

NOTES

INTRODUCTION

This book is intended for the guidance of Vessels, which intend to discharge or load cargo at the Reliance SPM, Magdalla Port, Hazira.

Whilst every effort has been made to be accurate, Reliance Industries Limited does not accept responsibility for any omissions in the booklet or the consequences of any action by any person/s, which may arise, from any omission or inaccuracy of information contained in this booklet.

This booklet is intended solely as a guide and the Masters are kindly requested to pass on any information, which does not appear in this book, and which they consider may be of help to other tankers using the facility.

1. Location**NOTES**

Reliance Industries Ltd has installed and operating an SPM terminal on the west coast of India, within the port limits of Magdalla in the Gulf of Cambay or the Gulf of Khambat as it is known as locally.

The SPM terminal is situated at the head of the Sutherland Channel approximately 9 miles NNW of the Tapi river fairway buoy. The SPM buoy's position is 21° 08' 56.508" N & 072° 34' 25.943" E in a water depth of 25 m.

It is fitted with a RACON, foghorn and a navigation light (continuous flashing (Morse "U")).

Tidal currents in the vicinity of the SPM reach 5-6 knots during spring tides and the direction of the ebb and flood is generally south and north. The max tidal range is approximately 7 meters.

1.1 Anchorage

All tankers arriving at Hazira for discharging or loading through Hazira SPM should anchor on arrival at Tanker anchorage area unless advised otherwise by the Reliance Pilots. Vessels will only berth during daylight hours subject to favourable tidal conditions. However un-berthing can be done during the night also at the discretion of the Reliance Pilots.

Tanker anchorage area (1 NM x 1.5 NM) is located north of general lighthouse area. Tanker anchorage area is enclosed by the following co-ordinates:

21° 06.0'(N) 072° 35.0'(E) 21° 06.0'(N) 072° 33.5'(E)

21° 05.0'(N) 072° 33.5'(E) 21° 05.0'(N) 072° 35.0'(E)

Available water depth is 25m below the Chart Datum.

1.2 Instructions to Ship Masters

Masters are advised not to anchor north or south of a tanker which is already at the anchorage since the current's general direction is north & south. Masters are to note that in spring tides the currents may reach 5-6 kts, so due allowance is to

Contact details
(to be completed as appropriate)
(indicate the telephone numbers or the radio channels
or frequencies to be used)

for the port facility: _____ for the ship: _____

Port facility

Master

Port Facility Security Officer :

Ship security officer

Company

Company Security Officer.

be given for the room required to turn the vessel into the flood tide. Masters to ensure that speed over ground is kept to a minimum during the personnel transfer, if it is being done when underway. Masters should also ensure that their vessels do not go closer than 3 nautical miles to the SPM unless the Pilot is on board and available for advise.

In flood tide it is advisable to turn around and steer a southerly course to stem the tide in order to complete the transfer without running the risk of drifting close to the SPM. At the same time a good lee should be provided to the tug as the area is open to the sea and swell.

1.3 Pilot/Personnel Embarkation & Ancillary Equipment Transfer Procedures.

The SPM Pilot/Loading Master, Marine Officers, Diving Crew and other personnel will board the tanker at anchorage at Tanker waiting anchorage area. At the same time the necessary mooring and ancillary equipment will be transferred from the SPM support/maintenance vessel to the tanker at anchorage, at the Tanker waiting anchorage area or at least 3 NM south of the SPM when vessel is underway. Attention of the tanker Masters is again drawn to the previous section.

1.4 Charts

India Naval Hydrographic Office Chart No. 209 & 2101 and B.A. Chart 1486 cover the area.

1.5 Vessel Requirements

Maximum Displacement (Approximate cargo weight 80,000 MT)	1,00,000 MT
Minimum Summer Deadweight	15,000 MT
Maximum Draft	15.00 M
Minimum Draft	As required by MARPOL
LOA	Max 265 meters
Beam	Max 48 meters

Moulded depth	Max 22 Meters
Site water depth	Min 25 meters
General Compliance of Vessels	as per OCIMF guidelines
Bow Mooring Fittings (Tongue type or hinged bar type Only)	as per OCIMF, for 76mm chafe chain, SWL 200 MT
Bow Mooring Arrangement	as per OCIMF guidelines (i.e. fairleads, bollards, winches etc.)
Windlass	Capable of lifting/warping 15 MT at the bow
Bollard Strength at Stern (for pull back Tug)	Minimum 40 MT SWL
Minimum derrick/crane SWL (port cargo manifold)	10 MT with sufficient outreach for SPM hose handling
Cargo manifold/reducers arrangement	as per OCIMF
Cargo manifold size	16" 150 ASA and 10" 150 ASA
Maximum bow/manifold distance	150 Meters
Maximum flow rate through 16" line	2000 MT
Maximum flow rate through 10" line	900 MT
Max permissible pressure for discharging at ship's rail through single hose.	10 barg

Vessel should have Test Certificate for the Bow Stopper, Cranes and other Mooring Fittings.

Vessel must be capable of discharging cargo and loading ballast OR loading cargo and discharging ballast concurrently and retaining 30% summer deadweight on board at all times.

Monitoring of the port facility, including berthing areas and areas surrounding the ship.	
Monitoring of the ship, including berthing areas and areas surrounding the ship.	
Handling of cargo	
Delivery of ship's stores	
Handling unaccompanied baggage.	
Controlling the embarkation of persons and their effects.	
Ensuring that security communication is readily available between the ship and the port facility.	

The signatories of this agreement certify that security measures and arrangements for both the port facility part A of the Code that will be implemented in accordance with the provisions already stipulated in their approved plan or the specific arrangements agreed to and set out in the attached annex.

Dated at on the

Signed for and on behalf of	
The port facility	The ship:

(Signature of port facility security officer) (Signature of master or ship security officer)

Name and title of person who signed	
Name	Name
Title:	Title:

**Form of a Declaration of Security
Between a ship and a port facility**

DECLARATION OF SECURITY

Name of Ship:	
Port of registry:	
IMO Number:	
Name of port facility:	

The Declaration of Security is valid from until

For the following activities:
 (list the activities with relevant details)

 under the following security levels

Security level(s) for the ship:	
Security level(s) for the port facility:	

The port facility and ship agree to the following security measures and responsibilities to ensure compliance with the requirements of part A of the International Code for the Security of Ships and of Port Facilities.

	The affixing of the initials of the SSO or PFSO under these columns indicates that the activity will be done, in accordance with the relevant approved plan, by
Activity:	The port facility: The ship:
Ensuring the performance of all security duties	
Monitoring restricted areas to ensure that only authorized personnel have access.	
Controlling access to the port facility.	
Controlling access to the ship.	

2. COMMUNICATION

2.1 All telex/fax or email messages should be marked: Operations In-charge (OIC)

Reliance Shipping & Offshore Terminal, Hazira.

Reliance Base Hazira, Surat - Fax No. + 91- 261- 413 5489

Reliance Base Hazira, Surat - Tel No. + 91- 261- 413 5484 (24 hours)

Reliance Base Hazira, Surat - VHF. Channel 67 (24 hours)

Email address: shippingradioroom.bz@ril.com

2.2 Arrival Advice

Refer to Appendix 1(RILS/SQMS/301)

5 days & 3 days Arrival Notices by Fax/e-mail to Reliance Base, Hazira. 48 hours and 24 hours Arrival Notices by fax/ e-mail to Reliance Base, Hazira confirming or amending ETA Surat Roads.

2.3 Hazira Reliance SPM

Reliance Base, Hazira operates a Twenty-four hour listening station on VHF Channel 67, Call Sign - Reliance Base

2.4 Communications during berthing and stay at terminal

In addition to the tanker's own radio facilities the Hazira Reliance pilots normally operates on VHF Channel 67 for port operations and communications with the tugs.

2.5 ISPS related communication

Pre Arrival Notification of Security (PANS) shall be transmitted to the arriving tanker through the tanker's agent for filling & returning to Reliance Base either directly or through the agent at least 24 hrs prior arrival. This should include the Last 10 ports of call & the security level there among other items as specified from time to time.

Declaration of Security (DOS) is to be signed by both the Master of the vessel & the Reliance Pilots on behalf of the Port Facility Security Officer.

During the entire stay at the SPM, the tanker should comply with the requirements of the ISPS code as per the level given by the Government of India.

3.0 ARRIVAL

3.1 Estimated Time of Arrival

After relaying 24 Hrs ETA notice to Reliance base Hazira, Vessels are requested to confirm ETA and arrival draft twelve hours before arrival, and any adjustment to that time at least two hours before arrival.

3.2 Pilotage

Tankers, after anchoring at Tanker anchorage area, should contact Reliance base, Hazira by VHF Ch.67 for berthing instructions.

Pilotage is by Hazira Reliance SPM Pilots, who board the tanker at Tanker waiting anchorage area or at least 3 nm south of SPM. Pilot will ensure that the following forms are filled up before proceeding further:-

- Berthing Advice, Appendix 3 (RIL/S/QOMS/304)
- Pilot Passage Plan -Inbound, Appendix 4 (RIL/S/QOMS/305)

The Pilots, who will be assisted by Reliance Marine Officers & Mooring Crew, will remain on board the vessel during the Vessel's full stay at Hazira Reliance SPM and during that time will act as company's representative. All company business and radio communication will be under the Pilot's direct control.

3.3 Vessel Readiness

Any vessel, which in the opinion of the Hazira Reliance Pilot is not ready in all respects to carry out the required cargo operation, may be rejected until such faults are rectified.

3.4 Notice of Readiness

Notice of Readiness will only be accepted without prejudice by the Hazira Reliance Pilot on behalf of Reliance Industries Limited when the vessel is ready in all respects to berth and load

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RIL/S/QOMS/ 316 PILOT PASSAGE PLAN OUTBOUND

M.T. _____ Date _____ Time _____ LOA _____ M

Displ _____ Cargo grade _____ Cargo quantity _____

Passage from _____ to _____

Time HW _____, HT _____ M LW _____, HT _____ M

Least Depths: Channel _____ M Berth _____ MU' C _____ M

The Pilot & Master have both discussed together and satisfied themselves as to all aspects of safe navigation and unberthing plans for the vessel.

1. MASTER

The Master has informed the Pilot of the characteristics of his vessel and of any defects with respect to the navigational equipment, engines or any other equipment that may affect the safe navigation of the vessel.

2. PILOT

The Pilot has discussed with the Master the intended route of the vessel, the depth of the water available and any defect to navigation aids that may affect the safe navigation of the vessel. In addition in conjunction with the officers all aspects of the unberthing plan have been advised to the Master to include equipment required from the ship.

Both parties are satisfied that the above requirements have been met and acknowledged by their signatures below.

Signed _____

Master _____

Pilot _____

Date _____ Time _____

WARNING: It is of the utmost importance that at no time whatsoever should AIR be pumped into the line or a vacuum be allowed to form in the pipeline. Serious damage to the terminal and / or vessel equipment will result if the cargo operations are not followed as mentioned above.

Reliance Representative

Master

/ discharge cargo.

3.5 Boarding Facilities

All vessels using the Hazira Reliance SPM must be fitted with a pilot ladder and accommodation ladder as specified in "SOLAS 1974", Chapter V, Regulation, 23 (1967/repealed - 94). Such Pilot ladder, accommodation ladder and ancillary equipment must be rigged as specified in the Regulations and used for embarking and disembarking personnel. Also refer Section 1.2 & 1.3 of this booklet.

In addition, all personnel embarking and disembarking must wear an approved life saving appliance.

Masters should be aware that the port side manifold area should be kept clear to allow access for the tug for passing messenger line for mooring and for SPM hose handling.

3.6 Hazira Reliance Pilot / Marine Officer

The Pilot and Marine Officer will advise on pilotage, mooring and unmooring the vessel, hose connection and disconnection. In this respect the Pilot and Marine Officer are to be deemed servants of the Owner and Reliance Industries Limited shall not have or engage any liability for anything done or omitted to be done by any Pilot or Marine Officer.

3.7 Delays etc.

Reliance Industries Limited is not to have or engage any liability for any delay to any vessel for any reason whatsoever over which Reliance Industries Limited has no direct control or is otherwise beyond its reasonable control.

4.0 REQUIREMENTS OF A VESSEL MOORED AT HAZIRA RELIANCE SPM

4.1 Anti-Pollution

All vessels must have an approved "Shipboard Oil Pollution Emergency Plan" as per MARPOL 73/78 (Consolidated edition, 1997), Annex 1, Regulation-37 and/or "Shipboard Marine Pollution Emergency Plan" as per Annex-II, Regulation

17 of MARPOL 73/78 as the case may be.

It is the Master's responsibility to ensure that no oil of any kind is pumped or spilled overboard from his vessel.

Utmost vigilance must be exercised to prevent any pollution through oil/chemical spills, ballast or bilge discharges. All oily overboard discharge valves should be closed and locked and deck skimmers must be plugged tight before discharge/loading commences. Serious consequences may result due to any pollution and the Company will hold the vessel responsible for any expense involved in cleaning the contaminated area and/or any litigation costs or any other costs that may arise due to this incident.

In the event that the Company has to settle third party claims as a result of damage to property caused by pollution attributable in any way to the vessel, they will have the right to reimbursement by Owners or Managers of the vessel for all expenses incurred.

4.2 Shore Leave

None of the officers and crew shall be allowed shore leave and no boats of any kind, except in an emergency, shall be lowered during the vessel's stay at the SPM.

4.3 Bunkers and Fresh Water

Bunkers and Fresh Water cannot be supplied to vessels calling at SPM.

4.4 Dirty Ballast/Garbage/Oil Residue

There are no dirty ballast reception facilities at the Reliance Hazira SPM Terminal, nor can Oil residue / sludge and garbage be disposed of.

4.5 Reliance Support Vessels

Reliance Industries Limited maintains vessels to assist in berthing. These vessels are under the direct supervision of the SPM Pilot. Any service or facility provided by Reliance Industries Limited, including the services of the SPM Pilot and Marine Officers and Reliance support vessels are at the tanker's

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RILS/ SQMS/ 308
CARGO TRANSFER PLAN

The Master
Vessel _____

Date : _____

The programme of loading/ discharge of your good vessel is as under:-

Sr. No.	Product	Quantity	Loading/Discharge	String
1				10" 16"
2				10" 16"
3				10" 16"
4				10" 16"

Details

Remarks

- No. of strings to be connected 1) 10" 2) 16"
- Pressure to be maintained

The following shore line will be used for discharge of cargo

Sr. No.	Grade to be discharged	Max. pr. Allowed on deck line	Pr. Required to be kept on ship's manifold	Max. permitted flow rate	Normal transfer flow rate
10"					
16"					

- No inter tank transfer to be carried out without permission
- Hourly discharge figures as per ship's ullages to be provided
- Please confirm that vessel would maintain 30% DWT throughout her stay at SPM
- Please provide a pressure gauge on each deck line immediately after the last deckalve
- Please arrange to strip empty tanks simultaneously during discharge
- Please try to keep the vessel with minimum required trim after discharge

Date
Time
Ship
Terminal

Date
Time
Ship
Terminal

Date
Time
Ship
Terminal

Date
Time
Ship
Terminal

risk. The furnishing of Pilot and Marine Officer, Mooring Crew, tugs, launches or other services and facilities shall not constitute or give rise to any contract or any legal relationship of the like or similar kind. Reliance Industries Limited shall have the benefit of all exemptions from the limitation of liabilities to which an owner or vessel is entitled under the Laws of India.

4.6 Anchors

Anchors must be secured by stoppers / lashing wires before approaching SPM to prevent accidental dropping when the vessel is approaching the SPM for berthing. Under no circumstances should anchors be dropped closer than 500 meters from SPM and in the prohibited area to the east of the SPM as marked on the chart.

5.0 SAFETY REQUIREMENTS

5.1 Safety Check List

Before discharge / loading commences, the following Reliance Industries Limited Forms must be completed jointly by the SPM Pilot and the Master or Chief Officer of the Vessel:

Ship / Shore Safety Check List, Appendix 5 (RILS/SQMS/306)
Cargo Transfer Plan, Appendix 6 (RILS/SQMS/308)

5.2 Deck/Bridge Watch

At least one of the Ship's Officers shall be on deck or Cargo Control Room with portable radio. He should have sufficient crew members on deck to ensure the safe operation of the vessel, including crew with portable radio on continuous watch on fore-castle deck for observing SPM and its equipments. Additionally at least one crew member on deck should also be equipped with portable radio to communicate with the duty officer.

Power must be available at all times to all deck equipment, such as winches / crane / derrick etc. The Ship's personnel are responsible for the safety of the vessel, and must take all necessary precautions, whether or not so advised by the SPM Pilot or Marine Officer, keeping in mind the hazards of the

operations, including weather and any other circumstances requiring special care or caution.

At all times a Helmsman should be readily available on the Navigation Bridge for Hand Steering as per SPM Pilot's advice. The Steering Motor should remain ON throughout the vessel's stay at SPM.

5.3 Fire Fighting Equipment

Ship's fire fighting appliances, including main and emergency fire pumps, shall be ready for immediate use and pressure shall be maintained on the fire main at all times. At least two fire hoses, fitted with jet / spray fog nozzles, shall be connected to the fire main and uncoiled on deck forward and abaft the cargo manifold area on the port side of the vessel.

When monitors are provided they should be pointed towards the manifold and be ready for immediate use.

Portable fire extinguishers shall be placed in the vicinity of the cargo manifold.

Should fire break out on the vessel, the Master or responsible ship's officer must sound the ship's fire alarm and immediately implement the ship's emergency procedure for dealing with fires. The Pilot will also immediately implement Hazira Reliance SPM Emergency procedure for dealing with fires within the limits of Hazira Reliance SPM.

5.4 Emergency Towing off wires

An emergency towing off wire shall be made fast to the vessel's bollards (forward and aft) on the starboard side, with the eye run out and maintained at, or about, the waterline.

5.5 Inert Gas Operations (if applicable)

Tankers, if required to be fitted with an inert gas system as per regulations, will be allowed to berth and load / discharge at the SPM only when the system is fully operational.

In the event of failure of the inert gas system, it is the responsibility of the Master to immediately suspend cargo or

	and procedures has been exchanged.				
9.	Transfer hoses are of suitable material, resistant to the action of the products being handled.				
10.	Cargo handling is being performed with the permanent installed pipe line system.			P	
11.	Where appropriate, procedures have been agreed for receiving nitrogen supplied from shore, either for inerting or purging ship's tanks, or for line clearing into the ship.			A P	

Tank No 1

Tank No5

Tank No 8

Tank No 2

Tank No 6

Tank No 9

Tank No 3

Tank No 7

Tank No 10

Tank No 4

DECLARATION

We, the undersigned, have checked the above items in Part '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 checklist 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.

For Ship	For Terminal
Name	Name
Position	Position
Signature	Signature
Date	Date
Time	Time

53.	Liquid levels in pressure / vacuum breakers are correct.		R	
54.	The fixed and portable oxygen analysers have been calibrated and are working properly.		R	
55.	All the individual tank IG valves (if fitted) are correctly set and locked.		R	
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.			

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

Part 'C' - Bulk Liquid Chemicals Verbal Verification

Bulk Liquid Chemicals	Ship	Terminal	Code	Remarks
1. Material Safety Data Sheet are available giving the necessary data for the safe handling of the cargo.				
2. A manufacturer's inhibition certificate, where applicable, has been provided.			P	
3. Sufficient protective clothing and equipment (including self-contained breathing apparatus) is ready for immediate use and is suitable for the product being handled.				
4. Countermeasures against accidental personal contact with the cargo have been agreed.				
5. The cargo handling rate is compatible with the automatic shutdown system, if in use.			A	
6. Cargo system gauges and alarms are correctly set and in good order.				
7. Portable vapour detection instruments are readily available for the products being handled.				
8. Information on fire-fighting media				

ballasting operations and notify the SPM Pilot/Marine Officer. Cargo operations shall not recommence until the faults are rectified and safe levels of pressure and concentrations of inert gas have been re-established.

Only tankers fitted with an inert gas system, which is fully operational, will be allowed to berth and discharge at the SPM.

5.6 Engine Availability

The vessel's engines shall be available at all times and the telegraph shall be on "Stand by" while the vessel is moored at SPM. Engine repairs are not permitted while a vessel is moored at SPM. Propeller should not be turned without the prior permission of SPM Pilot. When a vessel is unable to use her engines, cargo operations will be stopped and the vessel towed to a safe anchorage at the vessel's cost.

5.7 Unauthorised Boats/Crafts

No unauthorised boats/crafts will be allowed alongside the Vessel and it is the duty of the ship's personnel to clear away any such boats/crafts from the Vessel.

5.8 Cargo / Bunker Connections

All unused cargo or bunker connections should be blanked off and fully bolted.

5.9 Portable Electrical Equipment

No portable electrical equipment shall be allowed on deck, other than intrinsically safe and essential to operation.

5.10 Openings on Cargo Deck

All openings on the cargo deck from accommodation, stores or engine spaces shall be securely closed.

5.11 Ventilators

All ventilators shall be turned away from the cargo deck. Any air conditioning units drawing air from the direction of the cargo deck should be turned to internal circulation only or closed down.

5.12 No Smoking

After berthing, the SPM Pilot will meet the Master and jointly agree and declare designated smoking rooms for the ship crew.

5.13 Contravention of Regulations

Any contravention of these regulations and any other reasonable requirement by the SPM Pilot/Marine Officer may render the vessel liable to rejection. In all cases the Terminal Operations In-charge decision shall be final.

5.14 Accommodation for Shore Operations Staff

The vessel should provide suitable accommodation and Meals for Reliance operations staff - SPM Pilots , Marine officers , Cargo Surveyors and Mooring Crew during the vessel's stay at SPM (Pilot cabin, Owners cabin, spare officers cabin and for Mooring Crew Suez Crew cabin or any other suitable cabin).

5.15 Publications

Vessel should carry on board all latest editions of IMO, ICS, OCIMF and ISGOTT publications as applicable to the vessel.

6.0 GENERAL INFORMATION (Arrival)**6.1 Documentation**

The following documents should be kept ready onboard on arrival

Crew List	3 copies
Stores List	3 copies
Property List	3 copies
Crew Personal Effects Declaration	3 copies
Currency List Ship	3 copies
Currency List Crew	3 copies
Passenger List	3 copies
Arms & Ammunition List	3 copies
Animal List	3 copies
Maritime Declaration of Health List Ports of Call	3 copies
Crew vaccination List	3 copies

41.	Portable VHF/UHF transceivers are of an approved type.				
42.	The ship's main radio transmitter aerials are earthed and radars are switched off.				
43.	Electric cables to portable electrical equipment within the hazardous areas are disconnected from power.				
44.	Window type air conditioning units are disconnected.				
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.			R	
47.	There is provision for emergency escape.				
48.	The maximum wind and swell criteria for operations have been agreed.			A	Stop cargo at: Disconnect at: Unberth at:
49.	Security protocols have been agreed between the Ship Security Officer and Port Facility Security Officer, if appropriate.			A	
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.			A P	

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

Inert Gas System	Ship	Terminal	Code	Remarks
51. The IGS is fully operational and in good working order.			P	
52. Deck seals, or equivalent, are in good working order.			R	

	understood.						
26.	Material Safety Data Sheets(MSDS) for the cargo transfer have been exchanged where requested.				P R		
27.	The hazards associated with toxic substance in the cargo being handled have been identified and understood.					H2S Content: Benzene Content:	
28.	An international Shore Fire connection has been provided.						
29.	The agreed tank venting system will be used.				A R	Method:	
30.	The requirements for closed operations have been agreed.				R		
31.	The operation of the P/V system has been verified.						
32.	Where a vapour return line is connected, operating parameters have been agreed.				A R		
33.	Independent high level alarms, if fitted, are operational and have been tested.				A R		
34.	Adequate electrical insulating means are in place in the Ship/Shore connection.				A R		
35.	Shore lines are fitted with a non-return valve, or procedures to avoid back filling have been discussed.				P R		
36.	Smoking rooms have been identified and smoking requirements are being observed.				A R	Nominated Smoking rooms:	
37.	Naked light regulations are being observed.				A R		
38.	Ship/Shore telephones, mobile phones and pager requirements are being observed.				A R		
39.	Hand torches (flash lights) are of an approved type.						
40.	Fixed VHF/UHF transceivers and AIS equipment are on the correct power mode or switched off.						

Master should consult their agents for current information on documentation.

6.2 Agent

Normally the Agent will board the Vessel at Tanker Anchorage or after Vessel's berthing at SPM, and he will handle the previously mentioned documentation. The terminal has no role to play between the Agent & the vessel.

6.3 Customs & Immigration

Officials of the Customs / Immigration Services will board the tanker prior to or after berthing.

6.4 SPM Mooring Arrangements

Each buoy end bridle chain consists of common links of 84 mm with one enlarged and one end link at each end, further shackled to a mooring lug and to a float rope at the other end. The float rope system consists of two sets of 20" nylon super-line hawsers both connected to a triangular plate and tanker end 76mm grade a chafe chain assembly. Each hawser is 54.86 meters long.

The chafe chain is picked up with the help of an 8.5" circumference pick up rope of length about 110mtr.

7.0 BERTHING

Pilot to ensure RILS/SQMS/305 (Appendix 4, Pilot Passage Plan In-Bound completed prior berthing.)

Mooring will be carried out with the assistance of Ship's crew under the advice of the SPM Pilot, Marine Officer and his mooring crew.

7.1 Diving team on SPM maintenance vessel to ensure that the SPM is ready in all respects to receive the tanker and also to ensure that the SPM mooring hawsers, its accessories and SPM floating hoses are streaming freely and confirm that there is no entanglement between them.

7.2 At the tanker waiting anchorage area or not less than 3 miles south of SPM when the vessel is underway, the mooring and hose connection equipment will be transferred to the tanker

from a Reliance Tug (it should be noted that the tanker should have the port derrick/ crane rigged for this purpose)

- 7.3** SPM maintenance vessel will lower launch (Inflatable rubber dinghy) with divers, well in advance prior to vessel's approach to SPM, divers will then connect pick up rope (8" Circ PP Rope x 90 mtrs. Long) with one 4" Circ PP rope x 200 mtrs long (messenger line) and will stand by for connecting it to heaving/gauze line to be passed by approaching tanker during fair weather.

- 7.4** During adverse weather condition the launch (inflatable rubber dinghy) with divers will connect the 8" Circ pick up rope with 4" Circ PP rope and pass same to support vessel for passing same to approaching tanker.

- 7.5** **Warning: During final approach to the SPM, the vessel's anchors must be tight home and secured by stoppers/lashing wire to prevent accidental dropping. The stoppers/lashing wire must remain in position until the vessel is well clear of the SPM after unmooring.**

The Tanker will proceed to a position approx. 300 meters from the SPM and pass a 3" or 4" circ. PP rope gant line by heaving line to launch (inflatable rubber dinghy) or Support vessel. Divers on the launch (inflatable rubber dinghy) or Tug crew on Support vessel will attach tankers gant line to 4" circ. X 200 mtrs PP messenger line which is secured to 8" Circ PP pick up rope and mooring chafe chain. This messenger line/ pick up rope are heaved until the chafe chain is on board and secured to vessel's bow stopper.

- 7.6** After the completion of tanker's mooring, SPM maintenance Vessel will lower the launch (inflatable rubber dinghy) with divers, and will approach tanker for hose connection operation.

- 7.7** The Pilots and Marine Officers will remain on board the Vessel, during its entire stay at the Hazira Reliance SPM to maintain vessel's position at a safe distance from SPM and also assist turning the vessel around the buoy during slack water/ change of

14.	secured with blank Flanges fully bolted.					
15.	All cargo, ballast and bunker tank lids are closed.					
16.	Sea and overboard discharge valves, when not in use, are closed and visibly secured.					
17.	All external doors, ports and windows in the accommodation, stores and machinery spaces are closed. Engine room vents may be open.				R	
18.	The ship's emergency fire control plants are located externally.					Location

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

Inert Gas System	Ship	Terminal	Code	Remarks
19. Fixed IGS pressure and oxygen content records as working.			R	
20. All cargo tanks atmosphere are at positive pressure with oxygen content of 8% or less by volume.			P R	

Part 'B' - Bulk Liquid General Verbal Verification

Bulk Liquid - General	Ship	Terminal	Code	Remarks
21. The ship is ready to move under its own power.			P R	
22. There is an effective deck watch in attendance on board and adequate supervision of operations on the ship and in the terminal.			R	
23. There are sufficient personnel on board and ashore to deal with an emergency.			R	
24. The procedures for cargo, bunker and ballast handling have been agreed.			A R	
25. The emergency signal and shutdown procedure to be used by the ship and shore have been explained and			A	

Part 'A' BULK LIQUID GENERAL - Physical Checks

Sr. No.	Bulk Liquid General	Ship	Terminal	Code	Remarks
1.	There is safe access between the ship and shore.			R	
2.	The ship is securely moored.			R	
3.	The agreed ship/shore communication system is operative.			A, R	System: Backup System:
4.	Emergency towing-off permits are correctly raised and positioned.			R	
5.	The ship's fire hose and fire fighting equipment are positioned and ready for immediate use.			R	
6.	Terminal's fire fighting equipment is positioned and ready for immediate use.			R	
7.	The ship's cargo and bunker hoses, pipelines and manifolds are in good condition, properly rigged and appropriate for the service intended.				
8.	The terminal's cargo and bunker hoses or arms are in good condition, properly rigged and appropriate for the service intended.				
9.	The cargo transfer system is sufficiently isolated and drained to allow safe removal of blank flanges prior to connection.				
10.	Scrapers and save-alls on board are effectively plugged and drip trays are in position and empty.			R	
11.	Temporarily removed scupper plugs will be constantly monitored.			R	
12.	Shore spill containment and sweeps are correctly managed.			R	
13.	The ship's unused cargo and bunker connections are properly secured with blank flanges fully bolted.				
14.	The terminal's unused cargo and bunker connections are properly				

tide with the help of support vessels.

The stern tug will remain fast at all times, under the instructions from the Pilot.

8.0 CARGO TRANSFER

8.1 General Information

Discharging/loading hoses are 1 x 10" and 1" x 16" floating hoses, fitted with 150 ASA flanges.

Each hose is fitted with a "Camlock" coupling for connection to the ship's manifold. Both strings are fitted with a Gall Thomson Marine Breakaway Coupling.

Hoses are connected on the Port side of the vessel only.

Hose connection and disconnection will be carried out with the assistance of the Ship's crew under the advice of the SPM Pilot, Marine Officer and his crew. All equipment for the operation will be provided by Reliance Industries Limited, and transferred to the vessel at Tanker waiting anchorage area, or at least 3 miles South of the SPM when the vessel is underway.

8.2 Hose Handling

Hose handling should always be carried with the string de-pressurised.

After the vessel is securely moored the ends of the floating hoses loops are positioned beneath the tankers derrick / crane for hose connection.

The aft hose (16") is presently used for Naphtha, HSD, MS, LDO, Kerosene etc. The forward hose (10") is used exclusively for Para-Xylene.

Both the hoses need to be made fast to the manifolds even if only one hose is to be used for cargo operation. 10" hose to be fast forward of the 16" hose at all times.

8.3 Hose Lifting

The derrick/crane should be rigged with the head positioned midway between the vessel's rail and manifold.

Vessel's crane / derrick lifting hook should be connected with 6" Circ nylon rope X 2 meter long, and lowered to the water level where the divers will connect same to the pick up chain secured to the tanker rail hose via a lifting hook. The hose should then be lifted to the tanker rail.

As this time, the condition and securing arrangement of the various hose lifting gear components should be visually inspected for excessive wear, damage or poor connections.

The hose should then be lifted to a sufficient height to enable the hose supporting chain to be attached to the hang off chain, which is then made fast to a suitable cruciform bollard. The hang off retention chain can be uncoupled at this stage.

8.4 Hose Securing

The hose should then be lowered to transfer the full weight to the hose support chain.

A snubbing chain positioned around the hose and secured to the tanker rail will assist in lining up the hose to the tanker manifold, and preventing lateral movement during connection.

The height of the hose should be sufficient to allow the hose to be bent over to the tanker manifold and for the hose and manifold flanges to be aligned.

The hose end should then be lowered to deck level and the blind flange removed. Before removal, a check should be made to ensure the line is de-pressurised and a spill tank or drip tray should be positioned to contain any leakage.

8.5 Hose Connection

The hose should then be connected to the tanker manifold using the camlock quick coupling or end flange as applicable.

If the hose end flange is connected to the tanker manifold or if reducers are required (these should be secured prior to hoisting hoses out of the water), the full number of bolts should be used and tightening should be in a diagonal sequence. New, high quality gaskets should be used.

Appendix ...5

RILS/ SQMS/ 306

SHIP/ SHORE SAFETY CHECKLIST

Ship's Name _____

Berth _____

Port _____

Date of Arrival _____

Time of Arrival _____

INSTRUCTIONS FOR COMPLETION

The Safety of operation requires that all questions should be answered affirmatively by clearly ticking O the appropriate box. If an affirmative answer is not possible the reason should be given and agreed at each upon appropriate precaution to be taken between the ship and 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 "Comp" and "Terminal" indicates that checks should be carried out by the party concerned.

The presence of the letter A, P or R in the column entitled 'Code' indicate the following:

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

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

R (Recheck). This indicates items to be re-checked at appropriate intervals, as agreed between both parties, at periods stated in the declaration.

The joint declaration should not be signed until both parties have checked and accepted their assigned responsibilities and accountabilities.

Appendix ...4

RILS/ SQMS/ 305
PILOT PASSAGE PLAN INBOUND

M.T. _____ Date _____ Time _____ LOA _____ M _____
 Displ _____ Cargo grade _____ Cargo quantity _____
 Passage from _____ to _____
 Time HW _____, HT _____ M LW _____, HT _____ M
 Least Depths: Channel _____ M Berth _____ M UKC _____ M

The Pilot & Master have both discussed together and satisfied themselves as to all aspects of the navigation and berthing plans for the vessel.

1. MASTER

The Master has informed the Pilot of the characteristics of his vessel and of any defects with regards to the navigational equipment, engines or any other equipment that may affect the safe navigation of the vessel.

2. PILOT

The Pilot has discussed with the Master the intended route of the vessel, the depth of the water available and any defect to navigation aids that may affect the safe navigation of the vessel. In addition in conjunction with the officers all aspects of the berthing plan have been advised to the Master to include equipment required from the ship.

Both parties are satisfied that the above requirements have been met and acknowledged by their signatures below.

Signed _____

Master _____

Pilot _____

Date _____ Time _____

When the hose connection has been made, a strop should be connected to the rail hose(s) and hooked onto the derrick/crane. The strop (s) should be used to achieve an acceptable bend radius configuration.

The snubbing chain may be left in position to minimise lateral movement of the hose(s) induced by sea/swell.

During the hose lifting and connection, care should be taken to ensure that the weight of the hose string is not taken off the support chain by other than the prescribed lifting gear. In particular, the strop should not be used to take the full weight of the hose string to adjust the support chain.

8.6 Cargo Commencement / Completion

Refer to standard Ship / Shore safety check as per Appendix 5 (RILS/SQMS/306). On the instructions of the Pilot discharge / loading will commence. On completion of discharge / loading, after tank inspection / gauging, the manifold valves will be closed and hoses disconnected.

8.7 Hose Disconnection

Care should be taken to ensure that the hoses are secured to a strong point on the tanker or derrick/crane at all times, until they are lowered to the sea. Before disconnection the tanker manifold valve(s) must be closed, the hose end butterfly valve closed and secured and the line de-pressurised.

To disconnect the hose, its weight should be taken on the derrick / crane at the strop and the camlock coupling/end flange disconnected. Care should be taken to stop the hose moving when disconnected and this is most easily done by securing a line around the hose near the flange and fastening it to a convenient set of bits.

When disconnected the blind flange must be refitted to the camlock coupling/end flange. (Prior to closure, inspect the camlock "O" ring gasket for damage). It is important that the blind flange be properly fitted and all chains / shackles assembled (i.e. hang-off and pick up chain) and secured

properly before the hose is lowered into the water.

If two hoses are used it is essential that the hoses are disconnected in sequential order from aft to forward. This will avoid the hoses fouling each other when they are lowered to the sea.

When the blind flange is secured, the derrick/crane hook should be transferred to the hose pick up chain. The hose should then be slowly lifted to the vertical. When the hose is hanging vertically with all the weight on the derrick / crane hook, the hose support chain should be removed from the safety hook assembly and re-connected to the hang off retention chain.

The snubbing chain may now be disconnected and the hose lowered until the pickup arrangement is level with the tanker rail.

A line should be passed through the pick up arrangement and secured to the tanker so that it can be used as a slip rope. Care should be taken to ensure that the slip rope is long enough to lower the hose to sea level.

Prior to sailing, the hoses may remain hanging off the rail until the tanker slips and then lowered to the water level, as the tanker drops astern.

9.0 UNBERTHING

Pilot to ensure RIL/S/SQMS/316 (Appendix 7, Pilot Passage Plan Out-Bound) completed

9.1 Unmooring will be carried out with the assistance of the ship's crew under the advice of the SPM Pilot / Marine Officer. The weight on the Chafe chain will be taken by the 8.5" pick-up rope (using the ship's engines to reduce the load, if necessary) and the chafe chain released from the bow stopper.

The pick up rope, will then be slowly slacked away until the support buoy is in the water and taking the weight of the chafe chain.

As the vessel drops astern the pick up rope should be slowly paid

RIL/S/SQMS/ 304

PREBERTHING INFORMATION

EMERGENCY SHUTDOWN PROCEDURE

Vessel _____

The Emergency Shutdown procedure is:

1. Inform Reliance Pilot/ Shift Officer/ Loading Master.
2. Stop cargo operation.
3. Shut cargo manifold valve.
4. It may be necessary to pump water in order to flush the floating hose line.

The Emergency Shutdown procedure will be initiated by Reliance Pilot/ Shift Officer/ Loading Master, Master or Ship's personnel in the following cases:

1. Cargo Leakage.
2. Fire or other emergency.
3. Mooring breakout.
4. Cargo hoses failure.
5. Terminal valve failure.
6. Any other situation deemed necessary.

FOR VESSEL	FOR TERMINAL
NAME:	NAME:
RANK:	RANK:
SIGNATURE:	SIGNATURE:
DATE & TIME	DATE & TIME

prevent any pollution through oil spills, ballast or bilge discharges. All deck scuppers must be plugged tight / cemented before cargo operation commences. Serious consequences may result due to any pollution and Reliance will hold the vessel responsible for any expenses involved in cleaning the contaminated area.

In the event that Reliance has to settle third party claims as a result of damage to property caused by pollution or any negligence attributable in any way to the vessel, it will have the right to reimbursement by owners or Managers of the vessel for all expenses incurred.

One pullback tug will be made fast at the stern of the vessel during the vessels stay at SPM. SPM watch on forecastle to be maintained by the ships staff. Master to ensure that the vessel turns every change of tide, only anti clockwise without fouling the floating hoses. The assistance of pull back tug may be taken.

Suitable accommodation to be provided for Reliance SPM Pilot, Marine Officer, Loading officer and Cargo Surveyor. Please note Hazira, SPM INFORMATION BOOKLET has been handed over/received by you.

FOR VESSEL	FOR TERMINAL
NAME:	NAME:
RANK:	RANK:
SIGNATURE:	SIGNATURE:
DATE & TIME	DATE & TIME

out.

9.2 Pilot / Personnel disembarkation & Ancillary Equipment Transfer.

Once the hoses have been lowered into the water, the ship's crew will collect all mooring equipment and hose connection gear in the manifold area and sling it ready to pass to the Support Vessel when the vessel is at least 3 miles south of the SPM and heading in southerly direction by Sutherland channel.

The SPM Pilot, Marine Officer and all other personnel will disembark from the vessel after the transfer of mooring and hose connection equipments into the support vessel.

10.0 EMERGENCY PROCEDURES

The following events constitute cause for a system emergency shutdown and termination of pumping operations. SPM Pilot has been designated as On-scene Co-coordinator for handling emergencies at SPM and handling emergencies connected with tanker.

- ◆ Hull Damage, MPDU Seal Leakage, Cargo Pipe work Leakage
- ◆ Failure Of Mooring system
- ◆ Personnel Injuries, Cargo Related Injuries, Evacuation of Sick and Injured Personnel
- ◆ Fire on SPM
- ◆ Fire on Tanker
- ◆ Oil Pollution on Tanker
- ◆ Oil Pollution due to Rupture / Leakage of Floating or Under Buoy Hoses
- ◆ Non availability of tanker main engine
- ◆ Increase in Security Level of the port by Government of India.

10.1 Hull Damage, MPDU Seal Leakage, Cargo Pipe work Leakage

Any problem that causes the buoy to become out of trim (75 mm floating without hawser load) shall be the cause for the suspension of Cargo transfer Operations.

Following are the possible leakage sources:-

1. Through compartment hatches, in case same not fixed properly or left open by mistake during adverse weather.
 2. SPM Compartment structural breach due to accidental collisions with Vessels.
 3. Water leaking past the MPDU mounting bolts or deck bearing mounting flange (Central chamber only)
 4. Buoy central compartment filled with Cargo from leaking valves or fittings.
 5. Cargo leakage at any point along the buoy piping (Valves, flanges, vents etc.)
 6. Cargo leakage from the MPDU (Past secondary seals and spilling onto buoy deck)
- Steps Action to be taken
1. Stop the transfer of cargo (shut down all pumps), inform I.O.C/Reliance.
 2. Duty Officer on telemetry watch at Reliance Radio Room will close 18" and 24" PLEM valves from MTU. If due to some reason PLEM valves do not operate then advice Diving supervisor at SPM maintenance vessel to shut the 18" and 24" PLEM valves locally from SPM Telemetry compartment after boarding SPM by inflatable rubber dinghy.
 3. Inform tankers duty officer/ SPM shift officer to shut tankers cargo manifold valves and hose end butterfly valves on the tanker side.
 4. If the buoy compartment becomes filled with water or cargo product, it should be pumped out to the extent possible by the maintenance vessel staff and the source of leakage determined and rectified.

APPENDIX - 3

BERTHING ADVICE_(RIL/S/QMS/304)

Vessel _____

Your vessel has been scheduled to berth at Reliance Offshore Terminal (SPM) at _____ hrs on _____ subject to your vessel being ready in all respects to fulfill the requirements as laid down in the Reliance SPM Information Booklet.

Vessels awaiting instructions should maintain listening watch on V.H.F Channel 67.

Reliance SPM Pilots / Marine Officers / other personnel will advise the Master on all maneuvers for securing the vessel at SPM and hose connection. In this respect, Reliance SPM Pilot/ Marine Officer / Sub-Contractors / other personnel / Support vessels are to be deemed servants of the owner and shall not have or engage any liability for anything done or omitted to be done by them.

It must be clearly understood that the ship's crew is expected to assist in mooring / unmooring of vessel and connection / disconnection of the hoses under the direction of the Reliance SPM Pilot / Marine officer / Sub-contractors / other personnel / support vessels. Vessel's crane, derrick, winches and all gears to be operated by vessels crew.

The Ship's engines must remain on standby and be kept ready at all times for clearing the berth if the Reliance SPM Pilot consider such a step to be necessary. At least one of the Ship's officer shall be on deck, or in the cargo control room, at all times and he should have sufficient crew members on deck to ensure the safe operation of the vessel.

It is of the utmost importance that at NO TIME WHATSOEVER should AIR be pumped into the pipeline or a vacuum be allowed to form in the pipeline. If these requirements are not complied with, there is a serious risk of floating of the submerged pipeline and the cost of rectifying this would be considerable.

It should be brought to your attention that at no time anchors be used in the SPM vicinity due to danger of its fouling with the pipeline or the buoy mooring. Anchors to be safely secured and lashed prior to approaching the SPM. The utmost vigilance must be exercised to

Appendix2

RILS/SQMS/302
PRE BERTHING CHECKLIST
(to be filled on board tanker)

Action to be taken when vessels arrives in the waiting area:

Ref.	Item	Details
W 1	Discuss and agree cargo transfer plan.	
W 2	Confirm berthing time.	
W 3	Obtain and process cargo samples for approval.	
W 4	Transfer additional mooring equipment, if required. (Ref. V 7 of RILS/SQMS/ 301).	
W 5	Transfer additional lifting equipment, if required. (Ref. V 8 of RILS/SQMS/ 301).	
W 6	Transfer personnel & communication equipment.	
W 7	Transfer CAMLOCK wrench and valve hose handle.	
W 8	Transfer flange reducers, gaskets and seals.	
W 9	Operational checks on SPM buoys <ul style="list-style-type: none"> ● Rotating assembly free to rotate ● All SPM valves OPEN ● Battery charger level OK ● Instrumentation systems functional ● Mooring hawsers free of damage ● Mooring hawsers free streaming ● Floating hoses clear and free streaming 	

for Reliance Industries Limited

5. Contaminated seawater (cargo product mixture) should be pumped into maintenance or support vessels holding tanks.
6. Take adequate fire fighting measures on the SPM due to above problems by SPM maintenance vessel and support vessels.
7. If SPM maintenance vessel staff is unable to rectify the above sources of leakage in the shortest possible time, than tanker should vacate the berth.
8. Advise ship's duty officer / SPM shift officer to organise tankers' crane. Take the weight of hoses and disconnect the hoses from the tanker, and depending upon the nature of emergency, secure the hose end blind flange in place.
9. Start ships' engines & order pullback tug to be standby.
10. Advise ship staff, SPM shift officers to lower hoses rapidly to the water and release as tanker gathers sternway.
11. Unmoor the tanker.
12. Back the tanker out.

10.2 Failure of Mooring system

Failure of any part of the Mooring system including any hawser, chafe chain or shackle etc while moored would force the tanker to abandon the SPM immediately. Under these circumstances the tanker shall leave the SPM as soon as the floating hoses are disconnected.

Step Action to be taken

1. Stop the transfer of cargo (shut down all pumps), inform Reliance (and ONGC and/or ESSAR etc whoever may be using our SPM).
2. Duty Officer on telemetry watch at Reliance Radio Room will close 18" and 24" PLEM valves from MTU. If due to some reason PLEM valves do not operate then advice Diving supervisor at SPM maintenance vessel to shut the

- 18" and 24" PLEM valves locally from SPM Telemetry compartment.
3. Inform tanker's duty officer/ SPM shift officer to shut tankers cargo manifold valves and hose end butterfly valves.
4. Advise ship staff/SPM shift officers to arrange to have the tanker crane take the weight of hose(s). Disconnect the hoses from the tankers manifold.
5. Start ships' engines & order pullback tug to be standby.
6. Advise ship staff / SPM shift officers to lower hoses rapidly to the water and release as tanker gathers sternway.
7. Unmoor the tanker.
8. Back the tanker out.

10.3 Personnel Injuries, Cargo Related Injuries, Evacuation of Sick and Injured Personnel

Any personnel injuries caused to Ships crew, Reliance Shift Officers while mooring, Unmooring of tanker at the SPM, also cargo related injuries during loading/unloading of cargo as well as connection/disconnection of hoses, should receive proper first aid and Medical attention. SPM Tanker and support vessels should have adequate medicines stocked as per International Ships Medicines Chest. SPM tankers should have adequate numbers of "Personnel Protective gear" comprising of Protective suit, face mask, rubber gloves, boots to guard above personnel against Cargo related injuries due to corrosive action of liquid cargoes like Naphtha, NGL. Support vessel should also have stock of proper medicines for treating Cargo related injuries. For serious injuries to ships crew/Reliance staff, arrangements should be made for evacuation of personnel at the earliest.

Step Action to be taken

1. Provide first aid to injured personnel (ships staff, reliance

T5	Navigation Route to SPM Buoy	Sutherland Channel (via SPM Channel marking buoy)
T6	Details of defined Waiting or Holding Area	Bounded by following coordinates Lat 21°5'N Long 072°35.50E Lat 21°5'N Long 072°33.50E Lat 21°6'N Long 072°33.50E Lat 21°6'N Long 072°35.00E
T7	SPM Buoy Location	Lat 21°8.946'N Long 072°34.397'E
T8	Buoy Navigation Signal and Markings	(1) SPM Light Characteristics Flashing Morse "U" every 15 Seconds (2) RACON - 30 Seconds (3) Fog horn - 30 Seconds
T9	Preliminary Mooring Time	Will be notified
T10	Give Instruction and information regarding: Local regulations Special Procedures Special safety procedures Any Changes to standard procedures	Shall hand over on arrival -do- -do- -do-

Tide Data to be Transmitted to the Vessel

Date	Time	Height

V7	<u>Vessel Mooring Equipment</u> Type of Chain Stopper Size of Chain Stopper & its SWL Confirm Vessel has test certificate for Bow Chain stopper approved by Class. Length and size of Messenger lines		
V8	<u>Hose Lifting Gear</u> Crane or Derrick with 10 T SWL		
V9	<u>Cargo details</u> Load Port, Grade and B/L Figure Ships Figure Load Port		
V10	<u>Vessel Manifold</u> Position & Size Type of Rating		
V11	<u>Cargo Pumping Details</u> Vessel pump pressure at Manifold MAX Vessel Flow rate at Manifold MAX		
V12	Damaged or defective equipment on vessel which may affect maneuverability		
V13	Vessel to confirm there is proper and direct lead for incoming SPM pick up from the safe chain via bow stopper pedestal roller and mooring winch with no obstructions		Yes / No

Details to be given by the Terminal Controller to the Vessel Master 72 Hours before Estimated Time of Arrival.

Ref	Item	Details
T1	Communication Channel with Vessel	VHF Channel 67
T2	Emergency Channel	VHF Channel 67
T3	Communication Channel at Wait Area	VHF Channel 67
T4	Communication Channel at Mooring	VHF Channel 67

staff, and maintenance vessel staff).

- In case of serious injury to personnel, inform Reliance and send the injured personnel (provided tide permits) to shore for medical attention.
- If sufficient tide is not available for transporting sick / injured man ashore then Reliance must make arrangements immediately for sending helicopter to the SPM tanker area. The helicopter should have rescue winch.
- Alternatively Reliance can request transit permission from SHELL Hazira Port and/or ESSAR terminal as these ports are not tide dependent.

10.4 Fire on SPM

Step Action to be taken

- Stop the transfer of cargo (shut down all pumps) informs Reliance/ONGC.
- Duty Officer on telemetry watch at Reliance Radio Room will close 18" and 24" PLEM valves from MTU. If due to some reason PLEM valves do not operate then advice Diving supervisor at SPM maintenance vessel to shut the 18" and 24" PLEM valves locally from SPM Telemetry compartment after boarding SPM by inflatable rubber dinghy.
- Inform tankers duty officer; SPM shift officers to shut tankers cargo manifold valves and hose end butterfly valves. Simultaneously fire on the SPM should be fought with the help of fire extinguisher available on SPM and fire fighting equipment available on the tanker and support vessel.
- Advise shipboard staff and SPM shift officers to organise tankers crane take the weight of hoses and disconnect the hose from the tanker and depending upon the nature of emergency, they must secure the hose end blind flange in place.

5. Start ship's engines & order pullback tug to be standby.
6. Advise ship staff, SPM shift officers to lower hoses rapidly to the water and release as tanker gathers sternway.
7. Unmoor the tanker.
8. Back the tanker out.

10.5 Fire on Tanker

Step Action to be taken

1. Stop the transfer of cargo (shut down all pumps) & inform Reliance/ONGC.
2. Duty Officer on telemetry watch at Reliance Radio Room will close 18" and 24" PLEM valves from MTU. If due to some reason PLEM valves do not operate then advice Diving supervisor at SPM maintenance vessel to shut the 18" and 24" PLEM valves locally from SPM Telemetry compartment after boarding SPM by inflatable rubber dinghy.
3. Inform tanker's duty officer, and SPM shift officers to shut tankers cargo manifold valves and hose end butterfly valves on the tanker side. Simultaneously tanker's shipboard staff as per tanker's fire fighting procedures should fight fire on the tanker. Any assistance required by the tanker for fire fighting should be given by support vessels.
4. Advise shipboard staff and SPM shift officers to organise tankers crane take the weight of hoses and disconnect the hose from the tanker, and depending upon the nature of emergency, they must secure the hose end blind flange in place.
5. Start ships' engine. Order pullback tug to standby.
6. Advise ship staff, SPM shift officers to lower hoses rapidly to the water and release as tanker gathers sternway.
7. Unmoor the tanker.

Appendix ...1

PRE-ARRIVAL CHECK LIST (RILS/SQMS/301)

Vessel Name _____

SPM Terminal : Reliance - Hazira

Port Authority : Magdalla

INSTRUCTION FOR COMPLETION

The safe and efficient transfer of cargo at the terminal requires the interchang of information between the vessel and the terminal controller before the vessel arrives. This checklist is designed to ensure that all relevant information is exchanged in a timely manner.

Details to be given by the Master 72 hours before Estimated Time of Arrival.

Ref	Item	Terminal	Vessel
V1	Communication channel with terminal	VHF Ch.67	
V2	Emergency Channel	VHF Ch.67	
V3	Communication Channel at wait area	VHF Ch.67	
V4	Communication Channel at Mooring	VHF Ch.67	
V5	Estimated Time of Arrival at wait area (Vsl)	-	
V6	Vessel Arrival Draft / Departure Drat	-	

APPENDIX

8. Back the tanker out.

10.6 Oil Pollution on Tanker

Step Action to be taken

1. Stop the transfer of cargo (shut down all pumps) inform Reliance/ONGC.
2. Duty Officer on telemetry watch at Reliance Radio Room will close 18" and 24" PLEM valves from MTU. If due to some reason PLEM valves do not operate then advice Diving supervisor at SPM maintenance vessel to shut the 18" and 24" PLEM valves locally from SPM Telemetry compartment after boarding SPM by inflatable rubber dinghy.
3. Inform tankers duty officer, and SPM shift officers to shut tankers cargo manifold valves and hose end butterfly valves on the tanker side.
4. Simultaneously tanker should contain oil pollution on its deck due to overflow of cargo tanks, or leakage from cargo pipelines by continuously transferring the spilled oil into empty cargo tanks / stop tank by means of Weldon pump to prevent oil going overboard from the raised side deck plate. Also tanker must use adequate sawdust, oil absorbent mats, and oil dispersant to contain pollution and tanker must comply with her approved SOPEP manual. Tanker and support vessels should take adequate fire fighting precautions during oil spillage control on tanker.
5. If the tanker is able to contain oil pollution by above means as mentioned in serial no-3, then re-loading can be started only after assessing loss of cargo in consultation with Reliance/ONGC.
6. If the oil pollution is due to leakage from tankers cargo pipelines or its associated flange connections cargo pumps, expansion joints etc. Which cannot be rectified in the shortest possible time, then the tanker must be cast off from SPM for the safety of SPM installation ,and

removed again only after above defects are rectified.

10.7 Oil Pollution due to Rupture / Leakage of Floating or Under Buoy Hoses

Step Action to be taken

1. Step the transfer of cargo (shut down all pumps) inform Reliance/ONGC. Inform tanker's duty officers and SPM shift officers to shut tankers cargo manifold valves and hose end butterfly valves on the tanker side.
2. Duty Officer on telemetry watch at Reliance Radio Room will close 18" and 24" PLEM valves from MTU. If due to some reason PLEM valves do not operate then advice Diving supervisor at SPM maintenance vessel to shut the 18" and 24" PLEM valves locally from SPM Telemetry compartment after boarding SPM by inflatable rubber dinghy.
3. SPM support vessel and maintenance vessel to immediately man their fire monitor and fire fighting equipment.
4. Start ships' engines & order pullback tug to be standby.
5. Advise ship staff, SPM shift officers to lower hoses rapidly to the water and release as tanker gathers sternway.
6. Unmoor the tanker.
7. Back the tanker out.
8. Advise Port officer Magdalla Port, Coast guard Porbander / Mumbai giving details of oil pollution actions taken to contain same. Refer to RILOCSCM.

Note: Products handled through SPM are NGL, Naphtha and Paraxylene. These products are covered under the category of Oil.

10.8 Non availability of Tanker Main Engine

Step Action to be taken

1. SPM Pilot to assess the situation. If fair weather and small

amount of cargo complete the loading / discharge operation. In all other cases ship to stop the transfer of cargo and cast off in consultation with RIL Shipping.

2. Inform I.O.C / Reliance. Inform tanker's duty officers and SPM shift officers to shut tankers cargo manifold valves and hose end butterfly valves on the tanker side.
3. Unmoor and tow the tanker with the help of pullback tug and anchor the tanker in a safe location.

10.9 Increase in security level by Government of India

Vessel to take actions as per her security plan and additionally as advised by the port.