SHELL PANDAN TERMINAL
SINGAPORE

TERMINAL INFORMATION BOOKLET
INTRODUCTION

This Terminal Information Booklet has been produced to meet the information needs of users of the Shell Pandan Jetty. The Booklet contains general port information, applicable regulations, safe work procedures and emergency response details, together with specific information governing the operations of ships at the Jetty. The information in the Booklet should be used in conjunction with the industry recommended practices contained in the latest edition of the ’International Safety Guide for Oil Tankers & Terminals’ (ISGOTT).

<table>
<thead>
<tr>
<th>OWNER</th>
<th>CUSTODIAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lee Kam Mun, Manager, Pandan Terminal</td>
<td>Adil, Terminal Operations Supervisor</td>
</tr>
</tbody>
</table>

DOCUMENT HISTORY and CONTROL

<table>
<thead>
<tr>
<th>Date</th>
<th>Issue</th>
<th>Reason for Change</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 2010</td>
<td>1.0</td>
<td>First Issue</td>
<td>Sean Ng</td>
</tr>
<tr>
<td>October 2012</td>
<td>1.1</td>
<td>Document review &amp; various updates</td>
<td>Sean Ng</td>
</tr>
<tr>
<td>June 2013</td>
<td>1.2</td>
<td>Various updates</td>
<td>Sean Ng</td>
</tr>
<tr>
<td>May 2014</td>
<td>1.3</td>
<td>Include 4” line initial flow rate; Change of registered address</td>
<td>Adil</td>
</tr>
<tr>
<td>Feb 2015</td>
<td>1.4</td>
<td>Change to include new product; Include additional info on PAC</td>
<td>Adil</td>
</tr>
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Superseded issues of this document should be destroyed. Frequency of review - 2 years or if any major updates.

Distribution List

- Shell Pandan Terminal Shore Officers
- Shell Marine Technical Advisors
- Shipping Agents
- Shell Bukom Marine
- Maritime Port Authority (MPA)
- Commercial Fuels
- SIETCO
- Chemicals
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1. FIRE AND EMERGENCY RESPONSE

1.1 Emergency Alarms

At the Shell Pandan Jetty, in the event of the following occurring:

- Fire
- Explosion
- Escape of Toxic and/or Flammable Gases
- Escape of Toxic and/or Flammable Liquids

DO NOT HESITATE TO RAISE THE ALARM

Terminal: Continuous sounding of siren

Ship: One or more blasts on the ship’s whistle, each blast of not less than 10 seconds duration, supplemented by a continuous sound of the general alarm system.

Note: Testing of Fire Alarm siren is carried out every 1st Friday of the month at 1500hrs.

1.2 Emergency Communications

In case of an Emergency, please contact our Terminal Operations Supervisor at +65 6263 2961 or call using the Walkie Talkie, Channel 1, Call Sign “Shell Pandan”.

1.3 Emergency Actions

<table>
<thead>
<tr>
<th>ACTION-SHIP</th>
<th>ACTION-BERTH</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Emergency on your ship</strong></td>
<td><strong>Emergency on a ship</strong></td>
</tr>
<tr>
<td>• Raise the alarm</td>
<td>• Raise the alarm</td>
</tr>
<tr>
<td>• Cease all cargo/ballast operations and close all valves if discharging. If loading only close valve after terminal advise it is safe to do so, after stopping their pumps.</td>
<td>• Contact ship</td>
</tr>
<tr>
<td>• Inform Terminal Representative</td>
<td>• Cease all cargo operations and close all valves</td>
</tr>
<tr>
<td>• In case of fire, fight fire and prevent from spreading</td>
<td>• Stand by to disconnect hoses or loading arms</td>
</tr>
<tr>
<td>• Stand by to disconnect hoses</td>
<td>• If necessary, stand by to assist fire fighting</td>
</tr>
<tr>
<td>• Bring engines to standby</td>
<td>• Inform all ships in the vicinity</td>
</tr>
</tbody>
</table>

**Emergency on another ship**

Stand by, and when instructed:

- Cease all cargo/ballast operations and close all valves
- Disconnect hoses
- Bring engines and crew to standby, ready to unberth

**Emergency ashore**

- Raise alarm
- Cease all cargo operations and close all valves
- In case of fire, fight fire and prevent it from spreading
- If required, stand by to disconnect hoses
- Implement berth emergency plan
2. SAFETY AND SECURITY

2.1 General

Responsibility for the safe conduct of operations whilst a ship is alongside the Shell Pandan Jetty rests jointly with the Master of the ship and the responsible Terminal Representative. Therefore, before operations start, it is incumbent upon both ship and shore that there is full co-operation and understanding of 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 the Jetty and Shell 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 Terminal Representative together with a responsible Ship’s Officer, will make a routine inspection of the ship to ensure that the questions on the Ship/Shore Safety Check List can be answered in the affirmative. Where corrective action is needed, the Terminal may not agree to operations commencing or, should they have been started, may require them to be stopped.

Similarly, if the Master considers safety is endangered by any action on the part of Shell engaged staff or by any equipment under Shell’s control, the Master should demand immediate cessation of operations until the situation is rectified.

Repeat checks of those items marked in the Ship Shore Safety Check List will be carried out by both ship and shore personnel at intervals not exceeding 6 hours.

2.2 Personal Protective Equipment (PPE)

- Minimum PPE must be complied at all times
- Long-sleeved clothing & trousers
- Safety shoes or boots with steel-toe caps
- Hard Hat with chin strap
- Life Jacket when working in the jetty outside safety rails
- Chemical / Oil Resistant Gloves
- Personnel engaged in operations are actively encouraged to use PPE to the fullest extent during cargo transfer, hose handling and mooring operations.

2.3 Port and Terminal Security

The terminal is surrounded by a security fence. Access is controlled via an electronic access security card. Security patrols are conducted daily and the berth is fitted with CCTV cameras, which are used for monitoring purposes. The jetty is under 24-hour camera surveillance.

In line with the ISPS Code, the following three security levels are adopted:

a) Security Level 1 – Normal
   The level for which standard security measures shall be maintained at all times.

b) Security Level 2 – Heightened
   The level for which appropriate addition measures shall be maintained for a period of time as a result of heightened risk of a security incident. For the Jetty, this will include additional security guards and patrols with greater scrutiny of port users.

c) Security Level 3 – Exceptional
   The level for which further additional 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 identify the specific target. For the Jetty, this may result in the removal of a ship from the berth or the delay in a ship berthing. In order that ship and Port security plans can be coordinated, information will be exchanged during the pre-transfer conference.
2.4 Personnel and Vehicular Access

On arrival alongside, the Master should provide the Terminal Representative with a crew list and details of any visitors expected during the port stay. The Jetty is a 24-hour exclusion zone to unauthorised people. It is an offence to access landside, waterside and ship-restricted zones without authority.

To enter the terminal or Jetty areas, visitors must be approved by the Terminal Manager and escorted. They must also attend the Shell Pandan Site Induction Training (SIT).

Vehicular Access is not allowed in this Jetty with exceptions to Singapore Civil Defence Force (SCDF) in an emergency situation.
3. PRE-ARRIVAL COMMUNICATIONS

3.1 ETA Advice

Ships bound for the Shell Pandan Jetty should provide ETA advice via their agents to Shell Pandan Terminal at least 72 hours prior to their arrival or immediately on leaving their last port, whichever is the later prior to arrival. This ETA advice should be confirmed at least 24 hours prior to arrival at the Singapore Pilot Boarding Station.

3.2 Pre-Arrival Exchange of Information

At least 24 hours prior to arrival, ships must email the following template with header Pre-Arrival Exchange of Information - Vessel Name to Kam-Mun.Lee@shell.com / Aimee-Sheila.Lim@shell.com

<table>
<thead>
<tr>
<th>REQUEST FROM SHIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Name and call sign of ship.</td>
</tr>
<tr>
<td>B Country of registration.</td>
</tr>
<tr>
<td>C Overall length and beam of ship and draft on arrival.</td>
</tr>
<tr>
<td>D Estimated time of arrival at pilot station</td>
</tr>
<tr>
<td>E Ship’s displacement on arrival. If loaded, type of cargo and disposition.</td>
</tr>
<tr>
<td>F Maximum draft expected during and upon completion of cargo handling.</td>
</tr>
<tr>
<td>G Any defects of hull, machinery or equipment that could adversely affect safe operations or delay commencement of cargo handling.</td>
</tr>
<tr>
<td>H If fitted with an inert gas system, confirmation that the ship’s tanks are in an inert condition and that the system is fully operational.</td>
</tr>
<tr>
<td>I Any requirement for tank cleaning and/or gas freeing.</td>
</tr>
<tr>
<td>J Ship’s manifold details: size, number, reducers available</td>
</tr>
<tr>
<td>K Products to be handled at each manifold, numbered from forward.</td>
</tr>
<tr>
<td>L Advance information on proposed cargo handling operations. Quantity, rate and sequence [for each grade]</td>
</tr>
<tr>
<td>M Quantity and nature of slops and dirty ballast and of any contamination by chemical additives.</td>
</tr>
<tr>
<td>N Present ship security level (ISPS)</td>
</tr>
<tr>
<td>O Latest TIB Issue 1.4 on board?</td>
</tr>
</tbody>
</table>

On receipt of this information, the terminal will confirm whether or not the ship’s preferred order of discharge is acceptable and that proposed concurrent operations and discharge rates can be accepted.
4. **ARRIVAL OFF PORT**

4.1 **Berth Approach**

Masters of vessels approaching Shell Pandan Jetty should exercise due caution for Ferries, pleasure crafts, fishing crafts, other vessels and tugs with tows that frequent this area.

Vessels approaching Shell Pandan Jetty usually approach from the East Jurong Channel either from the [West] Sinki Fairway or (East) Jong Fairway. MPA Pilot decides to berth the vessel either port side alongside or starboard side alongside in accordance to the tidal flow direction.

4.2 **Pilotage**

Pilotage is compulsory for all ships entering or leaving Shell Pandan Jetty. Except for vessels that are pilot exempted from MPA & Bukom Marine.

The pilot boarding station for all arriving ships are:

- **Western Boarding Ground A** - 01°12’.9 N / 103°36’.1 E
- **Western Boarding Ground B** - 01°12’.0 N / 103°39’.5 E
- **Southern Boarding Ground** - 01°11’.7 N / 103°49’.6 E

Singapore Pilots can be contacted on VHF Channel 20 at least 2 hours before arrival at the pilot boarding station.

Outbound ships should advise the pilot at least two hours prior to departure.

**NOTE:** A statutory pilot ladder should be rigged one meter above water level and Masters are reminded to provide a safe lee.

4.3 **Anchorage and Waiting Areas**

Within Singapore Port Limits, no vessel shall, except in an emergency, anchor in an area outside its appropriate designated anchorage. The designated anchorage areas for tankers are:

- **ALGAS** Lat 01 13.60 N Long 103 38.4 E
- **Western Petroleum ‘A’** Lat 01 14.30 N Long 103 47.8 E
- **Western Petroleum ‘B’** Lat 01 13.60 N Long 103 48.2 E
5. BERTHING AND MOORING

5.1 General Description of Berth

Pandan Installation is situated in position latitude 01 deg 17.5 min. North, longitude 103 deg. 44.8 min East. Located on the Western part of Singapore Island. (MPA Chart No. SC5) – Approaches to Pasir Panjang Wharves.

The terminal is served by the Jetty which is owned and operated by the Shell Eastern Petroleum (Pte) Ltd. The berth has a total length of 224 metres for outer breasting fender and 20 metres for jetty head fender respectively. The minimum depth of water alongside the berth is maintained at 10.3 metres.

Mooring bollards are located along the berth facing and platforms with mooring hooks are provided on the adjacent foreshore for head and stern lines. (See Appendix C for a plan of the Shell Pandan Jetty)

5.2 Approach Limitations (MPA Requirements)

| Approach Controlling Depth at Jetty (At Chart Datum) | 10.3 metres |
| Minimum Under Keel Clearance on Approach |
| > 3000 GRT | 1.0 metres |
| < 3000 GRT | 0.6 metres |

5.2.1 Berth Limitations

| Maximum Displacement | 50,000 tonnes |
| Maximum Depth at Chart Datum | 10.4 metres |
| Minimum Under Keel Clearance at Berth | 0.6 metres |
| Maximum Draft at Chart Datum | 9.8 metres |
| Maximum Draft at Chart Datum [with tide application] | 10.8 metres |
| Maximum Length Overall (LOA max) | 206.0 metres |
| Minimum Length Overall (LOA min) | 45.0 metres |
| Minimum Parallel Body Length |
| (Jetty Head Fenders) | 20.0 metres |
| (Outer Breasting Fender) | 45.0 metres |
| Maximum Allowable Manifold Height above the Water | 11.0 metres |

Remarks:

1. For vessels berthing at the Terminal with a draft of more than 9.8 metres, the current local tide tables should be consulted in determining the most suitable tide for the day for safe approach and berthing / unberthing with full compliance to the established UKC and max draft requirements.

2. For OTT Operations, Shell MTA Clearance is required.

For OTT Operations, Shell MTA Clearance is required.

Your maximum salt water draft must be submitted along with other pertinent data to the terminal via the “Shell Pandan Terminal - Pre Arrivals Communication” at least 24 hrs prior to your estimated date of arrival.
5.3 Tugs and Towage

The following recommendation by MPA provides a general guide in determining the number of tugs required for vessels movement within the port waters of Singapore and Pandan Terminal. A vessel equipped with a suitable thruster, in good working condition, may dispense with the need for a tug in that position. The number of tugs required is determined, among other factors, by size and shiphandling characteristics of the vessel. The pilot upon boarding may thus, in consultation with the Master, cancel or order additional tugs if required according to individual Master / Pilot requirements, weather conditions, etc - denoted by PT.

Characteristics of Tugs for Berthing/Unberthing at Pandan Terminal

<table>
<thead>
<tr>
<th>Length of Vessel (Metres)</th>
<th>Tug Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 70</td>
<td>PT</td>
</tr>
<tr>
<td>71 - 122</td>
<td>S</td>
</tr>
<tr>
<td>123 - 152</td>
<td>2 x S</td>
</tr>
<tr>
<td>153 - 180</td>
<td>2 x M</td>
</tr>
<tr>
<td>181 - 220</td>
<td>2 x B</td>
</tr>
</tbody>
</table>

Bollard Pull
- 10 - 16 tons - Small Tug (S)
- 17 - 24 tons - Medium Tug (M)
- 24 - 40 tons - Big Tug (B)

5.4 Provision of Mooring Crews

The terminal will provide mooring crew and mooring boat.

5.5 Mooring

Vessels moored at the Jetty are required, as a minimum, to comply, with the mooring arrangements detailed in the Mooring Plans in Appendix D.

The Master is responsible for ensuring that the ship remains securely moored throughout the stay alongside. The Master must ensure that all moorings are regularly tended and maintained in a taut condition.

Mooring lines of the same size and material must always be used for all leads in the same service.

5.6 Provision of Ship / Shore Access

Vessels moored at the Jetty are required to provide a suitable gangway to enable safe access between ship and shore, complete with suitable safety net.
6. COMMUNICATIONS WHILE BERTHED

6.1 General
During the pre-transfer conference, the terminal representative will provide the ship with a fully charged portable Walkie Talkie. The ship’s Duty Officer must keep the Walkie Talkie at all times. The Walkie Talkie is tuned to the terminal frequency and is to be used for cargo transfer and emergency use only. Identification of the name of the ship should always be included in communications to avoid any misunderstanding. The shore identity / Call Sign is “Shell Pandan”. A secondary means of voice communication will be via the telephone to our Terminal Operations Supervisor at +65 6263 2961 or through the Terminal Jetty Crews.

6.2 Ship/Shore Safety Check List and Operational Agreements
On arrival at the berth, the Terminal representative will present the ship with a copy of a folder containing the following documents:

- Safety Letter to Master
- Safety Requirement Ship Shore Interface Letter
- Emergency Procedure Notice
- Shell’s Life Saving Rules & Minimum PPE Letter
- Ship / Shore Safety Check List
- Oil Pollution Letter
- Safety Requirements Letter
- Discharge Procedure / Maximum Back Pressure Advice
- Discrepancy On Arrival / After Loading
- Use of Walkie Talkie - Supply To Vessel
- Approved Smoke Room Stickers

The various forms, information and procedures laid out in the document formalise the conduct and procedures governing ship/shore operations at the jetty which are to be mutually agreed before operations commence. The agreements reached in the document remain in force throughout the time a ship remains alongside the Jetty. Any changes made to these agreements during the course of the cargo operation must be again agreed in writing. All items contained in the Ship/Shore Safety Check List must remain constantly under review. However, the ship and shore are required to jointly recheck those items requiring formal recheck at intervals not exceeding 4 hours.

Please note that the Shell Ship / Shore Safety Check List should be used.

6.3 Communications During Transfer
The maintenance of good communications throughout cargo transfer operations is fundamental to ensuring the safety of the activity. During cargo operations, if for any reason it becomes necessary to stop cargo in an emergency, the party requesting the stop should notify the other party by Walkie Talkie Ch.1, or any other means, requesting ‘Emergency Stop’. All transfer pumps must be immediately stopped and ship and shore manifolds closed until the situation is investigated and joint agreement is reached on resuming operations. During the pre-transfer conference, communications procedures will be agreed for conducting specific activities and will include agreed notice periods for conducting ship or shore stops.
7. RESPONSIBILITIES

7.1 Jurisdiction

The Pandan Jetty is within the jurisdiction of the Maritime Port Authority, Singapore and officers may board arriving ships at random to undertake safety and anti-pollution inspections.

7.2 Conditions of Ship Acceptance

Ships are accepted at Shell Pandan Jetty on the understanding that operations will be conducted in accordance with all applicable legislation, together with practices contained in relevant Codes of Practice, in particular, the guidance contained within the latest edition of the International Safety Guide for Oil Tankers and Terminals (ISGOTT).

Ships found deficient on arrival may be subject to refusal until the deficiencies have been rectified.

7.3 Responsibilities

As stated in the Safety Letter, responsibility for the safe conduct of operations while the ship is at the Shell Pandan Jetty rests jointly with the Master of the ship and with the responsible Terminal Representative.

Emphasis is placed on the fact that the completion of a safe and successful cargo transfer operation is dependent upon effective Co-operation, Co-ordination and Communication between all parties involved. All operations should be conducted in the spirit of this mutual agreement.

7.4 Responsibility for Loading

Ship’s personnel are advised that responsibility for the loading operation on board the ship rests solely and absolutely with the Master. It is the responsibility of the ship’s personnel to operate valves and to ensure safe and secure connection of all transfer equipment to the ship’s manifold.

Ship’s personnel are advised that the responsibility for the discharge or escape of oil from a vessel rests with the ship.

In the event of a prosecution being taken by the appropriate authorities, heavy penalties together with liability for dispersal costs and damages for pollution damage, is provided for by legislation.

7.5 Responsibility for Unloading

Ship’s personnel are advised that responsibility for the unloading operation on board the ship rests solely and absolutely with the Master. It is the responsibility of the ship’s personnel to control pumping rates, to operate valves and to ensure safe and secure connection of all transfer equipment to the ship’s manifold.

Ship’s personnel are advised that responsibility for the discharge or escape of oil from a vessel rests with the ship.

In the event of a prosecution being taken by the appropriate authorities, heavy penalties together with liability for dispersal costs and damages for pollution damage, is provided for by legislation.
8. OPERATIONS ALONGSIDE

8.1 General

All operations at Shell Pandan Jetty will be carried out fully in accord with the recommendations contained in the latest edition of the International Safety Guide for Oil Tankers and Terminals (ISGOTT).

8.2 Hose/Arm Connection

On completion of mooring alongside Shell Pandan Jetty, the ship will be presented with hoses for loading/discharge. It is the responsibility of the shore to ensure that the hoses are manoeuvred and connected safely and are correctly rigged, but the manual assistance of the ship’s crew is requested to achieve this. Similarly, on completion of cargo operations, terminal personnel are responsible for ensuring the safe disconnection and manoeuvring of the cargo hoses and ship’s staff are requested to manually assist with the process, including bolting in place the cargo hose end blanks.

8.3 Cargo Handling Facilities

The Shell Pandan Jetty contains manifolds for the 6 shore lines serving the Shell Pandan Terminal. These comprise of the following:

<table>
<thead>
<tr>
<th>No.</th>
<th>Line Diameter</th>
<th>Max. Flow Rate</th>
<th>Distance Jetty / Tank farm</th>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4”</td>
<td>250 m³/hr</td>
<td>1000m</td>
<td>Chemicals Line 1</td>
</tr>
<tr>
<td>2</td>
<td>4”</td>
<td>250 m³/hr</td>
<td>1000m</td>
<td>Hydro Carbon Solvents</td>
</tr>
<tr>
<td>3</td>
<td>6”</td>
<td>250 m³/hr</td>
<td>1000m</td>
<td>Chemicals Line 2</td>
</tr>
<tr>
<td>4</td>
<td>6”</td>
<td>400 m³/hr</td>
<td>1000m</td>
<td>Gas Oils</td>
</tr>
<tr>
<td>5</td>
<td>6”</td>
<td>150 m³/hr</td>
<td>1500m</td>
<td>Bitumen</td>
</tr>
<tr>
<td>6</td>
<td>6”</td>
<td>400 m³/hr</td>
<td>1000m</td>
<td>Gas Oils</td>
</tr>
<tr>
<td>7</td>
<td>6”</td>
<td>150 m³/hr</td>
<td>1000m</td>
<td>Fatty Alcohol</td>
</tr>
</tbody>
</table>

8.4 Cargo Transfer Rates

The maximum allowable cargo transfer rates will be established and agreed during the pre-transfer conference. At no time, should rates exceed the Shell Pandan Terminal’s maximum rate of 250 m³/hr. (Statement on pressure of lines required). The maximum pressure should not exceed 7 bar. Rates will also be established for starting transfer and will take into account the need for precautions when handling grades defined as static accumulators. If applicable, procedures for the final topping-off of shore tanks will also be established and agreed.

8.5 Checks on Quantities Transferred

Unless otherwise agreed during the pre-transfer conference, ships should provide the Terminal with information regarding the amount of cargo that has been discharged, by grade, on the hour, every hour. The terminal will provide the ship with comparable shore figures. If the exchange of information reveals a sudden or significant difference 5% between the terminal and the ship’s figures on quantities transferred, operations will be stopped until a satisfactory explanation can be found.
8.6 Environmental Criteria for Suspending Operations

<table>
<thead>
<tr>
<th>Wind Speed</th>
<th>Suspend Cargo Operations</th>
<th>Disconnect Loading Arms/Hoses</th>
<th>Vessel depart Berth (if safe to do so)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Still air conditions</td>
<td>25kts</td>
<td>30kts</td>
<td>35kts</td>
</tr>
<tr>
<td>Electrical Storm</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Irrespective of measured wind speed, if either the ship’s Master or the Terminal representative considers that the prevailing conditions potentially threaten the safety of operations, transfer should be suspended and hoses disconnected.

8.7 Emergency Shutdown

Arrangements at Shell Pandan Jetty do not include a remote means for stopping shore transfer pumps. In the event of an emergency, to raise an alarm, there are 3 emergency stop buttons available. One on each foam monitor base and one near the air receiver.

8.8 ‘Dry Certificates’

Ships are advised that Terminal staff or their representatives will not sign any ‘Dry Certificate’ or other documentation attesting to the condition of ship’s tanks on completion of discharge.

8.9 Handling of Ship’s Stores and Spare Gear

This operation is not allowed in the terminal.

8.10 Craft Alongside

Small boats & crafts are not allowed in the terminal.

8.11 Garbage Reception Facilities

Garbage Reception is not available at this terminal.

8.12 Potable Water

Water is available for use from Maritime Port Authority (MPA). Ship to provide Agent’s account number & Ship’s Call Sign. Ship is to provide the necessary hoses and coupling to our fresh water point. Opening & closing meter readings will be taken. A MPA Water Service Voucher will be issued to the vessel upon completion.

8.13 Bunkers and Lubricating Oils

This facility is not available at this terminal.

8.14 Slops and Ballast Reception Facilities

This facility is not available at this terminal.
9. SAFETY REQUIREMENTS

9.1 Smoking

Smoking is strictly prohibited in the berth area and on board ships alongside Shell Pandan Jetty except in those spaces on board that are specifically designated by the Master and Terminal Representative as “Smoking Areas.” Notices identifying the designated places must be conspicuously placed. Failure to comply with this regulation will involve cessation of operations and may result in the ship being removed from the berth pending a complete investigation and receipt of written assurance from the Master that effective controls have been established. Shell Pandan Terminal reserves the right, to prohibit smoking, at any time, in any place on board a ship and adjacent to the Jetty. Smoking is also prohibited in any place within the Terminal and berth areas, except designated areas as directed.

9.2 Use of Matches and Lighters

Under no circumstances are members of the ship’s crew allowed to carry matches, lighters, inflammable liquid or any other similar sources of ignition while within the Jetty area.

Visitors to ships at the Jetty are required to leave matches and lighters at the Control Room.

9.3 Drug and Alcohol Policy

All ships chartered by Shell or calling at Shell terminals must have an established Drug and Alcohol policy. Masters are advised that operations will cease if it is considered that the actions of a person or persons involved in operations are not under proper control as a result of the use of alcohol/drugs and or fatigue. Operations will not resume until the matter has been reported to and fully investigated by relevant authorities and the Terminal Representative considers it safe to do so. Delay or cancellation of a ship’s departure could result. Access to the Jetty will be denied to any person suspected of being affected by alcohol or drugs.

9.4 Portable Electrical Equipment, including Phones and Pagers

Only approved intrinsically safe or EX rated electrical equipment may be used on the Jetty or within the hazardous zone of the ship.

Portable electrical equipment, including computers, mobile phones, pagers and cameras, if not certified intrinsically safe, must be switched off and may only be used within:

- Permanent buildings as designated by the Terminal Manager.
- Areas on the ship designated by the Master.

Note: in certain circumstances, some types of camera, such as a disposable camera without flash, may be used, subject to the specific approval of the Master and Terminal Representative.

9.5 Environmental Protection

Ships entering the waters of Singapore must comply with the laws concerning environmental protection, as contained in “The Prevention of Pollution of the Sea Act 1990” and quote Part III Regulation 7 (1). The Master of a ship at the Jetty must comply with the provisions of the above Act. In particular, he must not:

- cause or permit refuse of any kind to be discharged from the ship or its scuppers into port waters.
- cause or permit a person to pump or discharge any oil, spirit or any flammable liquid into port waters.
- allow the ship to emit excessive funnel smoke.

In the event of any contravention, the MPA may instruct offending ships to vacate the berth or prohibit them from returning to Shell Pandan Jetty.
9.6 **Adverse Weather**

Shell Pandan Jetty lies within an area that is exposed to active depressions. The Shell Pandan Terminal Representative have access to regular weather updates and ships will be advised accordingly should adverse weather be expected. Any decision to leave the berth and port will be taken in consultation with the ship’s Master and MPA.

9.7 **Still Air Conditions**

If there is little air movement, petroleum gas may persist on deck in heavy concentrations on ships that are loading volatile products or ballasting tanks that have previously contained volatile products. Consideration may have to be given to stop operations while these conditions persist.

9.8 **Electrical Storms**

All cargo transfer operations, including the ballasting of non-gas-free cargo tanks will be stopped in the event of an approaching electrical storm. All tank openings, vent outlets, cargo and manifold valves will be closed until such time as the storm has passed.
10. APPLICABLE TERMINAL REGULATIONS

10.1 Ullaging and Sampling

Wherever possible, the ullaging and sampling of ship’s tanks should be achieved by the use of closed sampling equipment. Under no circumstances are shore personnel 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 must be adhered to. Shore staff and surveyors will draw cargo tank ullages and samples immediately after mooring when safe access to the shore is provided. The Master is requested to have adequate personnel and appropriate closed sampling and ullaging equipment available as a priority to facilitate this operation.

10.2 Closed Operations

The loading, discharging and/or ballasting of ship’s cargo tanks must be conducted under closed conditions. The use of manual gauging / sampling of cargo tanks via sighting, ullage ports or similar openings is not permitted.

10.3 Inert Gas

If a ship is fitted with an inert gas system then this system must be fully operational (in accordance with Class requirements) and used at all times. In the event that a ship’s inert gas system is not functioning, or not functioning as required, cargo operations must cease immediately and may not resume until the system is repaired or written permission is given from the ship’s owners and the Terminal Representative.

10.4 State of Readiness of Main Engines

The main engines and other essential machinery of all ships alongside must be maintained in a state of readiness for vacating the berth at short notice.

10.5 Maintenance and Repair Work Onboard

Major planned repair work is not permitted while the ship is alongside the Jetty. Emergency repairs, namely essential repairs needed to rectify malfunctioning equipment and prevent hazardous or unsafe conditions, will be permitted on a case-by-case basis following approval by the Terminal Representative.

10.6 Hot Work Onboard

Hot work outside a designated space is not permitted on board ships alongside Shell Pandan Jetty.

10.7 Tank Cleaning, Purging and Gas Freeing

Tank cleaning, gas freeing or purging operations are not permitted on board any ships while alongside the Jetty.
APPENDIX A: CONTACT LIST

Note: The primary contact for all emergencies in the first instance will be via the UHF Walkie Talkie provided by Shell Pandan Terminal to ships at the Jetty.

<table>
<thead>
<tr>
<th>CONTACT</th>
<th>TELEPHONE No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terminal Control Room</td>
<td>+65 6263 2961</td>
</tr>
<tr>
<td>Jetty Hut</td>
<td>+65 6263 2963</td>
</tr>
<tr>
<td>Shell Pandan Security Guardhouse</td>
<td>+65 6263 2974 / 75</td>
</tr>
<tr>
<td>SCDF Ambulance [emergency]</td>
<td>995</td>
</tr>
<tr>
<td>SCDF Fire Brigade [emergency]</td>
<td>995</td>
</tr>
<tr>
<td>Police</td>
<td>999</td>
</tr>
<tr>
<td>MPA Pilot Office</td>
<td>+65 6321 1761</td>
</tr>
<tr>
<td>Singapore Weather Forecast</td>
<td>+65 6542 7788</td>
</tr>
</tbody>
</table>
APPENDIX B: PLAN OF PORT LAYOUT

Note:
If Fire at Shore Side, please proceed to the 2 Assembly Areas located at the Jetty.

APPENDIX C: PLAN OF BERTH LAYOUT

Note:
If Fire at Shore Side, please proceed to the 2 Assembly Areas located at the Jetty.
APPENDIX D: MINIMUM MOORINGS REQUIRED

<table>
<thead>
<tr>
<th>Displacement</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 5000</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>5000 - 25000</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25000 - 50000</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Displacement: <5000

Displacement: 5000-25000

Displacement: 25000-50000
APPENDIX E: LIFE-SAVING RULES

- Work with a valid work permit when required
- Conduct gas tests when required
- Verify isolation before work begins and use the specified life protecting equipment
- Obtain authorisation before entering a confined space
- Obtain authorisation before overriding or disabling safety critical equipment
- Protect yourself against a fall when working at height
- Do not walk under a suspended load
- Do not smoke outside designated smoking areas
- No alcohol or drugs while working or driving
- While driving, do not use your phone and do not exceed speed limits
- Wear your seat belt
- Follow prescribed Journey Management Plan

Note: Commuting, alcohol in social settings and smoking in office environments are out of scope
31 Pandan Road  Singapore 609278  Telephone: +65 6263 2961  Facsimile: +65 6265 6252

The Master,  

Terminal : Pandan Installation

MT ......................................................

Port: Singapore

Sir,

Responsibility for the safe conduct of operations whilst your ship is at this terminal rests jointly with you, as master of the ship, and with the responsible terminal representative. We wish, therefore, before operations start, to seek your full co-operation and understanding on the safety requirements set out in the Ship/Shore Safety Check List which are based on safe practices widely accepted by the oil and the tanker industries.

We expect you, and all under your command, to adhere strictly to these requirements throughout your stay alongside this terminal and we, for our part, will ensure that our personnel do likewise and co-operate fully with you in the mutual interest of safe and efficient operations.

Before the start of operations, and from time to time thereafter, for our mutual safety, a member of the terminal staff, where appropriate together with a responsible officer, will make a routine inspection of your ship to ensure that the questions on the Ship/Shore Safety Check List can be answered in the affirmative. Where corrective action is needed we will not agree to operations commencing or, should they have been started, we will require them to be stopped.

Similarly, if you consider safety is endangered by any action on the part of our staff or by any equipment under our control you should demand immediate cessation of operations.

Please note that the Shell Ship / Shore Safety Check List should be used.

THERE CAN BE NO COMPROMISE WITH SAFETY

Please acknowledge receipt of this letter by countersigning and returning the attached copy.

Signed: .................................................................

Terminal Representative

Terminal Representative on Duty is: .................................................................

Position: Terminal Operation Supervisor

Telephone No.: +65 6263 2961

VHF Channel: Motorola Radio Channel 1

Signed: .................................................................

Master

MT .................................................................

Date: .............................................. Time: ........................................
The Master,

...………………………………, Our ref:

Date:

Sir,

SAFETY REQUIREMENTS SHIPSHORE INTERFACE – LETTER OF UNDERTAKING

In line with ISGOTT and Ship-shore Safety Checklist requirement, Responsibility for the safe conduct of our ship-shore operations during the vessel along side Shell Pandan Jetty, we would like to have your undertaking of the following that you are responsible and accountable to ensure:

1) All ship crews are medically fit to conduct the ship-shore operations
2) All ship equipments are safe to operate and in good working conditions
3) All movement of ship crew within or outside the ship is being managed, monitored and controlled
4) All verbal verification as per our ship-shore checklist as given to the terminal representative
5) No none routine activities are carried out i.e. repair, maintaining during the entire stay along side our jetty
6) No illegal activities as per Singapore government laws and regulations to be carried out during the entire stay along side our jetty
7) Complying with all Shell HSSE policy, Life-Saving Rules, Minimum PPE Standards and procedures.

The above safety requirements are based on safe practices widely accepted by the oil and tanker industries. We therefore expect you and all under your command to adhere strictly to them throughout your stay alongside this terminal. We, for our part, will ensure that our personnel do likewise and co-operate fully with you in the mutual interest of safe and efficient operation.

In order to assure ourselves of your compliance with these safety requirements, we shall, before the start of operations and thereafter from time to time, instruct a member of our staff to visit your ship. After reporting to you or your deputy he will join one of your officers in a routine inspection of cargo decks and accommodation spaces.

If we observe any infringement on board your ship of any of these safety requirements, we shall apply our Stop Work policy until the corrective action taken and similarly you are fully entitle to do the same if you observed any infringement on shore end

For any issues, please contact our Terminal Operations Supervisor.
Telephone no: +65 6263 2961
Shipshore Radio communication channel is through walkie-talkie on loan by Shell, Channel 1.

Please acknowledge agreement to the above by signing and returning the attached copy.

Yours truly,
for Shell Eastern Petroleum (Pte) Ltd
Shell Eastern Chemicals (S)

Agreed to the above:

Signed:..........................................................
M.T.:..........................................................
Date:..........................................................
Time:..........................................................

Terminal Operations Supervisor

Original Copy
Duplicate Copy
## EMERGENCY PROCEDURE NOTICE

### FIRE ACTION - SHIP

**Fire on your Ship:**
- Raise alarm
- Fight fire with aim of preventing spread
- Inform terminal
- Cease all cargo/ballast operations and close all valves
- Stand by to disconnect hoses or arms
- Bring engines to standby

**Fire on another Ship or Ashore:**
- Raise alarm
  - Stand by, and when instructed:
    - Cease all cargo/ballast operations and close all valves
    - Disconnect hoses or arms
    - Bring engines and crew to standby, ready to unberth

### FIRE ACTION - ASHORE

**Fire on a Ship:**
- Raise alarm
- Contact ship
- Cease all cargo/ballast operations and close all valves
- Stand by to disconnect hoses or arms
- Stand by to assist fire-fighting
- Inform all ships
- Implement terminal emergency plan

**Fire Ashore:**
- Raise alarm
- Cease all cargo/ballast operations and close all valves
- Fight fire with aim of preventing spread
- If required, standby to disconnect hoses or arms
- Inform all ships
- Implement terminal emergency plan

### IN CASE OF FIRE, DO NOT HESITATE TO RAISE THE ALARM

**TERMINAL FIRE ALARM:**
At this terminal, the fire alarm signal is: **Long Continuous Siren**

**IN CASE OF FIRE:**

1. Sound one or more blasts on the ship’s whistle, each blast of not less than ten seconds duration supplemented by a continuous sounding of the general alarm system.

2. Contact the terminal.
   - Telephone: +65 6263 2961
   - UHF/VHF channel: 1

**IN CASE OF FIRE, TERMINAL PERSONNEL WILL DIRECT THE MOVEMENT OF VEHICULAR TRAFFIC**

---

Terminal Operations Supervisor (for Shell Eastern Petroleum (Pte.) Ltd.)  
Master of Ship  
Date: ...........................................................  
Time: ........................................................................

Original Copy  
Duplicate Copy
To: Master,

m.v. ...................................................... Date: ........................................................

Dear Sir,

**SHELL’S LIFE-SAVING RULES & MINIMUM PPE**

Shell cares for the safety of every person - employees and contractors, who visits or work in our premises. We are determined to STOP people getting hurt, seriously injured or getting killed.

Compliance with the Life-Saving Rules & Minimum PPE are mandatory for all employees and contractors while conducting business with Shell.

"If you choose to break the rules, you choose not to work with Shell"

Failure to comply will result in disciplinary action and disqualification from future work at Shell sites.

Henceforth we seek your cooperation to observe and comply to our rules. Please share this with your crew.

Please acknowledge agreement to above by signing and returning the attached copy. Thank You.

Yours truly,

Agreed to above:

--------------------------------------------------
Terminal Operations Supervisor
[for Shell Eastern Petroleum (Pte.) Ltd.]

--------------------------------------------------
Master of Ship

Date: ......................................................

Time: ......................................................
SHIP SHORE SAFETY CHECKLIST

Ship’s Name : 

Berth : PANDAN Port : SINGAPORE

Date of Arrival : Time of Arrival :

INSTRUCTIONS FOR COMPLETION

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

A box in the columns ‘ship’ and ‘terminal’ indicates that checks should be carried out by the party concerned.

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

A - any procedures and agreements should be in writing in the remarks column of this Check List or other mutually acceptance form. In either case, the signature of both parties should be required.

P - in the case of a negative answer, the operation should not be carried out without the permission of the Port Authority.

R - indicates items to be re-checked at intervals not exceeding that agreed in the declaration.
SHELL PANDAN SHIP SHORE SAFETY CHECKLIST

Note: Stop cargo at 25 knots wind velocity, disconnect at 30 knots wind velocity and unberth at 35 knots wind velocity.

Part ‘A’ – Bulk Liquid General – Physical Checks

<table>
<thead>
<tr>
<th>Bulk Liquid - General</th>
<th>Ship</th>
<th>Terminal</th>
<th>Code</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. There is safe access between the ship and shore. Safety net for gangway in place.</td>
<td></td>
<td></td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>2. The ship is securely moored.</td>
<td></td>
<td>R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. The agreed ship/shore communication system is operative.</td>
<td></td>
<td></td>
<td>A</td>
<td>R</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>System: Walkie Talkie CHANNEL 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Backup System:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tel: +65 6263 2961</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Emergency towing-off pennants are correctly rigged and positioned.</td>
<td></td>
<td>R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. The ship’s fire hoses and fire-fighting equipment are positioned and ready for immediate use.</td>
<td></td>
<td></td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>6. The terminal’s fire-fighting equipment is positioned and ready for immediate use.</td>
<td></td>
<td></td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>7. The ship’s cargo and bunker hoses, pipelines and manifolds are in good condition, properly rigged and appropriate for the service intended.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. The terminal’s cargo and bunker hoses or arms are in good condition, properly rigged and appropriate for the service intended.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. The cargo transfer system is sufficiently isolated and drained to allow safe removal of blank flanges prior to connection.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Scuppers and save-alls on board are effectively plugged and drip trays are in position and empty.</td>
<td></td>
<td></td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>11. Temporarily removed scupper plugs will be constantly monitored.</td>
<td></td>
<td>R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Shore spill containment and sumps are correctly managed.</td>
<td></td>
<td>R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. The ship’s unused cargo and bunker connections are properly secured with blank flanges fully bolted.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. The terminal’s unused cargo and bunker connections are properly secured with blank flanges fully bolted.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Part 'B' - Bulk Liquid General - Verbal Verification

<table>
<thead>
<tr>
<th>Bulk Liquid - General</th>
<th>Ship</th>
<th>Terminal</th>
<th>Code</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>15. All cargo, ballast and bunker tank lids are closed.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Sea and overboard discharge valves, when not in use, are closed and visibly secured.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. All external doors, ports and windows in the accommodation, stores and machinery spaces are closed. Engine room vents may be open.</td>
<td></td>
<td></td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>18. The ship’s emergency fire control plans are located externally.</td>
<td></td>
<td></td>
<td></td>
<td>Location:</td>
</tr>
<tr>
<td>19. Fixed IGS pressure and oxygen content recorders are working.</td>
<td></td>
<td></td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>20. All cargo tank atmospheres are at positive pressure with oxygen content of 8% or less by volume.</td>
<td></td>
<td></td>
<td>P R</td>
<td></td>
</tr>
<tr>
<td>21. The ship is ready to move under its own power.</td>
<td></td>
<td></td>
<td>P R</td>
<td></td>
</tr>
<tr>
<td>22. There is an effective deck watch in attendance on board and adequate supervision of operations on the ship and in the terminal.</td>
<td></td>
<td></td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>23. There are sufficient personnel on board and ashore to deal with an emergency.</td>
<td></td>
<td></td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>24. The procedures for cargo, bunker and ballast handling have been agreed.</td>
<td></td>
<td></td>
<td>A R</td>
<td></td>
</tr>
<tr>
<td>25. The emergency signal and shutdown procedure to be used by the ship and shore have been explained and understood.</td>
<td></td>
<td></td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>26. Material Safety Data Sheets (MSDS) for the cargo transfer have been exchanged where requested.</td>
<td></td>
<td></td>
<td>P R</td>
<td></td>
</tr>
<tr>
<td>Bulk Liquid - General</td>
<td>Ship</td>
<td>Terminal</td>
<td>Code</td>
<td>Remarks</td>
</tr>
<tr>
<td>-----------------------</td>
<td>------</td>
<td>----------</td>
<td>------</td>
<td>---------</td>
</tr>
<tr>
<td>27. The hazards associated with toxic substances in the cargo being handled have been identified and understood.</td>
<td></td>
<td></td>
<td></td>
<td>H₂S Content:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Benzene Content:</td>
</tr>
<tr>
<td>28. An International Shore Fire Connection has been provided.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29. The agreed tank venting system will be used.</td>
<td>A</td>
<td>R</td>
<td>Method:</td>
<td></td>
</tr>
<tr>
<td>30. The requirements for closed operations have been agreed.</td>
<td></td>
<td>R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31. The operation of the P/V system has been verified.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32. Where a vapour return line is connected, operating parameters have been agreed.</td>
<td>NA</td>
<td>A</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>33. Independent high level alarms, if fitted, are operational and have been tested.</td>
<td></td>
<td>A</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>34. Adequate electrical insulating means are in place in the ship/shore connection.</td>
<td></td>
<td>A</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>35. Shore lines are fitted with a non-return valve, or procedures to avoid back filling have been discussed.</td>
<td></td>
<td>P</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>36. Smoking rooms have been identified and smoking requirements are being observed.</td>
<td></td>
<td>A</td>
<td>R</td>
<td>Nominated smoking rooms:</td>
</tr>
<tr>
<td>37. Naked light regulations are being observed.</td>
<td></td>
<td>A</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>38. Ship/shore telephones, mobile phones and pager requirements are being observed.</td>
<td></td>
<td>A</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>39. Hand torches (flashlights) are of an approved type.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40. Fixed VHF/UHF transceivers and AIS equipment are on the correct power mode or switched off.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41. Portable VHF/UHF transceivers are of an approved type.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42. The ship's main radio transmitter aerials are earthed and radars are switched off.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>43. Electric cables to portable electrical equipment within the hazardous area are disconnected from power.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>44. Window type air conditioning units are disconnected.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
45. Positive pressure is being maintained inside the accommodation, and air conditioning intakes, which may permit the entry of cargo vapours, are closed.

46. Measures have been taken to ensure sufficient mechanical ventilation in the pump room.

47. There is provision for an emergency escape.

48. The maximum wind and swell criteria for operations have been agreed.

49. Security protocols have been agreed between the Ship Security Officer and the Port Facility Security Officer, if appropriate.

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

<table>
<thead>
<tr>
<th>Bulk Liquid - General</th>
<th>Ship</th>
<th>Terminal</th>
<th>Code</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>45. Positive pressure is being maintained inside the accommodation, and air conditioning intakes, which may permit the entry of cargo vapours, are closed.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46. Measures have been taken to ensure sufficient mechanical ventilation in the pump room.</td>
<td></td>
<td></td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>47. There is provision for an emergency escape.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>48. The maximum wind and swell criteria for operations have been agreed.</td>
<td></td>
<td></td>
<td>A</td>
<td>Stop cargo at: 25 knots Disconnect at: 30 knots Unberth at: 35 knots</td>
</tr>
<tr>
<td>49. Security protocols have been agreed between the Ship Security Officer and the Port Facility Security Officer, if appropriate.</td>
<td></td>
<td></td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>50. Where appropriate, procedures have been agreed for receiving nitrogen supplied from shore, either for inerting or purging ship’s tanks, or for line clearing into the ship.</td>
<td></td>
<td></td>
<td>A</td>
<td>P</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Inert Gas System</th>
<th>Ship</th>
<th>Terminal</th>
<th>Code</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>51. The IGS is fully operational and in good working order.</td>
<td></td>
<td></td>
<td>P</td>
<td></td>
</tr>
<tr>
<td>52. Deck seals, or equivalent, are in good working order.</td>
<td></td>
<td></td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>53. Liquid levels in pressure/vacuum breakers are correct.</td>
<td></td>
<td></td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>54. The fixed and portable oxygen analysers have been calibrated and are working properly.</td>
<td></td>
<td></td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>55. All the individual tank IG valves (if fitted) are correctly set and locked.</td>
<td></td>
<td></td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>56. All personnel in charge of cargo operations are aware that, in the case of failure of the inert gas plant, discharge operations should cease and the terminal be advised.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
If the ship is fitted with a Crude Oil Washing (COW) system, and intends to crude oil wash, the following statements should be addressed:

<table>
<thead>
<tr>
<th>Crude Oil Washing</th>
<th>Ship</th>
<th>Terminal</th>
<th>Code</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>57. The Pre-Arrival COW check-list, as contained in the approved COW manual, has been satisfactorily completed.</td>
<td></td>
<td></td>
<td></td>
<td>THIS OPERATIONS IS NOT ALLOWED.</td>
</tr>
<tr>
<td>58. The COW check-lists for use before, during and after COW, as contained in the approved COW manual, are available and being used.</td>
<td></td>
<td></td>
<td>R</td>
<td>THIS OPERATIONS IS NOT ALLOWED.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Tank Cleaning</th>
<th>Ship</th>
<th>Terminal</th>
<th>Code</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>59. Tank cleaning operations are planned during the ship’s stay alongside the shore installation.</td>
<td>Yes/No*</td>
<td>Yes/No*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>60. If ‘yes’, the procedures and approvals for tank cleaning have been agreed.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>61. Permission has been granted for gas freeing operations.</td>
<td>Yes/No*</td>
<td>Yes/No*</td>
<td></td>
<td>NO GAS FREEING IS ALLOWED ALONGSIDE</td>
</tr>
</tbody>
</table>

* Delete Yes or No as appropriate

Part ‘C’ - Bulk Liquid Chemicals - Verbal Verification

<table>
<thead>
<tr>
<th>Bulk Liquid Chemicals</th>
<th>Ship</th>
<th>Terminal</th>
<th>Code</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Material Safety Data Sheets are available giving the necessary data for the safe handling of the cargo.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. A manufacturer’s inhibition certificate, where applicable, has been provided.</td>
<td></td>
<td>NA</td>
<td>P</td>
<td></td>
</tr>
<tr>
<td>3. Sufficient protective clothing and equipment (including self-contained breathing apparatus) is ready for immediate use and is suitable for the product being handled.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Countermeasures against accidental personal contact with the cargo have been agreed.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. The cargo handling rate is compatible with the automatic shutdown system, if in use.</td>
<td></td>
<td></td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>6. Cargo system gauges and alarms are correctly set and in good order.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Portable Vapour Detection
Portable vapour detection instruments are readily available for the products being handled.

### Information on Fire-fighting Media and Procedures
Information on fire-fighting media and procedures has been exchanged.

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

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

### Procedures for Receiving Nitrogen
Where appropriate, procedures have been agreed for receiving nitrogen supplied from shore, either for inerting or purging ship's tanks, or for line clearing into the ship.

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

### Manufacturer's Inhibition Certificate
A manufacturer’s inhibition certificate, where applicable, has been provided.

### Water Spray System
The water spray system is ready for immediate use.

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

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

### Remote Control Valves
All remote control valves are in working order.

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

### Re-liquefaction or Boil-off Control Equipment
Re-liquefaction or boil-off control equipment is in good order.

---

### Part 'D' - Bulk Liquefied Gases - Verbal Verification

<table>
<thead>
<tr>
<th>Bulk Liquid Chemicals</th>
<th>Ship</th>
<th>Terminal</th>
<th>Code</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Material Safety Data Sheets</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. A manufacturer’s inhibition certificate, where applicable, has been provided.</td>
<td></td>
<td></td>
<td>NA</td>
<td>P</td>
</tr>
<tr>
<td>3. The water spray system is ready for immediate use.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. There is sufficient suitable protective equipment (including self-contained breathing apparatus) and protective clothing ready for immediate use.</td>
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<td></td>
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</tr>
<tr>
<td>5. Hold and inter-barrier spaces are properly inerted or filled with dry air, as required.</td>
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<td></td>
</tr>
<tr>
<td>6. All remote control valves are in working order.</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. The required cargo pumps and compressors are in good order, and the maximum working pressures have been agreed between ship and shore.</td>
<td></td>
<td></td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>8. Re-liquefaction or boil-off control equipment is in good order.</td>
<td></td>
<td></td>
<td>NA</td>
<td></td>
</tr>
</tbody>
</table>
9. The gas detection equipment has been properly set for the cargo, is calibrated, has been tested and inspected and is in good order.

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

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

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

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

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

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

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

<table>
<thead>
<tr>
<th>Bulk Liquefied Gases</th>
<th>Ship</th>
<th>Terminal</th>
<th>Code</th>
<th>Remarks</th>
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<tbody>
<tr>
<td>9.</td>
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<td>10.</td>
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<td>11.</td>
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<tr>
<td>12.</td>
<td></td>
<td>Ship:</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Shore: 5 SECONDS</td>
<td></td>
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<tr>
<td>13.</td>
<td></td>
<td>A</td>
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<tr>
<td>14.</td>
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<td>15.</td>
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<tr>
<td>16.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Tank No 1</th>
<th>Tank No 5</th>
<th>Tank No 8</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tank No 2</th>
<th>Tank No 6</th>
<th>Tank No 9</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Tank No 3</th>
<th>Tank No 7</th>
<th>Tank No 10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Tank No 4</th>
</tr>
</thead>
</table>
DECLARATION

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

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

If to our knowledge the status of any item changes, we will immediately inform the other party.

<table>
<thead>
<tr>
<th>For Ship</th>
<th>For Shore</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name ____________________</td>
<td>Name ____________________</td>
</tr>
<tr>
<td>Rank ____________________</td>
<td>Rank ____________________</td>
</tr>
<tr>
<td>Signature ________________</td>
<td>Signature ________________</td>
</tr>
<tr>
<td>Date ____________________</td>
<td>Date ____________________</td>
</tr>
<tr>
<td>Time ____________________</td>
<td>Time ____________________</td>
</tr>
</tbody>
</table>

Record of repetitive checks:

Date:

Time:

Initials for Ship:

Initials for Shore:
Dear Sir,

**OIL POLLUTION - REPUBLIC OF SINGAPORE**

We wish to bring to your attention legislation contained in the "The Prevention of Pollution of the Sea Act 1990" and quote Part III Regulation 7. (1).

7.(1) If any discharge of oil or any oily mixture occurs from a Singapore ship into any part of the sea or from any ship into Singapore waters, the Master, the owner and the agent of the ship shall each be guilty of an offence and shall each be liable on conviction to a fine of not less than S$ 500 and not more than S$ 500,000 or to imprisonment for a term not exceeding 2 years or to both.

In the event of any breach of the Prevention of Pollution of the Sea Act, 1990, 1991, 1999 or of port regulations you and your owners and/or agents will be held fully responsible to reimburse us for whatever expenses are incurred by us in cleaning up operations and any other costs which may result in consequence of such a breach.

Yours truly

for SHELL EASTERN PETROLEUM (PTE) LTD

---

Terminal Representative

Master

For Acknowledgement of Receipt.
We hereby hold you fully responsible for the consequences arising from such violation(s) and reserve the right to stop the vessel’s cargo operations and / or order the ship off the berth, unless immediate remedial action is taken.

This notice will be brought to the attention of your Owners.

Acknowledged

Yours truly,

For: SHELL EASTERN PETROLEUM (PTE) LTD.
SHELL EASTERN CHEMICALS (S)

Master

cc PANDAN TERMINAL MANAGER
CHEMICALS SUPPLY CHAIN COORDINATOR
DISCHARGE PROCEDURE / MAXIMUM BACK PRESSURE ADVICE

Confirming our verbal conversation, please arrange to discharge your cargo in the following sequence / manner:

- Slow pumping rate restriction for:
  - 4" is 27 m³/hr
  - 6" is 61 m³/hr
  - 8" is 106 m³/hr

1. Please be informed that the safe maximum pressure of 7 bar must not be exceeded when pumping any grade of oil through our cargo lines.
2. Kindly inform shore of any stoppages and commencing time.
3. Slow pumping rate restriction must be applied for empty tank until level is 0.4m above unpumpable.

Thank you for your co-operation

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>TONS</th>
<th>SLOW PUMPING RATE RESTRICTION FOR 1ST</th>
<th>PIGGING REQUIRED AFTER EACH PRODUCT *</th>
<th>N₂ CLEARANCE OF HOSES REQUIRED AFTER EACH PRODUCT *</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>TIME [min.]</td>
<td>Rate [m³/hr]</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
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<td>YES</td>
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<td>YES</td>
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<td></td>
<td>YES</td>
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<tr>
<td></td>
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<td></td>
<td></td>
<td>YES</td>
</tr>
</tbody>
</table>

Slow pumping rate restriction for:
- 4" is 27 m³/hr
- 6" is 61 m³/hr
- 8" is 106 m³/hr

* Please delete as appropriate
Dear Sir,

DISCREPENCY ON ARRIVAL / AFTER LOADING *

This is to record that there is a difference in quantity between the on-arrival quantity and the Bill of Lading figures.

<table>
<thead>
<tr>
<th>Grade</th>
<th>B/L Figure (M.T.)</th>
<th>On Arrival / After Loading Figure (M.T.)</th>
<th>% Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

We hereby give notice that you will be held responsible for all the costs arising from the loss.

Yours truly,

For: SHELL EASTERN PETROLEUM (PTE) LTD.
SHELL EASTERN CHEMICALS (S)

Master: ...........................................................

Ref:  
Date:  
Time:  

Please delete as appropriate
Dear Sir,

USE OF WALKIE-TALKIE – SUPPLY TO VESSEL

Motorola Serial Number:

Battery Pack Number:

We refer to the above matter.

As Agreed, we will lend one unit of walkie-talkie for your use during loading discharge operations.

The said walkie-talkie shall be accepted by your good self on behalf of the vessel/barge owner.

Please be ensure that the walkie-talkie is at all times handled with due care and shall be held liable for losses and damages including the cost of replacement or repair to the walkie-talkie caused by improper handling, negligent actions. We serve the rights to deduct all cost and expenses suffered by us resulting from your liability as mentioned above.

Accepted by: ________________________________
For SHELL EASTERN PETROLEUM (PTE) LTD

________________________________________  ________________________________
The Master/Chief Officer  Terminal Operations Supervisor

Date:

Wharf: SHELL PANDAN JETTY

The Master

M.T. ________________________________________________
SHELL EASTERN PETROLEUM (PTE.) LTD.

PANDAN INSTALLATION

APPROVED

SMOKE ROOM

Sdg._________ Date_________
(Master / Chief Officer)

NO SMOKING OUTSIDE THIS AREA

Note: This sign to be displayed on the door to smoke room by Chief Officer.