings (SBMs), does the arrangement at the manifold area for securing submarine hoses meet OCIMF Guidelines?	Yes/No	
10.1	Other equipment		
10.10.1	Are accommodation ladders arranged to face aft when rigged?	Yes/No	
10.10.2	Is the accommodation ladder well within the parallel mid-body of the ship so boats may come alongside safely at all stages of draft?	Yes/No	
10.10.3	Are Suez Canal boat davits fitted?	Yes/No	
10.10.4	Is a Suez Canal searchlight fitted?	Yes/No	
<b>Chapter 11. Communications and Electronics</b>			
11.1	<b>Communications and Electronics</b>		
11.1.1	Under what sea area (A1, A2, A3 or A4) does the ship operate?	Lookup	
11.1.2	Is a Long-Range Identification and Tracking (LRIT) System fitted?	Yes/No	
11.1.3	Is the vessel equipped with an Automatic Identification System (AIS)	Yes/No	
11.1.4	Is the vessel equipped with a Voyage Data Recorder or Simplified Voyage Data Recorder?	Yes/No	
11.1.5	Does the VDR or S-VDR have clear instructions to bridge watchkeepers relating to the saving of data following an incident?	Yes/No	
11.1.6	Is a Search and Rescue Transponder (SART) fitted?	Yes/No	
11.1.7	Is an Emergency Position-Indicating Radio Beacon (EPIRB) fitted?	Yes/No	
11.1.8	How many VHF radios are fitted on the bridge?	Integer	
11.1.9	Is a VHF radio fitted in the Cargo Control Room?	Yes/No	
11.1.10	Is the CCR connected to the internal communication system?	Yes/No	
11.1.11	How many intrinsically safe walkie talkies are provided for cargo handling?	Integer	
11.1.12	Is an INMARSAT satellite communications system fitted?	Yes/No	
11.1.13	Are at least three survival craft two-way radio telephones provided?	Yes/No	
11.1.14	List any other communications equipment carried	Memo	
11.1.15	Can the radio transmit the helicopter homing signal on 410 KHz?	Yes/No	
<b>Chapter 12. Propulsion</b>			
12.1	<b>Main Propulsion</b>		
12.1.1	Means of main propulsion		
12.1.1.1	What is the means of main propulsion	Lookup	
12.1.1.2	If motor state whether two stroke or four strokes	[Text]	
12.1.1.3	If four strokes, state how many engines fitted	Integer	
12.1.2	How many propellers are fitted?	Lookup	
12.1.3	Is a controllable pitch propeller fitted?	Lookup	
12.1.4	Boilers		
12.1.4.1	How many boilers are fitted?	Integer	
12.1.4.2	What is rated output of boilers?	Decimal	Tones/Hour
12.1.4.3	Are the boilers equipped to operate on low Sulphur fuel when the vessel is operating in Emission Control Areas	Yes/No	
12.1.5	Low sulfur fuel requirements		
12.1.5.1	Is equipment fitted and are procedures in place to changeover main propulsion fuels to meet low Sulphur fuel requirements?	Yes/No	
12.1.5.2	Is equipment fitted and are procedures in place to changeover auxiliary equipment fuels to meet low Sulphur fuel requirements?	Yes/No	
12.1.6	What type of fuel is used for main propulsion?	[Text]	
12.1.7	Are pressurized fuel pipes double sheathed?	Yes/No	
12.1.8	When moored at SBM, is main engine capable of being run astern at low revolutions for extended periods (up to 24 hours continuously)?	Yes/No	
12.1.9	Can a speed of less than 5kts be maintained?	Yes/No	
12.1.10	Is the ship certified for Unmanned Machinery Space (UMS) operation?	Yes/No	
12.1.11	Is the machinery space operated in unmanned mode?	Yes/No	
12.2	Thrusters		



12.2.1	Bow thruster		
12.2.1.1	Is a bow thruster fitted?	Yes/No	
12.2.1.2	If Yes, give Brake Horsepower	Decimal	BHP
12.2.2	Stern thruster		
12.2.2.1	Is a stern thruster fitted?	Yes/No	
12.2.2.2	If Yes, give Brake Horsepower	Decimal	BHP
12.2.3	High angle rudder		
12.2.3.1	Is a high angle rudder fitted?	Yes/No	
12.2.3.2	Number fitted	Integer	
12.2.3.3	What type	[Text]	
12.3	Generators		
12.3.1	How many power generators are fitted?	Integer	
12.3.2	What is the design power output of the generators?	[Text]	
12.3.3	What type of fuel is used in the generating plant?	[Text]	
12.3.4	Is an Emergency Generator or batteries fitted?	Yes/No	
12.4	Main engine air start compressors		
12.4.1	Number of main engines start compressors	Integer	
12.4.2	Operating pressure	Decimal	Bar
12.4.3	Motive power of emergency compressor	Decimal	M3/Hour
12.5	Bunkers		
12.5.1	Fuel oil tank capacities		
12.5.1.1	Tank name	[Text]	
12.5.1.2	Capacity	Decimal	M3
12.5.2	Diesel oil tank capacities		
12.5.2.1	Tank name	[Text]	
12.5.2.2	Capacity	Decimal	M3
12.5.3	Gas oil tank capacities		
12.5.3.1	Tank name	[Text]	
12.5.3.2	Capacity	Decimal	M3
12.6	Steering gear		
12.6.1	What type of steering gear is fitted?	[Text]	
12.6.2	How many motorized hydraulic pumps or motors fitted?	Integer	
12.6.3	How many telemotors fitted?	Integer	
12.6.4	Is an emergency rudder arrest/rudder control fitted?	Yes/No	
12.7	Anti-pollution		
12.7.1	Is an engine-room bilge high-level alarm fitted?	Yes/No	
12.7.2	Is a pump room bilge high-level alarm fitted?	Yes/No	
12.7.3	Is there a permanently installed system for the disposal of residues from the machinery space sludge tank to shore?	Yes/No	
12.7.4	Are there facilities on board to incinerate machinery space sludge?	Yes/No	
<b>Chapter 13. Ship to Ship Transfer</b>			
<b>13.1 Ship to Ship Transfer</b>			
13.1.1	Does the ship comply with recommendations contained in OCIMF/ICS Ship to Ship Transfer Guide (Petroleum)?	Yes/No	
13.1.2	Are at least 7 ratings available to assist with mooring operations?	Yes/No	
13.1.3	What is Safe Working Load (SWL) of bits in the manifold area?	Decimal	Tones
13.1.4	Are manifold bits at least 35 meters away from the breast lines leading fore and aft?	Yes/No	
13.1.5	What is the maximum outreach of the derricks within their designed SWL?	Decimal	Meters
13.1.6	Does the Operator's SMS provide instructions regarding the transfer of personnel using derricks or cranes?	Yes/No	
13.1.7	If cranes are fitted, are they certified for personnel transfer?	Yes/No	
13.1.8	Are personnel who will operate cranes for personnel transfer properly trained?	Yes/No	
13.1.9	Are four (4) 200m x 40mm messenger lines available for Ship-To-Ship (STS) mooring operations?	Yes/No	
13.1.10	Are there two (2) closed chocks with associated bollards and leads to winches located within 35 meters forward and aft of the centre of the cargo manifold?	Yes/No	
<b>Chapter 14. Combination Carriers</b>			
<b>14.1 Combination Carriers</b>			
14.1.1	State design of hatches	[Text]	
14.1.2	State type of hatches	[Text]	
14.1.3	State if hatches fitted with single or double seals in hatch coaming	Lookup	
14.1.4	Last date cargo holds/tanks were tested to normal working pressure (min.500mm wg) to prove gas tightness of hatches	Date	
14.1.5	Were the hatches proven to be gas tight?	Yes/No	



# **Ship Vetting Procedure for Tankers with SIRE Inspection Report**

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## 1. PURPOSE

Ensure the vessel to meet the requirements of the dossier, technical, security, maritime safety and pollution prevention at the request of Vietnam maritime law, international conventions, the safety requirements of NSRP and suitable with NSRP terminal condition.

## 2. SCOPE

This procedure is applicable for Tankers holding SIRE report which its validity is not more than 6 months from issuance date for more than 10 year old vessels, not more than 9 months from issuance date for not greater than 10 year old vessels & calling at NSRP Terminal for cargo operation.

Additionally, tankers who evidently go on international voyage with cargo(es) from/to NSRP Terminal must have SIRE Inspection report which its validity as above mentioned.

Applied responsibilities:

- Nghi Son Refinery & Petrochemical Limited Liability Company (NSRP Terminal)
- Off Takers
- Ship Owners/ Operators of the vessel transporting NSRP's cargoes.

## 3. REFERENCE DOCUMENT

- Vietnam Marine Code
- Decision No. 54/2005/QĐ - BGTVT October 27, 2005 by the Minister of Transport issued a certificate lists and documentation of Vietnam ship and authority boats
- OCIMF - Vessel Inspection Questionnaires (VIQs)
- OCIMF – Harmonized Vessel Particular Questionnaires (HVPQs).

## 4. TERM AND DEFINITION

- **NSRP:** Nghi Son Refinery & Petrochemical Limited Liability Company.
- **NSRP Vetting Team:** A Team in charge of ship inspection/ condition assessment. This Team belongs to Section 6, Operations Division,
- **NSRP Vessel Inspection Team:** Team to conduct Pre- inspection prior to issue a new / extent Notice of Acceptance. The Team including but not limited:
  - A Berth Master
  - A Maintenance electrical Engineer
  - A Firefighting Engineer
- **NSRP E&C:** NSRP Economy and Commercial Division.
- **OCIMF:** Oil Company International Marine Forum.
- **SIRE HVPQs:** Harmonized Vessel Particular Questionnaires are the questionnaires for operators to provide details of ship equipment, technical and trading certificates.
- **SIRE** (Ship Inspection Report Program): Introduced by OCIMF, it is a unique tanker risk

assessment tool of value to charterers, ship operators, terminal operators and government bodies concerned with ship safety.

- **SIRE VIQs** (Vessel Inspection Questionnaires): Issued by OCIMF as safety standards of OCIMF.
- **SIRE Report**: Report made by Third Party Inspection Inspector based on SIRE VIQs.
- **Observations**: Non-compliance with other safety guidelines & which are the defects observed by Inspectors at the time of inspection.
- **Q88**: Q88.com is a great source for vessel information. The owners list their Questionnaire 88 data on web site and anyone else with an account can login and view the data contained in the Questionnaire 88.
- **PSC**: Inspection of foreign ships in other national ports by PSC officers (inspectors) for the purpose of verifying that the competency of the master and officers on board, and the condition of the ship and its equipment comply with the requirements of international conventions (e.g. SOLAS, MARPOL, STCW, etc.) and that the vessel is manned and operated in compliance with applicable international law.
- **CLASS**: (Classification societies): A classification society is a non-governmental organization that establishes and maintains technical standards for the construction and operation of ships and offshore structures. The society will also validate that construction is according to these standards and carry out regular surveys in service to ensure compliance with the standards.
- **IHS**: IHS is the leading source of critical maritime and trade insight, enabling organizations, policy makers and security to navigate today's complex trading environment.
- **TMSA** (Tanker Management and Self-Assessment): Assessment programme as a tool to help vessel operators assess, measure and improve their safety management systems. It complements industry quality codes and is intended to encourage self-regulation and promote continuous improvement among tanker operators.
- **Ship/Shore Safety Check**: safety check carried out by Berth Master with Chief Officer on board by using Ship/Shore Safety Check List.
- **Ship/Shore Safety Check List (SSSCL)**: the checklist developed by NSRP based on ISGOTT, the SSSCL may be revised to better reflect the individual and joint responsibilities of the tanker and the terminal.

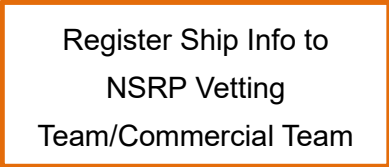
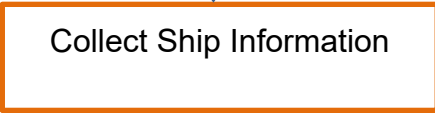
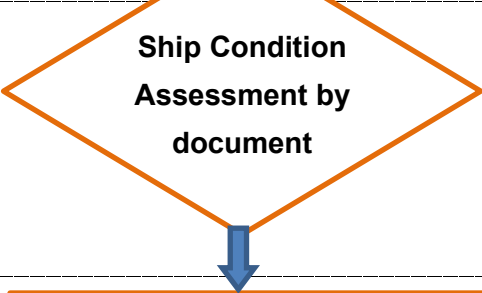
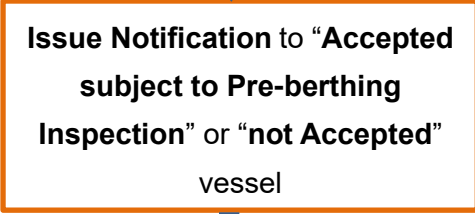
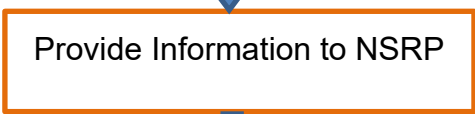

## 5. REQUIREMENT

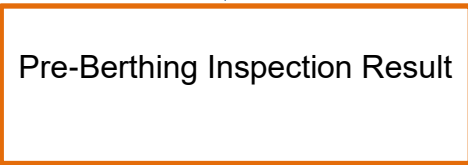
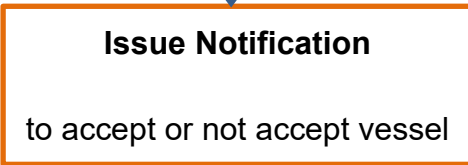
For Tankers who have valid SIRE reports in system: not more than 6 months from issuance date for more than 10 years old vessels, not more than 9 months from issuance date for not greater than 10 years old vessels. NSRP Vetting Team will review the reports & make

decision for “Accepted” or “Not Accepted” the vessels.

## 6. SIRE REPORT REVIEW PROCESS

### 6.10. SIRE REPORT REVIEW FLOW CHART

Responsibility	Diagram	Description	Timeline
Off takers/ Ship owners		<ul style="list-style-type: none"> <li>- Off takers/ Shipowners register Ship Info including HVPQs, Appendix 1 and/or Q88 to <b>NSRP Vetting Team, Commercial Team.</b></li> <li>- Off takers/ Ship owners periodically update ship information including Q88 to <b>NSRP Vetting Team.</b></li> </ul>	At the nomination.
NSRP Vetting Team		<ul style="list-style-type: none"> <li>- Download the latest SIRE Report.</li> <li>- Collect external information such as Q88, PSC, IHS, TMSA, Previous SIRE Report, Info of previous works in other terminal if available</li> </ul>	2 hrs./ship
NSRP Vetting Team		<ul style="list-style-type: none"> <li>- Violate non- High-Risk observations on external info: “Accepted subject to Pre-berthing Inspection”.</li> <li>- Violate High Risk observations on external info: “Not Accepted”.</li> </ul>	2 hrs./ship
NSRP Vetting Team DM / RGM		<ul style="list-style-type: none"> <li>- Judgment “Accepted subject to Pre-berthing Inspection” or “Not Accepted” will be issued</li> </ul>	02 hrs./ship
Ship Owner/ Operator		<ul style="list-style-type: none"> <li>- Provide adequate information by filling “Pre-berthing Questionnaires” as in the form and corrective action status to NSRP Vetting Team for review.</li> </ul>	01 day
NSRP Vessel Inspection Team		<ul style="list-style-type: none"> <li>- Pre-berthing Inspection at anchorage area to re-check corrective actions against Observations reported on Ship Inspection Report (if any) and also conduct Inspection based on “NSRP Inspection for Tankers for</li> </ul>	04 hrs./ship

		Pre-Berthing Inspection".	
<b>NSRP Vessel Inspection Team</b>		<ul style="list-style-type: none"> <li>- If Ship Rectification Report on external info observations is correct and not violate High Risk observations on Pre-Berthing Inspection Result: "Accepted"</li> <li>- If Ship Rectification Report is not correct or violate High Risk observations on Pre-Berthing Inspection Result: "Not Accepted"</li> </ul>	01 hr/ship
<b>NSRP Vetting Team DM / RGM</b>		<ul style="list-style-type: none"> <li>- "Accepted" or "Not Accepted" will be issued.</li> </ul>	01 hr/ship

## 6.11. IMPLEMENTATION OF SIRE REPORT REVIEW

### 6.11.1. Ship Information Registration & Ship Vetting Request

Off Takers/Ship owners register ship information including Appendix-1, Q88 & Ship Vetting Request send to **NSRP Vetting Team (Vettingteam@nsrp.com.vn)**, **Commercial Team (Commercialteam@nsrp.com.vn)**.

### 6.11.2. Ship Condition Assessment

Once receiving the SIRE Report Review Request, Vetting Team (Sec-6) will carry out the followings:

- Review SIRE Report (download directly from OCIMF website databases)
- Evaluate external information such as Q88, PSC, IHS, TMSA, Previous SIRE Report, info of previous works in other Terminal if available. (Collected information will be compared with NSRP Terminal design parameters which described in Appendix-1, NSRP High Risk Observation List. Additionally, PSC inspection Code 30 is also considered as High Risk observation).
- Conclude Ship Condition Assessment Result as follows:
  - Violate non-High Risk observations on external info: "**Accepted subject to Pre-berthing Inspection**".
  - Violate High Risk observations on external info or ship parameters not match with NSRP Terminal design: "**Not accepted**".

NSRP replies and make decision whether the vessel safety condition is "**Approved**" or "**not Approved**" within 01 day from the date of receiving SIRE Report Review Request from Off Takers.

**6.11.3. Pre-Berthing Inspection by NSRP Vessel Inspection Team**

Pre-berthing Inspection will also be executed for nominated vessels calling at NSRP Terminal as the first time or extent Notice of Acceptance.

Ship Owner/Operator shall provide adequate information by filling Pre-berthing Questionnaires for Tankers as in the form and corrective action status to NSRP for review. NSRP Vessel inspection Team shall execute Pre-berthing Inspection at anchorage area near NSRP Terminal to re-check corrective actions against Observation reported on Ship Inspection Report, and also conduct Inspection based on “Inspection Checklist for Tankers for Pre-berthing Inspection”.

Pre-berthing Inspection will be done in the daytime prior to entering NSRP terminal.

- If Ship Rectification Report is correct and not violate High Risk observations on Pre-Berthing Inspection Result: **“Accepted”**
- If Ship Rectification Report is not correct or violate High Risk observations on Pre-Berthing Inspection Result: **“Not Accepted”**.

**6.11.4. NSRP inform to accept or reject the ship**

Based on the Ship Condition Assessment Result or Pre-berthing Inspection Result, NSRP will notify final acceptance/rejection to Ship Owner/Operator in the name of General Manager of Refinery (GMR)/ Operations Division Manager

The Notice to Accept or not accept will be stored on NSRP common folder.

**6.11.5. Ship/Shore Safety Check**

Based on ship loading schedule, accepted vessel on section 6.11.3 and/or 6.11.4 must be executed Ship/Shore Safety Check by Berth Master and Chief Officer before cargo operation, during cargo operation, before un-berthing to ensure smoothly co-operation and safety operation of Terminal. The details are described in Guideline for Ship/Shore Safety Inspection.

**7. ATTACHMENT**

No	Document code	Document name
1	MD-04-OP-S6JTY-PD-0704/JTY-7.4.1-04/AX-001	NSRP High Risk Observation List
2	MD-04-OP-S6JTY-PD-0704/JTY-7.4.1-04/AP-001	Appendix 1
3	MD-04-OP-S6JTY-PD-0704/JTY-7.4.1-04/F-001	Ship Condition Assessment Result





No	Document code	Document name
4	MD-04-OP-S6JTY-PD-0704/JTY-7.4.1-04/F-002	Notice to Accept Vessel
5	MD-04-OP-S6JTY-PD-0704/JTY-7.4.1-04/F-003	Notice not to Accept Vessel



# **NSRP Ship Vetting Procedure for Dry bulk Carriers & Container Vessels**

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## 1. PURPOSE

Ensure the vessel to meet the requirements for the dossier, technical, security, maritime safety and pollution prevention at the request of Vietnam maritime law, international conventions, the safety requirements of NSRP and suitable with NSRP Terminal condition.

## 2. SCOPE

This procedure is applicable to Dry Bulk Carriers and Container Vessels calling at NSRP Terminal for cargo operation.

Applied responsibilities:

- Nghi Son Refinery & Petrochemical Limited Liability Company (NSRP Terminal)
- Offtakers
- Ship Owners/ Operators of the vessel transporting NSRP cargoes.

## 3. REFERENCE DOCUMENT

- Vietnam Maritime Code
- Decision No. 54/2005/QĐ - BGTVT October 27, 2005 by the Minister of Transport issued a certificate lists and documentation of Vietnam ship and authority boats
- Rightship Inspection Questionnaire
- London P&I Club Inspection Questionnaire.

## 4. TERM AND DEFINITION


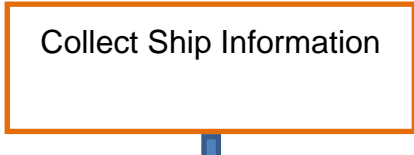
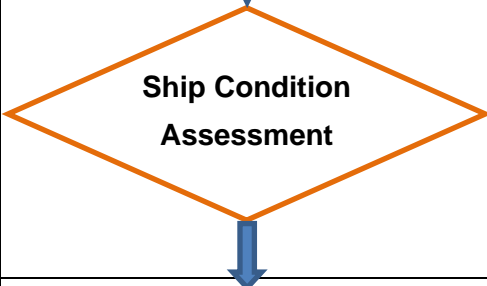
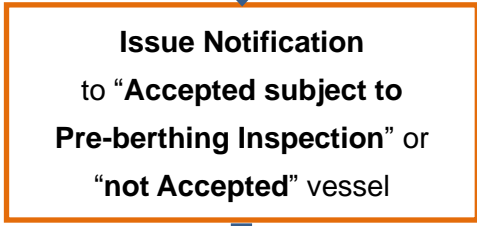
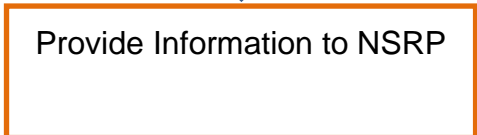
- **NSRP:** Nghi Son Refinery & Petrochemical Limited Liability Company.
- **NSRP E&C:** NSRP Economy and Commercial Division.
- **NSRP Vetting Team:** A Team in charge of Ship Inspection/Condition Assessment. This Team belongs to Section 6, Operations Division, NSRP.
- **NSRP Vessel Inspection Team:** Team to conduct Pre- inspection prior to issue a new / extent Notice of Acceptance. The Team including but not limited:
  - A Maintenance electrical Engineer
  - A Firefighting Engineer
  - A Berth Master
- **Ship Inspection:** The inspection conducted by NSRP Vetting Team Member.
- **NSRP Vessel Particular Questionnaire:** The questionnaire for Ship Owner/Operator to provide details of ship particular data, ship equipment, technical and trading certificates.
- **Q88dry:** Q88dry.com is a great source for vessel information. The owners list their Questionnaire 88 data on web site and anyone else with an account can login and view the data contained in the Questionnaire 88.
- **PSC:** Inspection of foreign ships in other national ports by PSC officers (inspectors) for the





purpose of verifying that the competency of the master and officers on board, and the condition of the ship and its equipment comply with the requirements of international conventions (e.g. SOLAS, MARPOL, STCW, etc.) and that the vessel is manned and operated in compliance with applicable international law.

- **IHS:** IHS is the leading source of critical maritime and trade insight, enabling organizations, policy makers and security to navigate today's complex trading environment.
- **Observations:** Non-compliance with other safety guidelines & which are the defects observed by Vetting Team at the time of Ship Inspection with reference to NSRP Vessel Inspection Questionnaire.
- **NSRP Vessel Inspection Questionnaire:** The questionnaire issued by NSRP, in consideration of safety standards of Rightship & London P&I Club. This questionnaire is modified from original questionnaire to meet with the actual condition of NSRP Terminal and to be applied by Vetting Team during Ship Inspection.
- **Ship Rectification Report:** Report made by Ship Owners/Operators/Crews to explain rectification method for Observations noted during Ship Inspection.
- **Ship/Shore Safety Check:** safety check carried out by Berth Master with Chief Officer on board by using Ship/Shore Safety Check List.
- **Ship/Shore Safety Check List (SSSCL):** the checklist developed by NSRP based on BLU Code (The Code of Practice for the Safe Loading and Unloading of Bulk Carriers), the SSSCL may be revised to better reflect the individual and joint responsibilities of the tanker and the terminal.

## 5. SHIP VETTING PROCESS

### 5.1 SHIP VETTING FLOW CHART

Responsibility	Diagram	Description	Timeline
Offtakers or Ship Owner/ Operator		<ul style="list-style-type: none"> <li>- Off taker/Ship owner registers Ship Info including NSRP Vessel Particular Questionnaire and/or Q88dry to NSRP Vetting Team, Commercial Team.</li> <li>- Off takers/ Ship owners periodically updates ship information including Q88dry. To NSRP Vetting Team.</li> </ul>	At the nomination.
NSRP Vetting Team		<ul style="list-style-type: none"> <li>- Collect external information such as Q88dry, PSC, IHS, Info of previous works in other terminal if available.</li> <li>- Conclude Ship Condition Assessment Result.</li> </ul>	Max 04 hrs/ship
NSRP Vetting Team		<ul style="list-style-type: none"> <li>- Violate non- High Risk observations on external info: <b>“Accepted subject to Pre-berthing Inspection”</b>.</li> <li>- Violate High Risk observations on external info: <b>“Not Accepted”</b>.</li> </ul>	02 hrs/ship
NSRP Vetting Team DM / RGM		<ul style="list-style-type: none"> <li>- Judgment <b>“Accepted subject to Pre-berthing Inspection”</b> or <b>“Not Accepted”</b> will be issued</li> </ul>	02 hrs/ship
Ship Owner/ Operator		<ul style="list-style-type: none"> <li>- Provide adequate information by filling “Pre-berthing Questionnaires” as in the form and corrective action status to NSRP Vetting Team for</li> </ul>	01 day

		review.	
<b>NSRP Vessel Inspection Team</b>	 <div style="border: 2px solid orange; padding: 5px; width: fit-content; margin: 0 auto;"> <b>Pre-Berthing Inspection</b> </div> 	<ul style="list-style-type: none"> <li>- Pre-berthing Inspection at anchorage area to re-check corrective actions against Observations reported on external Info, and also conduct Inspection based on “NSRP Vessel Inspection Questionnaire for Dry bulk Carriers &amp; Container Vessels”.</li> </ul>	Max 04 hrs/ ship
<b>NSRP Vessel Inspection Team</b>	 <div style="border: 2px solid orange; padding: 5px; width: fit-content; margin: 0 auto;">           Pre-Berthing Inspection Result         </div> 	<ul style="list-style-type: none"> <li>- If Ship Rectification Report on external info observations is correct and not violate High Risk observations on Pre-Berthing Inspection Result: <b>“Accepted”</b></li> <li>- If Ship Rectification Report is not correct or violate High Risk observations on Pre-Berthing Inspection Result: <b>“Not Accepted”</b></li> </ul>	01 hr/ship
<b>NSRP Vetting Team DM / RGM</b>	<div style="border: 2px solid orange; padding: 5px; width: fit-content; margin: 0 auto;"> <b>Issue Notification</b>            to accept or not accept vessel         </div>	<ul style="list-style-type: none"> <li>- <b>“Accepted”</b> or <b>“Not Accepted”</b> will be issued.</li> </ul>	01 hr/ship

## 5.2 IMPLEMENTATION OF PRE BERTHING INSPECTION

### 5.2.1 Ship Information Registration

Offtakers/Ship owners register Ship Info including NSRP Vessel Particular Questionnaire and/or Q88dry to NSRP vetting team (Vettingteam@nsrp.com.vn), Commercial team (Commercialteam@nsrp.com.vn).

### 5.2.2 Ship Condition Assessment

Once receiving ship information, NSRP Vetting Team (Section 6- Operations Division) will carry out the followings:

- To compare with NSRP Terminal designed parameters and NSRP High Risk Observation List, NSRP Vetting Team collects external information such as PSC, IHS, Q88dry, info of previous works in other terminal if available.

- Conclude Ship Condition Assessment Result as follows:
  - Violate non-High Risk observations on external info: **“Accepted subject to Pre-berthing Inspection”**.
  - Violate High Risk observations on external info or ship parameters not match with NSRP Terminal design: **“Not accepted”**.

### 5.2.3 Pre-Berthing Inspection by NSRP Vessel Inspection Team

Pre-berthing Inspection will be executed for nominated vessels calling at NSRP Terminal as the first time or extent Notice of Acceptance.

Ship Owner/Operator shall provide adequate information by filling “Dry Bulk Carrier Questionnaire” or “Container Vessel Questionnaire” in the form and corrective action against Observations reported on external info (if any) to NSRP for review.

NSRP Vessel Inspection Team shall execute Pre-Berthing Inspection at anchorage area near NSRP Terminal to re-check corrective actions against Observation reported on external info, and also conduct Inspection based on “Ship Inspection Questionnaire for Dry bulk Carriers and Container Vessels”.

Pre-berthing inspection will be done in the daytime prior to entering NSRP terminal

- If Ship Rectification Report on external info observations is correct and Ship does not violate High Risk observations on Pre-Berthing Inspection Result: **“Accepted”**
- If Ship Rectification Report is not corrected or Ship violates High Risk observations on Pre-Berthing Inspection Result: **“Not Accepted”**.

### 5.2.4 NSRP informs to accept or reject the ship

Based on the Ship Condition Assessment Result or Pre-berthing Inspection Result, NSRP will notify final acceptance/rejection to Ship Owner/Operator in the name of Refinery General Manager (RGM)/ Operations Division Manager

The Notice to Accept or not accept will be stored on NSRP common folder.

### 5.2.5 Ship/shore safety check

Based on ship loading schedule, accepted vessel on section 5.2.3 and/or 5.2.4 must be executed Ship/Shore Safety Check by Berth Master and Chief Officer before cargo operation, during cargo operation, before un-berthing to ensure smoothly co-operation and safety operation of Terminal. The details are described in Guideline for Ship/Shore Safety Inspection.



## 6. ATTACHMENT

No	Document code	Document name
1	MD-04-OP-S6JTY-PD-0704/JTY-7.4.1-05/AX-001	NSRP Vessel Inspection Questionnaires for Dry bulk Carriers and Container Vessels
2	MD-04-OP-S6JTY-PD-0704/JTY-7.4.1-05/AX-002	NSRP High Risk Observation List
3	MD-04-OP-S6JTY-PD-0704/JTY-7.4.1-05/F-001	Ship/Shore Safety Check List
4	MD-04-OP-S6JTY-PD-0704/JTY-7.4.1-05/F-002	Dry Bulk Carrier Questionnaire
5	MD-04-OP-S6JTY-PD-0704/JTY-7.4.1-05/F-003	Container Vessel Questionnaire
6	MD-04-OP-S6JTY-PD-0704/JTY-7.4.1-05/F-004	Inspection Observation List
7	MD-04-OP-S6JTY-PD-0704/JTY-7.4.1-05/F-005	Ship Inspection Evaluation Result
8	MD-04-OP-S6JTY-PD-0704/JTY-7.4.1-05/F-006	Notice to accept vessel
9	MD-04-OP-S6JTY-PD-0704/JTY-7.4.1-05/F-007	Notice not to accept vessel



**JTY-7.4.1-06**

# **NSRP Ship Vetting Policy**

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## 1. PURPOSE

The purpose of this Ship Vetting Policy is to ensure the highest safety operation of terminal and transportation by sea to protect people, environment, terminal facilities and reputation of NSRP and Ship Owners/Operators.

Any vessel before coming alongside NSRP Terminal must be checked to ensure suitable vessel quality, enough safety condition to match with terminal facilities and NSRP regulation and to avoid potential risks to NSRP property, people and environment.

## 2. SCOPE

This Vetting Policy is applied for all those Vessels under Vietnamese and Foreign flags coming to NSRP Terminal.

Responsibilities by:

- NSRP Terminal - Nghi Son Refinery & Petrochemical Limited Liability Company (NSRP LLC)
- Third Party Inspection Company
- **NSRP Vessel Inspection Team**
- Ship Owners/Operators.

## 3. DEFINITIONS

- **NSRP:** Nghi Son Refinery & Petrochemical Limited Liability Company.
- **OCIMF:** Oil Company International Marine Forum.
- **Vetting:** the total process used to carry out the risk assessment and arrive at a conclusion on the acceptability of the vessel.
- **Ship Inspection:** the inspection conducted by Third Party Inspection Company as one of step of Vetting Process.
- **Ship Condition Assessment:** NSRP's Assessment System which is specified in Ship Condition Assessment Guideline and is utilized for evaluation.
- **Vessel, Cargo, Ship:** Any kind of material subject to a contract of transportation, mainly crude oil, oil products, chemical products, LPG/Propylene, Solid Sulphur and Solid Poly Propylene.
- **Ship Operator:** the company or entity which exercises day to day operational control and responsibility for a vessel.
- **Ship Owner:** The registered owner of a vessel may or may not be the Ship Operator.
- **Management Officer:** Captain, Chief Officer, Chief Engineer and First Engineer of tanker.
- **Third Party Inspection Company:** company nominated by NSRP to carry out ship inspection

- **NSRP Vetting Team:** Team within NSRP responsible for the enforcement of the Ship Vetting Policy & Procedures.
- **NSRP Vessel Inspection Team:** Team to conduct Pre- inspection prior to issue a new/ extent Notice of Acceptance. The Team including but not limited:
  - A Berth Master
  - A Maintenance electrical Engineer
  - A Firefighting Engineer
- **SIRE Programme** (Ship Inspection Report Programme): a very large database of up-to-date confidential information about tankers and barges, developed by OCIMF as a unique tanker risk assessment tool of value to charterers, ship operators, ship owners, terminal operators and government bodies concerned with ship safety.
- **SIRE Inspection Report:** report made by accredited SIRE Inspectors based on SIRE VIQs under SIRE programme.
- **Ship Inspection Report (Non-SIRE Inspection Report):** report made by Third Party Inspection Company based on NSRP Vessel Inspection Questionnaires under Non-SRE Programme.
- **Observations:** Non-compliance with safety guidelines which are the defects observed by inspectors at the time of Ship Inspection.

#### 4. STANDARDS AND INTERNATIONAL REGULATIONS

- Vietnam Maritime Code
- **IMO:** International Marine Organization Requirements
- **ISM Code:** International Safety Management Code.
- **IBC Code:** International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
- **IGC Code:** International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk
- **GC Code:** Code for the Construction Equipment of Ships Carrying Liquefied Gases in Bulk
- **IMDG:** International Maritime Dangerous Goods Code
- **EGC Code:** Code for Existing Ships Carrying Liquefied Gases in Bulk
- **ICS:** International Chamber of Shipping
- **ISGOTT:** International Safety Guide for Oil Tankers & Terminals
- **SOLAS 74:** International Convention for the Safety of Life at Sea
- **MARPOL 73/78:** International Convention for the Prevention of Pollution from Ships
- **OCIMF:** Oil Company International Marine Forum guidelines
- **ISPS CODE:** International Ship & Port Facilities Security Code

- **IMSBC:** International Maritime Solid Bulk Cargo Code

## 5. CONTENTS

### 5.1. General

NSRP Terminal belongs to Nghi Son Refinery & Petrochemical Limited Liability Company, imports crude oil via SPM (Single Point Mooring) and exports oil and petrochemical products and Solid Sulphur and Poly Propylene via Jetty. On the business, NSRP will co-ordinate with Ship Owners/Operators.

### 5.2. Requirement for NSRP Terminal

Accepted vessel calling to NSRP Terminal must be satisfied with NSRP Terminal Regulation especially the following operational requirement:

#### 5.2.1. SIRE Inspection Report

NSRP will review SIRE Inspection Reports which these validity are not more than 6 months from issuance date for more than 10 year old vessels, not more than 9 months from issuance date for not greater than 10 year old vessels.

Tankers who evidently go on international voyage with cargo(es) from/to NSRP Terminal must have SIRE Inspection report which its validity as above mentioned.

After every 3 consecutive times as maximum of SIRE report, the next vetting inspection will be conducted by Third Party Inspection Company which nominated by NSRP.

#### 5.2.2. Observation of International Codes, Vietnam Laws and NSRP Terminal Regulations

To observe Vietnam Laws, International Codes, IMSBC Code, Guidelines of OCIMF (Oil Companies International Marine Forum) to operate effectively and safely its terminal, NSRP sets up the Vetting Process and safety standards for all Vessels. The standards are based on the IMSBC Code, OCIMF documents such as SIRE Programme, ISGOTT, and the related rules, regulations, and NSRP Terminal facilities and current condition of Vietnamese vessel fleets.

#### 5.2.3. Vessel Age

Vessel age account from year of building on Ship Registry Certificate:

- Vessels over 30 years old will not be accepted.
- Depending on the vessel age (more than 15 years old) and Class regulation, the vessel above 20,000 dwt must have Condition Assessment Program (CAP) issued by Class Society not more than 3 years from date of Class survey.

#### 5.2.4. Closed Cargo Operation

The Tanker under vetting carrying volatile, toxic or noxious Cargo must operate at all times in the “Closed Cargo Operations” mode, as defined by the current edition of ISGOTT.

#### 5.2.5. Vapor Recovery

When vapor recovery control requirement is applied; only vessel suitably equipped can be accepted. The vessel with the last cargo containing reactive chemicals such as ketones, aldehydes, organic acids, or ammonium nitrate are not accepted to enter our terminal.

#### 5.2.6. Inert Gas System (IGS)

Over 20,000 DWT vessels by statutory requirement to be fitted with IGS must ensure that the system is fully operational. Tankers 8,000 DWT and over, carrying low-flashpoint cargoes, and constructed (keel laid) on or after 1<sup>st</sup> January 2016, must be provided with a fixed IGS. Crude oil tankers and tankers carrying volatile product cargo must be fitted with IGS. Requirements for Gas carries, and Chemical tankers are defined in IMO Code (BCH, IBC, ICG or GC).

#### 5.2.7. Switch Loading

The practice of loading a low conductivity, low vapor pressure product into a fixed or portable tank or truck which previously contained a high or intermediate vapor pressure product (such as gasoline or solvent), resulting in a flammable atmosphere while loading the low vapor pressure product. During tank inspection the vessel shall conduct gas test with result not more than 10% LEL concentration inside the nominated compartment.

#### 5.2.8. LPG Carrier

Ship Managers must have annual plan of void spaces and cargo tanks inspection. The inspection must be performed by competent surveyors. Checking of safety equipment and gas detection system (GDS) must be carried out simultaneously with checking vessel structural condition. Ship Managers must have procedures regarding annual maintenance of dry chemical foam fixed fire extinguishing system to be carried out by certified shore services.

#### 5.2.9. Manning and Certification

- All officers must hold valid Certificate of Competency, Special Training Certificate for

handling dangerous cargoes according to STCW.

- There must be 4 senior officers according to STCW.
- All crew members must have adequate certificates in accordance with the size of vessel and the cargo carried as required in STCW.
- Training Program for oil spill on board must be observed and Training Handbook must be available on board.

#### 5.2.10. Officers Matrix

Officers are required:

- Total experience for Master and Chief Officer required at least 4 years seagoing service on tankers.
- Total experience for Chief Engineer and Second Engineer required at least 3 years sailing on oil tankers.
- Total experience for Master and Chief Officer required at least 2 years being senior officers on oil tankers.
- Total experience for Master and Chief Officer of LPG/LNG carriers required at least 2 years being senior officers on similar type of carrier.

#### 5.2.11. P & I Insurance

- For Tankers trading on International Voyages as stipulated in Ship certificates they must be under P&I insurance with an international P&I Club (with oil pollution liability at 1,000,000,000USD (one billion USD).
- For Tankers trading on Domestic Voyages as stipulated on Ship certificates, they must be under P&I insurance with oil pollution liability at 500,000,000USD (five hundred million USD).

#### 5.2.12. Mooring Rope

- For vessels with 4 winches (2 forward and 2 aft):
  - The owner will ensure at least 8 ropes in service date within 2 years and remaining ropes in service date within 3 years.  
Note: All mooring ropes which are moored by bollards are required in service date less than 2 years.
  - The owner must provide at least 2 spare mooring ropes in service date within 2 years and the rest within 3 years.
- For vessels with 6 winches (3 forward and 3 aft):
  - The owner will ensure at least 6 ropes in service date within 2 years and remaining ropes in service date within 3 years.



Note: All mooring ropes which are moored by bollards are required in service date less than 2 years.

➤ The owner must provide at least 2 spare mooring ropes in service date within 2 years and the rest within 3 years.

▪ For vessels with more than 8 winches:

➤ The owner will ensure at least 4 ropes in service date within 2 years and remaining ropes in service date within 3 years.

Note: All mooring ropes which are moored by bollards are required in service date less than 2 years.

➤ The owner must provide at least 2 spare mooring ropes in service date within 2 years and the rest within 3 years.

### 5.2.13. Monsoon Season (from November to April of next year),

▪ Only vessels equipped with at least 8 winches (4 forward and 4 aft) can operate in berths 4 A/B.

▪ Vessels smaller than 10,000 DWT will not be recommended to operate in berths 4 A/B in case bad weather

### 5.3. NSRP Vetting Process

NSRP Vetting Processes are described in details in as follows,

- NSRP Ship Vetting Procedure for Tankers with SIRE inspection report
- NSRP Ship Vetting Procedure for Tankers without SIRE inspection report
- NSRP Ship Vetting Procedure for Dry bulk Carriers and Container Vessels

If Tankers have valid SIRE Inspection Report as stipulated in 5.2.1. Ship Owner/Operator requests NSRP to review SIRE Inspection Report. Ship Inspection by Third Party Inspection Company can be substituted to SIRE Inspection Report submission.

Tankers without SIRE Inspection Report intended to come to NSRP terminal must take Ship Inspection as one of step of Vetting Process to get NSRP permission. Based on Ship Inspection Report conducted by Third Party Inspection Company, NSRP Vetting Team will carry out Ship Condition Assessment and Pre-berthing Inspection if necessary.

For Dry bulk Carriers and Container vessels, NSRP will not carry out Ship Inspection by Third Party Inspection Company. NSRP Vetting Team will collect ship information, carry out Pre-berthing Inspection and conclude Ship Condition Assessment.

### 5.3.1. Ship Vetting Request

Off Takers/ Ship owners register ship information and send the Ship Vetting Request to NSRP Vetting Team ([Vettingteam@nsrp.com.vn](mailto:Vettingteam@nsrp.com.vn)), Commercial Team ([Commercialteam@nsrp.com.vn](mailto:Commercialteam@nsrp.com.vn)).

### 5.3.2. Receive ship inspection application

Once receiving the Ship Inspection Request, the Third-Party Inspection Company sends confirmation email and the Ship Inspector for inspection execution. Below are the steps which will take place during this ship inspection process:

- Confirmation of vetting implementation as ordered.
- Request Ship Owners/Ship Operators to provide information prepared for inspection.
- Confirmation of vetting fee payment.
- Ship Owners/Operators send replied email to Third Party Inspection Company.
- Ship Owners/Operators fill up the ship information into NSRP Vessel Particular Questionnaires form, and then sends to Third Party Inspection Company.
- Self-check and answer questionnaires in NSRP Vessel Inspection Questionnaires form.
- Continue updating latest information of the ship as requested.
- Agree with Third Party Inspection Company about the time and place of inspection.

After receiving sufficient information, Third Party Inspection Company informs Ship Owners/Operators the full name, phone number, email address and inspection schedule of Inspector.

### 5.3.3. Ship Inspection

Ship Inspection is full progress for all safety and security management system of the vessel based on the questionnaires system issued and updated by NSRP.

Ship Inspection must be executed during cargo loading/ discharging operation status (other status will be considered by NSRP) and not be allowed from 20:00 to 05:00 hrs except for the special condition which is agreed by NSRP.

Inspection procedure includes:

- Conduct the meeting with Ship Management Officers.
- Review self-check and answer of Ship Owner/Operator according to NSRP Vessel Inspection Questionnaires.
- Check the details and note all observations during inspection progress.
- Hold the meeting with Ship Management Officers and representative of Ship Owner/Operator (if available) and note the content/sign Observations list.

#### 5.3.4. Ship Owner/Operator explains the observations to be noted

Based on observations noted in the list, Ship Owner/Operator explains and plans to rectify observations and remedies to avoid repetition. Time for rectification/explanation is within 14 calendar days from the date of Observations. Rectification/explanation and plan must be sent to Third Party Inspection Company.

Ship Owner/Operator coordinates with Third Party Inspection Company to complete inspection report in order to send to NSRP before the previous approval validity expires.

#### 5.3.5. Third Party Inspection Company sends Ship Inspection Report to NSRP

Third Party Inspection Company receives and processes additional information from Ship Owner/Operator within 14 calendar days from the date of inspection and prepares the detailed Inspection Report and sends it to NSRP within 15 calendar days from the date of inspection.

Third Party Inspection Company informs the content of Article 5.3.4 to Ship Owner/Operator for their proper acknowledge and implementation.

Third Party Inspection Company compiles documentation to record the Ship Inspection Result.

#### 5.3.6. Ship Condition Assessment

Once received Ship Inspection Report, Vetting Team shall:

- Review Ship Inspection Report.
- Collect external information such as HVPQ, Q88, PSC, IHS, previous Inspection Report (SIRE, NON-SIRE), info of previous works in another Terminal. (Collected information will be compared with NSRP Terminal design parameters, NSRP High Risk Observation List. Additionally, PSC inspection Code 30 is also considered as High-Risk observation).
- Conclude Ship Condition Assessment Result as follows:
  - Violate non- High-Risk observations on Ship Inspection Result and other info but all observations are rectified: **“Accepted “**.
  - Violate non- High-Risk observations on Ship Inspection Result and other information but some observations are on pending: **“Accepted subject to Pre-berthing Inspection”**.
  - Violate High Risk observations on Ship Inspection Report or other information: **“Not Accepted”**.

### 5.3.7. Pre-berthing Inspection

Pre-berthing Inspection will also be executed for nominated vessels calling at NSRP Terminal as the first time or extent Notice of Acceptance.

Ship Owner/Operator shall provide adequate information by filling Pre-berthing Questionnaires for Tankers as in the form and corrective action status to NSRP for review.

NSRP Vessel inspection Team shall execute Pre-berthing Inspection at anchorage area near NSRP Terminal to re-check corrective actions against Observation reported on Ship Inspection Report, and also conduct Inspection based on “Inspection Checklist for Tankers for Pre-berthing Inspection”.

Pre-berthing Inspection will be done in the daytime prior to entering NSRP terminal.

- If Ship Rectification Report is correct and not violate High Risk observations on Pre-Berthing Inspection Result: **“Accepted”**
- If Ship Rectification Report is not correct or violate High Risk observations on Pre-Berthing Inspection Result: **“Not Accepted”**.

### 5.3.8. Issue Notification

Based on the Ship Condition Assessment Result or Pre-berthing Inspection Result, NSRP will notify final acceptance/rejection to Ship Owner/Operator in the name of General Manager of Refinery (GMR) or Operations Division Manager.

The Notice to Accept or not accept will be stored on NSRP common folder.

### 5.3.9. Ship/Shore Safety Check

Based on ship loading schedule, accepted vessel must be executed Ship/Shore Safety Check by Berth Master and Chief Officer before cargo operation, during cargo operation, before un-berthing to ensure smoothly co-operation and safety operation of Terminal. The details are described in Guideline for Ship/Shore Safety Inspection.

## 5.4. Miscellaneous

### 5.4.1. Re-Vetting

Ship not accepted by NSRP can be nominated for re-vetting one month after the date of rejection by NSRP.

### 5.4.2. Validity of Acceptance

- For Tankers, based on SIRE report review, Ship Inspection Report by Third Party Inspection Company and Ship Condition Assessment, NSRP Vetting Team will make

decision for Ship Acceptance/Rejection. Validity of Acceptance as follows: Vessels less than 10 years old will be accepted not more than 9 months.

- Vessels more than 10 years old will be accepted not more than 6 months.

#### 5.4.3. Ship Re-Construction Consideration

For specific situation of vessel acceptance, NSRP considers accepting vessel valid date in some cases as bellow details:

- Changing of Ship Owner. Anyhow, if the vessel is still under same Managers, she can be considered for acceptance by NSRP.
- Changing of Class, P&I Club; Ship Operator; Ship Managers, important technology system of the vessel which may affect to the safety condition of the vessel.
- Changing of important ship systems to effect on safety operation.
- Ship accident; aground; fire-explosion; Pollution or others maritime accident: arrestment and Non-compliance report of Port Authority.