

Saudi Aramco Ports and Terminals

RULES, REGULATIONS AND GENERAL INFORMATION

THIS BOOK IS FREE OF CHARGE

Preface

This book is designed as a reference work for the purpose of acquainting Owners, Charterers, Masters of vessels and others with the general conditions, rules, regulations, facilities and available services at all Saudi Aramco Terminals.

Every vessel which arrives at any Saudi Aramco Port or Terminal must have a copy of this book on board which is obtainable through the vessel's agent. Every Master wishing to berth at any Saudi Aramco port or terminal must contract to comply with all the rules and regulations contained herein.

This book does not replace or modify official publications covering the waters, areas, hazards or other subjects to which it pertains, nor is it intended for such purposes.

The information contained herein is believed to be accurate at the time of going to press but Saudi Aramco makes no warranties and assumes no responsibilities regarding this book or any other information which may appear in supplemental publications, additions or corrections supplied by Saudi Aramco.

The Rules and Regulations for Seaports, Parts 1 -11, 2012 Issued by the Cooperation Council for the Arab States of the Gulf, must be carried on board and should also be consulted.

An e-copy can be viewed in or downloaded from Saudi Aramco website at;

<https://saudiaramco.com/portsandterminals>

Saudi Arabian Oil Company

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Saudi Arabian Oil Company (Saudi Aramco)

Operating by virtue of government charter, the Saudi Arabian Oil Company produces, refines and sells for export, petroleum and petroleum products. Pursuant to this, it also operates a Port Management and Harbor Pilotage service at each of its Ports and Terminals except Yanbu Port and Jazan JPDI.

All correspondence and queries regarding port management or suggestions for improvement and inclusion of data in this book should be addressed to:

Port Captain

Saudi Arabian Oil Company, Terminal Pilotage Operations Division Room N-2006, Ras Tanura 31311 Kingdom of Saudi Arabia

Tel (966)-13-678-6016

In order to continually improve and enhance the services we provide, Saudi Aramco requests Masters of all vessels to complete a customer services questionnaire sent to the vessel.

For all other correspondence and business matters, Saudi Aramco maintains an official at the following address:

TerminalPortCaptain@aramco.com

2023 Edition

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Common Rules & Information

1. Conditions for Use of Ports & Terminals (Legal Liabilities)

- 1.1. The use of Saudi Aramco premises, facilities and equipment is subject to the express understanding and condition that Saudi Aramco and its personnel shall be held harmless from all liability, loss or claim arising out of such use.
- 1.2. The Owners, Operators and Charterers of any vessel located within the geographical boundaries of any Saudi Aramco port or terminal shall be liable and shall reimburse Saudi Aramco promptly and in full for any and all expenditures, costs, losses, delays, or third party liabilities incurred by Saudi Aramco as a consequence of failure of said vessels or its Master, Owners, Operators or Charterers to comply with any of the rules, regulations or instructions set forth herein, including, but not limited to, the costs of labor, material, equipment usage, repair work, invoiced costs, loss of earnings, business interruption, towage and other exceptional marine assistance, unproductive berth occupancy and all applicable Saudi Aramco corporate overheads.
- 1.3. The Owners, Operators and Charterers of any vessel calling at Ras Tanura Port, Jeddah Marine Terminal, Duba Bulk Plant Terminal or Jazan Bulk Plant Terminal shall be liable and shall reimburse Saudi Aramco promptly and in full for all applicable Marine Terminal Assistance Fees.
- 1.4. The Master, Owners, Operators and/or charterers of a vessel from which oil, oily residue, oily ballast water or any other pollutant escapes or is discharged for any reason at any location within the ports or terminals of Saudi Aramco, shall be liable to and shall reimburse Saudi Aramco promptly and in full for the cost of all clean-up, containment and removal measures taken in response to such escape or discharge by or on behalf of Saudi Aramco, which in the sole opinion of Saudi Aramco, are prudent or necessary in order to protect human life, vessels, installations and the environment. Such cost shall constitute a joint and several debts due from the Master, Owners, Operators and/or Charterers to Saudi Aramco.
- 1.5. Further, the vessel and her Master, Owners, Operators and Charterers shall be jointly and severally liable for any and all other loss, damage and expense incurred or sustained by Saudi Aramco or by third parties by reason of such escape or discharge and shall indemnify and hold Saudi Aramco harmless from any such loss, damage, expense or third-party claim related to or arising out of such escape or discharge.

- 1.6. Tugs, towing services and other normal and exceptional marine assistance are provided to vessels in Saudi Aramco ports and terminals upon the express understanding and condition that such services are provided at the sole risk of the vessel receiving such services, including the risk of negligence of the Masters, Pilots, Official and Crew of the Saudi Aramco tugs, or the Operators of other Saudi Aramco equipment providing marine assistance to the vessel, and the agents, contractors, employees and representatives of each of them, all of whom shall, in the performance of such services rendered to the vessel, become the agents and servants of the Owners, Operators and/or Charterers of the assisted vessel. Saudi Aramco and its agents, servants, contractors, employees and representatives shall not be liable or responsible for any loss of or damage to or expense incurred in connection with the vessel and/or its cargo caused by, arising out of, or resulting from the provision of tug or towage services, or other marine assistance to the vessel. The vessel receiving such tug, towing or other marine assistance services from Saudi Aramco, and the Owners, Operators and Charterers of such vessel agree to indemnify and hold harmless Saudi Aramco and all vessels and equipment utilized in the provision of such services, and their Owners, Charterers or Operators, against all claims for any loss or damage to the vessel or cargo, or other expense incurred in connection with provision of such services, and against all claims for loss, damage, injury or expenses incurred by third parties as a result of or in connection with the provision of such services
- 1.7. Damage to, or impairment of use of any facility, vessel, or equipment owned, chartered or leased by Saudi Aramco, which is caused in whole or in part by any vessel within the geographical limits of any Saudi Aramco port or terminal, shall be the responsibility and liability of the Master, Owners, Operators and Charterers of such vessel. The vessel, and its Owners, Operators and Charterers agree to pay Saudi Aramco promptly on demand any and all expenditures, costs, or losses incurred directly or indirectly as a consequence of such damage or impairment, including, but not limited to, the costs of labor, material and equipment usage, costs of reasonable and necessary repairs, both temporary and permanent, invoiced costs, loss of earnings, business interruption, loss of use, delays at berth, other third party claims and all applicable Saudi Aramco corporate overheads.
- 1.8. Saudi Aramco and its agents, servants, contractors, employees and representatives shall not be liable or responsible for any loss, damage, or injury to the vessel or its cargo, or to its official, crew and passengers, or to third parties, caused by or arising out of the performance of Pilotage services by the Harbor Pilots. The Master, Owners, Operators and Charterers of any vessel receiving Pilotage services in Saudi Aramco ports and terminals agree to indemnify and hold harmless Saudi Aramco and its agents, contractors, employees and representatives from any and all such

loss, damage or injury, however caused, arising out of or resulting from the performance of Pilotage services by the Harbor Pilots.

- 1.9. Any loss, damage, cost, expense, or delay suffered by a vessel in connection with activities in any Saudi Aramco Port or Terminal caused solely by failure of the vessel, or the “Company” [as that term is defined in The International Ship & Port Facility Security Code (ISPS Code)], to comply or to ensure compliance by the vessel and/or the Company with the requirements of the ISPS Code, shall be solely for the account of the vessel interests. Any costs or expenses arising solely due to Saudi Aramco or Saudi Arabian Government imposed security measures not resulting from the vessel’s or the Company’s failure to comply with the requirements of the ISPS Code, including but not limited to security guards, launch or tug services, port security fees, taxes and inspections, shall be shared equally between Saudi Aramco and the vessel interests. All such measures required by the vessel or the Company in order to comply or ensure compliance with the vessels Ship Security Plan (SSP) shall be solely for the account of the vessel interests.

The Saudi Aramco Port Captain reserves the right to waive any of the rules or regulations contained herein, or to impose such reasonable additional requirements on vessels in Saudi Aramco ports and terminals as he, in his sole discretion, deems prudent and necessary under the circumstances in order to protect human life and the safety of property and the environment. Any additional costs, losses, damages, or expenses incurred or claimed to be incurred by the vessel or its agents, Owners, Operators and Charterers as a result of such action by the Port Captain, unless otherwise provided for by contract, shall be the sole responsibility of the vessel

2. Saudi Arabian Government and Saudi Aramco, Ports and Terminals, Rules, Regulations and General Information, Extracts and Procedures

2.1 General

Saudi Arabian Government Regulations and Saudi Aramco, Ports and Terminals, Rules, Regulations and General Information as set forth in this document are strictly enforced and Masters having any doubts concerning the interpretation of these rules and regulations are urged to consult their agent.

At all times while in Saudi Arabian territorial waters and within the geographical boundaries of any Saudi Aramco Port or Terminal, whether at anchor, or at berth, or in transit between terminals, the vessel and its personnel are under the jurisdiction of and shall comply fully with Saudi Arabian laws.

2.1.1 Shipping Agent Requirement

Every vessel must have a Saudi shipping agent before entering Saudi Arabian Territorial waters.

Vessels calling at any Saudi Aramco Port or Terminal should address all messages concerning ship's business to their agents. The vessel's agent handles matters concerning provisions supply, minor repairs, local medical, or hospital services, mail, crew changes, etc.

2.1.2 GCC Rules and Regulations for Seaports / Saudi Aramco Rules, Regulations and General information Manual

Every vessel must have a copy of both the current GCC Rules and Regulations for Seaports and the Saudi Aramco Rules Regulations and General Information Manual on board, or must obtain copies of these publications immediately on first arrival in Saudi Arabia.

The GCC Rules and Regulations for Seaports are issued jointly by the Saudi Arabian Government and the Cooperation Council for the Arab States of the Gulf.

The Saudi Aramco Rules, Regulations and General Information Manual is issued by Saudi Aramco, along with periodic amendments and revisions. The latest edition of this publication is available from the ship's agent.

Neither non-possession of nor ignorance of the rules and regulations contained in either of the above publications, or in any amendments thereto published by the Saudi Arabian Government or Saudi Aramco after the effective date of this publication will be considered an excuse for violation of said rules and regulations, nor will it excuse the violator from the imposition of penalties by the Saudi Arabian Government. Masters should consult both of the above publications for full details regarding the procedures and conduct of the vessel and crew. The vessel's agent will, upon request, provide details of any changes to either of the above publications.

2.2 Arrival Entry Requirements

The Master is responsible for complying fully with the requirements of all Saudi Arabian Government Departments, Ministries, Agencies and Organizations and the requirements contained in this publication. Particular attention should be paid to the requirements of Saudi Customs, Frontier Force, Immigration and Port Health Authorities. Masters requiring advice on these requirements should contact their local agents.

2.2.1 Pre-Arrival Information

The GCC Rules and Regulations for Seaports specifies that certain information must be received by the Port Management, either directly or through the vessel's agents before that vessel arrives at the port and notification of ETA 5 days, 2 days, and 1 day prior to arrival. Vessels which fail to comply with this requirement may be delayed and/or subject to a fine as laid down in the rules and regulations.

2.2.2 Arrival Documentation

The GCC Rules and Regulations for Seaports and other applicable Saudi Arabian Government rules and regulations specify that the Master shall present or make available for inspection various papers and documents.

Masters are advised to consult the GCC Rules & Regulations for Seaports and with their Agent for specific and up to date requirements. See Section 7.

2.3 Port and Terminal Speed requirements

The Master is responsible for complying fully with the vessel speed requirements of all Saudi Aramco Ports and Terminals.

2.4 Quarantine Clearance

2.4.1 Radio Messages

Upon first contact with Saudi Aramco, arriving vessels (including bunker vessels) will receive a radio message requesting quarantine information. See section "Radio Communications" for more detailed information.

Vessels will not be accepted for berthing until the quarantine information is received. Until that time, other ship movements will be prioritized, including movements that could cause the ship to lose its turn at berth.

2.4.2 Clearance Procedures

Dependent on the type of berth and weather conditions, ships' clearing authorities will board the vessel either at berth or from the Agent's launch prior to berthing. If the authorities are to board prior to berthing, the vessel must be in a safe position and provide an adequate lee for the officials to embark and disembark before and after clearance.

2.4.2.1 Procedures for Juaymah SPM Berths

At Juaymah Crude Terminal, Harbor Pilots are permitted to board arriving ships prior to the ship receiving quarantine clearance.

Harbor Pilots may not normally berth vessels to SPM berths until Government authorities clear the vessel. However, if for any reason (rough weather, etc.), the Government authorities are unable to board a vessel to give clearance, the Harbor Pilot may berth the vessel after receiving special permission from the Agent through Saudi Aramco Government Affairs.

In the event, that a vessel has not received quarantine clearance prior to unberthing, the Master shall be required to sign a statement undertaking that he will not sail until he receives quarantine clearance. Only then may the vessel be permitted to sail.

2.4.2.2 Procedures for Alongside Berths

In the case of ships assigned to alongside berths, the Harbor Pilot may board the vessel before it has been given quarantine clearance.

Ship or shore gangways, as appropriate, shall be rigged and ready to provide safe access for the Quarantine Officer, Harbor Pilot and Agent. No one other than the Government Quarantine Officer or Saudi Aramco Harbor Pilot(s) may board or disembark from ships at berth until the vessel receives quarantine clearance. This includes the Agent's representative(s) and pier personnel.

2.4.3 Quarantine Signals.

The following quarantine signals shall be displayed by all vessels approaching port and at all times when in port until pratique is granted:

- Sunrise to Sunset - Quarantine Flag (Q)
- Sunset to Sunrise - Red over White Signal Lights

2.4.4 Manifold Seals Requirement

All cargo manifolds will be sealed by Saudi Customs for ships transporting product within the Kingdom. The removal of manifold seal at the offloading port is the entire responsibility of Saudi Customs. Ship's crew shall not damage, or remove the seal under any circumstances. Failure to comply with this regulation will result in severe actions taken by Saudi Customs and all delays, associated costs will be borne by the ship owner.

2.5 Prohibited Articles

All materials exported from or imported into Saudi Arabia are subject to examination by customs authorities. The import of certain articles is strictly prohibited. Such articles include, but are not limited to, the following:

- Explosives and firearms including air rifles.
- Implements of war of any kind including antique weapons.
- Religious matter not pertaining to the Muslim faith.

- Playing cards and gambling devices
- Narcotics and all other non-prescription drugs.
- Alcoholic beverages of any description.
- Printed materials, photographic matter or video tapes depicting anything which could be considered pornographic.
- Due consideration should be given to the religious beliefs of the pilot team and any other Saudi nationals that are accommodated on board with regard to consumption of pork products during the vessel's stay at Saudi Aramco ports and terminals.

2.5.1 Sealed Store Rooms /Bonded Lockers

Any prohibited article, which is onboard, any vessel calling at any Saudi Arabian port shall be secured in an appropriate locked storeroom, which will be sealed by the authorities.

The seals must remain intact throughout the entire period of the vessel's stay in Port and must not be broken until after the vessel has finally departed for a port in another country.

The authorities may carry out occasional inspections to ensure that the seals are intact and that no prohibited matter is in use.

2.5.2 Smuggling or Trafficking in Prohibited Articles

Smuggling or trafficking in any prohibited article between vessels or between vessel's crews and shore personnel is strictly prohibited.

2.5.3 Crew Baggage Search

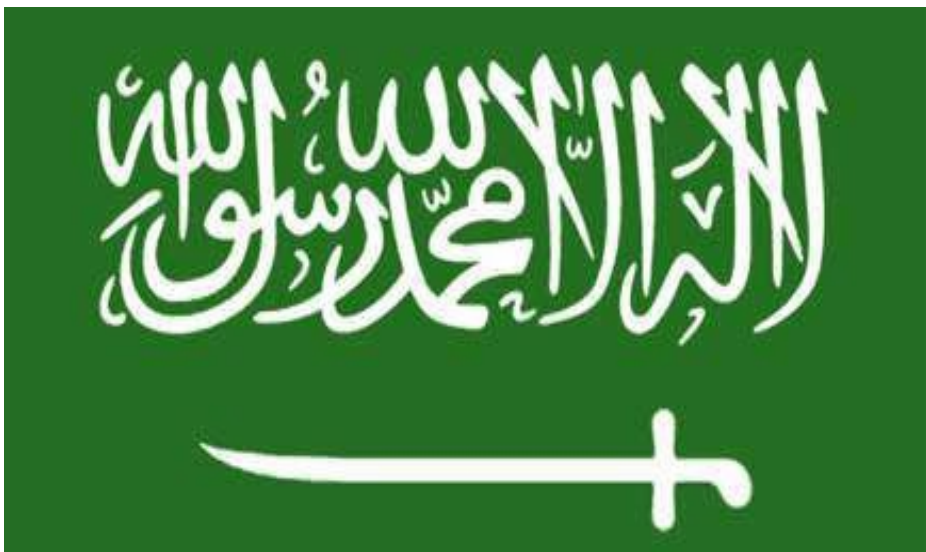
The baggage of crewmembers joining and leaving vessels will be inspected to ensure that it contains no prohibited articles.

2.6 Saudi Arabian Flag

The flag of the Kingdom of Saudi Arabia must be hoisted by every vessel entering the territorial waters of Saudi Arabia, and shall be flown from the foremast of the vessel while in Port both by day and by night. This flag shall be clean and in good condition.

Masters should obtain this flag before arrival, but if circumstances render this impossible, a flag shall be obtained from the ship's agent.

Vessels flying the flag of Saudi Arabia incorrectly or flying an incorrect replica of the Saudi flag will not be berthed



2.7 Radio Silence at berth

The use of transmitting equipment on a vessel is strictly forbidden during her stay in port.

The use of VHF marine frequencies within the port shall be limited to:

- Reporting information to Port Management.
- Traffic Information.
- Emergency calls.
- Any other information necessary for port operations.

Radio traffic is only allowed on the frequencies authorized by the port management.

2.7.1 GSM Telephones

The use of GSM telephones is strictly prohibited in hazardous (classified) locations on a vessel during her stay in any Saudi Aramco Port and Terminal.

2.8 Photography

The use of photographic equipment of any kind is strictly prohibited while in port. Cameras are subject to seizure by the authorities.

2.9 Disembarkation

Crewmembers are not permitted ashore for ANY PURPOSE WHATSOEVER (including reading the vessel's draft) until pratique is granted and then only if engaged in

operational duties. No visiting between vessels at berths is permitted. All shore leave is contingent upon compliance with Saudi Arabian quarantine and passport regulations. For current details concerning these regulations and shore leave restrictions, the ship's agents must be consulted. Failure to comply with the regulations may result in severe penalties.

2.10 Penalties

Penalties for violations of Saudi Arabian Government Regulations are severe. They include CAPITAL PUNISHMENT FOR DRUG SMUGGLING OR TRAFFICKING and considerable fines and/or delays to vessels for other offences.

2.11 Foreign Consulates

All foreign consulates have offices in Jeddah.

3. Ship Acceptance & Safety Requirements

3.1 Ship Acceptance Requirements

3.1.1 Company Policy

Saudi Aramco policy is to safeguard its employees, ports and terminal facilities and the surrounding offshore and onshore environment from damages and pollution caused by unsafe, substandard or unseaworthy tankers, whether operationally or due to physical deficiencies. Saudi Aramco has adopted a zero-tolerance policy concerning Pollution Incidents caused by tankers calling at its ports or terminals. Therefore, Saudi Aramco screens all nominated tankers have documented records of safe operations and compliance with all Saudi Aramco and internationally accepted safety standards.

3.1.2 Vessels Less than 10 Years of Age

Saudi Aramco maintains proprietary Ports & Terminals Management System (PTMS) Database containing information on all vessels that have previously called at any Saudi Aramco Port or Terminal. When a vessel under 10 years of age is nominated to lift cargo at any Saudi Aramco Port or Terminal, its eligibility for acceptance is first determined by reference to the PTMS Database.

Any safety or operational discrepancies noted on the vessel during any previous port call that have not been documented as corrected by the vessel's owners may cause the vessel to be rejected at Saudi Aramco's sole discretion. In addition, Saudi Aramco will consult the OCIMF SIRE database to determine the status of a vessel upon being nominated. This is true in every instance for vessels that have not previously called at a Saudi Aramco Port or Terminal. If the latest SIRE report on the vessel is unsatisfactory, the vessel may also be rejected until such time as all deficiencies are corrected to Saudi Aramco's satisfaction. It is in the best interests of owners and operators of any vessel under 10 years of age intending to call on any Saudi Aramco Port or Terminal to ensure that all deficiencies noted during previous port calls, or in the most recent SIRE Inspection Report, are promptly corrected and that evidence of the correction of such deficiencies is provided to Saudi Aramco prior the vessel's

arrival. Failure to provide evidence of correction of such discrepancies prior to arrival may cause the vessel to be rejected or delayed on arrival, in which case, the cost of all such delays shall be for the vessel's account.

3.1.3 Vessels Over 10 Years of Age

Without exception, all vessels over 10 years of age which have not previously visited a Saudi Aramco port or terminal or have not visited for one year or more must have a current OCIMF SIRE Inspection Report acceptable to Saudi Aramco. Failure to have a current, acceptable SIRE Report will result in the vessel being rejected during nomination.

Notwithstanding an acceptable SIRE Report, any uncorrected deficiencies noted in the Saudi Aramco PTMS Database may also be grounds for rejection of the vessel at Saudi Aramco's sole discretion.

3.1.4 All Vessels

In addition to the above requirements, all vessels entering Saudi Aramco Ports and Terminals are required to maintain applicable certificates with a validity of 90 days and will be subject to a pre-berthing inspection by the Port Captain's designated representative. While a vessel may have an acceptable SIRE Report and the Saudi Aramco PTMS Database contains no deficiency information on the vessel, a vessel may be rejected on the basis of the pre-berthing inspection if, in the opinion of the Port Captain or his designated representative, the condition of the vessel presents an unreasonable risk of pollution, or damage to property, or injury to personnel.

3.1.5 "Flagged" Vessels

Any vessel that causes a pollution incident at a Saudi Aramco Port or Terminal, or is found to have serious safety or operational deficiencies, or violations of international safety standards, may be "flagged" in the PTMS Database at the discretion of the Port Captain. All such flagged vessels, regardless of age, must thereafter have an acceptable OCIMF SIRE Report dated within six months of entry into any Saudi Aramco Port or Terminal. In addition, all flagged vessels will be subject to a stringent Saudi Aramco vetting inspection on the occasion of each visit to a Saudi Aramco Port or Terminal. On arrival, the Master of any flagged vessel will be required to guarantee to the satisfaction of the Port Captain that every effort has been made to ensure the safety of the vessel and personnel and the avoidance of pollution. This will include submission of documentary evidence satisfactory to the Port Captain of preventative measures to be taken during cargo operations.

3.1.6 Banned Vessels

Any flagged vessel that causes pollution in any Saudi Aramco Port or Terminal, or is found on arrival to have serious uncorrected safety or operational deficiencies or violations of international safety standards may, at the discretion of the Port Captain, be permanently banned from entry into all Saudi Aramco ports and terminals.

3.2 Saudi Aramco Safety Requirements

Saudi Aramco requires that vessels comply with all relevant safety requirements as specified in latest edition of “International Safety Guide for Oil Tankers and Terminals” (ISGOTT) and all other international regulations, guidelines and standards.

3.3 Responsibility of Masters

The Master shall be responsible at all times for the safety of his vessel and shall make provision to exercise all the necessary precautions.

3.3.1 Master’s Safety Declaration

It is a condition to entry into all Saudi Aramco Ports and Terminals that Masters of all vessels shall contract to comply with Saudi Aramco’s safety requirements by signing the “Instructions to Masters & Conditions of Use of Port” form when presented.

3.4 Safety Checks

Prior to start of loading and at regular intervals during loading, a Terminal Representative, who shall be accompanied by one of the ship’s officer, will check to ensure that safe loading practices are being observed by both the ship and the shore crews. The Saudi Aramco “Safety Check List” will be used to record the results.

3.4.1 Authority of the Terminal Representative

Saudi Aramco Terminal Representatives are authorized to suspend oil handing operations in the event that any of safety rules are violated, or if any other hazardous situation is observed. See heading “Penalties” below.

3.5 The Saudi Aramco Safety Check List

The Saudi Aramco safety requirements are listed in short question form in the Saudi Aramco safety checklist, but a more detailed explanation of those requirements is given hereunder. The checklist follows the ISGOTT guide.

- Each of the following requirements is titled and numbered to correspond directly with the numbered questions of the Safety Checklist.
- Vessels shall comply fully with all of these requirements at all times when berthed at any Saudi Aramco facility. In addition, vessels shall comply fully with requirement number 15 (Tank Lids) at all times when at berth and at other times as stated.

ISGOTT “The Ship/Shore Safety Check-List” contains all requirements to be followed while at berth.

3.5.1 Emergency Towing-Off Pennants are Correctly Rigged and Positioned.

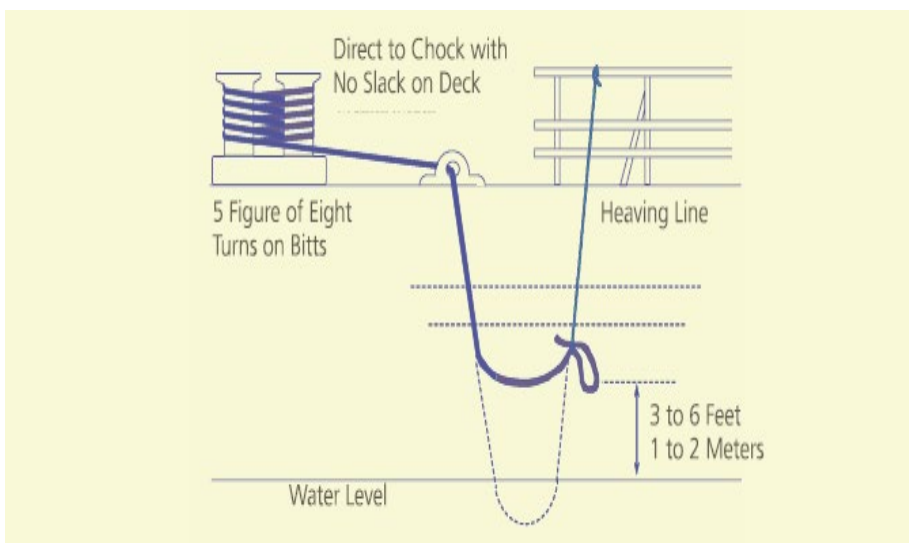
- Emergency towing wires (fire wires) shall be made fast to bits as far forward and as far aft as practicable on the side of the vessel opposite to the cargo connections. The wires shall be in good condition and secured with a minimum of five figure of eight turns on the bits.

- The wire shall lead directly to the chock with no slack on deck and a heaving line made fast to the eye of the wire between one and two meters above the water at all times. See Diagram.
- Not less than two wires suitable for towing the gas tanker off the berth in an emergency shall be provided.
- Emergency Towing-off Pennants

DWT metric tonnes	MBL* metric tonnes	Length meters
Less than 20,000	30	45
20 - 100,000	55	60
100 - 300,000	100	70
300,000+	120	70

* MBL = Minimum Breaking Load = The minimum breaking load of a new dry line or chain as declared by the manufacturer.

- The wires shall be regularly checked and adjusted.



3.6 Risk of Heat Exhaustion

Proper precautions should be taken to avoid sun stroke and heat exhaustion, particularly during the summer and early fall months.

In view of the necessity to close down accommodations while loading/ discharging volatile cargoes, Air conditioning plants aboard ships shall be in good working condition at all times.

3.7 Volatile and Nonvolatile Petroleum

Due to the variety of petroleum products available for loading at Saudi Aramco facilities, all vessels arriving to load crude oil or any petroleum product whether volatile or nonvolatile at any berth shall be required to observe the Safety Regulations.

3.8 Precautions Against Static Ignition

Special precautions are required for loading static accumulator oils. Such oils include Dual Purpose Kerosene (A-418), Jet Fuel (A434), White Diesel (A-888) and Heavy Naphtha.

The following regulations are the minimum requirements and do not relieve the Master, Ship or Owner, from complete responsibility for the safe condition of the ship's tanks:

- a) Ships loading dual purpose kerosene, jet fuel and/or diesel shall be accepted if the ship's tanks meet one of the following conditions, whichever is applicable:
 - For ships that are required to meet the SOLAS Convention, the ship's tanks must be presented in inerted condition with oxygen content of 8 percent or less oxygen by volume. This condition shall also be applicable if the ship arrives with part cargo. A Saudi Aramco Representative will check oxygen content using an oxygen detector.
 - For ships, that are not required to meet the SOLAS Convention, the ship's tanks must be presented in gas free condition with combustible gas content of less than 0.4 of the Lower Explosive Limit (LEL). A Saudi Aramco Representative will check the combustible gas content using a combustible gas detector.
 - For ships, which are not required to meet the SOLAS Convention and arrive with part cargo, the ship's tanks must contain more combustible vapors than the Upper Explosive Limit (UEL), and the Master shall assure the Terminal Shift Superintendent that the ship's tanks will remain above the UEL, while the ship is at berth. A Saudi Aramco Representative shall check combustible gas content, on a regular basis, using combustible gas detector.
- b) Subject cargoes shall not be loaded if the loading line or the ship's tanks are known, or are discovered, to contain water. In such cases, water shall be flushed from the line to slop and/or ship's tanks shall be made as dry as possible.
- c) To control electrostatic generation, the initial loading rate for all subject products, shall be restricted to a velocity of 1.0 meters per second in the branch line to each individual tank (ISGOTT) until the tank has been filled to a sounding of 1.0 meter. The Master shall be responsible for calculating the maximum initial loading rate based on ISGOTT recommendations and the design of the ship and shore facilities, and in accordance with the following table:

Minimum diameter of Piping * (mm)	Approx. Flow Rate (m ³ /hour)
80	17
100	29
150	67
200	116
250	183
305	262
360	320
410	424
460	542
510	676
610	987
710	1354
810	1782

ISGOTT - Rates corresponding to 1.0 meter / second

* Note that the diameters given are nominal diameters, which are not necessarily the same as actual internal diameters.

- d) After each tank has been filled to a sounding of 1.0 meter with tank inlets submerged, the loading rate can be increased to the maximum permitted by the design of the ship and of the shore facilities.
- e) Introduction of any dipping, ullaging or sampling equipment into an open tank shall not be permitted until at least 30 minutes after loading to that tank has been stopped. (ISGOTT Section 3.2.1 General precautions against electrostatic hazards.)

3.9 Chemical Hazards

3.9.1 Hydrogen Sulfide Hazards

Saudi Aramco crude oils may contain dissolved hydrogen sulfide (H₂S) in concentrations that may be hazardous. It is recommended that Owner's instructions and the ISGOTT recommendations in respect of H₂S hazards be reviewed and updated as required.

3.10 Emergency Signal

In the event of a fire or other emergency, the vessel shall:

- At Berth: Continuous sounding of short blast ship's siren or whistle.
- At Anchor and/or approaching/leaving Port: Sound ship's emergency signal or other emergency signal or by other means if vessel is beyond hearing range.

3.11 Gas Freeing and Tank Cleaning

No gas freeing or tank washing shall be carried out at berth. Crude oil washing, however, may be permitted with Terminal permission.

3.12 Boiler Tube Cleaning

Never perform soot blowing in port or conduct washing of smoke / water tubes

Funnel uptakes, boiler tubes and economizer (Exhaust Gas Boiler) shall not be cleaned while the vessel is at a berth. Every precaution shall be taken to ensure that sparks do not escape from the funnel.

3.13 Repairs

Repair to main engines or deck machinery is prohibited when the vessel is secured to any berth.

Repairs or maintenance of any other kind, within port limits, that may produce a source of ignition shall not be undertaken without the agreement in writing of the Terminal Representative.

3.14 Foam Firefighting readiness

All ships arriving or operating in Saudi Aramco Ports and at Terminals are instructed as stated by ISGOTT that all Fire / Foam monitors and hose nozzles are until foam arrival directed away and opposite from

- All cargo / bunker manifolds during operations
- Any deck fire or oil spill area
- All areas with helicopter operations

On the arrival of foam, the fire / foam monitors and the hose / nozzles should be redirected to any liquid petrochemical spill or fire area to allow application of a foam blanket.

3.15 Aft deck fire prevention

Worldwide records indicate an increase in the number of deck fires, which are mainly associated with garbage and improper stowage of combustible materials in the vicinity of the funnel.

Therefore, in order to ensure the highest standards of protection and safe stowage of materials are maintained onboard. All visiting ships are expected to fully comply with the following provisions and obligatory requirements at all Saudi Aramco Ports and Terminals. All vessels must ensure compliance in ample time prior to arrival and avoid operational delays.

Material	Requirement	Allowed Locations
Spares in boxes / on pallets	Free from oil stains, secured and covered with non-combustible material	Forward of funnel stack
Garbage	In dedicated drums, secured and covered by non-combustible material	Forward of or level with funnel stack
Drums (Metal or Non-Metal)	Secured and covered by non-combustible material	Forward of funnel stack
Mooring Lines (not in use in port)	Covered by non-combustible material	Forward of funnel stack
Other ropes (To be used in port)	Covered by non-combustible material when not in use	All

Any loose material regardless of type or condition is not allowed to be stored aft of the funnel casing.

Additional measures to be taken by the vessel:

- Ensure that all save-alls on deck are dry, plugged and free of oils.
- Fully adhere to the onboard garbage management plan.
- Never attempt to operate an incinerator in port

3.16 Restrictions

Disregard of or failure to fully comply with any of the safety rules or any safety regulations generally accepted and practiced in the marine transport industry will result in the suspension of all operations and the vessel may be required to leave the berth.

Safety violations caused by the condition of the vessel or the actions or inaction of the vessel's personnel will result in the suspension of loading operations or the vessel being removed from the berth.

Removal from the berth as a result of safety violations or deficiencies will be solely at the vessel's expense and Saudi Aramco shall not have any responsibility or liability for any resulting delay to the vessel.

Vessels with unacceptable safety performances will not be permitted to berth at Saudi Aramco facilities on future visits (See Paragraph 3.1.6 - Banned Vessels).

4. Emergencies, Accidents and Delays at Berth

These procedures are outlined here to advise Masters of the actions required by them and the actions, which will be taken by the Chief Harbor Pilot in the event of a vessel emergency or nonemergency vessel casualty while a vessel is at a Saudi Aramco Port or Terminal.

The course of action followed by the Chief Harbor Pilot will be dictated by the particular facts and circumstances of the incident and whether the ship is at berth, at anchor or underway.

4.1 General Policy

4.1.1 Master's Right of Salvage

A distressed vessel's Master and the vessel owners have the right and the responsibility to undertake timely and effective salvage of their vessel.

4.1.2 Right of Intervention by Saudi Aramco

If the vessel's Master, Owner, or Agent fails to take timely and effective action to commence salvage operations on a distressed vessel, Saudi Aramco under the contract "Instructions to Masters and Conditions of Use of Port" may, in its sole discretion, intervene and take charge to the extent of taking reasonable action to comply with the priorities listed below. In such event, Saudi Aramco shall be deemed to be a contractor to and/or agent of necessity for the vessel and its owners, operators, charterers and insurers. All resultant costs and charges, without limitation, shall be for the account of the vessel; its owners, operators, charterers and insurers, and Saudi Aramco shall not thereby be deemed to have assumed any risk of loss or damage to the vessel or its personnel or cargo, even if Saudi Aramco's actions are deemed to be negligent.

4.1.3 Emergency Assistance from Saudi Aramco

Saudi Aramco will render immediate emergency assistance as necessary or requested by the vessel, its owners, operators and agents, in accordance with the priorities listed below. As the emergency is brought under control, Saudi Aramco will expect the vessel owner or its agent to reassume complete responsibility for the protection of the vessel, its cargo and personnel and the environment and Saudi Aramco will withdraw all personnel and equipment committed to the initial emergency response.

4.1.4 Priorities for Dealing with an Emergency

In the event of a vessel emergency or a non-emergency vessel casualty, Saudi Aramco's actions will be dictated by the following priorities:

4.1.4.1 Protection of Human Life

The primary concern, during all phases of a ship casualty within the port, is the protection of human life.

4.1.4.2 Protection of Vital Facilities

The second priority is to protect vital Saudi Arabian Government and Saudi Aramco facilities.

4.1.4.3 Minimizing Disruption

The third priority is to minimize the disruption to the safe and timely operation of the Saudi Aramco export terminals and critical production facilities.

4.1.4.4 Minimizing Environmental Damage

The fourth priority is to minimize environmental damage to the extent permitted by manpower constraints and the operational requirements imposed by the first three priorities. Saudi Aramco will pursue the most environmentally sound measures possible in limiting the impact of the vessel casualty and vessel salvage operation.

4.2 Initial Actions in an Emergency

4.2.1 Raise the Alarm

Personnel on the vessel concerned shall signal an emergency by a continuous sounding of either long or short blasts on the ship’s siren or whistle, or other emergency signal if the whistle is disabled or by other means if the vessel is beyond hearing range.

The Master is responsible for taking all immediate steps to safeguard his vessel.

4.2.2 Inform Terminal Operator

Report the emergency to the responsible terminal operator on the jetty or sea island as quickly as possible and the Pilot/Mooring Master assigned to the vessel, if he is on board.

4.2.3 Inform Port Control Centers

Port	Report to	VHF CH
Ras Tanura	Ras Tanura Port Control Center	10/13/16
Jeddah	Saudi Aramco Port Control Center	11/16
Duba	Saudi Aramco Marine	11/16
Jizan	Saudi Aramco Marine	11/16

A. Call and inform “Port Control Centers” on the following:

B. Give a short message stating:

- Name of ship.
- Type of emergency.
- Location of ship.
- Location of emergency on the ship.
- Whether any casualties have occurred or are likely to occur.

C. State what immediate assistance is required, indicating any loss of ship borne disaster-fighting capability.

4.2.4 In Case of Fire or Explosion

In the case of fire or explosion and as soon as possible after raising the alarm, a message should be sent giving details of:

- What is on fire, the extent and any possible danger.
- Damage, extent, effect on stability and seaworthiness.
- Injuries, men requiring removal, type of injuries, men missing and men overboard.
- Cargo type, quantity and loading status of each cargo tank on the ship.
- Oil spillage or if any danger of oil spillage exists.
- Liaison with Chief Harbor Pilot

In the case of a fire, explosion or other types of critical situations, the Master shall designate a senior ship's officer to remain in communication with the Chief Harbor Pilot or his deputy.

The Master should request the use of firefighting tugs or whatever other emergency assistance he may require to best complement the efforts of the ship's personnel.

All reasonable steps will be taken by those on the spot to render whatever aid is immediately available. Subsequent action will be coordinated through the Chief Harbor Pilot.

4.2.5 Frequent Progress Reports

The Master should ensure that regular and frequent reports on the progress of the incident are being made to the Chief Harbor Pilot via the relevant Port Control.

4.3 Emergency on a Ship at a Berth

4.3.1 Emergency Shutdown of Cargo

To carry out an emergency shutdown of cargo and/or bunker loading, follow the instructions given in the document entitled "Emergency Shutdown."

The number of the appropriate berth will be agreed upon by signing the "Instructions to Masters and Conditions of use of Port" form when presented.

4.3.2 Vessels on Fire

4.3.2.1 Prepare to Move from Berth

To the extent possible, the ship's Master should prepare his ship to be moved away from the berth. All cargo, deballasting, bunkering and tank preparation operations will be immediately suspended, ship/shore hoses and/or arms will be disconnected.

4.3.2.2 Removal from Berth

A burning vessel will not normally be permitted to remain at the berth. Where possible, the fire will be fought with available berth firefighting facilities until the arrival of tugs. After securing tugs to the vessel's emergency towing wires then, if the fire is not controllable or extinguished, the vessel will be released or cut free and removed from the berth under controlled conditions.

Provided communication is established as above, the Master will be advised of the actions to be taken in releasing or cutting the vessel free from the berth. Notwithstanding that the vessel may have no power and notwithstanding that there may be no communication, if, in the opinion of the Chief Harbor Pilot, the burning vessel is a greater hazard at the berth than drifting free, the vessel will be released or cut free from the berth prior to the arrival and securing of tugs to the vessel's fire wires.

4.3.2.3 Ships Shall Not be Moved without Authority

Ships shall not get underway or be moved without the approval of the Chief Harbor Pilot or his deputy, except when an imminent threat to a ship, its personnel or Saudi Aramco facilities exists and the Chief Harbor Pilot or his deputy cannot be contacted in a timely manner.

4.3.2.4 Beaching the Vessel

The Master should assess the ability to safely move his ship from the berth to the nearest beaching area or isolated position. He should consult closely with the Chief Harbor Pilot and advise him of any anticipated problems.

4.3.2.4.1 Resuming Operations

If the vessel is still at berth when the emergency condition has been controlled and eliminated, normal operations will not be resumed without the specific approval of the Chief Harbor Pilot. Such approval may be subject to conditions.

4.4 Emergency on a Ship Not at a Berth

4.4.1 Master Shall Raise the Alarm

In an emergency that renders a vessel out of control or in danger of sinking or foundering, which creates or is likely to create a danger to ships, personnel, or facilities in the Port or Terminal, the alarm shall be raised by the Master as set out above.

4.4.2 Utilization of Ship's Agent

The Master will be expected to utilize the services of his agent to obtain any and all necessary services to the extent these are readily available from commercial or government sources.

4.4.3 Coordinate Services Until Arrival of Chief Pilot

The Master shall be responsible for the direction of tugs and other services available, coordinating this through the Pilot Station, until the arrival of the Chief Harbor Pilot with other relevant authorities (Fire Marshall, Port Engineer, etc.).

4.4.4 Beaching a Vessel

In the event a vessel is considered likely to founder through fire or collision and presents a navigational hazard or the potential for pollution, the Chief Harbor Pilot may, in his sole discretion, elect to beach the vessel in one of the designated beaching areas in order to minimize risk to Saudi Aramco facilities.

4.5 Distressed Ship Approaching Port

In the case of a ship wishing to enter the Port, which is on fire or in danger of foundering or sinking, or which has suffered damage to its hull or has been in a collision or on fire during the voyage in question, the Port Captain will decide when and in what manner the ship may enter.

4.5.1 Contacting the Port

Port Captain shall be given as much advanced warning as possible. In this regard, Masters shall instruct their agents accordingly and shall call local Saudi Aramco Port Control directly if in contact range. Agents or other authorities that learns that such a ship is approaching Port shall inform local Saudi Aramco Port Control immediately.

4.5.2 Conditions Governing Port Entry

Before entering the Port, such ships will be inspected by the Chief Harbor Pilot accompanied by other relevant authorities.

After carrying out this inspection, and if satisfied that the vessel can be handled without danger to the Port or shipping therein, the Port Captain may grant permission for the stricken vessel to enter port subject to whatever conditions he may stipulate. In such event, the vessel will be deemed to have entered port at its sole risk and the vessel, its Owners, Operators, and Charterers shall hold harmless and indemnify Saudi Aramco, its agents, servants, contractors, employees and representatives for any loss or damage to the vessel, its personnel or its cargo then existing or thereafter occurring for any reason whatsoever.

4.5.3 Anti-Pollution Measures

Where oil or other dangerous cargo is leaking or is likely to leak from the ship, the Master through the services of the ship's agent shall establish whatever anti-pollution measures are required by the Port Captain.

4.6 Costs and Letters of Undertaking

4.6.1 Damage to Property and Exceptional Marine Assistance

If damage is caused to any Saudi Aramco property by any vessel, or Saudi Aramco provides exceptional marine assistance to any vessel as the result of an emergency aboard any vessel, or a nonemergency casualty aboard the vessel while said vessel is located within the geographical boundaries of any Saudi Aramco Port or Terminal, the costs thereof shall be for the account of the vessel and its owners, operators, charterers and agents.

4.6.2 Delay at Berth Charges

If, as the result of a vessel emergency, pollution incident, or other casualty causing damage to Saudi Aramco property, a vessel's loading is interrupted and delayed for any period of time, or if, upon completion of loading, the vessel is further delayed at berth due to such causes, the cost of such delay at berth shall be for the account of the vessel and its Owners, Operators, Charterers and Agents. If a delay at berth is caused by a vessel casualty, or other factor which prevents the vessel from continuing loading operations, or otherwise delays its departure from the berth upon completion of loading, and such casualty or other factor has not resulted in pollution or damage to Saudi Aramco property, at the sole discretion of Saudi Aramco the vessel will be granted a grace period of two (2) hours from the time of the casualty or event giving rise to the delay, after which time the costs of delays at berth shall be charged to the vessel. Delays caused by human error or negligence on the part of the crew will be charged to the vessels account for the full duration of the delay or interruption.

4.6.3 Security for Costs

In the event of a vessel related incident causing damage to Saudi Aramco property, or requiring the rendering of exceptional marine assistance by Saudi Aramco, and/or which results in delay at berth charges for the account of the vessel in accordance with the foregoing guidelines, the Master may be served with a Letter of Protest and may be requested to provide a Statement of Facts concerning the incident. Furthermore, written security in the form of a Letter of Undertaking satisfactory to Saudi Aramco will be required in an amount sufficient to cover all potential costs and related expenses. The vessel will not be permitted to depart until such Letter of Undertaking is received. Procedures for provision of security for pollution related incidents are covered in Article 5.8 below.

4.7 Removal of Wrecks and Obstructions

In line with the adoption of the IMO, International Convention on the Removal of Wrecks. If any vessel or her part becomes an obstruction or a danger to navigation at any Saudi Aramco Port or Terminal, and if the vessel's owner or its agent fails to remove the obstruction or danger, within a period of written notice served by the Port Captain, he may act to remove the obstruction or danger. The owner of any vessel, at the time of it becoming an obstruction or danger to navigation, shall become liable for all expenses incurred in removing that obstruction or danger.

5. Pollution Policy and Actions

5.1 General Policy

It should be noted that the Arabian Gulf and Red Sea areas are environmentally sensitive and are recognized to be Special Areas by MARPOL Convention.

If there is any conflict between the rules set forth in the following paragraphs 5.2 through 5.10 and any of the provisions of MARPOL Convention, these rules shall control.

5.2 General Rules

1. Any discharge into the sea of oil or oily mixtures is strictly prohibited.
2. No discharge into the sea shall contain chemicals or other substances, which are hazardous to the marine environment. This specifically includes oil dispersants and allied chemicals.
3. No domestic or other garbage shall be dumped into the sea. Vessel's Engineering Department will ensure that NO HOT ASH or other incensive material are emitted from any source at any time while at Saudi Aramco facilities to include a strict prohibition on any soot blowing or garbage incineration while in Port Limits. Vessel's crew to ensure that soot blowing operations are conducted prior to arrival at Saudi Aramco. Garbage incineration equipment is to be secured at all times while in port. Prior to commencement of cargo operations, vessel staff will determine that garbage is handled/stored/protected at all times as per guidance provided in ICS publication 'Guidance for the Preparation and Implementation of Garbage Management Plans as Required by MARPOL Convention Annex V' The storage locations for garbage should be carefully selected to ensure that the garbage presents no potential hazard to adjacent spaces. Particular consideration should be given to the storage of garbage that is designated as 'special waste', such as batteries, sensors and fluorescent tubes, to ensure that only compatible materials are stowed together."
4. Excessive smoke from the funnels or exhaust gas lines of vessels is prohibited.
5. The discharge of sewage within Saudi Aramco port limits is prohibited unless the ship is fitted with an approved sewage treatment plant in compliance with Marpol Convention.

5.3 Mechanical Monitoring of Ballast Discharge

All vessels required by MARPOL Convention regulations to be fitted with Oil Discharge Monitoring equipment (ODME) shall present that equipment in good working order.

Segregated ballast may be discharged, without mechanical monitoring, to any sounding provided that the discharge does not exceed 15 ppm of oil content. A visible sheen will be presumed to indicate contamination and oil content in excess of 15 ppm.

5.4 Visual Monitoring of Ballast Discharge

In addition to the use of oil discharge monitors, visual observance of the ballast discharge is mandatory. In this regard:

- All ballast discharge shall be via the high overboard discharge line if fitted. Vessels not so fitted may instead use their normal discharge line provided that the surface of the ballast water has been examined immediately prior to the discharge to ensure that no contamination with oil has taken place. This rule applies to all ballast. For vessels whose ballast tanks are inerted, the examination may be by visual inspection of a sample drawn from each tank.
- Deballasting by gravity is not permitted under any circumstances.
- The visual inspection of ballast tank water surface and/or ballast samples prior to discharge shall be carried out jointly by the vessels Cargo Officer and the Duty Harbor Pilot.
- A crewmember shall be stationed on deck to sight the overboard discharge. Particular vigilance shall be exercised at any time that a change in operation takes place, e.g., starting of stripping pumps or educator, change of tanks, commencement of loading, etc.
- At night, the ballast discharge and the sea area in the vicinity shall be adequately illuminated.
- At Sea Island berths, all ballast shall, if physically possible, be discharged from the side of the ship nearest the berth to allow additional monitoring by Sea Island Operators.
- At pier berths, all ballast shall, if physically possible, be discharged from the offshore side of the ship.

5.5. Ballast Water Management

All ships must comply with Ballast Water Management Convention adopted in 2004. Ships are required to possess Ballast Water Management Plan and should comply with ballast water exchange and treatment regulations. Ships are required to provide ballast water indicative sampling reports to Saudi Aramco, Environmental Protection Department (EPD) through their appointed Shipping Agent supported by an updated Saudi Aramco “Ballast Water Sampling form”.

The following data shall be filled and stamped by the ships Master and provided along with the sample analysis report as an attachment.

Appendix A - BALLAST WATER SAMPLING FORM

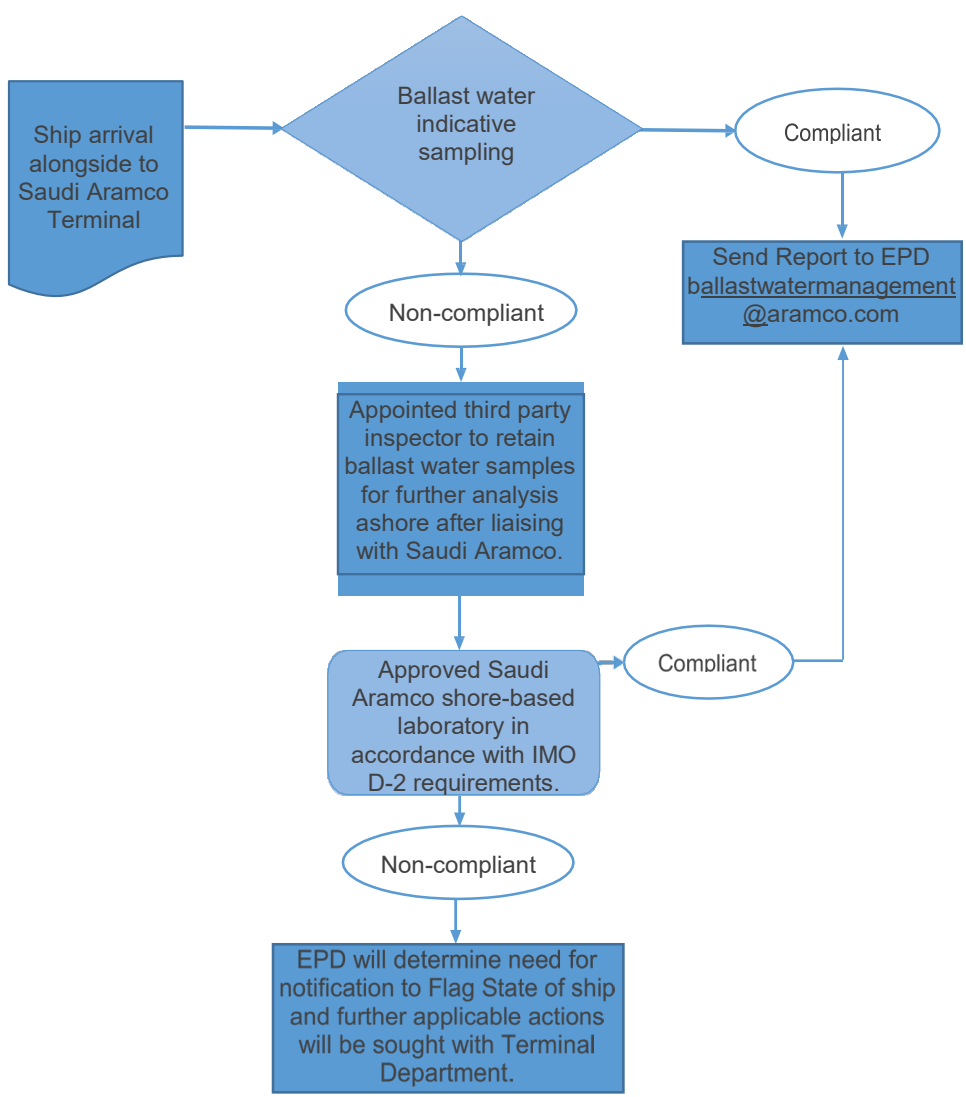
The following data shall be filled and stamped by Ship Master and provided along with sample analysis report as an attachment.

BALLAST WATER SAMPLING FORM	
Sampling date	
Ship Particulars	Ship name: IMO Number: Port of registry: Gross tonnage: Date of construction: Ship total ballast water capacity:
Sampling location (port/terminal)	
Identification of sampling tank/point	<i>(Minimum of 2 samples from different tanks/points)</i>
Sampling time and indicative sampling equipment used and details of inspector	(total time taken onboard to acquire sample and issue report, name of equipment and name of inspector)
Ballast water management undertaken	Exchange () or Treatment ()
IOPP renewal survey date	
Ballast water treatment system	Model name/type: Type Approved by: (Classification/Authority)

BALLAST WATER SAMPLING FORM and sample analysis shall be submitted by ship/agent to Saudi Aramco Environmental Protection Department. Copy of the ship ballast water management certificate to be submitted. Submission format should be email attachment.

Primary focal point email address (ballastwatermanagement@aramco.com)

Appendix B – Sampling Process Flowchart



Legend:

EPD: Saudi Aramco Environmental Department

For any inquiries, please contact ballastwatermanagement@aramco.com

All correspondence with this email to be done through appointed shipping agency.

5.6 Reporting Oil Spills

As soon as the Master becomes aware of an oil spill or oil pollution, he shall notify the Terminal Representative, Pilot on duty or Port Control. Masters of vessels causing a pollution incident shall immediately make the necessary arrangements to notify the concerned government agency as per MARPOL convention. Normally, however, the ship's agent can arrange the necessary government contact.

5.7 Investigations

Because Saudi Aramco must determine the source of a leak or spill and ensure that it has been secured with no further possibility of a spill from the same source, a thorough investigation will be initiated for any pollution whatsoever, no matter how minor. The investigation will include the taking of samples for analysis, both from the polluted sea, and if necessary, from all vessels in the vicinity to positively identify the source of the pollution.

If it is not possible to determine and/or secure the source of the spill within one hour of discovery, the vessel will be removed from berth pending further investigation. During this time Saudi Aramco will carry out a thorough inspection of its facility (the berth), and with the cooperation of the Master and crew of the vessel.

If the Saudi Aramco facility is the source of the pollution, the vessel will be re-berthed as soon as possible. If the facility is not the source of the spill, the vessel will be presumed to be the source unless investigation conclusively proves otherwise. Vessels will not be re-berthed until Saudi Aramco is satisfied that the source of the spill has been identified and secured.

An investigation of the ship may require that ullages/soundings be taken of all tanks. Samples may be drawn from ballast tanks, ballast lines, ballast pumps, sea chests and from the sea for analysis.

In order to avoid delays, Masters are urged to contact their agents as soon as possible to obtain a diving inspection should they suspect a hull leak or other fault requiring investigation by divers.

Should a Master elect to depart a Saudi Aramco port or terminal to discharge contaminated ballast prior to loading, upon the vessel's return the Master may be requested to produce documentary evidence for forwarding to local Saudi Arab Government authorities, indicating the location, date, time and amount of such discharge.

5.8 Cleanup Methods

As per the general policy stated above, Masters shall not use chemicals to reduce or diminish the effects of a spill. Such use will be regarded as secondary pollution. Saudi Aramco will clean an oil spill with whatever men, equipment, and materials are required, taking into consideration the size of the spill, time of day, sea state and weather conditions. The equipment and material used in the cleanup effort will be dictated by on-site judgment of qualified professional personnel whose goal is to protect the environment and to prevent hazardous conditions.

5.9 Cleanup Costs and Letters of Undertaking

Masters are advised that any pollution incident involving a vessel, which occurs while the vessel is located within the geographical boundaries of any Saudi Aramco port or terminal, will subject the vessel, its Master, Owners, Operators, Charterers and agent to assessment of certain cleanup costs by Saudi Aramco. Any such incident may subject the vessel, its Master, Owners, Operators, Charterers and agents to certain penalties imposed by the Saudi Arabian Government. The severity of such penalties may vary depending upon the severity of the pollution.

In the event your vessel is determined to be the source of pollution within a Saudi Aramco port or terminal, and in addition to any requirements imposed by the Saudi Arabian Government, you will be served with a Letter of Protest and will be required to provide Saudi Aramco with a Statement of Facts describing the incident. A guarantee in the form of a Letter of Undertaking, satisfactory to Saudi Aramco, in an amount sufficient to cover all cleanup costs incurred by Saudi Aramco, will be obtained through the vessel's agent. Your vessel will not be permitted to sail until such time as this guarantee letter is received.

Costs reimbursable to Saudi Aramco for pollution caused by your vessel may include but shall not be limited to the following:

- Investigation costs including aerial surveillance.
- Charges resulting from delays at berth necessary to investigate and correct the cause of the pollution.
- Boats, materials and other equipment used for oil spill cleanup.
- Manpower resources.
- Samples analyses.
- Oil waste treatment costs.
- The costs of providing exceptional marine assistance to unberth and re-berth vessels.
- Cost of berth unavailability due to pollution damage.
- Corporate overhead not otherwise included in the applicable rates charged for other expenses.

5.10 Air Pollution Prevention

5.10.1 Volatile Organic Compounds

Every tanker shall have a Volatile Organic Compound Certificate, based on a management plan that addresses all related actions and procedures, to ensure H₂S content in ship's cargo tanks is always maintained within acceptable limits as per ISGOTT guidelines.

Tankers arriving at any of Saudi Aramco terminals, having previously carried a high H₂S content cargo, are required to purge the cargo tanks designated for loading prior

to arrival. All Tankers shall confirm, via “Standard Message Arrival Telex,” that the H₂S content of cargo tanks designated for loading is 10ppm or less.

During loading/discharging all precautionary measures shall be taken to prevent high concentrations of hazardous substances being vented to the atmosphere. Precautions may include, but not limited to, the purging of all tanks prior to arrival to ensure that levels of gas within the tanks do not exceed allowable limitations, as per Saudi Aramco requirement and ISGOTT recommendation.

Tankers arriving with the atmosphere of cargo tanks designated for loading containing of more than 10ppm H₂S will not be berthed. Furthermore, during cargo operations, if vented tank gases cause a nuisance to the surrounding area, the vessel may suffer delays, reduction in the loading rate and the ship could be removed from the berth to correct the tanks atmosphere condition.

All delays, losses and associated costs shall be lodged against the tanker’s account.

5.10.2 Bunker Fuel Oil - Sulphur Limit

All ships entering Saudi Aramco waters are required to comply with MARPOL Annex VI requirements pertaining to bunker fuel oil Sulphur content not exceeding 0.50%*m/m* or utilizing certified and approved equivalent methods. Required certificates and supporting documentations should be ready and available upon Terminal request for verification and compliance.

6. Radio Communications and Message

6.1 General

All “shipping and accounting” messages and “master” messages shall be sent via email to the concerned entities.

Organization	Port / Terminal	Port / Terminals
OSPAS Terminal Planner	termplan@aramco.com	All
RT Shipping	rtshippingaccountinggroup@aramco.com	Ras Tanura
Jeddah Shipping	rtshippingaccountinggroup@aramco.com	Jeddah
Yanbu’ Shipping	oadessadyanbushipping@aramco.com	Yanbu’

6.2 Western Region Contact Address

All ships visiting Saudi Aramco Ports in the Western Region (Duba, Yanbu’, Jeddah and Jizan) to utilize the following email address

G-RT-SA-Ports@aramco.com for sending pre-arrival standard telexes and any other related issues, such as changes in ships ETA, Cargo requirements, etc.

Ships that fail to send the pre-arrival telex through email should be requested to comply with this requirement immediately and their agents should also be reminded to comply with this directive.

6.3 Notifications of Arrival

6.3.1 Initial Notification

A standard arrival message must be sent to Saudi Aramco as soon as a vessel receives orders to proceed to a Saudi Aramco port or terminal. The message should give the name of the vessel and the estimated time of arrival at the appropriate port.

6.3.2 Subsequent Update to Estimated Arrival Time

Masters are required to send a minimum of three more messages to update the ETA at 72 hours, 48 hours and 24 hours prior to arrival.

Failure to give at least 24 hours' notice can result in an addition to allowable laytime and shorter notices may result in a berthing delay.

If loading or discharging at other nearby ports prevents a vessel from furnishing a reasonably accurate estimate of arrival time, steps should be taken to advise Saudi Aramco (either directly or through the Ship's Agent) giving the best possible estimate. A further message, giving an updated ETA, should be sent immediately upon departure for the Saudi Aramco port.

6.4 Standard Message

The following Standard Message format should be utilized by arriving vessels.

Please fill the below PDF file form and send it the following email address:

G-RT-SA-Ports@aramco.com

6.5 Format of Any Message other than Standard Message

Because of a diverse range of operations, the standard message for each port requesting information differs slightly but only in the informative text following itemized lines. Communications information and standard messages specific to each port will be found in the "Radio Communications" section for that port.

Format of Any Message other than Standard Message

ZCZC

1. /SUBJECT OF THE MESSAGE TO SAUDI ARAMCO

(ETA /NOR (MM/DD YYYY HH:MM)

2. /NAME OF VESSEL

3. /IMO IDENTITY NUMBER (NUMBER 7) The Body of the Message /NNNN

STANDARD TELEX
 ETA MESSAGE
 NOTIFICATION
 REVISED CARGO

ETA MESSAGE

1. Port:*

2. Subject: 3. Agent:*

4. Estimated Time of Arrival:

Date* Time* ETA time format should be HH:MM:SS (ex. 07:35:00).

5. Message Date and Time:

Date* Time* Message time format should be HH:MM:SS (ex. 07:35:00).

TELEX DETAILS

6. Ship Name:* 7. IMO Number:*

8. Ship Flag:* 9. Owner's eMail:*

10. Ship Master Name:* 11. Master's eMail:*

12. Cargo Loading / Discharge Destination:*

13. Operation:* Loading Discharging

14. Ship Drafts (meters): Arrival* Fwd Aft Departure* Fwd Aft

15. Arrival Displacement (tons):*

16. Max Load Rate (per one manifold) (barrels/hr):

17. a. Load While de-ballasting Rate (barrels/hr): b. Ballast Quantity (M3):

18. Deballast Time (hrs): 19. Load and Deballast Concurrently?

CARGO DETAILS:*

Cargo	QTY (bbl)	Loading rate (bbl/hr)	Load order	Blended Ashore	Destination
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

20. Content of Previous Cargo

TELEX DETAILS Cont.

21. a. Parallel Body Length Forward In Ballast Condition (meters):*

b. Parallel Body Length Aft In Ballast Condition (meters):*

22. Is vessel in compliance with the requirement of the ISM code relevant to crude cargo tanks inerted below 8% oxygen? *

23. Is there any Epidemic disease or Illness on board? *

24. Are all crew international certificates of Immunization Valid? *

25. a. Does vessel have valid IMO certificate of Fitness? *

b. Does vessel have a civil liability certificate? *

c. Last Dry Dock Date: d. P&I club name or P&I insurer: *

Ignore Dry Dock Date field, if the ship is not dry docked (New Ship).

e. If not entered in P&I club, state limits of all applicable insurance liability (USD):

26. State any special conditions or difficulties or defective equipment or gear which could present special hazards or difficulties when mooring or unmooring or during cargo operations:

27. a. Are LPG tanks sufficiently cooled for normal loading?

b. Are cargo tanks Inerted? c. Are cargo tanks gas free?

d. Are cargo tanks have positive pressure?

e. State H2S content in the cargo tanks (parts/million):

f. Coolant Required?

g. Time required for cooling tanks (hours):

28. a. Can multiple cargo grades be loaded simultaneously?

b. List available cargo manifold connections in sizes (inches):

29. a. Quantity of part cargo to be commingled with nominated cargo (barrels):

b. Part cargo type:

c. Quantity of residues or slops to be commingled with nominated cargo:

TELEX DETAILS Cont.

30. Is bunker required? Yes No
31. Does the vessel have valid flag state ISSC indicating compliance with the ISPS code requirement? *
32. ISPS Expiry Date: * 33. The current ISPS code Security Level: *
 (1. Low 2. Medium 3. High)
34. Is Early Departure Procedure for Cargo Documentation required?
35. Are there any Major structural changes to the ship tanks which mandated re-strapping of tanks?

36. List of last ten port visits. * If previous visits are NOT available, please enter N/A.

No.	Port	No.	Port
1	N/A	6	N/A
2	N/A	7	N/A
3	N/A	8	N/A
4	N/A	9	N/A
5	N/A	10	N/A

7. Documentary Procedure

7.1 General

All contact between ships and the Saudi Arabian Government and Officials are to be made through the ship's agent who will advise on specific documentation and other requirements.

7.2 Notice of Readiness

At all terminals, Notice of Readiness (N.O.R.) should be addressed to Saudi Aramco, (Specific Port).

7.2.1 Tendering

Time of NOR shall be sent through e-mail to Saudi Aramco Terminal Planner & agent.

After acceptance by the Harbor Pilot, the written N.O.R. shall be submitted to Saudi Aramco through the vessel's agent when he boards the vessel for clearance procedures. Any variations to this procedure are specified in the sections on individual terminals.

Any delay in tendering N.O.R. to Saudi Aramco may result in berthing delays that will be for the vessel's account. (An additional NOR is not required when loading patterns or conditions require that the vessel be shifted to another berth within the port, even though that berth may be at another terminal.)

7.2.2 Tendering Time

The N.O.R. tendering time for any Saudi Aramco terminal shall not be earlier than the vessel's arrival time within port limits. If the vessel berths on arrival, the N.O.R. time shall be the pilot boarding time.

7.2.3 Acceptance Time

The N.O.R. will not be accepted until the vessel is fully secured to the berth.

7.3 Loading Documents

The following documents must be completed for all vessels loading at the Port of Ras Tanura. The information on the form will be used by Saudi Aramco to determine whether the difference between ship and shore Figures, after loading, is within an allowable tolerance.

Failure to complete the forms in the manner required may result in erroneous comparisons which could delay the release of the vessel.

7.3.1 Cargo Bunker Request and Loading Plan.

This form is completed prior to loading by the Saudi Aramco representative and the vessel's Cargo Officer. The Master or his representative will sign the document to verify its accuracy.

The document includes Saudi Aramco cargo and bunker nomination grades and quantities, vessel's requested quantities, vessel's requested rates, loading sequence, previous cargo identification and the vessel's expected sailing draft.

7.3.2 Ship's Ullages Prior to Loading (Form 5092)

This form must be completed by the Cargo Officer and submitted to Saudi Aramco prior to loading. Loading will not start until the form has been received. The form shall be completed as follows:

- Ullages, temperatures, free water levels, and grade (where appropriate must be recorded for ALL of the vessel's tanks on individual basis.
- The average temperature and Total Observed Volume (TOV) of OBQ (on board quantity including oil and water) shall be recorded in U.S. barrels.
- The arrival draft and trim must also be recorded.
- If the vessel is carrying part cargo as a portion of its OBQ, the ship and shore Gross Standard Volumes (GSV) @ 60 F must be recorded for every grade of the part cargo. Further, the volume correction tables used to calculate the part cargo must also be identified for both ship and shore.

7.3.3 Ships Ullages After Loading (Form 5092)

This form must be completed by the Cargo Officer and submitted to Saudi Aramco on completion of loading as follows:

- Ullages, temperatures, free water levels, and grade (where appropriate must be recorded for ALL of the vessel's tanks on an individual basis.
- The sailing draft, trim and list corrections used in cargo calculations must also be recorded.
- The loaded volume must be calculated by subtracting the vessel's gross observed volume before loading from the Gross Observed Volume after loading.
- Do not apply a temperature correction factor to the observed volume of oil. Do not apply an experience factor.
- Report the average temperature of the oil for each grade in degrees Fahrenheit.
- The average temperature and loaded volume for all grades must be reported to Saudi Aramco on completion of loading. The ship will not be released until these figures are received.
- To expedite the vessel's early release the form shall be faxed/emailed to Shipping Accounting.

7.4 Early Departure Procedure

Use of this special service is encouraged and should be requested at the earliest opportunity. Close coordination with the agent is required to expedite the delivery of the required documentation to the ship. It is essential that radio contact with Saudi Aramco

be maintained after departure until cargo quantities are received and the agent has been authorized to sign documents.

7.5 Departure Documents

The following three documents MUST be on board before the vessel departs even though the ship has been released to sail by Saudi Aramco:

7.5.1 Port Clearance (Sailing Report)

This is the Outward Clearance but is titled Sailing Report. It is completed in Arabic with information gathered by the agent and is delivered to the vessel by the agent prior to departure.

7.5.2 Permit of Departure

The agent completes this document with information supplied in the quarantine radio message and delivered by him to the vessel prior to departure.

7.5.3 Bills of Lading

7.5.3.1 Early Departure Procedure

This is completed by Saudi Aramco except for the cargo quantities. The agent will deliver a copy to the Master who will enter the quantities as advised after departure. The Master will then authorize his agent to sign the original on his behalf.

7.5.3.2 Early Departure Procedure Not Accepted

Where the Master elects not to take advantage of the early departure procedure, a wait of several hours at anchor for the bills of lading will be required. The bills will be completed by Saudi Aramco after which the agent will deliver the appropriate bills to the Master for signature.

8. Pilotage Regulations

8.1 Compulsory Pilotage

All movements of vessels to and from berths and in the proximity of Saudi Aramco facilities shall be under the direction of a Saudi Aramco Harbor Pilots (except Yanbu Port).

8.2 Disembarkation of Pilots

Any vessel that over-carries a pilot to another Saudi Arabian Port must pay all repatriation expenses. All vessel delays caused by delays in disembarkation of pilots due to weather or other conditions beyond Saudi Aramco's control shall be solely for the vessel's account.

8.3 Accommodating Harbor Pilots

The Harbor Pilots normally remain onboard during the vessel's stay at the berth. A single officer's cabin, clean accommodation with shower & bathroom en-suite shall be

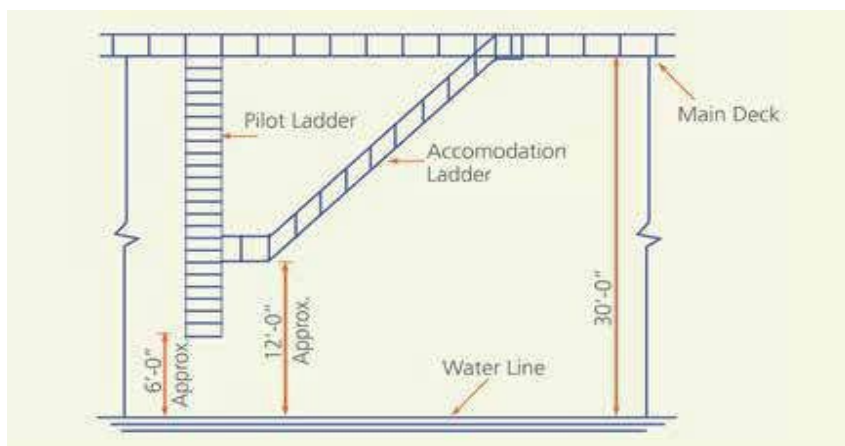
provided aboard the vessel for the Harbor Pilot. At SPM berths, similar accommodation shall be provided for the Pilot's Assistant.

8.4 Pilot Boarding Arrangements

8.4.1 Compliance With SOLAS

To permit the Harbor Pilot to safely embark and disembark from a vessel, boarding arrangements shall be strictly in accordance with current SOLAS requirements.

Vessels arriving at Saudi Aramco Ports, possessing two (2) accommodation ladders shall carry such equipment on each side. If the vessel has only one (1) accommodation ladder then that equipment should be capable of being transferred for use on either side. (SOLAS 1974)



8.4.2 Supervision of Boarding Arrangements

The rigging of pilot ladders and the embarkation and disembarkation of pilots thereby will be supervised by a responsible deck officer of the vessel.

8.4.3 Ship's Propeller

The ship's propeller shall be stopped during the approach of the pilot boat and the embarkation or disembarkation of the pilot.

8.4.4 Small Vessels

In any small vessel in which the bulwark rails are below the level of the deck of the pilot boat (approximately 6ft or 2m) a safe boarding position on each side of the forward end of the poop shall be provided and equipped with manropes.

8.4.5 Improper Arrangements

Failure to provide a safe and proper method of boarding for the Pilot will result in the Pilot refusing to board and the vessel being ordered to anchor until the fault is rectified.

8.5 Vessel Condition and Fitness for Purpose

No vessel shall be allowed to navigate within the port unless it complies with the following requirements:

1. The vessel shall be equipped with an efficient VHF radiotelephone capable of working with the port frequencies.
2. Full main engine power both ahead and astern and a fully operational tachometer shall be available for berthing and unberthing.
3. Fully operational steering gear and all vessels calling at Saudi Aramco Ports and Terminals must be fitted with fully functional indicators including bridge wing indicators displaying the rudder angle, and propeller revolutions visible from port and starboard bridge wings.
4. All secondary power or mechanical systems on the vessel shall be in operation and immediately available in the event of failure of any primary system.
5. Both anchors shall be operational, capable of being released and raised by the vessel and ready for use.
6. Vessels in ballast shall be properly ballasted. The propeller shall, at all times, remain immersed and the vessel's trim shall not exceed 1.5 % of the ship's length. For vessels proceeding to an SPM berth, the trim shall not exceed 0.7% of the ship's length.
7. All tank openings, ullage and sighting ports shall be closed before berthing or unberthing operations commence.
8. The vessel shall be fitted with satisfactory mooring equipment - see "Mooring Requirements."
9. There shall be sufficient crew on board at all times to operate the vessel safely and efficiently with all officers properly qualified and certificated.
10. Vessels are not allowed to operate in Unmanned Machinery Space Operation Mode (UMS) while alongside the berth at any Saudi Aramco Ports and Terminals.
11. Main engine should not be tested when alongside the berth unless Saudi Aramco permission has been obtained. Once the ship is authorized to carry out the test, Saudi Aramco Harbor Pilot, Ship's Master, and Chief Engineer should attend the test. It is the Master's responsibility to ensure prior to testing the main engine, the following conditions are met:
 - Required ship's staff are available and attending the test including the Master & Chief Engineer.
 - Area in vicinity of the ship's stern is clear.
 - Loading, lifting, and access equipment are safely stowed and secured.

8.5.1 Notification of Deficiencies

It is the responsibility of the Master to notify Saudi Aramco in the pre-arrival telex and the Harbor Pilot of any special conditions, difficulties or peculiarities present in the vessel, such as engine or boiler deficiencies, defective navigational equipment, mooring lines, tackle gear or lack of necessary equipment, which may impose hazards in connection with the handling, mooring, unmooring, loading or discharging of the vessel.

The Master must provide this information to the Harbor Pilot, in writing on the master/pilot information sheet, before the harbor pilot provides Pilotage services.

Non-compliance with the requirements of this section will result in the vessel being denied berthing or removed from the berth and the Master/Owner/Charterer/Agent shall become liable for the berthing and unberthing costs.

8.6 Conditions of Pilotage Service

The services of the Harbor Pilots are normally provided without charge and upon the express understanding that while participating in directing the navigation or movement of the vessel and/or its assisting tugs from on board the vessel or elsewhere, the Harbor Pilot becomes the agent and servant of the Vessel Owner and the Master for all purposes and in every respect.

8.7 Charges for Pilotage Service

Saudi Aramco Harbor Pilotage services are normally provided free of charge, with the exception of Ras Tanura Port Terminals and Jeddah Terminals.

Unusual or additional services provided by Saudi Aramco will be charged for at all Saudi Aramco Ports and Terminals as appropriate.

In this regard, Pilotage Service means the services of the Harbor Pilot and all the ancillary services that may include the services of tugs, pilot boats, mooring boats, mooring personnel and other related personnel and equipment.

8.7.1 Vessels Denied Berthing

If a vessel is denied berthing due to a vessel-related problem, Saudi Aramco will charge for the subsequent services provided.

8.7.2 Vessels Removed from Berth

If a vessel is removed from the berth due to a vessel-related problem, Saudi Aramco will charge for the subsequent additional services of berthing and unberthing the vessel.

Note: Vessel Related Problems May Include Equipment Deficiencies, Safety Deficiencies, Pollution and/or Other Factors.

9. Tugs and Harbor Craft

9.1 Tugs are for Pilots Use Only

Under normal operating conditions, no tug or other marine vessels shall be permitted alongside any vessel before the Harbor Pilot boards the vessel. Should the Harbor Pilot deem the assistance of a tug to be necessary, he will then give the proper signal.

9.2 Harbor Tugs

Saudi Aramco operates harbor tugs of various types with horsepower of 4000 to 6000 BHP and bollard pull of 30 to 70 metric tonnes, some with firefighting and oil pollution combating capability. These tugs may be encountered at any of the terminals in the Ports of Saudi Aramco.

9.2.1 Method of Use

Tugs lines are used however vessels should have good quality ropes available to supplement these in periods of bad weather.

9.3 Pilot Boats

Pilot boats carry regulation signals, are equipped with Radar, VHF radio.

9.4 Line and Hose Handling Boats at SPM Terminals

At SPM Terminals. workboats are equipped with Radar, VHF and AIS. They assist in mooring and hose connecting.

10. Mooring Rules for Jetty Berths

10.1 Preamble

The minimum mooring line requirement and principles of mooring restraint for tankers are derived from the OCIMF "Mooring Equipment Guidelines". These minimum requirements apply within the normal operating environment at Saudi Aramco Marine Terminals.

Saudi Aramco, however, accepts no responsibility for any consequence whatsoever resulting directly or indirectly from compliance with these requirements.

Notwithstanding anything contained in these Rules, it shall be the responsibility of the Master and Crew to ensure that the mooring arrangement is adequate in all respects to maintain the tanker in the berthing position during cargo handling operations. Further, the vessel shall be moored to the entire satisfaction of the Harbor Pilot.

The mooring configuration shall not be changed without permission of the Harbor Pilot except in an emergency.

Note: additional requirements are in operation at Duba due to the exposed nature of the berths and additional requirements may be imposed due to the prevailing weather conditions.

10.2 General

10.2.1 Minimum Breaking Loads

All of the mooring lines used to secure the tanker shall be of adequate size, meet the OCIMF Mooring equipment guidelines and the Minimum Breaking Load (MBL) for the tonnage of such tanker, constantly monitored and carefully tended throughout.

10.2.2 Condition of Equipment

All of the mooring lines, mooring winches, roller fairleads, and other mooring and towage equipment with which the tanker is provided shall be in good condition and properly maintained. Mooring line eye splices shall be in accordance with the OCIMF Mooring Equipment Guidelines. Visibly damaged or badly deteriorated mooring lines will not be accepted for inclusion in the minimum lines to be provided by these rules and should be repaired or replaced prior to arrival.

10.2.3 Reporting Defects and Deficiencies

Any defect or deficiency in the mooring and towage equipment with which the tanker is equipped shall be reported to Saudi Aramco prior to arrival.

10.2.4 Additional Moorings

The Master shall accept guidance and provide mooring lines additional to the minimum requirements whenever so advised by the Terminal Representatives.

10.3 Mixed Moorings

Wire ropes and fiber ropes should not be used together in the same direction (i.e., breasts, springs, head or stern) because of the difference in their elastic properties.

10.4 Mooring Winches

Subject only to the suitability of fairleads and chocks, every tanker shall utilize all mooring lines mounted on independent mooring winches. All mooring winches shall be ready, at all times, for immediate use with the mooring lines correctly reeled on the winch drums.

When the tanker is secured, the use of any mooring winch in an Automatic Self-tensioning mode is strictly prohibited. Any synthetic mooring line used that is not mounted on an independent mooring winch, may be turned up on a mooring winch drum-end and backed up on a set of mooring bitts if practicable. The mooring winch brake must be set whenever the winch is left unattended.

When not in use, mooring winches must have their brakes set to hold a load equal to no more than sixty percent of the mooring MBL.

10.5 High Elasticity Mooring Lines

Subject to Saudi Aramco approval vessels may use mooring lines constructed of High-Modulus Synthetic Fiber, provided that they are in all respects fully compliant with OCIMF Mooring equipment guidelines.

10.6 Rope Tails

Rope tails of high elasticity synthetic material may be used in conjunction with wire mooring lines, provided that every wire mooring line used as head, stern, breast and spring line is similarly equipped. Plaited or braided construction is recommended for tails and the size of rope should be capable of easy handling. When used, tails shall be in good condition, of equal length, and meet conditions of the OCIMF Mooring equipment guidelines.

It is recommended that both eyes of each tail should be effectively served with leather or other suitable material to prevent chaffing, and one eye connected to the mooring wire by means of an adequate shackle designed for the purpose, such as a Mandel or Tonsberg Shackle.

10.7 Mooring Arrangements

10.7.1 Mooring Plan

Tankers other than small coastal tankers of 5000 metric tonnes deadweight or less, shall provide a minimum of sixteen mooring lines to affect the following mooring plan:

Forward	Aft
3 Head lines	3 Stern lines
3 Breast lines	3 Breast lines
2 Back springs	2 Back springs

Gas tankers of prismatic cargo tank construction and less than 30,000 cubic meter cargo capacity, which do not meet the minimum mooring requirements for a gas tanker of greater capacity, shall provide a minimum of sixteen mooring lines to affect the above mooring plan.

Coastal tankers of 5000 metric tonnes deadweight or less, shall be moored to the Pilot and Master's discretion.

10.7.2 Wire Moorings

The following minimum wire mooring line requirements are mandatory for all tankers over 75,000 metric tonnes deadweight, berthing at Saudi Aramco Piers and Sea Islands.

Vessel's Size KDWT metric tonnes	Minimum Wires Required	No of Wires Recommended
75 - 160	8	12
161 - 250	10	12
251 - 300	12	14
301 - 350	12	16
351 - and above	14	16

All the mooring wires onboard shall be used to best effect to meet the above requirements

10.7.3 Recommended Construction of Wire Moorings

For mooring VLCCs with wire mooring lines the recommended construction should be as follows: Dia 42mm, 6 x 37 or 6 x 41 with the wires in each strand of equal lay and the strands of regular right hand lay.

10.8 Tending the Moorings

An efficient watch must be maintained on the vessel's moorings at all times to ensure that all lines have the required tension and the vessel is securely moored alongside. Alongside piers or quays, all mooring lines shall be maintained under tension to prevent ranging of the ship. Attention should be given to the movement of the ship caused by wind, currents, tides, passing ships or during reduction/increase in the vessel's freeboard. Vessels that move out of position will be charged for all expenses associated with repositioning.

10.9 Anchors

Any vessel navigating within a Saudi Aramco port or at a Saudi Aramco terminal must seek permission from the appropriate authority before utilizing anchors.

All vessels will anchor in positions designated and in coordination with the local Port Control Center / Authority.

When a vessel requires to anchor during an emergency situation full consideration must be given to anchoring, with permission and at a safe distance from all

- Prohibited, Restricted or Cautionary areas,
- Underwater installations,
- Submarine Cables or Pipelines,
- Military Areas,
- Supplementary national areas.

During transit of all navigational areas Masters must be aware at all times of the proximity and position of all charted underwater topography and obstructions in case the unexpected need to anchor arises.

A suitable passage plan should be in use from entry of the port to exit the port and include recognition of underwater obstructions as detailed by chart symbols used by all international hydrographic organizations and ECDIS as appropriate.

Vessels proceeding to an anchorage or at an anchorage must ensure anchors not in use are effectively secured and lashed in the hawse-pipes to prevent accidental use.

On completion of berthing or mooring, anchors shall be effectively secured and lashed in the hawse-pipes to prevent accidental use.

11. Cargo & Ballast Handling

In the following text, the expression “Loading Master” shall mean the Jetty Supervising Operator at alongside berths or Pilot / Pilot Assistant at SPM berths as appropriate.

11.1 Cargo Operations

11.1.1 Responsibilities & Procedures

The ship’s cargo officer must supervise all operations in connection with the starting of loading, discharging, switching of tanks, tank stripping and topping off. It is the responsibility of the vessel to advise Loading Master to shut down cargo and bunker loading when the vessel’s cargo and bunker requirements are met. In this regard, the vessel shall give 10 minutes advance warning.

11.1.2 Loading Rates

It is expected that most vessels will be able to accept any cargo as fast as it can be delivered. Officers in charge of loading must have due regard for all safety precautions as well as for individual vessel hazards.

The loading rate should be calculated according to ISGOTT guidance. If loading of crude or products is too slow, Saudi Aramco will so advise the vessel. Should such a vessel make a demurrage claim against Saudi Aramco, the slow loading rate will be considered in determining if a retroactive addition to allowable lay time is appropriate.

11.1.3 Liquefied Petroleum Gas Tankers

Special regulations govern the acceptance and loading of liquefied petroleum gas tankers. (see GASRUL Rules for Handling of Gas Tankers at Saudi Aramco Berths).

11.1.4 Cargo Transfer

Good communications are of the utmost importance for safe cargo handling. A reliable communications system, including a secondary stand-by system, should be established and tested.

The loading/discharging plan, as well as the arrangements for emergency close down of cargo operations, should be reviewed and agreed between the Loading Master and the responsible Cargo Officer.

Cargo transfer operations should not commence until the ship's Cargo Officer on duty and the Loading Master are satisfied and have agreed that the cargo hoses/ arms are correctly connected and that all necessary ship and onshore valves have been set for receiving or discharging cargo.

Flow rate will be controlled from the land based pumping station (tanker loading) or the ship's pumps (tanker unloading).

A joint ship-shore pumping and valve-closing regime should be established and maintained to avoid pressure surges.

Caution: Rapid valve closure will cause pressure surges in the line, which may cause damage to the system.

11.1.5 Commencing Cargo Transfer

Tanker Unloading / Discharging

The Loading Master will instruct the shore facility personnel to open the shore valves.

The Loading Master will then instruct the ships' crew to open the tanker manifold valve(s) and the butterfly valve located at the end of the tanker rail hose, if fitted. Once Master's confirmation is received, the Loading Master will communicate with the ship's Master to confirm that the shore facility is ready to receive cargo and cargo transfer may begin once clearance is obtained.

Tanker Loading

The Loading Master will instruct the tanker crew personnel to open the manifold valves and the butterfly valves located at each end of the tanker rail hose, if fitted.

The Loading Master will then instruct the shore facility personnel to open the shore valves. Once confirmation is received the Ship's Master will communicate with the Loading Master to advise that tanker is ready and cargo transfer may begin once clearance is received.

11.1.6 Initial Pumping Rate & Checks

Pumping should proceed slowly at first until cargo is verified and recorded as being received. The entire system shall be verified as operating correctly.

An inspection of the cargo system and surrounding water should be made during the first few minutes of cargo transfer to ensure there is no leakage.

11.1.7 Increasing to Maximum Rate

When it has been confirmed that the total system is operating correctly, the pumping rate can be increased to the maximum rate. Care must be taken not to exceed the rated working pressure for the terminal arms/floating hoses system.

11.1.8 Periodic Inspections

Throughout the cargo transfer operation, periodic inspections of the moorings, manifold connections, arms/floating hoses, and the sea area around the ship and berth should be carried out. At SPM berths, special attention should be given to components of the mooring hawser assembly at the ship's fairlead. Such defects as loose shackle pins, loose nuts, and split pins must be rectified.

11.1.9 Notice of Completion

Prior to completion of transfer, adequate notice must be given to the Ship's Master, who will communicate to the pump station to ensure that the valves and pumps are properly manned. Failure to observe these instructions could cause mistakes to be made, resulting in damage to the terminal and pollution.

Caution: At SPM berths in heavy seas, with waves exceeding two meters in height, ensure that the stressing of manifold flanges and chafing hoses is minimized by securely lashing the hose to the tanker.

11.1.10 Completion of Cargo Transfer

Tanker Unloading / Discharging

Upon completion of cargo transfer, it is essential that the shore valve(s) remain open until oil flow has ceased completely. The Loading Master must wait for confirmation from the tanker that the manifold valves are fully shut, before closure of the shore valves.

Tanker Loading

The ships are required to confirm and adhere to minimum topping-off rates agreed prior to operations at Saudi Aramco loading facilities, which are as follow:

- * Ras Tanura, Sea Island - 15,000 barrels per hour
- * Juaymah SPM's - 25,000 barrels per hour
- * Yanbu North and Yanbu South - 20,000 barrels per hour

Upon completion of cargo transfer, it is essential that the tanker valve(s) remain open until oil flow has ceased completely. The Loading Master must wait for confirmation

from the shore facility that the pumps are off before directing that the tanker manifold and hose end valves should be closed.

Warning: Rapid closing of valves while the product is flowing will cause a pressure surge. When valves are to be closed they shall be closed slowly.

11.1.11 Rough Weather

Once the tanker is moored to the terminal, cargo transfer operations can normally continue in any weather condition within the maximum designed operating environmental conditions as long as the tankers are behaving in an acceptable manner and the environmental limits are not exceeded.

11.2 Ballast Operations, Draft & Trim

11.2.1 Draft & Trim

Master shall ensure that the vessel's propeller is submerged and that a stern trim of no more than 1.5% of the ship's length in addition to sufficient under keel clearance are maintained at all the time during deballasting and loading/discharging operations. Vessels that are unable to comply with these requirements will not be accepted for berth. Vessels already berthed that cannot comply, will be, at Saudi Aramco's option, removed from berth for anchorage until such time as such requirements are met. All costs associated with such unberthing and berthing shall be for the vessel's account.

Tankers should always commence ballasting/deballasting operations concurrently with cargo transfer operations.

11.2.2 Commencing Deballast

Deballasting shall not commence until the vessel is fully secured to the berth. Thereafter, vessels must complete the deballasting operation as expeditiously and as safe as possible to minimize time at berth.

11.2.3 Poor Deballasting Performance

If, in the opinion of Saudi Aramco, a vessel which does not carry out cargo and ballast operations concurrently or requires a reduced loading or discharge rate while deballasting/ballasting, exceeds the deballasting time that Saudi Aramco considers normal, the Master will be so notified by letter.

11.3 Cargo Calculations and Release

11.3.1 Units of Measurement

The American system of cargo measurement in BARRELS with temperatures in degrees FAHRENHEIT according to the American Society for Testing & Materials – Institute of Petroleum (ASTM – IP) is used by Saudi Aramco and the Saudi Arabian Government for cargo measurement purposes. Ship's cargo loaded figures should be available in these units.

11.3.2 Volume Correction Factors

Saudi Aramco for Bill of Lading calculations and for ship/shore comparison calculation uses API Table 6 volume correction factors. A vessel experience factor (VEF) must not be applied when reporting vessel's figures to Saudi Aramco.

11.3.3 Cargo Release

Generally, if the difference between average normal ship measurement and official cargo measurement is satisfactory the ship will be released to sail by Saudi Aramco under EDP. Saudi Aramco will investigate unusual differences while the vessel waits in an assigned anchorage.

12. Berthing/Unberthing Policy

12.1 Factors.

Vessels calling at Saudi Aramco Ports and Terminals are assigned berths based on a variety of factors including, but not limited to, the following:

- Nomination date
- Time of arrival
- Product to be loaded
- Vessel size
- Available berths
- Sailing draft

If there are no immediate berthing prospects, vessels will be directed to anchor at an appropriate anchorage.

12.2 Double Berthing

Saudi Aramco reserves the right to advise vessels at which berth or berths and/or terminals, the loading will start and finish.

12.3 Moorings

All arriving vessels, except small coastal tankers of 5000 metric tonnes deadweight or less, shall comply with the minimum mooring requirements as stated in the section Saudi Aramco Ports/Mooring Rules.

12.4 Vacating the Berth

The vessel is expected to vacate the berth immediately upon completion of normal cargo/ballast/bunkers operations and the disconnection of the hoses/arms as advised by the Harbor Pilot.

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1 Forms & Documents (Description)

Examples of the various Marine forms and documents used by the Saudi Aramco Ports Management are given in the annex to this section. Each document and its purpose are briefly described hereunder.

1.1 Instructions to Masters and Conditions of Use of Port

This document requires the Master to acknowledge possession of the Saudi Aramco Oil Ports and Terminals Book and to agree to all the terms and conditions of use of port as given in the book. Vessels will not be permitted to move to and from the berths until these conditions are agreed. This is, therefore, the first document the Master will be asked to sign. The form is signed by the Master, the original for the Master and a copy for Saudi Aramco. A copy to be returned (may be e-mailed, as appropriate) to the Duty Senior Harbor Pilot by the Harbor Pilot.

1.2 Marine Terminal Assistance Fees

Each Marine Terminal Assistance Fees form sets out the charges for Ras Tanura Port, Jeddah Marine Terminal, Duba Bulk Plant Terminal and Jazan Bulk Plant Terminal.

1.3 Master - Pilot Information Sheet

This form is completed on every occasion that a vessel visits a Saudi Aramco Terminal. It refers to the "Vessel Static Data Information Sheet" below. It also requires information about the Oil Discharge Monitor (ODME), venting system, smoking rooms and ship's cranes, (for SPM vessels).

1.4 Pilot – Shore Information Card / Pilot Notes

A form provided to enable the Harbor Pilot to gather all the information that is required to be passed to the shore loading facility, particularly Juaymah SPM terminal, including a note sheet provided to enable the Harbor Pilot to record all the information of note or that is required to be gathered during the course of an incident or investigation.

1.5 Berthing / Unberthing Information

A form provided to enable the Harbor Pilot to gather all the information that is required to be passed to the Port Control Centre for entering in the Port and Terminal Management System (PTMS) by the VTSOs.

1.6 Pilots Advice to Master (Mooring Arrangement Plan)

A schematic diagram, completed by the Harbor Pilot, to show and explain proposed tug locations and securing method together with planned mooring line sequence, arrangements and leads to the vessel's Master.

1.7 Safety Letter

Saudi Aramco provides a Safety letter, which may be issued, if desired to the Masters of vessels advising them of the terminal's expectations regarding joint responsibility for the safe conduct of operations and inviting co-operation and understanding from the vessel's personnel.

1.8 Warning against Restricting the Shore Flow Rate

This form draws attention to the dangers, recommendations and requirements of restricting the shore flow rate.

1.9 Warning Notice, Beware of the Dangers of Closing Ships Valves against the Shore Flow

Red text on a white background; this notice shall be presented to the Master for posting in a conspicuous place in the Cargo Control Room.

1.10 Prohibition Notice - Emissions

1.11 Warning against Commingling of Butane and Propane While Loading at Saudi Aramco Ports and Terminals

This form draws attention to the dangers, instructions to Masters, recommendations and penalties of commingling.

1.12 Warning against Not Maintaining Minimum Inert Gas Pressure in Cargo Tanks and the Common Venting System While at Saudi Aramco Ports and Terminals

This form draws attention to the dangers, instructions to Masters, recommendations and penalties of not maintaining the minimum inert gas pressure.

1.13 Warning against Moving Out of Position during Operations While at Saudi Aramco Ports and Terminals

This form draws attention to the dangers and serious consequences of not adequately monitoring the ship's mooring lines which may lead to suspension of operation. Penalties are stated for the serious dangers associated with the vessel positioning and strongly recommends close monitoring is maintained at all times.

1.14 Warning Notice for Ships at Berth to Avoid Forward, Aft and Lateral Movements

This form supports 3.12 with diagrams and stated requirements to maintain vessel positioning and strongly recommends close monitoring is maintained at all times.

1.15 Warning against Ship Coming Close to the SBM

This form draws attention to the dangers, recommendations and penalties of the serious dangers associated with the vessel coming close to the SPM and strongly recommends close monitoring is maintained at all times at the bow to monitor the distance between the SPM and the vessel and advise the Pilot in a timely manner of any abnormalities.

1.16 Advice to Masters Concerning Pollution

This document draws attention to the requirements and procedures that will be followed in the event of a pollution incident.

1.17 Advice to Masters Concerning Pollution (H2S)

This document draws attention to the requirements and procedures that will be followed in the event of not maintaining the H2S levels.

1.18 Ship / Shore Safety Check List

This checklist is a slightly modified form of the ISGOTT safety checklist. Rules for completion are given at the beginning of the form. Only one checklist form per vessel; no copies are to be given, however should the Master request a copy, the form may be photo copied. The form is signed by the Harbor Pilot (as terminal representative) and Master/Chief Officer; it is initialed, as appropriate, during routine safety checks.

1.19 Smoking Notices

Green text on a white background; these two notices shall be presented to the Master for posting, in a prominent place, on the outside of the designated smoking rooms.

1.20 Emergency Shut Down

Red text on a white background; this notice shall be presented to the Master for posting in a conspicuous place in the Cargo Control Room.

1.21 SPM Rep & Pilot Assistant Crane Checklist

A form which lists Saudi Aramco required tools and equipment to complete safe operations and includes the procedures and checks to be maintained and logged during a vessel stay at an SPM.

1.22 SPM Rep & Pilot Assistant Deck and Manifold Checklist

A form which lists Saudi Aramco required tools and equipment to complete safe operations and includes the procedures and checks to be maintained and logged during a vessel stay at an SPM.

1.23 Cargo/Bunker Loading Request and Discharging Plan

This form is to be completed after berthing and before cargo/bunker operations commence by the Harbor Pilot as required. The form is signed by the Harbor Pilot (as Saudi Aramco representative at off-shore berths) and by the vessel's Chief Officer and Chief Engineer (if vessel is to receive bunkers), in duplicate, the original for Saudi Aramco and one copy for the Master.

1.24 Amendments to Loading / Discharging Agreement

A form provided to enable recording of changes to the cargo/bunker loading request and discharging plan and notification of all involved parties. The form is signed by the Harbor Pilot / Terminal Representative and Master/Chief Officer in duplicate, the original for Saudi Aramco and one copy for the Master.

1.25 Ships Ullages - Instruction Sheet

This is the cover page of the ullage report from giving instructions for completing the data section.

1.26 Ships Ullages - Data Sheet

This form is in two parts; part 1, before loading; part 2, after loading. These two parts comprise the data parts of the ullage report form. It must be completed by the vessel's Cargo Officer and returned, properly completed and signed, to the Terminal Representative or Harbor Pilot as appropriate, as soon as possible after completing cargo. Delay in submission of the form means delay in comparison of ship/shore figures

with subsequent delay in release of cargo and therefore in the vessel's sailing. The form is signed by the Chief Officer/Master in triplicate, the original plus one copy for Saudi Aramco and one copy for the Master.

1.27 Bunker Delivery Note

This form is to be completed on completion of the bunkering operation and returned to the Harbor Pilot. It applies only to offshore berths where bunkers are available. When signed the form allows the vessel's agent to sign for receipt of the bunkers on behalf of the vessel's Master; in addition, it is required to obtain release of the bunkers enabling the vessel to sail. The form is signed by the Harbor Pilot (as Saudi Aramco representative) at off-shore berths and the vessel's Chief Engineer/Master.

1.28 Ship/Shore Difference Investigation Checklist

If the difference between the ship and shore calculations is outside of the allowable tolerance and a recheck does not resolve the difference, either a Saudi Aramco Cargo Inspector or assigned Harbor Pilot will, together with the ship's Cargo Officer, resurvey the cargo. This form is provided to comprise a structured investigation of a declared ship/shore difference, all steps shall be completed and in sequential order. The methods and procedures used by Saudi Aramco exactly follow the procedures required by the Ship/Shore Difference Investigation checklist. The Inspector / Pilot will complete ullage forms and request the Master or Cargo Officer to witness and agree to the figures by signature of the form.

1.29 Maximum Sailing Draft – VLCC – Ras Tanura

A form for use at Ras Tanura Terminal and which shall be issued to Masters of vessels whose sailing draft will exceed 19.50 meters and whose sailing time may therefore be restricted by tide height. The form is signed by the Harbor Pilot and Master.

1.30 Protest Letter

This form is standard Saudi Aramco Protest letter issued for any incident or deficiency which could result in loss, damage or delay or which contravenes any

Saudi Aramco regulation or safety requirement. The form is signed by the Harbor Pilot (as Saudi Aramco Representative) and acknowledged by the vessel's Master.

1.31 Pollution Notice

This form is standard Saudi Aramco pollution form letter issued whenever it is determined or suspected that a vessel has caused a pollution incident. The form is signed by the Harbor Pilot (as Saudi Aramco representative) and acknowledged by the vessel's Master.

1.32 Port Clearance Statement

This form is to be used when a vessel has completed loading and is due to depart the terminal but has not yet received inward clearance, (for whatever reason) and shall go to anchor to await the government officials to grant clearance both inward and outward.

1.33 Hose Configuration and Tide Indication

This form provides a schematic diagram of SPM cargo hose configuration and a table for expected tide times

1.34 SPM Position Monitoring

This diagram demonstrates the correct method for SPM position monitoring includes a schematic diagram of SPM position notation. A copy should be posted in the Cargo Control Room.

1.35 SPM Status Log

The SPM status log should to be completed by the vessel during the period from secured until unmoored.

1.36 SPM Basket Equipment Deficiency Report

A form provided to enable the Pilot /Pilot Assistant / SPM Representative to record and report all deficiencies and shortcomings found in Saudi Aramco supplied hose connection equipment.

1.37 General and Cargo Log

A form provided to enable the Harbor Pilot to record all the relevant information, hourly cargo quantities and loading/discharging rates, adverse/abnormal weather conditions, significant timings and any other abnormal events or incidents related to all aspects of the assigned pilot team's duties.

1.38 Bunker Loading Log

A form provided to enable the Harbor Pilot to record all the relevant information, hourly bunker quantities and loading rates and significant timings related to all aspects bunker loading operations.

1.39 SPM Mooring Diagram

A schematic diagram, which shall be completed and a copy maintained in the vessel's file, to be used for pilot team reference in future calls by a vessel at the terminal.

1.40 Ships Deck plan for Helicopter Usage

A schematic diagram which shall be completed and a copy maintained in the vessel's file, to be used in planning helicopter operations for pilot team transfer to and from the vessel.

1.41 Tanker Static Data Card

This form is completed only once on the initial visit of a vessel to the Port or terminal to record all the principal information required by the Harbor Pilot prior to planning a maneuvering assignment. It shall be kept in the vessel's file for future reference. The Master is required to state on the 'Master - Pilot Information Sheet' if any of this data has changed since the last visit. If so, a new form must be completed.

1.42 Utilities and Oil Movement

This document requires the Master / Representative of the company / Vessel to confirm and detail the use of tugs in port for berthing / unberthing including charges, as required for Saudi Aramco Western Region Ports.

2 Annex I (Documents, Diagrams and Charts)

2.1 Section 1

2.1.1 Section 1 | Form 1 - Instructions to Masters and Conditions of Use of Port.

Section 1 | Form 1

KINGDOM OF SAUDI ARABIA
Saudi Arabian Oil Company
 (Saudi Aramco)



INSTRUCTIONS TO MASTERS AND CONDITIONS OF USE OF PORT

Port/Terminal _____ Pilot on board Date _____ / Time _____ (Local)

To: the Master/MV _____

BERTH INFORMATION

1. Your vessel will be moored to Berth: _____ (Port side / Starboard side / Stern to the berth / SPM)
2. The first Low Water will be approximately: _____ (local time) and approximately: _____ meters above LAT.
3. The local time is GMT + 3 hours.

INSTRUCTIONS TO MASTERS

1. All movements of vessels to and from berths and in the proximity of Saudi Aramco facilities shall be under the direction of a Saudi Aramco Harbor Pilot. Saudi Aramco tugs shall assist in berthing and unberthing as required by the Harbor Pilot.
2. All essential navigational and communications equipment shall be tested before any maneuvering to or from the berth is commenced. Full main engine power shall be available for berthing and unberthing.
3. When at berth, the vessel shall be ready, in every respect, to leave on / at short notice, with full engine power. Further, the Master of every vessel shall, in circumstances which threaten the safety of the vessel, its crew or the port installations, be prepared to unberth the vessel immediately, if so required by the Port Captain, with or without a Harbor Pilot on board.
4. Any special conditions present in the vessel which may affect maneuvering, berthing or cargo handling capability shall be noticed to the Harbor Pilot before operations commence.
5. The Master of the vessel shall remain solely responsible for the safety and the proper operation to the vessel at all times. Neither Saudi Aramco nor any of its personnel shall be responsible for any loss, damage or expense of whatsoever nature and howsoever caused, arising directly or indirectly out of any advice and/or assistance given or tendered in respect of the vessel during its stay in port.

CONDITIONS OF USE OF PORT

1. Masters shall contract to comply with and accept all the conditions, rules and regulations contained within the SAUDI ARAMCO, PORT AND TERMINALS, RULES REGULATIONS AND GENERAL INFORMATION book and shall, on behalf of their Owners, Operators and Charterers agree to be bound by same prior to berthing.
2. Harbor Pilots will not berth any vessel at Saudi Aramco Facilities without the Master's signature of acknowledgment and agreement as given hereunder.

MASTER'S ACKNOWLEDGMENT

I acknowledge receipt of a copy of this document and by my signature below, hereby confirm that I have on board my vessel a copy of the latest version of the SAUDI ARAMCO, PORT AND TERMINALS, RULES REGULATIONS AND GENERAL INFORMATION currently in force and that, for and on behalf of the Owners, Managers, Operators and Charterers, I hereby agree to all the terms, conditions and stipulations set out therein and agree to be bound by the same.

ORIGINAL: MASTER
 COPY: SAUDI ARAMCO

Signed: _____
 (Master)

Date/Time: _____

Section 1

2.1.2 Section 1 | Form 2 – Ras Tanura Marine Terminal Assistance Fees

Section 1 | Form 2

Saudi Aramco
Eastern Region Terminals Operations Department
Pilotage Operations Division



Marine Terminal Assistance Fees Acknowledgement

Ship Name		IMO	
Summer DWT		Gross Tonnage	
Shipping Agent			
Shipment Type	<input type="checkbox"/> International		<input type="checkbox"/> Local
Terminal	<input type="checkbox"/> North Pier <input type="checkbox"/> Sea Island <input type="checkbox"/> Juaymah SPM <input type="checkbox"/> Juaymah NGL		

I, Master of the Ship: _____ hereby acknowledge the applicable marine terminal assistance fee category for my vessel as per the form and agree to all terms and conditions stipulated in the Marine Terminal Assistance Fees appendix to the Saudi Aramco Ports and Terminals Booklet.

Fee Category	Terminal	Summer Deadweight	Pilotage per gross ton	Pilot Transfer	Tug Boats	Mooring Boats
A <input type="checkbox"/>	RT Terminals (North Pier & Sea Island)	0 – 10,000	\$ 0.05	\$ 2,966	\$ 3,409	NA
B <input type="checkbox"/>		10,001 – 80,000	\$ 0.05	\$ 2,966	\$ 8,938	NA
C <input type="checkbox"/>		80,001 – 130,000	\$ 0.05	\$ 2,966	\$ 16,490	NA
D <input type="checkbox"/>		130,001 – 200,000	\$ 0.05	\$ 2,966	\$ 26,018	NA
E <input type="checkbox"/>		200,001 and higher	\$ 0.05	\$ 2,966	\$ 29,078	NA
F <input type="checkbox"/>	Juaymah NGL	All	\$ 0.05	\$ 2,966	\$ 12,014	NA
G <input type="checkbox"/>	Juaymah SPM	All	\$ 0.0708	\$ 2,966	\$ 9,673	\$ 21,017

* Fees cover normal operations. If there are any delays or interruptions, different charges may apply.

** Fees listed are exclusive of Value Added Tax (VAT).

SIGNED: _____ (MASTER)

SIGNED: _____ (Harbor Pilot)

MT: _____

HP Name: _____

DATE / TIME: _____

DATE / TIME: _____

ORIGINAL: MASTER
COPY: SAUDI ARAMCO

2.1.3 Section 1 | Form 3 – Jeddah Marine Terminal Assistance Fees

section 1 | Form 3

Saudi Aramco
Western Region Terminals Department
Utilities and Oil Movement – Marine Terminal Unit



Jeddah Marine Terminal Assistance Fees Acknowledgement

Ship Name		IMO	
Summer DWT			
Shipping Agent			
Shipment Type	<input type="checkbox"/> International		<input type="checkbox"/> Local
Berth	<input type="checkbox"/> Outer Harbor (B#)		<input type="checkbox"/> Inner Harbor (B#)

I, Master of the Ship: _____ hereby acknowledge the applicable marine terminal assistance fee category for my vessel as per the form and agree to all terms and conditions stipulated in the Marine Terminal Assistance Fees appendix to the Saudi Aramco Ports and Terminals Booklet.

Fee Category	Summer Deadweight	Pilotage	Tug Boats	Mooring Service	Pilot Transfer
C	25,001 – 50,000	\$11,373	\$36,273	\$988	\$6,725
D	50,001 – 90,000	\$18,108	\$55,631	\$1,033	\$7,041
E	90,001 and higher	\$24,373	\$74,344	\$1,033	\$7,041

* Fees cover normal operations. If there are any delays or interruptions, different charges may apply.
 ** For vessels of 25,000 Summer Deadweight and below, the fees set out in Western Region Terminals Department Form 4b apply.
 *** Fees listed are exclusive of Value Added Tax (VAT).

SIGNED: _____ (MASTER)
 MT: _____
 DATE / TIME: _____

SIGNED: _____ (Harbor Pilot)
 HP Name: _____
 DATE / TIME: _____

ORIGINAL: MASTER
 COPY: SAUDI ARAMCO

Section 1

2.1.4 Section 1 | Form 4 – Duba and Jazan BP Marine Terminal Assistance Fees

Section 1 | Form 4

Saudi Aramco
Western Region Distribution Department



Marine Terminal Assistance Fees Acknowledgement

Ship Name			IMO	
Shipping Agent				
Shipment Type	<input type="checkbox"/> International			<input type="checkbox"/> Local
Terminal	<input type="checkbox"/> Duba Bulk Plant			<input type="checkbox"/> Jazan Bulk Plant

I, Master of the Ship: _____ hereby acknowledge the applicable marine terminal assistance fee category for my vessel as per the form and agree to all terms and conditions stipulated in the Marine Terminal Assistance Fees appendix to the Saudi Aramco Ports and Terminals Booklet.

Terminal	Pilotage	Pilot Transfer	Tug Boats	Total Fee
Duba Bulk Plant	\$ 5,072.14	\$ 22,197.88	\$ 68,096.10	\$ 95,366.12
Jazan Bulk Plant	\$ 11,189.66	\$ 16,162.98	\$ 71,158.68	\$ 98,511.32

* Fees cover normal operations. If there are any delays or interruptions, different charges may apply.

** Fees listed are exclusive of Value Added Tax (VAT).

Section 1

SIGNED: _____ (MASTER)

SIGNED: _____ (Harbor Pilot)

Master Name: _____

HP Name: _____

DATE / TIME: _____

DATE / TIME: _____

ORIGINAL: MASTER
COPY: SAUDI ARAMCO

2.1.5 Section 1 | Form 5 - Master - Pilot Information Sheet

Section 1 | Form 5



KINGDOM OF SAUDI ARABIA
Saudi Arabian Oil Company
 (Saudi Aramco)

MASTER - PILOT INFORMATION SHEET

TERMINAL :	BERTH :	DATE :
VESSEL NAME:	MDWT :	

VESSEL'S CONDITION (USE METRIC UNITS):

ARRIVAL		DEPARTURE	
DRAFT (F)		DRAFT (F)	
DRAFT (A)		DRAFT (A)	
DISPLACEMENT		DRAFT (M)	

VESSEL'S STATIC DATA - INDICATE WHETHER SAME AS PREVIOUS VISIT :

1. Dimensions	SAME YES / NO?
2. Propulsion	SAME YES / NO?
3. Maneuvering characteristics	SAME YES / NO?
4. Navigational Aids	SAME YES / NO?
5. Mooring equipment & arrangement	SAME YES / NO?
6. Manning	SAME YES / NO?
Masters remarks if: 1) The answer to any question is "NO" 2) There are any special conditions for handling the vessel 3) There is any other information concerning the safety of the vessel.	
.....	
.....	
.....	
"This section N/A if completing "Vessel's Static Data Information Sheet".	

Ballast Discharge / Oil Discharge Monitoring Equipment:

My vessel IS / IS NOT* equipped with a full functional Oil Discharge Monitor. If Not so equipped, my vessel will retain a total ballast of _____ BBLS in order to comply with "Saudi Aramco, Ports and Terminals, Rules Regulations and General Information, Common Rules and Information, Section 5.0, Pollution Policy and Actions.
 *Strike out which does not apply.

GENERAL SAFETY:

Primary venting system to be used : _____
 Jointly agreed smoking rooms:
 1. _____ 2. _____

Are all crane 'Classification Society' certificates valid ? **YES / NO**
 Is the crane operator certified competent & experienced with the ship's equipment? **YES / NO**
 Is the designed signalman suitably trained & qualified? **YES / NO**

PILOTS ADVICE TO MASTER :

1. Intended plan of navigation and approach to berth.
2. Tugs to be used, location and method of securing.
3. Tidal and weather conditions.
4. Anchoring limitation - submarine pipelines.
5. Traffic condition.
6. Mooring arrangement plan.
7. Conditions of use of port.
8. Pilots remarks of any special conditions for handling the vessel
9. Manifold seals requirement.

MASTER ADVICE TO PILOT:

1. Include master confirmation of required manning in the Pilot Master Information card upon the arrival of ships to the terminal.
2. Master shall maintain required manning as per ICS Bridge Procedures Guide and / or Vessel Management requirements.

 (Pilot's Name & Signature)

 (Master's Name & Signature)

CC : WHITE : MASTER COPY : PILOT

Section 1

2.1.6 Section 1 | Form 6 - Pilot-Shore Information card / Pilots Notes

Section 1 | Form 6



KINGDOM OF SAUDI ARABIA
Saudi Arabian Oil Company
 (Saudi Aramco)

PILOT-SHORE INFORMATION CARD

SHIP'S NAME: _____ BERTH: _____
 SHIP'S FLAG: _____ DWT: _____
 SHIP ARRIVED/ANCHORED: _____ ANCHOR UP: _____
 PILOT ON BOARD: _____ DESTINATION: _____

loading information			Discharging Information		
Cargo	Quantity	Rate	Cargo	Quantity	Rate
X. LIGHT					
LIGHT					
MEDIUM					
HEAVY					
OTHERS					

BLENDED ON BOARD: _____ OTHER: _____
 BUNKERS: QUANTITY: _____ RATE: _____
 BUNKER MANIFOLD SIZE: _____ CARGO MANIFOLD SIZE: _____
 SIZE OF CARGO BUTTERFLY VALVE/GATE VALVE: _____
 BUTTERFLY VALVES FITTED WITH SAFETY LOCKS: _____
 CLOSING TIME MANIFOLD VALVES: _____
 IF LESS THAN 30 SECONDS - SAFETY LOCKS MUST BE FITTED
 INFORM BERTH OPERATOR OF MANIFOLD VALVE CLOSING TIME
 BALLAST SBT CLEAN QUANTITY: _____ TIME: _____
 LOAD/BALLAST SIMULTANEOUSLY: _____ RATE: _____ THRU 1/2 MANIFOLD _____

PART CARGO ON BOARD			
PORT LOADED			
SHIP FIGURES			
SHORE FIGURES			
TEMPERATURE			
API			
SLOPS ON ARRIVAL			

NOR TENDERED: _____ NOR RECEIVED: _____
 SHIP CLEARED: YES NO SPECIAL PERMISSION FROM CUSTOM
 REMARKS:

(Pilot's Name & Signature)

Section 1

2.1.7 Section 1 | Form 7 - Berthing and Unberthing information

Section 1 | Form 7



BERTHING INFORMATION

Pilot On Board : _____ Arrival DR F : _____
 Date: _____ A : _____
 Time: _____
 Tugs Name :
 1 _____ 3 _____
 2 _____ 4 _____
 Tugs A/S : _____
 Tugs Sec : _____
 Comm. Mooring : _____
 V/L Secured : _____
 Deflection: Forward: _____ AFT : _____

 (Master's Name & Signature) (Pilot's Name & Signature)

UN-BERTHING INFORMATION

Pilot On Board _____ Departure DR F : _____
 Date: _____ A : _____
 Time: _____
 Comp. Cargo / Loading / Discharging : _____
 Cargo released Time: _____
 Last Equipment Off : _____
 Tugs Name :
 1 _____ 3 _____
 2 _____ 4 _____
 Tugs A/S : _____ Tugs Sec : _____
 Comm. Un-Mooring : _____
 Last Line In : _____
 Clear Berth : _____
 Pilot Disembarked : _____
 Original: Saudi Aramco _____
 Copy: As required (Pilot's Name & Signature)

Section 1

2.1.8 Section 1 | Form 8 - Pilots Advice to Masters Diagram

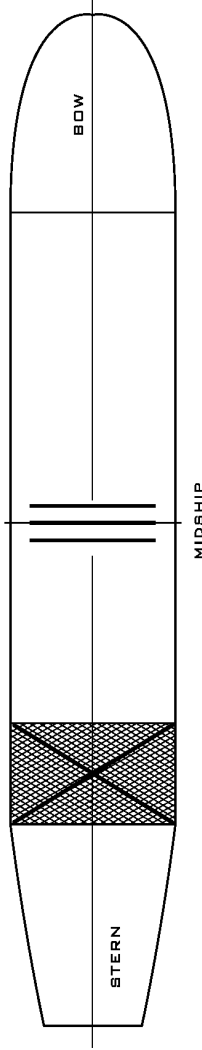
Tug usage and Mooring arrangement plans

Section 1 | Form 8

SAUDI ARABIAN OIL COMPANY
(SAUDI ARAMCO)

PILOTS ADVICE TO MASTER

(ITEM NO. 2 ~ TUGS USAGE & ITEM NO. 6 ~ MOORING ARRANGEMENT PLAN)



Port / Terminal: _____
Signature (Pilot) _____

Date: _____

ORIGINAL: MASTER
COPY: SAUDI ARAMCO

Section 1

2.1.9 Section 1 | Form 9 - Safety Letter

Section 1 | Form 9



KINGDOM OF SAUDI ARABIA
Saudi Arabian Oil Company
 (Saudi Aramco)
Safety Letter

Terminal _____

Date _____

The Master MV _____

Port _____

Dear Sir,

As Master of the ship, you remain responsible for the safe conduct of operations onboard your vessel at all times. However, you also have a duty to ensure that the operations on your vessel do not compromise the safety of the terminal or terminal staff. As such, you are required to provide your full co-operation on the safety requirements set out in the Ship/Shore Safety Check-List, which are based on safe practices that are widely accepted by the oil and tanker industries.

We expect you, and all under your command, to adhere strictly to these requirements throughout your ships 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 elements addressed within the scope of the Ship/Shore Safety Checklist are being managed in an acceptable manner. 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 that safety is being endangered by any action on the part of our staff or by any equipment under our control, you should demand immediate cessation of operations.

There can be no compromise with safety.

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

Signed _____
Harbor Pilot

Signed _____
Master

MV _____

Date/Time _____

ORIGINAL: MASTER
COPY: SAUDI ARAMCO

Section 1

2.1.10 Section 1 | Form 10 - Warning Against Restricting the Shore Flow Rate and Consequences of a Vessel Activation of the Shore Emergency Shut Down (ESD).

Section 1 | Form 10

KINGDOM OF SAUDI ARABIA
Saudi Arabian Oil Company
(Saudi Aramco)



WARNING AGAINST RESTRICTING THE SHORE FLOW RATE AND CONSEQUENCES OF A VESSEL ACTIVATION OF THE SHORE EMERGENCY SHUT DOWN (ESD).

THE DANGERS

Your attention is drawn to the serious dangers associated with closing ship valves against the prevailing cargo flow rate or reducing the number of tanks available for loading without first informing the shore loading supervisor.

Surge forces rapidly develop in any pipeline system that is subjected to a reduction in outflow prior to a corresponding reduction in input rates. These surge forces are manifested as destructive forces within the pipeline system, which in addition to damaging the loading system, could result in fire, explosions or severe pollution incidents.

Saudi Aramco employs emergency tripping sensors and mechanisms to guard against such dangers. However, (1) mechanical devices can fail and (2) in the event of an emergency shut down, the entire terminal loading system will shut down.

RECOMMENDATIONS & REQUIREMENTS

Saudi Aramco strongly recommends that before loading operations are commenced, the International Safety Guide for Oil Tankers & Terminals (ISGOTT) is fully reviewed in respect to communications, valve operations, topping off procedures and pressure surges.

Because instant adjustment of loading rates is not possible, you must, when requesting a reduction in flow rate, allow adequate time for the reduction in flow to your ship. You must also notify the shore loading supervisor in good time prior to any action which may cause a restriction in flow rate. In case of emergency, please see the "Emergency Shut Down" card supplied.

PENALTIES

You are advised that it is Saudi Aramco policy to seek recompense, to the full extent permitted by law, for all additional costs that are incurred due to the negligence or fault of a third party as referenced in "Saudi Aramco, Ports and Terminals, Rules Regulations and General Information, Common Rules and Information, Section 1, Conditions for use of Ports and Terminals (Legal Liabilities)"

Moreover, any vessel contributing to an Emergency Shut Down (ESD) system activation will be subject to removal from the berth.

Additionally the vessel will be flagged in Saudi Aramco System on departure and subjected to stringent vetting requirements during future visits and potential banning if further serious safety or operational deficiencies are committed.

SIGNED: _____ (MASTER) SIGNED: _____ (HARBOR PILOT)

MT: _____ HP NAME: _____

DATE / TIME: _____ DATE / TIME: _____

ORIGINAL: MASTER
COPY: SAUDI ARAMCO

Section 1

2.1.11 Section 1 | Form 11 – Warning notice – Beware of the dangers of closing the ships valves against the shore flow



**WARNING
BEWARE OF THE DANGERS OF CLOSING SHIP VALVES
AGAINST THE SHORE FLOW**

FOR FURTHER DETAILS REFER TO SAUDI ARAMCO FORMS :

**'WARNING AGAINST RESTRICTING THE SHORE FLOW RATE AND CONSEQUENCES
OF A VESSEL ACTIVATION OF THE SHORE EMERGENCY SHUT DOWN (ESD)'**

**AND
'EMERGENCY SHUT DOWN'
TO BE FOUND IN THE HARBOR PILOT LOG BOOK**

POST THIS NOTICE IN A PROMINENT POSITION IN THE CARGO CONTROL ROOM

Section 1 | Form 11

Section 1

2.1.12 Section 1 | Form 12 - Prohibition Notice – Emissions



PROHIBITION NOTICE

EXCESSIVE SMOKE EMISSION, EXPULSION OF INCENDIVE MATERIAL OR HOT ASH FROM SHIP BY SOOT BLOWING, INCINERATION AND ANY OTHER ACTION IS

STRICTLY PROHIBITED



DURING THE VESSELS STAY THIS NOTICE MUST BE POSTED IN APPLICABLE AND PROMINENT POSITIONS

LOCATION _____ DATE _____

Section 1 | Form 12

Section 1

2.2 Section 2

2.2.1 Section 2 | Form 13 - Warning against Commingling of Butane and Propane While Loading at Saudi Aramco Ports and Terminals

Section 2 | Form 13



KINGDOM OF SAUDI ARABIA
Saudi Arabian Oil Company
 (Saudi Aramco)

WARNING AGAINST COMMINGLING OF BUTANE AND PROPANE WHILST LOADING AT SAUDI ARAMCO PORTS AND TERMINALS.

THE DANGERS :

Your attention is drawn to the serious consequences of a mismanaged commingling operation, with the risk of cargo tank relief valves lifting whilst alongside due to excessive tank pressures caused by the commingling operation. The lifting of relief valves may lead to an unacceptable release of large clouds of heavier than air cargo vapour, which has serious consequences for ship and terminal. Terminal personnel will be alert to unusually slow loading rates, which may indicate that a commingling operation is taking place.

INSTRUCTION TO MASTERS :

Commingling of Butane and Propane cargoes whilst loading at any of Saudi Aramco's ports and terminals is prohibited under any circumstances.

PENALTIES

You are advised that Saudi Aramco's policy is to seek compensation to the full extent of the law for all costs and expenses incurred due to the negligence or fault of the vessel or violation of Saudi Aramco Port or/and Terminal Rules and Regulations

SIGNED: _____ (MASTER) SIGNED: _____ (HARBOR PILOT)

MT: _____ HP NAME: _____

DATE / TIME: _____ DATE / TIME: _____

ORIGINAL: MASTER
 COPY: SAUDI ARAMCO

2.2.2 Section 2 | Form 14 - Warning against Not Maintaining Minimum Inert Gas Pressure in Cargo Tanks and the Common Venting System While Loading at Saudi Aramco Ports and Terminals

Section 2 | Form 14



KINGDOM OF SAUDI ARABIA
Saudi Arabian Oil Company
(Saudi Aramco)

WARNING AGAINST NOT MAINTAINING MINIMUM INERT GAS PRESSURE IN CARGO TANKS AND THE COMMON VENTING SYSTEM WHILST LOADING / DISCHARGING AT SAUDI ARAMCO PORTS AND TERMINALS.

THE DANGERS :

Your attention is drawn to the serious consequences of not maintaining minimum Inert Gas pressure in cargo tanks and the common venting system whilst loading at Saudi Aramco ports and terminals.

INSTRUCTION TO MASTERS :

Ensure that the Inert Gas (I.G.) pressure in the ship's main venting system is kept at a positive pressure of at least 100 mm of water; or in accordance with the designed minimum operating parameters of the ship's I.G. system; at all times.

RECOMMENDATIONS :

International Safety Guide for Oil Tankers and Terminals (ISGOTT).

When all tanks have been inerted, they should be kept common with the IG main and the system pressurized with a minimum positive pressure of at least 100mm Water Gauge (WG). If individual tanks have to be separated from a common line , e.g. for product integrity, the tanks should have an alternative means of maintaining an IG blanket.

PENALTIES

You are advised that Saudi Aramco's policy is to seek compensation to the full extent of the law for all costs and expenses incurred due to the negligence or fault of the vessel or violation of Saudi Aramco Port or/and Terminal Rules and Regulations.

SIGNED: _____ (MASTER) SIGNED: _____ (HARBOR PILOT)

MT: _____ HP NAME: _____

DATE / TIME: _____ DATE / TIME: _____

ORIGINAL: MASTER
COPY: SAUDI ARAMCO

Section 2

2.2.3 Section 2 | Form 15 - Warning against Moving out of Position during Loading / discharging operation while at Saudi Aramco Ports and Terminals

Section 2 | Form 15



KINGDOM OF SAUDI ARABIA
Saudi Arabian Oil Company
 (Saudi Aramco)

WARNING AGAINST MOVING OUT OF POSITION DURING LOADING/DISCHARGING OPERATION WHILE AT SAUDI ARAMCO PORTS AND TERMINALS.

THE DANGERS:

Your attention is drawn to the serious consequences of not adequately monitoring the ship's mooring lines which may lead to suspension of the loading/discharging operation.

INSTRUCTION TO MASTERS:

1. Ensure that the ship's mooring lines are always tight.
2. Monitor the moorings and the ship's position relative to the berth at regular intervals

REQUIREMENTS:

1. A simple method of identifying movement of the vessel while alongside is to mark the ship's hose rail/deck with chalk for comparison with a fixed position on the Terminal, Sea Island or Loading Platform. Any movement can then be easily noted.
2. Transit information shall be noted in the Ship's Log Book and the Harbor Pilot Log book for subsequent Pilot information and reference during safety checks to verify if any movement has occurred.
3. Your attention is drawn to the requirements of OCIMF publications International Safety Guide for Oil Tankers and Terminals (ISGOTT) and Mooring Equipment Guidelines.

PENALTIES

You are advised that Saudi Aramco's policy is to seek compensation to the fullest extent of the law for all costs and expenses incurred due to the negligence or fault of the vessel or violation of Saudi Aramco Port or/and Terminal, Rules and Regulations.

SIGNED: _____ (MASTER) SIGNED: _____ (HARBOR PILOT)
 MT: _____ HP NAME: _____
 DATE / TIME: _____ DATE / TIME: _____

ORIGINAL: MASTER
 COPY: SAUDI ARAMCO

2.2.4 Section 2 | Form 16 - Warning notice for ships at berth to avoid forward, aft and lateral movements

Section 2 | Form 16



**KINGDOM OF SAUDI ARABIA
Saudi Arabian Oil Company
(Saudi Aramco)**

**THIS NOTICE MUST BE POSTED FOR THE ATTENTION OF
ALL VESSEL MOORING OPERATIONS PERSONNEL**

WARNING NOTICE FOR SHIPS AT BERTH TO AVOID FORWARD, AFT AND LATERAL MOVEMENTS

Saudi Aramco Port requirements: As described in OCIMF - Mooring Equipment Guidelines.

Ships must schedule regular checks of moorings with a frequency relative to expected weather conditions and planned cargo operations particularly a heightened awareness to increase the frequency of checks during discharging operations.

Crew involved in the tending of mooring lines must take into consideration the sequence of tending with due regard to wind and tidal directions and additionally keep sight of the mooring lines to ensure the line tending process is executed in a controlled manner to avoid tension jerk.

All mooring winch brakes must be marked clearly with 60%MBL setting and no brake should be tightened past this set point during the vessels stay in port.

Mooring winch gears, not in use tending lines must be disengaged with locking pins in place.

All mooring lines must be in a suitable good condition for use and free of damage.

Mooring lines or tails in use forward or aft as spring lines, breast lines or head/stern lines should be of similar construction and rigging to ensure as far as possible equal load distribution. Any mixed grouping of unlike wire or fiber ropes or tails shall be avoided as far as possible.

Section 2

SIGNED: _____ (MASTER) SIGNED: _____ (HARBOR PILOT)

MT: _____ HP NAME: _____

DATE / TIME: _____ DATE / TIME: _____

ORIGINAL: MASTER
COPY: SAUDI ARAMCO

2.2.5 Section 2 | Form 17 - Warning against Ship Coming Close to the SBM

Section 2 | Form 17



KINGDOM OF SAUDI ARABIA
Saudi Arabian Oil Company
(Saudi Aramco)

WARNING AGAINST SHIP COMING CLOSE TO THE SPM

THE DANGERS:

Your attention is drawn to the serious dangers associated with ship coming close to the SPM without proper watch.

REQUIREMENTS:

Saudi Aramco requires that a sharp watch should be maintained at all times while your ship is secured to the SPM at Juaymah Terminal. You are required to notify the Pilot/Pilot assistant immediately as the distance from the bow to the SPM closes to 20m and in ample time, so that a preventive action may be taken to eliminate any damage that may be caused to the SPM.

PENALTIES:

You are advised, that Saudi Aramco policy is to seek compensation, to the full extent permitted by law, for all unplanned costs that are incurred due to the negligence or fault of the vessel.

See "Saudi Aramco, Ports and Terminals, Rules Regulations and General Information, Common Rules and Information, Conditions for use of Ports and Terminals (Legal Liabilities)".

SIGNED: _____ (MASTER) SIGNED: _____ (HARBOR PILOT)

MT: _____ HP NAME: _____

DATE / TIME: _____ DATE / TIME: _____

ORIGINAL: MASTER
COPY: SAUDI ARAMCO

2.2.6 Section 2 | Form 18 - Advice to Masters concerning pollution 1

Section 2 | Form 18



**KINGDOM OF SAUDI ARABIA
Saudi Arabian Oil Company
(Saudi Aramco)**

ADVICE TO MASTERS CONCERNING POLLUTION

Master of /MV _____

TERMINAL: _____ BERTH: _____ DATE: _____

1. DEBALLASTING PLAN AND SPILL PRECAUTIONS:

We wish to elicit your aid so that you and we, acting in partnership, may eliminate all possibility of the discharge of oil into the sea from your vessel while berthed in Saudi Aramco oil ports and terminals.

Your Cargo Officer will be asked by the Pilot assigned to your vessel, to provide a deballasting plan prior to the discharge of ballast and to answer certain checklist questions and designed to ensure that all reasonable precautions have been taken to prevent the discharge of oil into the sea. You are asked to very carefully consider this plan prior to any discharge of ballast and to take all such precautions that you may reasonably take to prevent pollution. See "Saudi Aramco, Ports and Terminals, Rules Regulations and General Information, Common Rules and Information, Section 5.0, Pollution Policy and Actions on procedures and monitoring of ballast discharge.

In the event of an oil spill, this plan will be used as an indispensable part of the investigation. Therefore, should you decide to change your previously advised deballasting plan, you are urged, in your own interests, to promptly advise the assigned Pilot or the Terminal Operator, as appropriate, of the new plan.

2. IN THE EVENT OF A POLLUTION INCIDENT :

You are advised that Saudi Aramco will employ all reasonable means to clean up any oil spilled into the sea, to mitigate any damages caused by the pollution and to identify and secure the source of the pollution. You are further advised that it is Saudi Aramco policy to seek recompense to the full extent permitted by law, for all costs incurred due to the negligence or fault of a third party. See "Saudi Aramco, Ports and Terminals, Rules Regulations and General Information, Common Rules and Information, Section 1.0, Conditions for use of Ports and Terminals (Legal Liabilities)".

Discovery of pollution at or near a vessel will always require the immediate shutdown of cargo and ballast operations on that vessel pending investigation and clean-up action.

3. INVESTIGATION

Because Saudi Aramco must determine the source of a leak or spill and ensure that it has been secured with no further possibility of a spill from the same source, a thorough investigation will be initiated for any pollution whatsoever, no matter how minor.

If it is not possible, within one hour of discovery, to determine and / or secure the source of the spill, the vessel will be removed from berth pending further investigation. During this time Saudi Aramco will carry out, concurrently so far as possible, a thorough inspection of its facility (the berth) and, with your cooperation, the vessel.

Section 2

2.2.7 Section 2 | Form 18 - Advice to Masters concerning pollution 2

Section 2 | Form 18

ADVICE TO MASTERS CONCERNING POLLUTION

If the Saudi Aramco facility is the source of the pollution, the vessel will be re-berthed at Saudi Aramco expense and as soon as possible to complete operations. If the facility is not the source of the spill, the vessel will be presumed to be the source unless investigation conclusively proves otherwise. Vessels will not be re-berthed until Saudi Aramco is satisfied that the source of the spill has been secured.

An investigation of the ship may require that ullages or soundings be taken of all tanks. Samples may be drawn from ballast tanks, ballast lines, ballast pumps, sea chests and from the sea. The samples so obtained will be analyzed to determine whether the samples from the sea match the samples from the ship.

In order to avoid delays, Masters are urged to contact their agents early to obtain a diving inspection should they suspect a hull leak or other fault requiring investigation by divers.

Masters who elect to discharge their contaminated ballast outside the geographical boundaries of Saudi Aramco ports and terminals shall do so in accordance with all applicable Saudi Arab Government and other local government rules and regulations and all applicable international treaties and conventions. Should a vessel's Master elect to depart a Saudi Aramco port or terminal to discharge contaminated ballast prior to loading, upon the vessel's return the Master may be requested to produce documentary evidence for forwarding to local Saudi Arab Government authorities, indicating the location, date, time and amount of such discharge.

4. CLEAN-UP COSTS AND LETTER OF GUARANTEE

In the event that your vessel is the source of pollution, you will be served with a letter of protest and you will be asked to provide a statement of facts concerning the incident. Further, a guarantee in the form of a Letter of Undertaking, satisfactory to Saudi Aramco, in an amount sufficient to cover all costs to Saudi Aramco will be obtained through your agent. Your vessel will not be permitted to sail until such time as this guarantee letter is received. Costs reimbursable to Saudi Aramco for pollution caused by your vessel may include but shall not be limited to the following expenses:

- Investigation costs including aerial surveillance.
- Charges for unproductive occupancy of the berth.
- Boats, materials and other equipment used for oil spill clean-up.
- Manpower resources.
- Samples analysis.
- Oil waste treatment costs.
- The costs of providing marine assistance to unberth and re-berth vessels.
- Corporate overheads.

PLEASE REFER TO SECTION 5.0 "POLLUTION POLICY AND ACTIONS" in the Saudi Aramco, Ports and Terminals, Rules Regulations and General Information, Common Rules and Information.

PILOT SIGNATURE _____
(per pro Saudi Aramco Port Captain)

2.2.8 Section 2 | Form 19 - Advice to Masters concerning pollution (H2S)

Section 2 | Form 19



KINGDOM OF SAUDI ARABIA
Saudi Arabian Oil Company
(Saudi Aramco)

ADVICE TO MASTER CONCERNING POLLUTION (H₂S)

The Dangers:

H₂S is highly dangerous even at low concentrations, quickly deadening the sense of smell; it can overcome a person in a short space of time, particularly when there is no wind. You and your crew are advised to be vigilant and take the necessary precautions, as advised in the International Safety Guide for Oil Tankers and Terminals (ISGOTT).

Instruction to Masters:

Tankers arriving at the Terminal having previously carried a high H₂S content cargo are required to purge Saudi Aramco nominated cargo tanks prior to arrival. Such Tankers shall confirm, via "Standard Message-Arrival Telex, that the cargo tank atmosphere contains H₂S levels below 10 ppm.

Recommendations:

Take all precautions to prevent high concentrations of hazardous substances being vented to atmosphere during loading/discharging. Precautions may include the purging of all tanks prior to arrival to ensure that levels of gas within the tanks do not exceed allowable limitations, as per Saudi Aramco regulations.

Penalties:

Tankers arriving with Saudi Aramco nominated cargo tanks atmosphere of more than 10 ppm will not be berthed. During cargo operations, if vented tank gases cause a nuisance to the surrounding area (H₂S content), your vessel may suffer delays when loading rates are reduced or loading is stopped.

All delays, losses and associated costs shall be lodged against the Tanker's account.

SIGNED: _____ (MASTER) SIGNED: _____ (HARBOR PILOT)

MT: _____ HP NAME: _____

DATE / TIME: _____ DATE / TIME: _____

ORIGINAL: MASTER
COPY: SAUDI ARAMCO

Section 2

2.3 Section 3

2.3.1 Section 3 | Form 20 - Ship / Shore Safety Checklist

Section 3 | Form 20

The Ship/Shore Safety Check-List

Guidelines for Use

Guidelines for completing the Check-List and to assist in responding to each individual statement are included. They have been produced to assist berth operators and ships' Masters in their joint use of the Ship/Shore Safety Check-List.

The Master and all under his command should adhere strictly to these requirements throughout the ship's stay alongside. The Terminal Representative and all shore personnel should do likewise. Each party will be committed to co-operate fully in the mutual interest of achieving safe and efficient operations.

Responsibility and accountability for the statements within the Ship/Shore Safety Check-List are assigned within the document. The acceptance of responsibility is confirmed by ticking or initialling the appropriate box and finally signing the declaration at the end of the Check-List. Once signed, the Check-List details the minimum basis for safe operations as agreed through the mutual exchange of critical information.

Check-List statements are directed to considerations for which the ship has sole responsibility and accountability, some to considerations for which the terminal has sole responsibility and accountability, and there are others which assign joint responsibility and accountability. Shaded boxes are used to identify statements that generally would be applicable to only one party, although the ship or terminal may tick or initial such sections if they so wish.

The assignment of responsibility and accountability does not mean that the other party is excluded from carrying out checks in order to confirm compliance. It is intended to ensure clear identification of the party responsible for initial and continued compliance throughout the ship's stay at the terminal.

The Responsible Officer should personally check all considerations lying within the responsibility of the tanker. Similarly, the Terminal Representative should personally check all considerations that are the terminal's responsibility. In fulfilling these responsibilities, representatives should assure themselves that the standards of safety on both sides of the operation are fully acceptable. This can be achieved by means such as

- Confirming that a competent person has satisfactorily completed the Check-List.
- Sighting appropriate records.
- Joint inspection, where deemed appropriate.

The Ship/Shore Safety Check-List

For mutual safety, before the start of operations, and from time to time thereafter, a Terminal Representative and, where appropriate, a Responsible Officer, should conduct an inspection of the ship to ensure that the ship is effectively managing its obligations, as accepted in the Ship/Shore Safety Check-List. Similar checks should be conducted ashore. Where basic safety requirements are found to be insufficient, either party may require that cargo and ballast operations are stopped until corrective action is implemented satisfactorily.

Composition of the Check-List

The Ship/Shore Safety Check-List comprises four parts, the first two of which (Parts 'A and 'B') address the transfer of Bulk Liquids. These are applicable to all operations. Part 'A' identifies the required physical checks and Part 'B' identifies elements that are verified verbally.

Part 'C' contains additional considerations relating to the transfer of Bulk Liquid Chemicals and Part 'D' contains those for Bulk Liquefied Gases.

The safety of operations requires that all relevant statements are considered and the associated responsibility and accountability for compliance are accepted, either jointly or singly. Where either party is not prepared to accept an assigned accountability, a comment must be made in the 'Remarks' column and due consideration should be given to assessing whether operations can proceed. Where a particular item is considered not to be applicable to the ship, the terminal or to the planned operation, a note to this effect should be entered in the 'Remarks' column.

Coding of Items

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

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

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

R ('Re-check'). This 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.

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The Ship/Shore Safety Check-List

Ship's Name _____

Berth _____ Port _____

Date of Arrival _____ Time of Arrival _____

Part 'A' – Bulk Liquid General – Physical Checks

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 pennants are correctly rigged and positioned.			R	
5. The ship's fire hoses and fire-fighting equipment are positioned and ready for immediate use.			R	
6. The 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. Scuppers 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 sumps 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 secured with blank flanges fully bolted.				

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Bulk Liquid – General	Ship	Terminal	Code	Remarks
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 plans 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 recorders are working.			R	
20. All cargo tank atmospheres 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 understood.			A	
26. Material Safety Data Sheets (MSDS) for the cargo transfer have been exchanged where requested.			P R	

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Bulk Liquid – General	Ship	Terminal	Code	Remarks
27. The hazards associated with toxic substances in the cargo being handled have been identified and understood.				H ₂ S 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 (flashlights) are of an approved type.				
40. Fixed VHF/UHF transceivers and AIS equipment are on the correct power mode or switched off.				
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 area are disconnected from power.				
44. Window type air conditioning units are disconnected.				

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Bulk Liquid – General	Ship	Terminal	Code	Remarks
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 pumproom.			R	
47. There is provision for an 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 the 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 statements 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	
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.				

Section 3

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

Crude Oil Washing	Ship	Terminal	Code	Remarks
57. The Pre-Arrival COW check-list, as contained in the approved COW manual, has been satisfactorily completed.				
58. The COW check-lists for use before, during and after COW, as contained in the approved COW manual, are available and being used.			R	

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

Tank Cleaning	Ship	Terminal	Code	Remarks
59. Tank cleaning operations are planned during the ship's stay alongside the shore installation.	Yes/No*	Yes/No*		
60. If 'yes', the procedures and approvals for tank cleaning have been agreed.				
61. Permission has been granted for gas freeing operations.	Yes/No*	Yes/No*		

* Delete Yes or No as appropriate

Part 'C' – Bulk Liquid Chemicals – Verbal Verification

Bulk Liquid Chemicals	Ship	Terminal	Code	Remarks
1. Material Safety Data Sheets are available giving the necessary data for the safe handling of the cargo.				
2. A manufacturer's inhibition certificate, where applicable, has been provided.			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.				

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Bulk Liquid Chemicals	Ship	Terminal	Code	Remarks
7. Portable vapour detection instruments are readily available for the products being handled.				
8. Information on fire-fighting media and procedures has been exchanged.				
9. Transfer hoses are of suitable material, resistant to the action of the products being handled.				
10. Cargo handling is being performed with the permanent installed pipeline system.			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	

Part 'D' - Bulk Liquefied Gases - Verbal Verification

Bulk Liquefied Gases	Ship	Terminal	Code	Remarks
1. Material Safety Data Sheets are available giving the necessary data for the safe handling of the cargo.				
2. A manufacturer's inhibition certificate, where applicable, has been provided.			P	
3. The water spray system is ready for immediate use.				
4. There is sufficient suitable protective equipment (including self-contained breathing apparatus) and protective clothing ready for immediate use.				
5. Hold and inter-barrier spaces are properly inerted or filled with dry air, as required.				
6. All remote control valves are in working order.				
7. The required cargo pumps and compressors are in good order, and the maximum working pressures have been agreed between ship and shore.			A	
8. Re-liquefaction or boil-off control equipment is in good order.				

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Bulk Liquid Chemicals	Ship	Terminal	Code	Remarks
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.			A	Ship: Shore:
13. Information has been exchanged between ship and shore on the maximum/minimum temperatures/ pressures of the cargo to be handled.			A	
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.)				

Tank No 1 Tank No 5 Tank No 8

Tank No 2 Tank No 6 Tank No 9

Tank No 3 Tank No 7 Tank No 10

Tank No 4

2.3.2 Section 3 | Form 21 - Smoking Notice

أرامكو السعودية
saudi aramco

يسمح بالتدخين هنا



Smoking Permitted Here

Location _____ Date _____

Section 3

Section 3 | Form 21

2.3.3 Section 3 | Form 22 - Emergency Shut Down

Section 3 | Form 22



KINGDOM OF SAUDI ARABIA
Saudi Arabian Oil Company
(Saudi Aramco)

EMERGENCY SHUT DOWN

**THIS NOTICE MUST BE POSTED FOR THE ATTENTION
OF THE VESSEL CARGO OPERATIONS TEAM**

CONDITIONS REQUIRING A SHUTDOWN

An emergency shut down of cargo and / or bunker handling operations shall always be initiated by ship or terminal in the following circumstances:

- An outbreak of fire
- A serious violation of safety requirements
- A spillage of oil or R LPG
- A breakdown in ship / shore communications
- A malfunction of equipment which may be essential to safe cargo / bunker handling operations.
- Any other reason which may represent a hazardous situation

EMERGENCY SIGNAL

The emergency signal consists of a continuous sounding of short blasts on the ship's siren or whistle. The signal shall only be sounded when, in the judgement of the responsible ship's Officer, there is an immediate situation of extreme danger. The signal must not be sounded for any other reason whatsoever unless the vessel requires immediate assistance.

CALLING FOR AN EMERGENCY SHUTDOWN

Emergency shut down may be initiated by calling the following message on the radio used for loading operations:

Stop loading berth.....! Stop loading berth.....! Stop loading berth.....!

repeated at short intervals until acknowledged. If the acknowledgment cannot be received by the radio in reasonable time, the ship should sound the emergency signal.

Control room VHF set to channel

CLOSING SHIP VALVES

Whenever an emergency situation develops aboard the vessel which may require that the cargo loading operation be suspended, the vessel's loading valves shall not be closed against the flow under any circumstances until the berth operator has been advised. In order to prevent pressure surges, in the loading system, the period of valve closure shall not be less than 30 seconds.

vessels

These procedures are agreed and the number of the berth given upon signing the document, "Instructions to Masters and Conditions of use of Port".

2.3.4 Section 3 | Form 23 - SPM Rep & Pilot Assistant Crane Checklist

Section 3 | Form 23



KINGDOM OF SAUDI ARABIA
Saudi Arabian Oil Company
 (Saudi Aramco)
CRANE CHECKLIST FOR BERTH OR SPM
HARBOR PILOT / HP ASSISTANT / SPM REP

Vessel :	SPM / BERTH #:
----------	----------------

Checklist item	HP/PA/SPM Rep	Ship officer
1 Has all equipment been thoroughly checked and ready for use?		
• Are fluid levels in crane header tanks at normal operational level?		
• Are all moving parts greased and lubricated?		
• Is the hydraulic system free of any oil leaks?		
• Is the crane hook safety pawl operating correctly?		
• Are the wire runners in good condition with no broken strands or distorted sections?		
• Are crane body and boom in good condition, with no missing or corroded bolts, pins, keepers or cotter pins?		
2 Is all crane equipment within the safe work load for the operation?		
3 Are all relevant crane equipment SWL limits clearly and permanently marked?		
4. Are all associated equipment, strops, slings, shackles etc., within the safe working load for the operation?		
5. Are all involved personnel equipped with suitable PPE?		
6 Are all involved personnel thoroughly familiar with safety procedures and requirements for the lifting operation?		
7 Has the Bridge and Engine Room been informed of the testing operation?		
8 Is the vessel movement (i.e., rolling, etc.) within appropriate limits for the testing operation?		
9 Has the operational test and all checks been conducted and found satisfactory?		
10 Has a declaration been made in HP Logbook and the ship's logbook?		
Master's confirmation (in case of single centerline crane)		
11 Spare set for hydraulic hoses		
12 Spare crane wire is on board. The wire is suitable, maintained and certified.		

HP/PA/SPM Rep	Badge #	Signature	Date
Ship's officer	Rank	Signature	Date

REMINDERS FOR LIFTING OPERATIONS

- Brief all concerned personnel on the operation.
- Ensure all communications are clear and signals to be used understood.
- Keep personnel clear of snap back zones.
- Take a position where both mooring boat activities and crane operator/signalman can be clearly seen.
- Ensure crane hook block does not land on mooring boat or ship deck at any time; i.e., the crane runner does not become slack on any occasion.
- Check the alignment of the crane wires in the crane blocks and the hook block whenever it is possible.

2.3.5 Section 3 | Form 24 - SPM Rep Deck & Manifold Checklist

Section 3 | Form 24



KINGDOM OF SAUDI ARABIA
Saudi Arabian Oil Company
(Saudi Aramco)

SPM Rep. Deck & Manifold Checklist

No.		Yes	No	Log
Bow & Deck:				
1	All equipment in the bow should be ready for use :			
	a) Crowbar			
	b) Hammer			
	c) Axe			
	d) Shackles connected to messenger line			
2	Are both anchors stowed & secured			
3	Is O ₂ content in cargo tanks below 8%	O ₂	%	
Ship manifolds:				
4	Are cargo lines marked with the following:			
	a) Maximum allowable working pressure			
	b) Date of the latest annual pressure test			
5	Is the manifold equipped with the correct sized reducer			Log
6	Is the presentation flange within ANSI/ASME requirements for the berth and is the face smooth and in good condition (no scratches, no pitting etc.)			
7	If item 6 is deficient, did you consider replacement of reducers			
8	Are all bolts on reducer fully tightened and there are no missing bolts			
9	Did you request Juaymah Control platform to vacuum cargo lines			
10	Is drip tray empty and contains no liquids			
Cargo Hose Connection:				
11	Are manifold faces & hose face greased			
12	Are new gaskets being used			
13	Are gaskets in good condition with no signs of tear & wear			
14	Is there a bolt in every hole			
15	Are bolts used of the correct size			
16	Is each bolt tightened uniformly to distribute the load			
17	Is each bolt tightened uniformly to ensure a leak free seal			
18	Are manifolds not in use blanked with steel flanges			
19	Are flanges thickness match manifolds thickness			
20	Are cargo hoses supported with straps maintaining horizontal elevation			
21	Are the cargo hoses, if leaning on the ship side saddle rail, clear of any sharp edges.			
22	If the ship does not require bunkers, is the bunker hose secured to the ships rail.			
Advice Control of Readiness:				
23	Did you request Pressure test			
24	Did you confirm with Juaymah Control loading system is pressurized to 35 psi			Log
Visual Checks During pressure test:				
25	What is the status on:			
	a) Manifold			
	b) Flotation hoses			
26	Is there any leak noticed			
27	If yes, did you request ship's crew to retighten the bolts			
28	Did you request Juaymah Control Platform to re-pressure the system to 35 PSI			Log
29	Confirm system integrity prior commencement of loading			
After completion of pressure test				
30	What was the maximum pressure & time,			Log
31	Did you request permission to open vessel's manifold valves			

Section 3

Section 3 | Form 24



KINGDOM OF SAUDI ARABIA
Saudi Arabian Oil Company
(Saudi Aramco)

SPM Rep. Deck & Manifold Checklist

No.		Yes	No	Log
Commence Loading:				
32	Upon commencement of loading and during the operation, Did you ensure having crewmember stationed continuously at the manifold			
33	Is there any sign of leak			
Cargo Hose Disconnection:				
34	Have you obtained permission from Juaymah Control to fully close manifold valves			
35	Did you use new gaskets to blank the hoses			
36	Did you ensure each nut tightened & each bolt has minimum threads exposed			
37	Did you request backfill from Juaymah Control			
38	Confirm blanks are tight during backfilling (no leaks, etc.)			
39	Did you recorded hose disconnect time and passed it to Juaymah Control			Log
40	Are cargo hoses ready in all respects to be streamed			
41	Are hose strings correctly streamed and free from entanglement or any other deficiencies			
42	If entanglement could not be avoided, or deficiencies are sighted			
	a) Did you inform duty Senior Pilot			
	b) Did you inform maintenance boat			
Bunker Hose Disconnection:				
43	Has the bunker hose been drained for at least one hour prior disconnection			
44	Is bunker hose disconnected from the vessel's manifold on completion of bunkering			
45	If cargo loading operation still in progress, is bunker hose secured on deck			
46	Did you log all event,			
	a) Bunkering completed time			Log
	b) Start disconnecting bunker hose			Log
	c) Complete bunker hose disconnection			Log
Equipment Basket:				
47	Is Aramco equipment checked and stowed in a seaman-like manner			
48	Is equipment deficiency form completed			
49	Have you passed the equipment deficiency form to the mooring boat			

Section 3

HP/PA/SPM Rep	Badge #	Signature	Date
Ship's officer	Rank	Signature	Date

2.3.6 Section 3 | Form 25 - Cargo/Bunker Loading Request and Discharging Plan

Section 3 | Form 25

KINGDOM OF SAUDI ARABIA
Saudi Arabian Oil Company
 (Saudi Aramco)



CARGO/BUNKER LOADING REQUEST AND DISCHARGING PLAN

VESEL NAME:				TERMINAL:			
CARGO: LOADING / DISCHARGING				BERTH:		DATE:	
				BUNKERS			
CARGO NOMINATION / DISCHARGE			SHIP'S REQUEST				
Product	Barrels	Approximate API	TEMP	Barrels	Product	bunker nom	ship's req.
						Barrels	Barrels
					A-960 fuel oil		
					diesel		
				NOTE: Bunkers must be stopped from advised the vessel unless otherwise.			
*Quantities plus or minus 10% unless otherwise advised							
Signature (For Saudi Aramco):			Signature (Chief Officer):			Signature (Chief Engineer)	
LOADING / DISCHARGING PLAN							
PREVIOUS CARGO:				Residue vessel has Bbls in tanks: _____			
				stops: <input type="checkbox"/> segregated <input type="checkbox"/> load on top <input type="checkbox"/> discharge ashore			
*PART CARGO A BOARD YES <input type="checkbox"/> NO <input type="checkbox"/>				LINES USED FOR PART CARGO:			
IF YES TYPE		Bbls:		load/disch rate	manifold pressure		
1-PRODUCT:		LINES:					
2-PRODUCT:		LINES:					
3-PRODUCT:		LINES:					
4-PRODUCT:		LINES:					
5-PRODUCT:		LINES:					
DE BALLASTING TIME:				VESSEL CAN LOAD & DEBALLAST CONCURRENTLY: YES <input type="checkbox"/> NO <input type="checkbox"/>			
				IF YES, STATE MAX. LP DURING DEB: _____ BHP			
BUTTERFLY VALVE: YES <input type="checkbox"/> NO <input type="checkbox"/>				SAFETY LOCK FITTED: YES <input type="checkbox"/> NO <input type="checkbox"/> VALVE CLOSING TIME:			
NO. OF TOPPING OFF TANKS:				LOADED DRAFT:		FORWARD: AFT:	
REMARKS:						<div style="display: flex; justify-content: space-around;"> TANK </div> <div style="display: flex; justify-content: space-around;"> 1234567891011121314 </div>	

Original: Shipping Accounting
 Copy: Master

Section 3

2.3.7 Section 3 | Form 26 - Amendments to Loading / Discharging Agreement

Section 3 | Form 26



KINGDOM OF SAUDI ARABIA
Saudi Arabian Oil Company
 (Saudi Aramco)

AMENDMENTS TO LOADING / DISCHARGING PLAN

Ship name:			
Berth:			
Line displacement:			
Grade in shore lines:		Quantity:	Bbls
Grade to be (Loaded / Discharged*):			
Quantity to be (Loaded / Discharged*):	Bbls	Rate:	Bbls/hr
Loading / Discharging* sequence:			
1st Grade:	Quantity:	Bbls via Manifold # / LArm #	
2nd Grade:	Quantity:	Bbls via Manifold # / LArm #	
Remarks: _____ _____ _____			
The following parties have been notified of the changes**:			
<input type="checkbox"/> Pump House	<input type="checkbox"/> Shift Superintendent	<input type="checkbox"/> Unit's forman	
<input type="checkbox"/> OSPAS	<input type="checkbox"/> Shipping group	<input type="checkbox"/> Tank farm	
<input type="checkbox"/> Ship's master	<input type="checkbox"/> Port Control Center	<input type="checkbox"/> Cargo surveyor	
Checklist:			
<input type="checkbox"/> ROB / OBQ calculation completed.			
<input type="checkbox"/> Charterers have been informed by the master.			
<input type="checkbox"/> All involved ship's crew members have been informed.			
<input type="checkbox"/> Ship's stresses, stability, trim, drafts, propeller immersion have been checked and will remain within safe and acceptable limits as per SA ports and terminals rules.			
<input type="checkbox"/> New cargo plan has been prepared and signed by the chief officer/master.			
<input type="checkbox"/> Primary and secondary communication checked.			
Terminal Rep. Signature	Chief Officer Signature	Time	
Badge #			
	Ship stamp	Date	

* Delete as required.

** Tick as required.

Original : Master
 Copy : Saudi Aramco

2.3.8 Section 3 | Form 27 - Ships Ullages - Instruction Sheet

Section 3 | Form 27



Saudi Aramco 5092 (7/02)

KINGDOM OF SAUDI ARABIA
Saudi Arabian Oil Company
 (Saudi Aramco)

SHIP'S ULLAGES

Instructions:

1. Complete this form **BEFORE LOADING** and give it to the Saudi Aramco representative.
2. Complete a second copy of this form **AFTER LOADING** and give it to the Saudi Aramco representative.
3. Loading will not start and the ship will not be released until the completed forms are received by Saudi Aramco.
4. Both **BEFORE AND AFTER LOADING**, record ullages, temperatures, free water levels and grade for ALL of the vessels tanks on an individual basis.
5. **BEFORE LOADING** report the vessel's average temperature and the Total Observed Volume (TOV) of OBQ in GROSS BARRELS. Also report the ship and shore Gross Standard Volumes for every grade of part cargo that is included in the OBQ.
6. **AFTER LOADING** report the vessel's average temperature and loaded volume to Saudi Aramco. The loaded volume must be calculated by subtracting the vessel's Gross Observed Volume before loading from the Gross Observed Volume after loading.
7. **DO NOT APPLY A VESSEL EXPERIENCE FACTOR (VEF)** when reporting figures to Saudi Aramco.

Definitions:

- Gross Observed Volume (GOV)**—The total volume of all petroleum liquids and S&W, excluding free water, at observed temperature and pressure.
- Gross Standard Volume (GSV)** — The total volume of all petroleum liquids and S&W, excluding free water, corrected by the appropriate temperature correction factor for the observed temperature and API gravity, relative density, or density to 60°F.
- Total Observed Volume (TOV)**—The total measured volume of all petroleum liquids, S&W, and free water at observed temperature and pressure.
- On Board Quantity (OBQ)** — Materials remaining in vessel's tank(s) void spaces and/or pipelines prior to loading. OBQ includes water, oil, slops, oil residue, oil/water emulsions, sludge and sediment.
- Free Water (FW)** —The volume of water present in a container which is not in suspension in the contained liquid at observed temperature.

DISTRIBUTION:
 Instruction -- To be discarded Original -- RT Accounting Division 1st Copy -- Operating Unit Foreman 2nd Copy -- Offtaker Vessel

Section 3

2.3.9 Section 3 | Form 28 - Ships Ullages - Data Sheet

Section 3 | Form 28

KINGDOM OF SAUDI ARABIA
Board of Audit of Companies
(Saudi Arabia)

SHIP'S ULLAGES:
 BEFORE AFTER LOADING

Saudi Arabia's 2082 (12/86)

199221		DU77		Permit No.		Permit No.		
PORT		CENTER		STARBOARD		MEASUREMENT DETAILS		
TANK	GRADE ULLAGE	TOTAL OBSERVED VOLUME (TOU)	TEMP.	FREE WATER DIP & VOL	GRADE ULLAGE	TOTAL OBSERVED VOLUME (TOU)	TEMP.	
1	2	3	4	5	6	7	8	
1								ULLAGE METHOD: <input type="checkbox"/> MANUAL <input type="checkbox"/> AUTO/DECK <input type="checkbox"/> SONIC <input type="checkbox"/> AUTO/CONTROL ROOM TEMPERATURE METHOD: <input type="checkbox"/> CUP CASE <input type="checkbox"/> DIGITAL <input type="checkbox"/> AUTO/CONTROL ROOM WATER DIP METHOD: <input type="checkbox"/> WATER PASTE <input type="checkbox"/> SONIC / JAR SHIP'S TANKS CALIBRATED IN: IF TANKS NOT CALIBRATED IN U.S. BELLS, CONVERSION FACTOR USED: TRIM CORRECTIONS APPLIED: <input type="checkbox"/> YES <input type="checkbox"/> NO
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
GRADE:								SLOP <input type="checkbox"/> LOAD ON TOP <input type="checkbox"/> SEGREGATED <input type="checkbox"/> PART CARGO: <input type="checkbox"/> COMINGLED <input type="checkbox"/> SEGREGATED VESSEL MOVING WHEN ULLAGED? <input type="checkbox"/> YES <input type="checkbox"/> NO
ADUANCEL TEMPERATURE:								DATE VESSEL LAST DRY DOCKED:
UNITS:		GROSS BBL.		GROSS BBL.		GROSS BBL.		
1. TOTAL DEPREFT VOLUME (TOU):								
2. FREE WATER								
3. GROSS OBSERVED VOLUME								
4. TOTAL OBSERVED VOLUME (TOU)								
5. FREE WATER								
6. GROSS OBSERVED VOLUME								
7. LOADED VOLUME (B) (..):								
AFTER LOADING								DRAFT forward Aft Date

DISTRIBUTION: Instruktion - To be discarded Original - RT Accounting Division 1st Copy - Operating Dept Foreman 2nd Copy - Officer Mate

SP-FMG-MC-2008-161-FX-00366-01-028756

Section 3

2.3.10 Section 3 | Form 29 - Bunker Authorization Slip



السعودية
Saudi Aramco

Saudi Arabian Oil Company

(SAUDI ARAMCO)
Ras Tanura, Saudi Arabia
(West Admin Bldg.-1200, Tel.-966-13-6796350, Fax. 966-13-6736750)

Terminal Department TD-7048 (1/19)

Section 3 | Form 29

BUNKER DELIVERY NOTE

Vessel Name: _____ IMO#: _____ Commencement date: _____

Bunkering Port: _____ Boreth#: _____ Ship's ordert#: _____

This is to authorize Messrs _____, as my agent to sign Bunker Tickets on my behalf with the following quantities and test results.

Product Name	Gravity @ 60 °F		Barrels @ 60 °F	Metric tons	Density @ 15 °C (kg/m ³)	Flash point °F	Viscosity cSt @ 50 °C (122 °F)	Pour point (°C/m/m)	Sulfur (%m/m)	S & W %	Sample seal #
	API	SPECIFIC									
TOTAL BUNKERS DELIVERED											
VESSELS FIGURE:											
BUNKER ONBOARD AFTER											
BUNKERING CONSUMPTION DURING			+								
BUNKER ONBOARD PRIOR TO BUNKERING			-								
RECEIVED BUNKER											

PRODUCT: _____

REMARK: _____

Saudi Aramco certifies that the fuel oil supplied is in conformity with regulation 18.3 of MARPOL Annex VI and that the sulphur content of the fuel oil supplied does not exceed:

0.50% m/m as per the limit value in regulation 14.1 of MARPOL Annex VI;

0.10% m/m as per the limit value in regulation 14.4 of MARPOL Annex VI; or

The purchaser's specified limit value of _____ (%m/m)

SAUDI ARABIAN OIL COMPANY: _____ MASTER/CHIEF ENGINEER: _____

CC: Original Copy Supplier, RT Shipping Accounting Vessel Master / Ch Engineer

Saudi Aramco: Company General Use

Section 3

2.3.11 Section 3 | Form 30 - Ship/Shore Difference Investigation Checklist

Section 3 | Form 30

KINGDOM OF SAUDI ARABIA
Saudi Arabian Oil Company
 (Saudi Aramco)



SHIP-SHORE DIFFERENCE INVESTIGATION CHECKLIST

(Complete for all reported differences-use with Saudi Aramco 5092, Ullage Sheet. Follow items in sequence Saudi Aramco 6287 (05/2002))

Terminal:	Vessel:	Berth:	Date:
Boarding time:	Boarded Vessel at: Berth () Anchorage ()	Draft Fore:	Draft Aft:
A- ULLAGE SHEET CHECK		YES	NO
1	Tank volumes (T.O.V.) Added correctly?		Remarks
2	Tank volumes correctly converted to G.Bbls? (State factor)		
3	Slop deducted (state if slop segregated)		
4	Part Cargo deducted? (State if P/C segregated)		
5	Residues deducted? (State amount)		
6	Trim or List corrections made?		
7	Table corrections made? (Check calib. Table for instructions) :		
8	Did vessel use experience fact (Check Calib. Table for instructions) Reporting figures)		
9	Tank capacities (T.O.V.) checked against ship's calib. Tables?		
10	State date of last Dry Dock & any structural modifications		
11	Capacity of ship's lines/ducts added to cargo? (State quantity)		
B- PHYSICAL CHECK		YES	NO
1	Check ullage & reference points-All tanks including Part Cargo		Remarks
2	Check Temperatures-All tanks including Part Cargo		
3	Check cofferdams, pumproom, empty tanks, permanent ballast tanks & slop tanks.		
4	Check All tanks for water.		
5	Samples taken to check for contamination? (If so advised) (If so verify)		

Equipment used for physical check: Saudi Aramco () Vessel ()
 If Sonic Tape, make: If Digital Thermometer, Make:
 Serial No. _____ Calibration Certificate (Year / Mo) _____ Serial No. _____ Calibration Certificate (Year / Mo) _____
 Water dips taken using: () Paste, Make: () Sonic, Make:
 Ship's figure (gross Bbls @ temp.) before Investigation: @ °F
 After: @ °F Called planners or PCC/JPF.....
 Vessel Released: Yes () No () . Left vessel at:.....

REMARKS:

Checked by (Saudi Aramco Inspector/Badge No.): _____ Witness by (Vessel's Master/Chief officer): _____

DISTRIBUTION: Original: RT Accounting (White) **1st Copy:** Master (Yellow) **2nd Copy:** Ship's file (Blue)
 RT SHIPPING_ACCOUNTING_GROUP@aramco.com

Section 3

2.3.12 Section 3 | Form 31 - Maximum Sailing Draft VLCC Ras Tanura

Section 3 | Form 31



KINGDOM OF SAUDI ARABIA
Saudi Arabian Oil Company
(Saudi Aramco)

MAXIMUM SAILING DRAFT - VLCC - RAS TANURA

To Master / MV: _____

The Ras Tanura "Deep Water Departure Channel" has a minimum depth of 21.0 meters at L.A.T. The Port Regulations require that all vessels transiting this channel maintain a minimum under keel clearance of 1.50 meters.

The maximum permitted sailing draft for your vessel will be 19.50 meters plus the predicted rise of the tide at the time your vessel enters the departure channel but at no time shall the draft exceed 21.0 meters. For your information and guidance, the relative tidal information is attached. Times are listed in "local time" which is GMT plus three (3) hours.

Please complete the Master's draft declaration below and return this document **to the Harbor Pilot** on your departure from the berth.

If for any reason your vessel is required to anchor to await suitable tide, repairs, or any other reason, your departure must be coordinated through the **Duty Senior Harbor Pilot via Ras Tanura Radar V-HF channel 13**. Pilotage assistance to line up for the departure channel is available on request for vessel with a draft of less than 20.50 meters and compulsory for vessel with a draft of 20.50 meters or more.

For Saudi Arabian Oil Company
(Saudi Aramco)

Master's Declaration

I declare that my vessel: _____ (Name) has the following sailing drafts:

Forward	
Aft	
Maximum	

(All measurements in meters)

Master's signature _____

Harbor Pilot declaration

Clear of berth time		Date	
Entered channel time		Date	
Tide height:		Keel Clearance	

Harbor Pilot signature and ID No. _____

ORIGINAL: MASTER
COPY: SAUDI ARAMCO

Section 3

2.3.14 Section 3 | Form 33 - Pollution Notice

Section 3 | Form 33
Saudi Aramco SA-5926 (7/02)



KINGDOM OF SAUDI ARABIA
Saudi Arabian Oil Company
(Saudi Aramco)

POLLUTION NOTICE

TERMINAL: _____ BERTH NO: _____ DATE: _____

Master M.V. _____

At _____ on _____ while your vessel was loading / discharging / deballasting at the berth specified above, oil / oily water / noxious, harmful and / or hazardous substances / sewage / garbage / chemicals / ballast water / bunkers / other unauthorized discharge of pollutant(s): _____ /, leaked / was discharged from your vessel into the sea and / or air ("Pollution").

Saudi Aramco will employ all reasonable means to clean up the Pollution and to mitigate any damages caused by such Pollution but only as a contractor acting on behalf of your vessel or her owner.

You will be advised of the steps taken or to be taken and the actual or expected cost thereof.

This notice is not intended to limit or absolve you / your vessel or her owner of any obligations to prevent Pollution / further Pollution under any applicable national and / or international law or regulations and / or any general conditions, rules and regulations relating to Saudi Aramco ports and terminals. You / your vessel and her owner remain, at all times, liable for any and all damages and costs whatsoever and howsoever arising out of or in relation to the Pollution including but not limited to any applicable fines.

Please acknowledge receipt by signing this notice.

RECEIPT ACKNOWLEDGED:
_____, Master

FOR SAUDI ARABIAN OIL COMPANY
(Saudi Aramco)

M.V. _____

Date: _____

- cc WHITE - MASTER
- YELLOW - ROSC
- BLUE - SHIP'S FILE

Section 3

2.3.15 Section 3 | Form 34 - Port Clearance Statement

Section 3 | Form 34



KINGDOM OF SAUDI ARABIA
Saudi Aramco Oil Company
(Saudi Aramco)

PORT CLEARANCE ON DEPARTURE REQUIREMENT

Master M.V.

Date:

Dear Sir:

Saudi Arabian law requires that government officials must clear all vessels loading at our facilities before leaving **Saudi Arabian territorial waters**. Your vessel has completed loading and at the time of unmooring has not been boarded by the appropriate government officials.

Our Pilot, **Captain**.....has been instructed to direct you to a safe anchorage and to advise you that you must remain at the anchorage until released by the **Saudi Arabian Government** officials.

You should also establish radio contact immediately with your Agent to expedite **Port Clearance**.

Master's Acknowledgement:

I hereby acknowledge receipt of these instructions and fully understand the contents.

Signed:

Date:

Time:

ORIGINAL: MASTER
COPY: SAUDI ARAMCO

2.3.17 Section 3 | Form 36 - SPM Position Monitoring

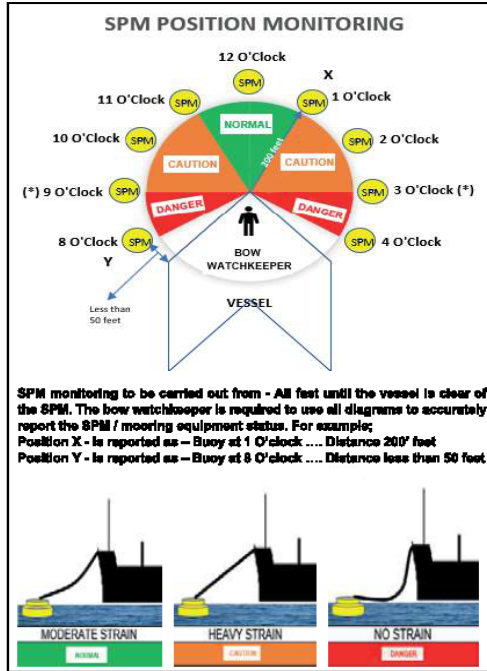
Section 3 | Form 36



KINGDOM OF SAUDI ARABIA
Saudi Arabian Oil Company
 (Saudi Aramco)

SPM POSITION MONITORING

SINGLE POINT MOORING (SPM)



VESSEL MANDATORY REPORTING TO THE HARBOR PILOT OR HARBOR PILOT ASSISTANT		
Reason	Sector	When
Approaching to 9 O'clock or 3 O'clock	CAUTION	Every time
Entering the area between 9 O'clock and 8 O'clock or 3 O'clock and 4 O'clock	DANGER	Every time
Distance from SPM to ship's hull is 50ft or less	DANGER	Every time
Mooring connection to SPM - Heavy Strain	CAUTION	Every time
Mooring connection to SPM - No Strain	DANGER	Every time

MT: _____

SIGNED: _____ (MASTER)

DATE / TIME: _____

SIGNED: _____ (HARBOR PILOT)

ORIGINAL: MASTER
 COPY: SAUDI ARAMCO

Section 3

2.3.19 Section 3 | Form 38 - SPM Basket Equipment Deficiency Report

Section 3 | Form 38



KINGDOM OF SAUDI ARABIA
Saudi Arabian Oil Company
 (Saudi Aramco)

SPM BASKET EQUIPMENT DEFICIENCY REPORT

BASKET NO. : _____ DATE BOARDED: _____
 S P M NO. : _____ PILOT TEAM : _____
 VESSEL NAME : _____

ITEMS	STANDARD QUANTITY	Condition before use	Condition after use	SHORT/ SURPLUS	REMARKS
Handy Billy	2				
Shackles (15 ts)	3				
Pipe	1				
Hooks (15 ts)	1				
Bands (lg.) 10"	1				
Bands (med) 6"	1				
Bands (sm.) 3.4"	2				
Spanners/ Open Bx.	2				
Rat Tail Spanners	2				
Bolts (large)	6				
Bolts (small)	20				
Snubbing Chain	6				
Lifting Wires	1				
Belly Bands	2				

COMMENTS :

 SPM REPRESENTATIVE

Section 3

2.3.22 Section 3 | Form 41 - SPM Mooring Diagram

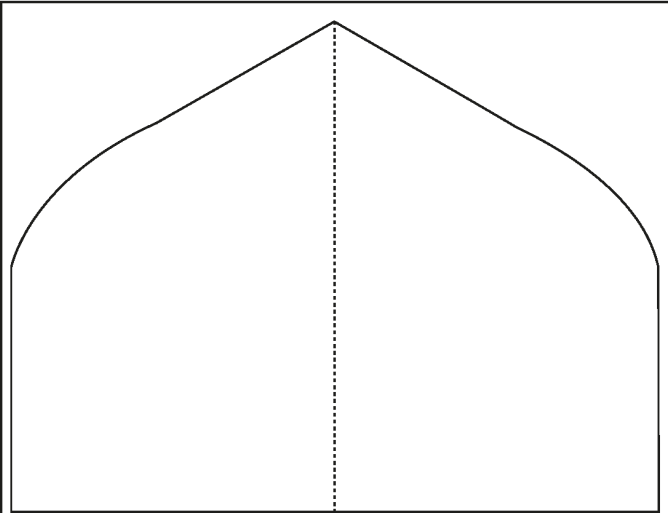
Section 3 | Form 41



KINGDOM OF SAUDI ARABIA
Saudi Arabian Oil Company
(Saudi Aramco)

MOORING DIAGRAM FOR

SPM TERMINAL



Draw the mooring lead from chock to mooring winch mentioning the best and safest lead.

Ship's Name _____ Date: _____ SPM: _____

Pickup Rope Lead: Chock - Chain stopper: _____ - _____ - _____

Pickup rope lead to: Drum End Spool Drum Winch power: Poor Good Excellent

Remarks: _____

Harbor Pilot: _____ Badge No: _____

ORIGINAL: MASTER
COPY: SAUDI ARAMCO

Section 3

2.3.23 Section 3 | Form 42 - Ships Deck Plan for helicopter use

Section 3 | Form 42



KINGDOM OF SAUDI ARABIA
Saudi Arabian Oil Company
 (Saudi Aramco)

Ship's Deck Plan For Helicopter Usage Terminal Pilotage Operation Division

Ship's Name _____ Date of report _____

Lloyds No: _____ LOA _____ Beam _____

Can rail be lowered for landing? _____ Height of obstructions on centerline _____

Crew experience in Helicopter Usage, Comments _____

The diagram shows a top-down view of a ship's deck. At the top is the BOW and at the bottom is the STERN. A vertical centerline runs through the middle. To the right of the centerline are two large rectangular areas for measurements of the port and starboard sides. Below the centerline, there are boxes for 'Show landing and hoisting locations obstructions, and mast locations', 'Angle of deck Chamber' (in Dgs), and 'Deck Color'. At the bottom, there is a trapezoidal area for 'Show Funnel colors and marking' and a box for 'Hull colors' with 'Top:', 'Middle:', and 'Bottom:' labels. A 'Completed by' line is at the bottom right.

Section 3

2.3.25 Section 3 | Form 46 – Utilities and Oil Movement

Section 3 | Form 46



Saudi Aramco
Western Region Terminal Department
UTILITIES AND OIL MOVEMENT
MARINE TERMINAL UNIT

Date: / /20

No.: _____

I, Master/Representative of the Company/Vessel : _____ IN OUT
 Hired the tug(s)

-----	-----	M O B I L I Z A T I O N	From/To	SEA	E-ANCH	I/B-AN	Outer-H	INN-H
-----	-----		SEA	0	1.5	1.0	1.0	0.5
-----	-----		E-ANCH	1.5	1.5	1.5	1.5	1.5
-----	-----		I/B-AN	1.0	1.0	1.0	1.0	1.0
-----	-----		Outer-H	1.0	1.0	1.0	1.0	1.0
-----	-----		INN-H	0.5	0.5	0.5	0.5	0.5
-----	-----	Jizan	1.5		Duba	1.5		

OF TUGS _____ Total Utilization _____

From/To Berth/Vessel: _____

APPLICABLE CONDITIONS AS PER U.K. STANDARD CONDITIONS FOR TOWAGE AND AJRD'S CONDITIONS IN THE TARIFF EFFECTIVE 01.01.89

F1-6 BERTHING/UNBERTHING ANCHORING, MANEUVERING, ETC.

J1 STAND-BY, FIRE-F BACK-UP TRANS. OWNER'S REPSURV

J2 POLLUTION CLEAN-UP

J2 TRANSP OF EQUIPMENT

 Harbor Pilot Signature

AND AGREE TO PAY WRTO FOR THEIR SERVICES AT THE TARIFF RATE EFFECTIVE 01.01.89

M A S T E R	The Transport at my Own will and Risk:	OWNER'S AGENT: _____	Master/Owner's Rep. (Ship's Stamp)
	(Owner's Rep./Surv.)	VESSEL'S DWT: _____	

Hire Charge per tug per Hour, split periods will be rounded-up to next 15 Minutes							
O F F I C E	F-16	2000	- and below DWT US \$ 150	J1: stand-by	MISFAH	MISFAH	
		2001	- 10,000 DWT US \$ 300	FIRE - F.BACK-UP	1-4 & 10	5.6 & 7	
		10001	- 20,000 DWT US \$ 450	Trans - person US\$ 110 - US\$ 224			
		20001	- 40,000 DWT US \$ 600	J2: Pollut. Clean-up			
		40001	- 100,000 DWT US \$ 750	Transp - Equipment US\$ 210 - US\$ 324			
		100001	- and above DWT US \$ 900				
	# of Tugs	Mobil. Hrs.	MobilH Hrs.	Tug-Util Hrs.	Total Hrs.	DWT-Rate US \$	Total Hire Cost US \$

Original: Shipping & Accounting
 Copy Yellow: Master
 Copy Blue: PCC

Section 3

Port of Ras Tanura

**General Rules & Information,
Ras Tanura Terminals
Including Contents Page & Annex**



Port of Ras Tanura – Contents

General Rules & Information,

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Ras Tanura Port

Rules Regulations and General Information

1 Port Description and Definition

The Port of Ras Tanura is situated in the Eastern Province of the Kingdom of Saudi Arabia on the shore of the Arabian Gulf.

1.1 Harbor Boundaries

The limits of the Port of Ras Tanura are bound by the following geographical coordinates:

1	26° 38.00'N	50° 09.00'E
2	26° 37.20'N	50° 09.00'E
3	26° 36.50'N	50° 12.50'E
4	26° 37.75'N	50° 14.70'E
5	26° 38.00'N	50° 16.60'E
6	26° 50.00'N	50° 13.00'E
7	27° 00.00'N	50° 23.00'E
8	27° 12.00'N	50° 23.00'E
9	27° 12.00'N	50° 11.00'E
10	27° 01.00'N	50° 01.00'E
11	26° 49.50'N	49° 59.00'E

1.2 Terminals

The following Saudi Aramco terminals form the Port of Ras Tanura:

- Ras Tanura Terminal
- Juaymah Crude (SPM) Terminal
- Juaymah LPG Terminal

These terminals are described in their own sections.

1.3 Marine Terminal Assistance Fees

The Owners, Operators and Charterers of any vessel calling at Ras Tanura Port shall be liable and shall reimburse Saudi Aramco promptly and in full for all applicable Ras Tanura Marine Terminal Assistance Fees.

2 Navigational Information

2.1 Meteorology

2.1.1 Winds:

Winds in the area are not predictable for more than a few hours and may come from any quarter at varying strength. The prevailing wind is from the NNW. Winds of any strength tend to create short steep seas, which develop quickly. Easterly winds however, cause heavy seas and swell, which can last for a considerable period. For a more complete description of the winds of the Arabian Gulf, refer to “Sailing Directions.”

2.1.2 Visibility

Visibility in this area is generally fair to excellent but at times the dust is held in suspension in the atmosphere and visibility is reduced to a very short distance. This phenomenon is more deceptive than fog in that mariners are apt to believe visibility to be greater than it actually is. Dense fog with or without sand or dust may occur in the morning hours.

2.1.3 General Climate

The climate of Ras Tanura is comparatively favorable for the Arabian Gulf. The exposed position of the Port permits the winds to mollify the heat of summer. Temperatures have been recorded in previous years as follows: Absolute Maximum 45.6 °C (114 °F) in June, Mean Maximum 38.4 °C (101.1 °F) in August, Mean Minimum 12.5 °C (54.5 °F) in January. Absolute Minimum 0.0 °C (32 °F) is in January.

2.1.4 Humidity

During most of the year, the relative humidity is high during late summer and early autumn. It frequently exceeds 85%.

2.1.5 Tidal Range and Flow

The datum used by Saudi Aramco is based on the LOWEST ASTRONOMICAL TIDE and all depths are quoted in meters. Locally the diurnal tide rise is approximately 2.44 meters at Springs and 1.52 meters at Neaps. More detailed descriptions of tides and currents in the locality can be found in “Sailing Directions.” Due to the configuration of the coastline, a system of tidal currents prevails with flood tide setting toward South or SSE and ebb setting toward North or NNW.

2.2 Charts and Publications

2.2.1 Charts

Charts are available in various forms, including paper-based tables and digital from worldwide Hydrographic agencies. Vessels should always use with the largest scale chart available maintained in an up to date format with the latest corrections and Notices to Mariners applied.

2.2.2 Tide Tables / Tidal Stream Atlas

Tide tables are published in various forms, including paper-based tables and digital tables.

When using tide tables for Saudi Arabian waters the validity of data should be supplied by a trusted source for example Saudi Aramco or UK Admiralty, and should be maintained in an up to date format with the latest corrections applied.

2.2.3 Pilot Books / Sailing Directions

Pilot Books / Sailing Directions are published in various forms, including paper- based or digital booklets.

When using information for Saudi Arabian waters the validity of data should be supplied by a trusted source for example UKHO, and should be maintained in an up to date format with the latest corrections applied.

2.2.4 List of Lights / fog signals and Lists of Radio signals

Lists of Lights / Fog signals and Radio Signals are published in various forms, including paper-based or digital booklets.

When using information for Saudi Arabian waters the validity of data should be supplied by a trusted source for example UKHO, and should be maintained in an up to date format with the latest corrections applied.

2.3 Navigational aids and Warnings

The buoyage system for the Port of Ras Tanura is the I.A.L.A. System, Region A.

2.3.1 Navigational Warnings

Navigational warnings are broadcast by NAVTEX and Port Control Center.

2.4 Anchorage and Anchoring

2.4.1 Holding Ground

The Port of Ras Tanura is an open roadstead, but some protection is afforded by shoals and land to the extent that vessels do not experience heavy movement. Holding ground in all anchorages is fair and it is recommended that anchored vessels lie to a long scope of chain whenever the weather is unfavorable.

2.5 North Holding Anchorage

The Northern Holding Anchorage is located on the north side of the Ras Tanura Separation Scheme, west of the Entry Buoy and north of “Ghariba” Beacon (Racon). This anchorage covers an area of approximately 30 square miles, with depths between 25 and 46 meters. It is intended as an initial holding area for incoming vessels, which, because of poor berthing prospects, congestion or other reasons will not be berthed on arrival.

2.6 Anchoring

1. Prohibited Entry

No vessel shall enter the prohibited area without a Pilot on board.

2. Use of Anchors Prohibited

Under no circumstances shall anchors be used and both anchors must be effectively secured when proceeding to Sea Island or the East Side of North Pier.

3. Anchoring, including in an Emergency

Any vessel navigating within Ras Tanura Port limits must seek permission from Ras Tanura Port Control Center before utilizing anchors.

All vessels will anchor in positions designated and in coordination with Ras Tanura Port Control Center.

When a vessel requires to anchor during an emergency situation full consideration must be given to anchoring, with permission and at a safe distance from all

- Prohibited, Restricted or Cautionary areas,
- Underwater installations,
- Submarine Cables or Pipelines,

During transit of all navigational areas within Ras Tanura Port, Masters must be aware at all times of the proximity and position of all charted underwater topography and obstructions in case the unexpected need to anchor arises. A suitable passage plan should be in use from entry of the port to exit the port and include recognition of underwater obstructions as detailed by chart symbols used by all international hydrographic organizations and ECDIS as appropriate.

Vessels proceeding to an anchorage or at an anchorage must ensure anchors not in use are effectively secured and lashed in the hawse-pipes to prevent accidental use.

On completion of berthing and secure at North Pier and Sea Island the anchors shall be effectively secured and lashed in the hawse-pipes to prevent accidental use and dropping with subsequent damage to the subsea pipelines and equipment.

3 Arrival Communications

Refer to “Common Rules and Information,” section 6.0 “Radio Communications and Messages,” and in particular, Section 6.4 “THE STANDARD MESSAGES.”

3.1 VHF Communications

3.1.1 VHF Radio Channel 10 - General

All vessels shall monitor VHF radio channel 10, from the “Approach” buoy up to the “A” buoy, when under way in the approach channels to the Port of Ras Tanura and in the areas of Juaymah Crude Terminal, North Holding Anchorage and Juaymah NGL Terminal.

3.1.2 Monitoring VHF Radio Channel 13 - General

Vessels arriving at the Port of Ras Tanura shall monitor VHF channel 13 from the “A” buoy until Pilot boarding time; including time at anchor in the South Holding or Freighter anchorages. Vessels departing from the Port of Ras Tanura shall monitor VHF channel 13 from the time of disembarking the Pilot, up to the “A” Buoy.

3.2 Early Contact

VHF contact with Ras Tanura Port Control should be established within 100 miles of the Port (or more in good propagation conditions) and maintained when anchored. Tankers calling Ras Tanura Port Control shall provide the following information:

1. ETA at Ras Tanura entry buoy
2. Arrival and Sailing draft
3. Last Port of Call
4. Arrival displacement
5. Oxygen content in cargo tanks
6. Cargo requirement with sequence
7. Status of previous defects if any.
8. Tanks pressure and temperature (LPG)
9. Current defects.
10. ISPS (ISSC validity and level)

3.3 Arrival at the Port

Vessels shall call Ras Tanura Port Control on VHF channel 16 and 10 when passing the “Entry buoy,” at which time information relating to berthing or anchoring will be confirmed.

3.4 Anchoring After Arrival

If the vessel is required to anchor on arrival, then as soon as the vessel is anchored, the Master should advise Ras Tanura Port Control on VHF channel 10. After anchoring, vessels should maintain a listening watch on VHF channel 16 and 10.

3.5 When at Berth

Vessel is required to maintain listening to VHF channel 16 and 13 while alongside the berth. Use of VHF at the berths in the Port of Ras Tanura to contact Saudi Aramco Terminal Planners, Ras Tanura Port Control or Agents is permitted.

4 Arrival Procedures

4.1 Arrival Directions

Vessels arriving should make for a position approximately 2 miles north of the Ras Tanura light float in position 27° 05.6'N 50° 57.5'E. From there, they should proceed to enter the inward channel of the separation scheme passing north of the Approach and Entry buoys. Vessels shall then proceed as instructed.

4.2 Proceeding to the Northern Holding Anchorage

A vessel with no special instructions or with instructions to proceed to the Northern Holding Anchorage shall, after passing the Entry buoy, proceed to Northern Holding Anchorage to drop anchor.

After anchoring, the vessel should immediately advise Ras Tanura Port Control on VHF channel 10 of the anchoring time. Thereafter, they should monitor VHF channel 16 and 10 for further instructions.

4.3 Proceeding to a Specified Terminal

A vessel with instructions to proceed directly to Ras Tanura Terminal, Juaymah Crude Terminal or Juaymah LPG Terminal shall, after passing the Entry buoy, proceed as directed by Ras Tanura Port Control.

4.4 Proceeding Via Ras Tanura Arrival Channel

For vessels proceeding to the Ras Tanura Terminal, the maximum permitted arrival draft is 16.30 meters, plus the rise in the height of tide above L.A.T. at the time of transit, up to a maximum of 18.00 meters.

4.4.1 Channel Pilotage

Pilotage is not provided for any of the channels in the Port of Ras Tanura.

5 Traffic Movements and Maneuvering

5.1 Vessel Traffic Management System (VTMS)

A mandatory Vessel Traffic Management System (VTMS) is in operation to improve navigational safety for all vessels within the Port of Ras Tanura. It achieves this by:

The Ras Tanura VTMS Operators Will Never, Under Any Circumstances, Assume Control Of, Or Responsibility for Vessels Navigating in The Area. The Port Captain May Issue Special Instructions in Exceptional Circumstances.

5.1.1 The Service Provided to Masters

The VTS Operator will provide the following information service for the Masters:

- Information on channel and port conditions, congestion, weather, tides, navigational aids, etc.

- Information on the movement of other vessels, dangerous maneuvering situations, vessels violating port rules and regulations, berthing prospects and anchoring conditions.
- Advice on port rules regarding the movement of deep draft vessels and the priorities of vessel movements. It may be necessary for vessels arriving to reduce speed to permit safe passage for outgoing deep draft vessels.

5.1.2 Special Orders and Exceptional Circumstances

Whenever a potentially dangerous or hazardous situation exists within the Ports of Ras Tanura, the Port Captain or his Deputy may issue orders regarding same. Such orders will normally be relayed through the VTMS and will be preceded by the phrase "By Order of the Port Captain."

5.2 Traffic Rules

The following rules apply to all ships entering or leaving the Ports of Ras Tanura or Dammam by way of the Ras Tanura Channel. The separation zones and routes shown on the charts of the Ras Tanura Channel are approved by IMO. Violators of the routing recommendations will be reported to their Owners/Operators/ Agents and/or Charterers.

All limited speeds must be adhered to within Ras Tanura Port limits unless a controlled deviation is required for reasons of safety.

5.2.1 General

Vessels departing from North Holding Anchorage shall advise Ras Tanura Port Control on VHF, channel 10, of their intentions 30 minutes before weighing anchor. Vessels departing from Ras Tanura Inner Anchorage shall advise Ras Tanura Port Control on VHF, channel 13.

5.2.2 Crossing Channel Separation Zones

Vessels crossing the Ras Tanura Channels for any reason should do so only with the concurrence of and under the guidance of Ras Tanura Port Control. This includes, for example, entering the arrival channel from the Northern Holding Anchorage.

5.2.3 Ships Bound to And from the Port of Dammam

Ships bound to and from the Port of Dammam shall keep to the eastern part of the Tanker Anchorage and avoid the maneuvering areas extending from the anchorage to the Sea Islands and Piers.

Outbound ships from Dammam shall, when passing Dammam Channel Buoy No. D11, alert Ras Tanura Port Control on VHF channel 13 of their estimated time of arrival at the southern extremity of the Tanker Anchorage.

5.2.4 Ras Tanura Arrival Channel Rules All inbound ships:

- A. Navigating in The Departure Channel: Under No Circumstances Shall Inbound Vessels Navigate in The Departure Channel.
- B. Reporting Positions: When Passing the Entry Buoy Report to Ras Tanura Port Control on VHF Channel 10. When Passing The "A" Buoy, Report Again to Ras

Tanura Port Control on VHF Channel 10, Who Will Then Advise to Shift VHF Channel To 13.

- C. Limited Speed: All ships using the Ras Tanura Port, Traffic Separation Scheme shall on passing the Ras Tanura, Approach Buoy or joining at any other point approved by Ras Tanura Port Control Center proceed at the following mandated speeds:
 - From Approach Buoy to Delta (D) Buoy: Not exceed a speed of 12 knots.
 - From Delta (D) Buoy to the South extremity of the Tanker Anchorage, all ships shall limit their speed to 5.0 knots or to the minimum required for safe maneuvering.
- D. Overtaking: Vessels Shall Not Overtake Other Vessels After Passing The “D” Buoy.
- E. Minimum Distance Between Vessels: Vessels Shall Maintain A Distance Of At least Two Miles from Vessels Proceeding in The Same Direction After Passing The “D” Buoy.
- F. Navigate with Caution: Vessels Shall Navigate with Caution and Give Way to Vessels Departing from the Berths and Anchorages.

5.2.5 Ras Tanura Departure Channel Rules All Ships Using the Outbound Channel:

- A. Navigating in the Inbound Channel: Under No Circumstances Shall Outbound Vessels Navigate in The Arrival Channel.
- B. Overtaking: Vessels Shall Not Overtake Other Vessels Until After Passing The “B” Buoy.
- C. Minimum Distance Between Vessels: Vessels Shall Maintain A Distance Of At Least Two Miles from Vessels Proceeding in The Same Direction Until Both Vessels Have Passed Clear of the “B” Buoy.
- D. Limited Speed: All departing ships approved by Ras Tanura Port Control Center to use or join at any point the Ras Tanura Port, Traffic Separation Scheme shall proceed at the following mandated speeds:
 - From the South extremity of the Tanker Anchorage to the entrance to the Departure Channel and until passing Foxtrot (F) Buoy shall limit their speed to 5.0 knots or to the minimum required for safe maneuvering.
 - From Foxtrot (F) Buoy to Approach Buoy: Speed not exceeding 12 knots
- E. Maximum Sailing Draft in The Departure Channel:
 - Shall Not Exceed 21.0 Meters Draft.
 - Have an Under-Keel Clearance Of At Least 1.5 Meters.

5.2.6 Anchorages and vessel Maneuvering Areas:

Limited Speed: Vessels not proceeding within the Ras Tanura Traffic Separation scheme and maneuvering while proceeding to and departing from the following areas shall limit their speed to 5.0 knots or to the minimum required for safe maneuvering.

- The area between the South extremity of the Tanker Anchorage and the entrance to the Departure Channel ('H' and '20' buoys).
- North Holding Anchorage and within its boundaries
- Juaymah LPG Anchorage and within its boundaries
- Juaymah SPMs, 5.0-mile radius
- Juaymah NGL Pier, 5.0-mile radius

6 Facilities

6.1 Bunkers

Saudi Aramco fuel oil bunkers are available at berths in the Port.

Vessels taking only bunkers are urged to call at Ras Tanura prior to loading elsewhere to avoid delays caused by draft and berthing assignment problems.

All bunkering operations will be conducted to comply with pertinent national and ratified International Regulations, which includes provisions of Bunker Delivery Notes (BDNs). Saudi Aramco will also deploy, where necessary, indicative MARPOL sampling to enforce fuel oil quality delivered through Saudi Aramco ports and terminals.

Non-Aramco bunkering services are available. Vessels employing these services are not permitted to bunker within the operating area of the Port of Ras Tanura.

6.2 Fresh Water

Drinking and boiler water are NOT available in the Port of Ras Tanura. In cases of emergency, ship agents may be able to arrange delivery of small quantities by barge.

6.3 International Ship and Port Facility Security Code

- Contact Information, Ras Tanura Assistant PFSO:

Tel: +966 13 6731152 – 24hrs contact.

Tel: +966 13 6730080 – 24hrs contact.

Email: SNRHPT@aramco.com

7 Shipping Agent Contact Details

The following companies are available to act as ships agents at the Saudi Aramco Terminals.

Information contained in the table may be altered by the listed organizations without advance notice to users.

Ras Tanura Shipping Agencies							
Agency	Services	Phone	Mobile 1	Mobile 2	24 Hours	Fax	E Mail
Yusuf Bin Ahmed Kanoo (S5 Agency world)	1 3	(013) 667 1868 (013) 667 0792	(013) 667 1876	-	-	(013) 667 3093	ksadrtn@kanoosa.com a35sj419@gncomtext.com kanoorastanura@kanoosa.com
Gulf Agency Company, Saudi Arabia	1	(013) 667 2240 (013) 667 0636 (013) 667 0632	(055) 095 2451	-	-	(013) 667 2248	rastanura@gac.com
Faisal M Higgi and Associates Co Ltd	1	(014) 322 2046 Ext : 702/133	(050) 439 8008	-	(014) 322 2046 Ext : 702/133	(014) 322 4388	Ops01@faisal-higgi.com RasTanura@faisal-higgi.com
Arabian Establishment for Trade and Shipping Ltd (Al Arabia)	1	(013) 667 3860 (013) 832 1036	-	-	-	(013) 667 3864	aetrtn@aetshipping.com
Sharaf Shipping Agency Co. Ltd	1	(013) 668 2824	(055) 531 7293	-	-	(013) 667 2144	ssaops@ssadammam.com
Wilhelmsen (Binzagr Barwil Maritime Transport Co Ltd)	1 2	(013) 667 3364 (013) 667 2100	(056) 298 7182	(056) 629 8184	-	(013) 667 3620	wss.rastanura.operations@wilhelmsen.com
Oriental Commercial and Shipping Co. Ltd (OCSCl)	2	(013) 826 0529 (013) 667 2439	(050) 800 8278	-	-	-	Fareed.alfaraj@ocsci.com lrfan.hameed@ocsci.com
High Seas Marine & Industrial Services Co	1 2	(013) 668 2165 (013) 668 2570	(013) 668 2573 EXT 118	-	-	(013) 668 2158	ops.rastanura@highseas.com.sa operations@highseas.com.sa
Haji Abdullah Alireza and Company Ltd (Alireza)	1	(013) 667 0656 (013) 667 2491	(050) 585 8791	-	(013) 667 0656	(013) 667 2495	rtalireza@alireza.com.sa
Globe Marine Services	1	(013) 667 4242	(050) 590 8375	(056) 038 3214	-	-	gmsopsrst@globeksa.com
Lama Marine Service Company	1 2	(013) 667 5644	(055) 963 5635	(050) 059 3107	-	(013) 667 5786	shuaib@sedres.net asaf@sedres.net

Shipping Agencies are locally licensed to provide services for - 1. Maritime Support Services 2. Chandlery services 3. Bunker Services
If dialing from an International destination: All landline / Mobile / Fax numbers must be preceded by Saudi Arabian country code. (00 966) or (+966) and then remove the first zero of the number. For example: Local (013) *** ***** will become either 00 966 13 *** ***** or +966 13 *** *****

Ras Tanura Terminal

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Ras Tanura Terminal

Rules Regulations and General Information

1 General

1.1 Location

The Ras Tanura Terminal is located on a peninsula, the southern end of which forms a sand spit. The tip of this spit is officially known as Ras Tanura.

At this southern tip, a survey reference point is located and marked by a beacon.

1.2 Description

1.2.1 The South Pier

The South Pier is connected to the east side of a peninsula by a causeway and trestle. The "T" Pier has four berths (1 to 4) but at present is mothballed.

1.2.2 The North Pier

The North Pier is located about 3/4 mile to the north of the South Pier and has a causeway and trestle that extends from the peninsula. It comprises six berths (6 to 11). Crude oil and products are available at the North Pier.

1.2.3 The Sea Islands

A complex of three Sea Islands, interconnected by walkways, is located approximately one-mile northeast from the North Pier. Sea Island #1 is currently isolated and abandoned in place.

1.3 Marine Terminal Assistance Fees

The Owners, Operators and Charterers of any vessel calling at Ras Tanura Port shall be liable and shall reimburse Saudi Aramco promptly and in full for all applicable Ras Tanura Marine Terminal Assistance Fees.

2 Entering the Terminal

2.1 VHF Communications

2.1.1 At Anchor

A constant listening watch should be maintained on VHF channels 16 and 13. Vessels will be called by Ras Tanura Port Control with berthing information and other instructions. Ras Tanura Port Control should be called on VHF channel 13 prior to weighing anchor.

2.1.2 Underway:

A. Inbound

All vessels should maintain a listening watch on VHF channels 16 and 13 for Ras Tanura Port Control.

B. Outbound

After disembarking the Pilot or before leaving the tanker, anchorage vessels must maintain a listening watch on VHF channels 16 and 13 for Ras Tanura Port Control.

C. Under Pilotage

Pilots carry portable intrinsically safe radios, which operate on Saudi Aramco dedicated mooring channels for contact with tugs and jetty staff. In addition, the vessel's VHF radio should be on standby on channel 13 for back up communications.

D. At Berth

An exchange of intrinsically safe portable radios will be made between vessel and jetty personnel to ensure constant communication while loading. VHF channel 13 should also be monitored.

2.2 Proceeding from Sea

Follow the channel separation scheme to Buoy "H" according to advice from Ras Tanura Port Control on VHF channel 10. Ras Tanura Port Control will advise whether the vessel will berth on arrival or anchor in the Ras Tanura South Tanker Anchorage.

2.3 Proceeding from North Holding Anchorage (NHA)

Vessels entering the separation scheme from the NHA should do so only under the guidance of Ras Tanura Port Control on VHF channel 10.

2.4 Proceeding Via East Channel

Follow the buoyed route to Buoys RTE 7 and RTE 8 then proceed to Tanker Anchorage or Pilot boarding position as directed by Ras Tanura Port Control

Caution

It is recommended that vessels over 10.67 meters draft and/or more than 244 meters LOA are not to use the East Channel.

2.5 Anchorage Areas

2.5.1 Tanker Anchorage

The Tanker Anchorage lies approximately 1.6 miles east of the Sea Islands and is used as a final holding area for vessels that have immediate berthing prospects, or for vessels awaiting cargo clearance, release, sailing documents, etc., and whose draft does not exceed 17.5 meters. Under normal circumstances, no more than 10 vessels are allowed to use this anchorage at one time.

2.5.2 Freighter Anchorage

This anchorage, south east of the “SPIT” Buoy, is used as a holding ground for coastal tankers and miscellaneous small vessels and craft inbound for Saudi Aramco Marine facilities located at the West Pier.

2.5.3 Deep Draft Anchorage

Vessels with a draft of more than 17.5 meters, which are required to anchor upon completion of loading, awaiting suitable tide, must normally do so in area approximately 0.7 miles north of the Sea Islands. This anchorage swept depth of 21.9 meters and holding ground is only considered due to variations in character of the bottom. It is recommended that lie to a long scope of chain in adverse weather. No more than two vessels are allowed to use this anchorage at one time.

3 Berthing of Vessels

3.1 Pilot Boarding Areas

3.1.1 Vessels from Arrival Channel

Pilot will normally board south of Buoy “H,” as advised by Ras Tanura Port Control on channel 13.

3.1.2 Vessels at Tanker Anchorage

After heaving anchor, the vessel will be advised by Ras Tanura Port Control on channel 13 to proceed toward a position approximately 1.5 miles SE of the south end of Sea Island, dependent on weather and tidal conditions. For ships assigned to North Pier, pilot boarding position is 2 miles east of the North Pier.

Vessels must not approach any closer than 1.5 miles to the piers or Sea Island without a Pilot on board due to the tidal streams in the area.

3.2 Mooring/Line Boats

Mooring boats are not used at Ras Tanura Terminal.

3.3 Sea Island Submerged Pipelines

All traffic must pass east of the Sea Islands due to the existence of numerous submerged oil pipelines between the Sea Islands and the Shore.

3.4 Mooring Lines

Vessels should have heaving lines ready to take the shore messenger after landing alongside. The messenger is then made fast to the ship’s mooring line, which is hove ashore by means of a capstan.

Heavy wires should be sent ashore one at a time. Ropes may be sent ashore two at a time. Jetty Crews are on duty continuously to handle mooring lines. Saudi Aramco personnel will not handle mooring lines on board vessels.

3.5 Ship/Shore Connections

Jetty crews are on duty continuously to handle oil hoses/arms and will make all connections and disconnections.

All loading connections are equipped with electrical insulating flanges; therefore, ship to shore bonding cables must not be rigged.

3.6 Dock Water Density

The specific gravity of seawater at Ras Tanura is approximately 1.032.

3.7 Ballast and Slop Reception

Saudi Aramco Ports and Terminals are part of a National network of Ports and Terminals that are governed through pertinent national legislations. Thus, Saudi Aramco Ports and Terminals request all ships calling at its terminals to liaise with their respective shipping agent to arrange for all MARPOL reception requirements.

3.8 Cargo Available

3.8.1 Crude Oils

- Arabian Extra Light crude
- Gas condensate
- Arabian Light crude
- Arabian Medium crude
- Arabian Medium crude (BANACO)
- Arabian Heavy crude

3.8.2 Products

- Fuel Oil (A960)
- White Diesel (A 888)
- Kerosene (A 418)
- Naphtha (A 310)

3.8.3 Min. Topping-off Rate

Min. topping-off rate is normally 15,000 barrels per hour, this must be confirmed during Terminal/Ship pre-operation agreements.

3.9 Safe Loading Drafts

If at any time a vessel's draft approaches to within 1 meter of the depth of water at the berth, loading will be suspended until a rising tide increases the depth to permit resumption of loading and provide for a safe draft of the fully loaded tanker on departure.

3.10 Maximum Arrival Draft

The maximum arrival draft at the Sea Islands is 16.30 meters plus rise of tide up to a maximum of 18.00 meters. This is due to water depths in the Ras Tanura arrival channel.

3.11 Maximum Sailing Draft

The maximum sailing draft, from the Sea Island, is 19.50 meters plus the height of tide above L.A.T., limited to an absolute maximum of 21.00 meters, at the time of transiting the Deep-Water Channel.

3.12 Gangways

3.12.1 North Pier

At North Pier, all vessels are required to provide their own gangway, which should be ready prior to berthing.

3.12.2 Sea Islands

Shore gangways are provided at each Sea Island berth.

4 Completion and Departure

4.1 Giving Notice of Expected Completion Time

As an aid to planning and expediting ship's movements and also to give adequate notice to vessels scheduled to berth, vessels loading at the berths shall call Ras Tanura Port Control on VHF channel 13 one hour before completion of loading.

4.2 Deep Water Departure Channel

The deep-water departure channel has a clear swept depth of 21.00 meters at L.A.T. A minimum of 1.50 meters under keel clearance is required for all vessels transiting this channel during departure. In any event, the maximum draft shall not exceed 21.00 meters.

4.3 Departure Pilotage

4.3.1 Requesting Channel Line-Up

On departure from the Ras Tanura Terminal, Masters of vessels of 150,000 tons DWT and above may request additional pilotage assistance to line up for the Deep-Water Departure Channel.

4.3.2 Compulsory Channel Line-Up

Such pilotage assistance is compulsory for vessels with a draft of 20.50 meters or more. In such instances, the Harbor Pilot will remain on board until the vessel is aligned on a safe course for the Departure Channel.

4.3.3 Pilot's Method of Disembarking

In rough weather, the pilot will usually disembark in sufficient time to ensure a lee for the pilot boat. In the event that this is impossible, provision is made for the Pilot to leave by helicopter subject to the conditions of Part 1, Section 8.2 "Disembarkation of Pilots" in the common rules and information.

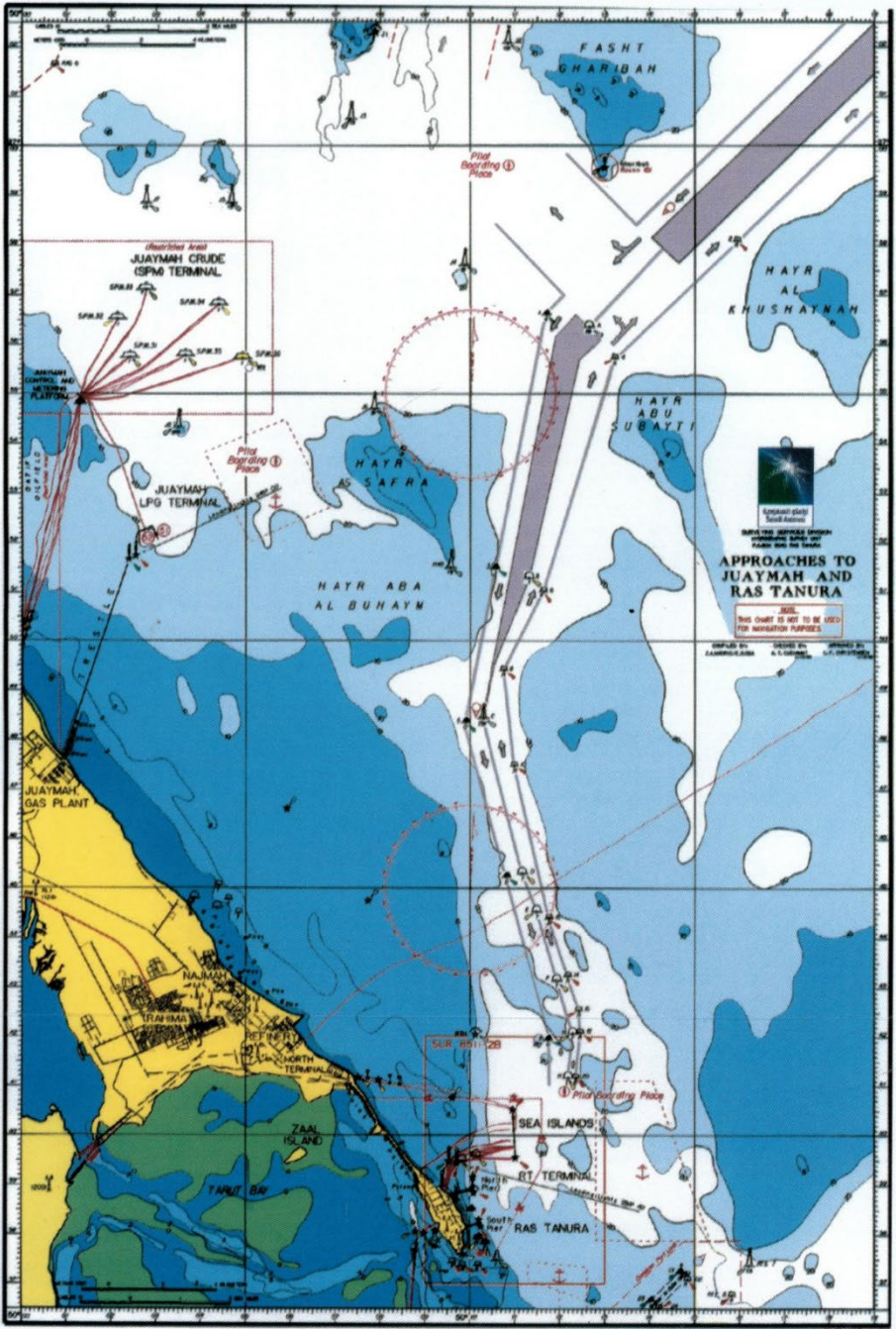
4.3.4 Proceeding to North Holding Anchorage

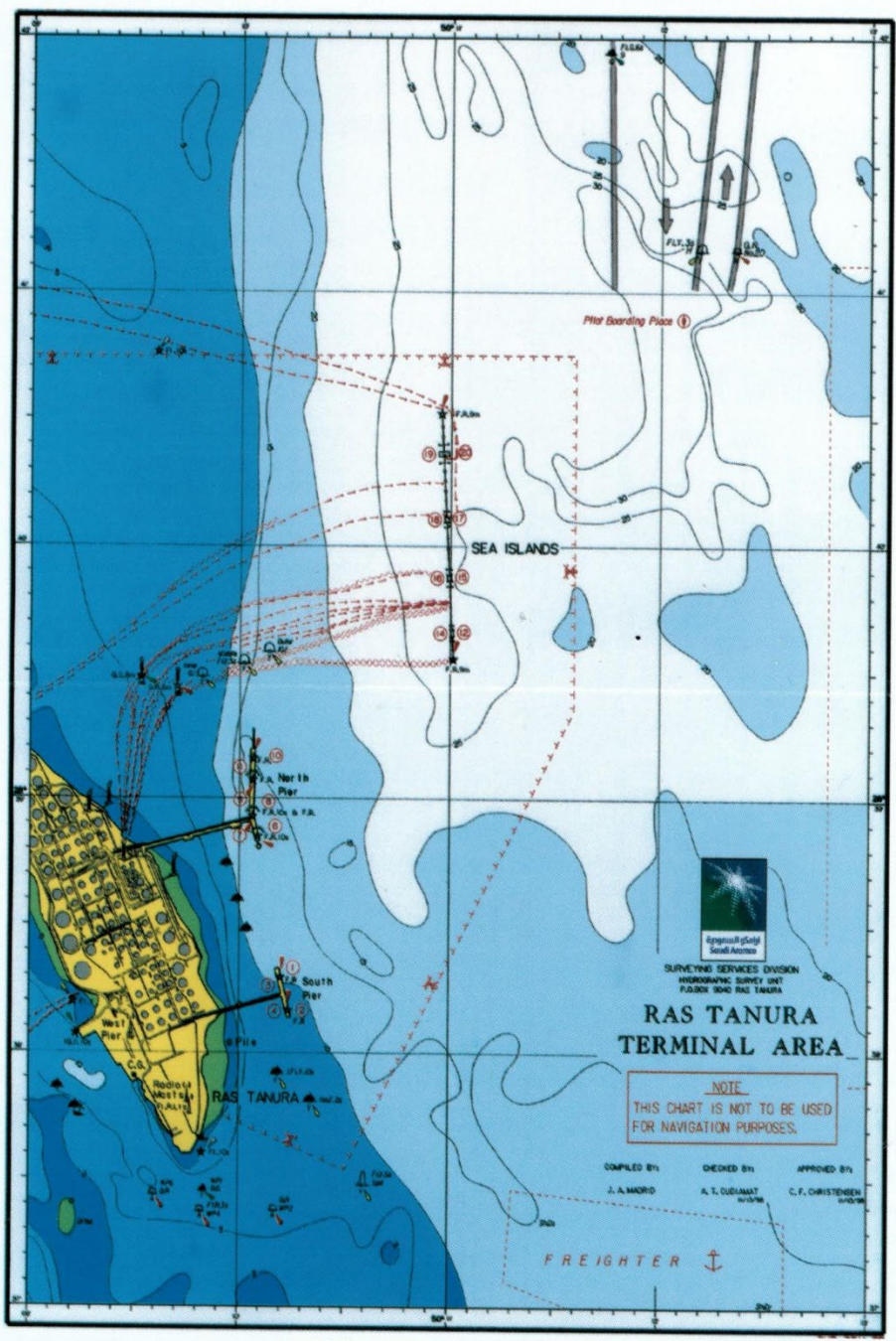
The vessel should leave Ras Tanura Terminal and follow the Departure Channel, observing the separation scheme to the North Holding Anchorage under advice of Ras Tanura Port Control. The Master should advise Ras Tanura Port Control on channel 10 of the anchoring time.

Annex

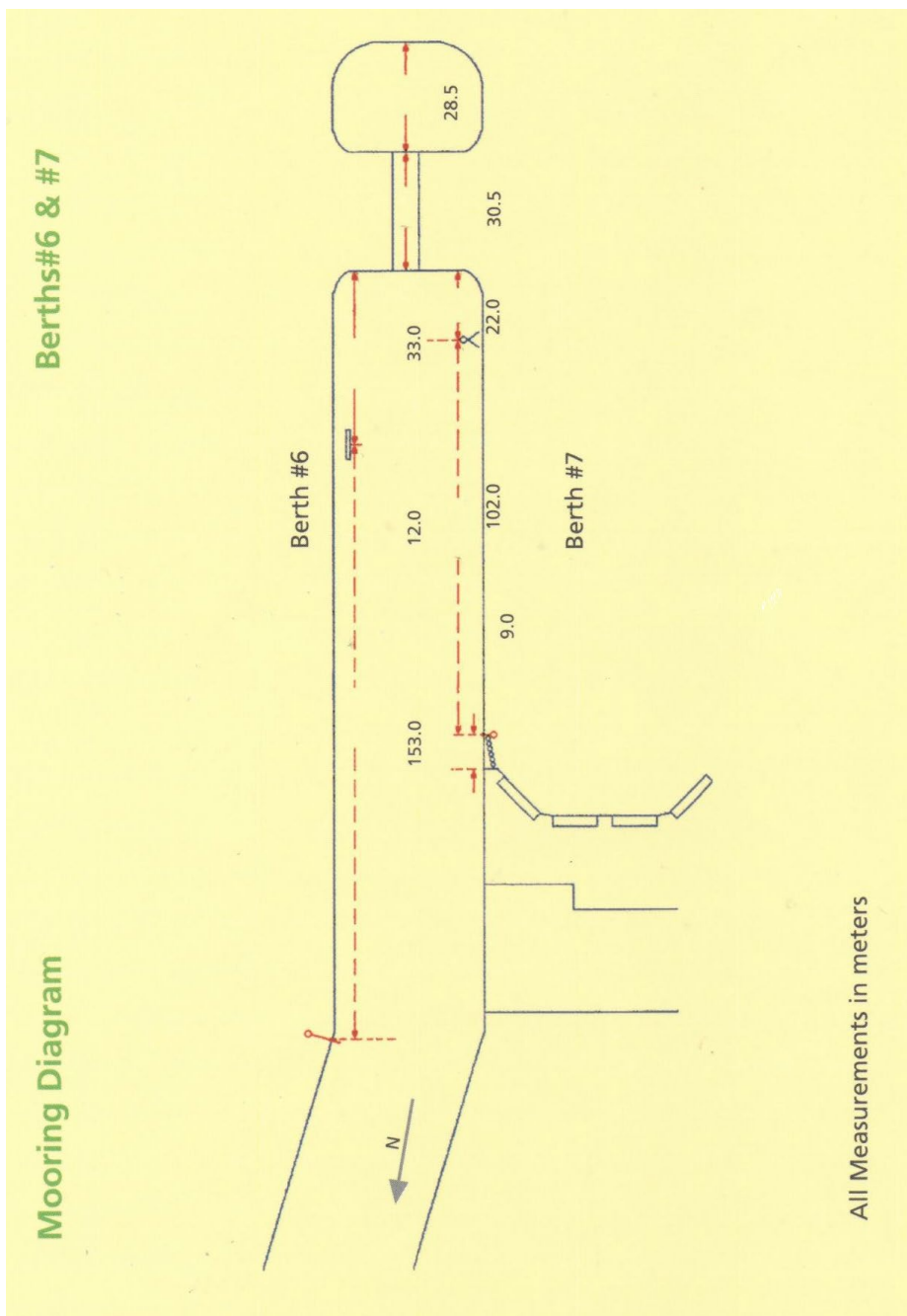
- 1. Charts**
- 2. Berth Diagrams**

1. Charts



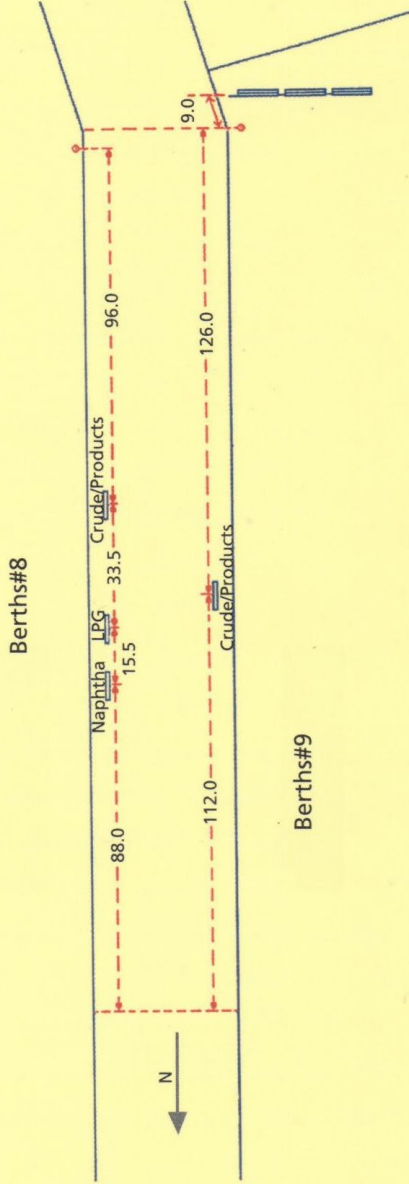


2. Berth Diagrams



Mooring Diagram

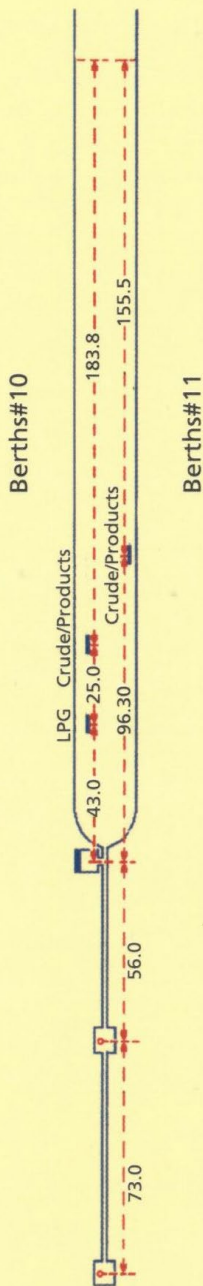
Berths#8 & #9



All Measurements in meters

Mooring Diagram

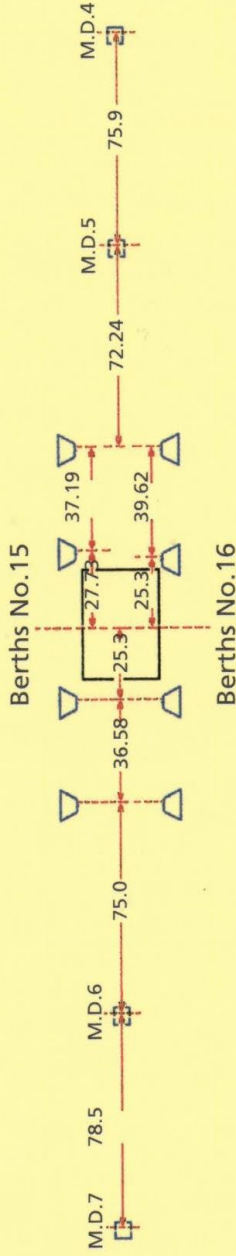
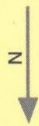
Berths#10 & #11



All Measurements in meters

Mooring Diagram

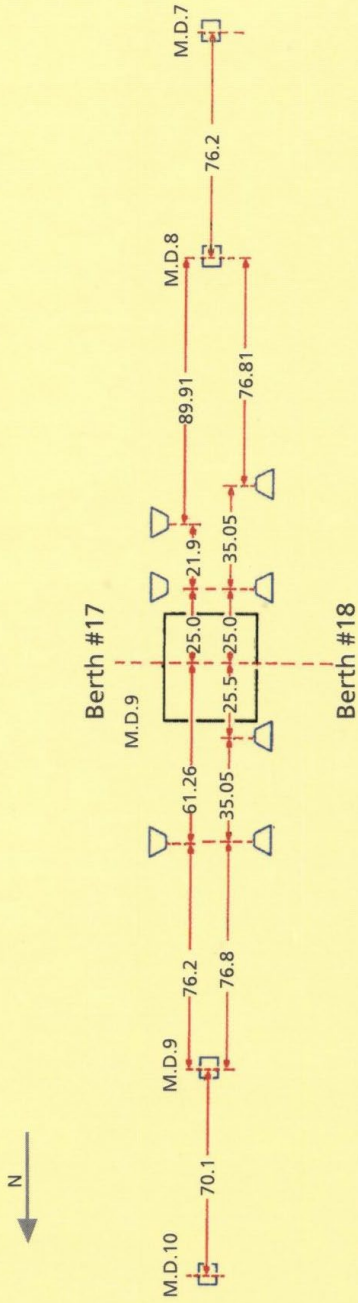
Sea Island 2 Berths 15/16



All Measurements in meters

Mooring Diagram

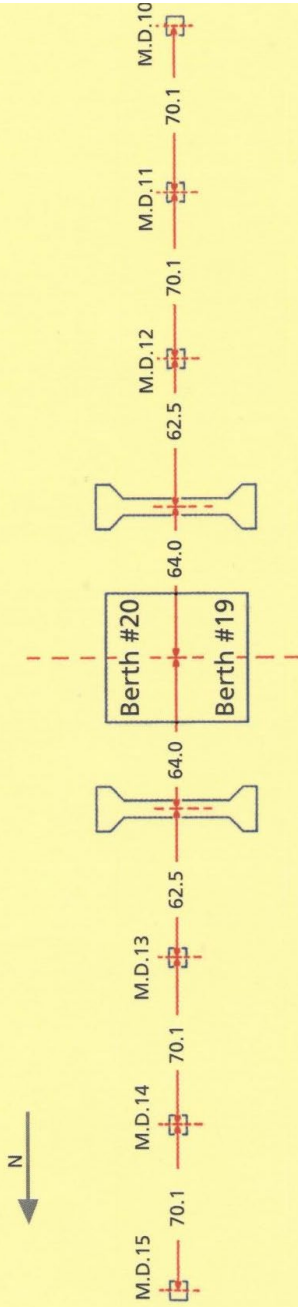
Sea Island 3 Berths 17/18



All Measurements in meters

Mooring Diagram

Sea Island 4 Berths 19/20



All Measurements in meters

Port of Ras Tanura Juaymah Crude & LPG Terminals

Including Contents Page & Annex



Juaymah Crude (SPM) Terminal

RULES REGULATIONS AND GENERAL INFORMATION

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Juaymah Crude (SPM) Terminal

RULES REGULATIONS AND GENERAL INFORMATION

1 General

1.1 Location of Terminal

The Juaymah Crude Terminal loading facilities are located approximately 18 miles N-NW of the Ras Tanura Terminal and 7 miles offshore. See location charts in the Annex to this section.

These facilities consist of an oil metering and manifold platform, a terminal control platform and six single point mooring berths.

1.2 Description of Terminal

The Juaymah Crude Terminal is a Saudi Aramco crude oil and bunker fuel loading facility designed for loading and topping off deep draft tankers. The terminal consists of the following facilities:

1.2.1 An Oil Platform

An oil platform located in 15.24 meters of water. The platform is well lit in addition to one fixed white light on each corner of the platform with a range of visibility of approximately 5 miles.

1.2.2 The Control Platform

The control platform is located 46 meters N of the oil platform and connected to it by a walkway bridge. This houses communications, testing laboratory, offices, control system and meteorological equipment. This platform is marked by a fixed red aircraft warning light.

1.2.3 Single Point Mooring Buoys

Six Single Point Mooring buoys have been established between 1 and 4 miles to the NE of these platforms. Crude oil and bunkers are received at each buoy from the oil platform through one bunker and two crude oil submarine pipelines, which are connected to the buoy by flexible submarine hoses.

1.2.4 Loading Hoses

Each buoy is fitted with two 20"/24" diameter floating crude loading hose strings and one 12" diameter floating bunker loading hose string. The crude string tail hoses are fitted with 16" or 20" Class 150 ANSI flanges for connection to the ship's manifold. The bunker string tail hoses are fitted with 12" class 150 ANSI flanges.

The length of each hose string is approximately 335 m.

1.2.4.1 SPM Marker Buoys

When an SPM is removed and taken ashore for maintenance, a marker buoy may be installed to indicate the position of the underwater pipeline and anchor chains.

1.3 Marine Terminal Assistance Fees

The Owners, Operators and Charterers of any vessel calling at Ras Tanura Port shall be liable and shall reimburse Saudi Aramco promptly and in full for all applicable Ras Tanura Marine Terminal Assistance Fees.

2 Traffic Movements and Maneuvering

2.1 Vessel Traffic Management System (VTMS)

A mandatory Vessel Traffic Management System (VTMS) is in operation to improve navigational safety for all vessels within the Port of Ras Tanura. It achieves this by:

The Ras Tanura VTMS Operators Will Never, Under Any Circumstances, Assume Control Of, Or Responsibility for Vessels Navigating in The Area. The Port Captain May Issue Special Instructions in Exceptional Circumstances.

2.1.1 The Service Provided to Masters

The VTS Operator will provide the following information service for the Masters:

- Information on channel and port conditions, congestion, weather, tides, navigational aids, etc.
- Information on the movement of other vessels, dangerous maneuvering situations, vessels violating port rules and regulations, berthing prospects and anchoring conditions.
- Advice on port rules regarding the movement of deep draft vessels and the priorities of vessel movements. It may be necessary for vessels arriving to reduce speed to permit safe passage for outgoing deep draft vessels.

2.1.2 Special Orders and Exceptional Circumstances

Whenever a potentially dangerous or hazardous situation exists within the Ports of Ras Tanura, the Port Captain or his Deputy may issue orders regarding same. Such orders will normally be relayed through the VTMS and will be preceded by the phrase "By Order of the Port Captain."

2.2 Traffic Rules

The following rules apply to all ships entering or leaving the Ports of Ras Tanura or Dammam by way of the Ras Tanura Channel. The separation zones and routes shown on the charts of the Ras Tanura Channel are approved by IMO. Violators of the routing recommendations will be reported to their Owners/Operators/ Agents and/or Charterers.

All limited speeds must be adhered to within Ras Tanura Port limits unless a controlled deviation is required for reasons of safety.

2.2.1 General

Vessels departing from North Holding Anchorage shall advise Ras Tanura Port Control on VHF, channel 10, of their intentions 30 minutes before weighing anchor. Vessels departing from Ras Tanura Inner Anchorage shall advise Ras Tanura Port Control on VHF, channel 13.

2.2.2 Crossing Channel Separation Zones

Vessels crossing the Ras Tanura Channels for any reason should do so only with the concurrence of and under the guidance of Ras Tanura Port Control. This includes, for example, entering the arrival channel from the Northern Holding Anchorage.

2.2.3 Ships Bound to And from the Port of Dammam

Ships bound to and from the Port of Dammam shall keep to the eastern part of the Tanker Anchorage and avoid the maneuvering areas extending from the anchorage to the Sea Islands and Piers.

Outbound ships from Dammam shall, when passing Dammam Channel Buoy No. D11, alert Ras Tanura Port Control on VHF channel 13 of their estimated time of arrival at the southern extremity of the Tanker Anchorage.

2.2.4 Ras Tanura Arrival Channel Rules, All Inbound ships:

- A. Navigating in The Departure Channel: Under No Circumstances Shall Inbound Vessels Navigate in The Departure Channel.
- B. Reporting Positions: When Passing the Entry Buoy Report to Ras Tanura Port Control on VHF Channel 10. When Passing The “A” Buoy, Report Again to Ras Tanura Port Control on VHF Channel 10, Who Will Then Advise to Shift VHF Channel To 13.
- C. Limited Speed: All ships using the Ras Tanura Port, Traffic Separation Scheme shall on passing the Ras Tanura, Approach Buoy or joining at any other point approved by Ras Tanura Port Control Center proceed at the following mandated speeds:
 - From Approach Buoy to Delta (D) Buoy: Not exceed a speed of 12 knots.
 - From Delta (D) Buoy to the South extremity of the Tanker Anchorage, all ships shall limit their speed to 5.0 knots or to the minimum required for safe maneuvering.
- D. Overtaking: Vessels Shall Not Overtake Other Vessels After Passing The “D” Buoy.
- E. Minimum Distance Between Vessels: Vessels Shall Maintain A Distance Of At least Two Miles from Vessels Proceeding in The Same Direction After Passing The “D” Buoy.
- F. Navigate with Caution: Vessels Shall Navigate with Caution and Give Way to Vessels Departing from the Berths and Anchorages.

2.2.5 Ras Tanura Departure Channel Rules, All Ships Using the Outbound Channel:

- A. Navigating in the Inbound Channel: Under No Circumstances Shall Outbound Vessels Navigate in The Arrival Channel.
- B. Overtaking: Vessels Shall Not Overtake Other Vessels Until After Passing The “B” Buoy.
- C. Minimum Distance Between Vessels: Vessels Shall Maintain A Distance Of At Least Two Miles from Vessels Proceeding in The Same Direction Until Both Vessels Have Passed Clear of the “B” Buoy.

- D. Limited Speed: All departing ships approved by Ras Tanura Port Control Center to use or join at any point the Ras Tanura Port, Traffic Separation Scheme shall proceed at the following mandated speeds:
- From the South extremity of the Tanker Anchorage to the entrance to the Departure Channel and until passing Foxtrot (F) Buoy shall limit their speed to 5.0 knots or to the minimum required for safe maneuvering.
 - From Foxtrot (F) Buoy to Approach Buoy: Speed not exceeding 12 knots
- E. Maximum Sailing Draft in The Departure Channel:
- Shall Not Exceed 21.0 Meters Draft.
 - Have an Under-Keel Clearance Of At Least 1.5 Meters.

2.2.6 Anchorages and vessel Maneuvering Areas:

Limited Speed: Vessels not proceeding within the Ras Tanura Traffic Separation scheme and maneuvering while proceeding to and departing from the following areas shall limit their speed to 5.0 knots or to the minimum required for safe maneuvering.

- The area between the South extremity of the Tanker Anchorage and the entrance to the Departure Channel ('H' and '20' buoys).
- North Holding Anchorage and within its boundaries
- Juaymah LPG Anchorage and within its boundaries
- Juaymah SPMs, 5.0-mile radius
- Juaymah NGL Pier, 5.0-mile radius

3 Entering the Terminal

3.1 Maximum Drafts

3.1.1 Minimum Keel Clearance

Tankers proceeding to or from the berths must at all times keep a minimum of 2.0m under keel clearance.

3.1.2 Maximum Arrival Draft - Normal Operations

Under normal operating conditions, the maximum arrival draft is 21.3 m.

3.1.3 Maximum Arrival Draft - Special Operations

A special operation, such as discharging cargo at Juaymah Crude Terminal, which requires tankers to arrive with drafts in excess of 21.3 m, requires special routing and other arrangements. In this case, the absolute maximum draft is 26 m. Such tankers:

- When arriving, shall proceed to the Main Channel by way of Ras Tanura Light Float and the Approach Buoy and transit the Arrival Channel to the Entry Buoy. After passing the Entry Buoy, the tanker shall leave the Arrival Channel and cross the Northern Holding Anchorage, passing well north of Fasht Gharibah and turn south toward the Juaymah Pilot Boarding Area leaving buoy J2 close to port. The Pilot will board the vessel after it passes J2 buoy provided a berth is assigned on arrival.
- Shall be upright and have no more than 1% sag.
- Shall, at no time, pass south of a line drawn due East from Juaymah Offshore Platform.

- Shall only enter the charted restricted area on a rising tide with sufficient time to complete the berthing operation before high water.

3.1.4 Tankers with Drafts Exceeding 25.0 Meters

Tankers with drafts of 25.0 m and above, whether arriving or departing, shall at no time pass more than 0.5 miles south of a line drawn through SPMs #31, #35 and #36.

3.2 Arrival Ballast Condition

For vessels proceeding from sea to the Juaymah SPM crude terminal, (via the RT Arrival Channel) the maximum permitted draft shall be 21.3 m. Masters of vessels arriving with a deep draft should navigate with caution in the vicinity of: 26° 50.5'N, 50° 10.5'E.

3.2.1 Maximum Trim

Due to the exposed location at the Juaymah berths, tankers should arrive with sufficient water ballast for safe handling, having due regard to the existing sea and weather conditions.

Unless otherwise instructed, vessels must arrive with the propellers immersed and the trim not exceeding 0.7% of LOA by the stern.

3.3 Vessels Arriving from Sea

Proceed from the Entry Buoy and to a position approximately 2 miles Northeast of Buoy "A." In accordance with advice from Ras Tanura Port Control, the vessel should then turn into the Juaymah Pilot Boarding Area to anchor or be berthed on arrival.

3.4 Vessels Arriving from the Northern Holding Anchorage

These vessels should enter the traffic separation scheme under advice of Ras Tanura Port Control on VHF Channels 10 and 16.

3.5 Vessels Arriving from the Ras Tanura Terminal

The vessel, when clear of Ras Tanura Terminal, should follow the departure channel towards the mid-channel marker Buoy "A" Caution Area and with advice from Ras Tanura Port Control turn into the Juaymah Pilot Boarding Area either to anchor or to be berthed on arrival.

3.6 VHF Communications

3.6.1 Underway

At all times when underway in the Arrival Channel and Pilot Boarding Area, vessels must maintain contact with Ras Tanura Port Control on VHF Channels 10 and 16.

Prior to arrival, vessels will be contacted by Ras Tanura Port Control, which will request certain updated and additional information for the use of the Pilot/Pilot Assistant who will berth the vessel.

3.6.2 At Anchor

A constant listening watch should be maintained on VHF Channels 10 and 16. Vessels will be called by Ras Tanura Port Control with berthing information and other instructions.

3.6.3 Under Pilotage and at Berth

The Pilot will carry a portable intrinsically safe multi-channel radio by means of which all communications regarding approach, mooring and cargo loading will be made. These radios are fitted with an emergency switch that activates an alarm at the Control Platform. He will also carry battery chargers for these radios during the vessel's stay in the Terminal. The vessel's VHF radio should be available (if possible in the cargo control room) as back up communications on Channel 13.

3.7 Anchors, Anchoring and Restricted Areas

3.7.1 Anchorage

The area west of "GRB" Beacon is used as a temporary holding anchorage for vessels awaiting arrival clearance or berthing if needed.

3.7.2 Restricted Area/Submerged Pipelines

1. Prohibited Entry

No vessel shall enter the prohibited area without a Pilot on board.

2. Use of Anchors Prohibited

Under no circumstances shall anchors be used in the vicinity of the berths due to the existence of numerous submerged pipelines.

4 Pilotage, Mooring Rules and Operations for SPM Berths

4.1 Pilot Boarding

The Pilot and Pilot Assistant will board the tanker at Juaymah Pilot Boarding Area west of Ghariba Beacon. The Master should provide an adequate lee for embarking the pilot team if they are to board from Pilot boat, or prepare his ship as requested by the helicopter dispatcher if they are to board by helicopter.

The Pilot and Pilot Assistant will advise the Master on all maneuvers and operations relative to berthing, connecting and disconnecting hoses and unberthing. Moreover, they will also provide all communications between ship and shore during cargo loading and be the Saudi Aramco Representative with respect to safety observations and other requirements.

4.2 Helicopter Operations

4.2.1 General

Helicopter operations in the Port of Ras Tanura are carried out according to the "International Chamber of Shipping (ICS) – Guide to Helicopter/Ship Operations". All vessels using the service should have a copy of this booklet and the safety checklist relevant to helicopter operations on board.

4.2.2 Description of Helicopters

The helicopters used to transport Saudi Aramco personnel and equipment to and from tankers in the Port of Ras Tanura are Agusta AW 139, which are twin engines and carry 12 passengers. They are fully equipped for night operations with the capability for either landing or winching operations. In addition to being fitted with radar and radios that

operate on aeronautical frequencies, they are fitted with International Marine VHF Channels 11, 12, 13, 14 and 16.

4.2.3 Ship Information

Vessels will be instructed to standby on VHF Channel 12 for instructions from the Ras Tanura Helicopter Base. The following information should be available:

- Vessel's Course and Speed.
- Relative Wind Speed and Direction.
- Location and Type of Helicopter Operating Area.

Due to the low profile of helicopters used by Saudi Aramco, a full landing area is necessary for a landing operation.

Prior to the helicopter's departure, Masters will be required to confirm that they are complying fully with the recommendations contained in the "ICS - GUIDE TO HELICOPTER/SHIP OPERATIONS." Contact will be made by the Helicopter Pilot with the vessel on VHF Channel 12 as soon as practical after takeoff from the Helicopter Base.

4.3 Preparations Prior to Berthing

Ships assigned to the SPM berths must comply with the OCIMF recommendations for equipment employed at single point moorings.

During the approach, while mooring/securing to the berth, the vessel's anchors MUST be secured by stoppers to prevent accidental dropping with subsequent damage to the subsea pipelines and equipment.

Line handling during mooring/unmooring shall be performed by the ship's staff under instructions of the Pilot/Pilot Assistant.

Both port and starboard cranes shall be rigged and ready to lift the hose connecting equipment basket from the launch from either side. A trolley should be available to transport this equipment about the vessel's deck.

The following vessel's equipment should be ready on the forecastle head.

- Large crow bar.
- Large intrinsically safe flashlight for night mooring.
- A messenger lines 24 to 28 mm diameter, 150 m in length.
- Winch drum or empty spool drum to heave onboard the mooring pick up rope.

Note: Where possible, the mooring line(s) should lead through a "Panama chock" in the center of the bow, rather than through a single port or starboard bow fairlead as this produces fewer tendencies to yaw.

Power should be available at the winches (mooring deck equipment) on the forecastle and to the cranes at the ship's manifold to ensure they are ready to lift the ancillary mooring and hose handling equipment. Manifold should be prepared for cargo operations.

The Pilot/Pilot Assistant will check that all equipment for mooring and hose connecting operations are on board the launch and in working order prior to departure. Items such as chain hoists, gaskets, wrenches, flange bolt sets, butterfly valve handles, ullaging equipment, sample bottles, etc., may be required and placed on board.

4.3.1 Preparing the Forecastle Head

Ship's staff will prepare the forecastle head for the mooring operation at the instruction of the Pilot/Pilot Assistant.

4.3.2 Preparing the Port Side Manifold

All Saudi Aramco SPM Terminals have been designed for use with vessel port side manifolds. The port crane must be currently certified, tested and ready for use. Two 16" or 20" flange connections to be fitted on cargo manifolds. If bunkers are required, one 12" flange on the after-manifold bunker connection required. To avoid delays, the vessel should have reducers ready at the port side manifold to adapt to these sizes.

Drip trays, absorbent material or sand and firefighting equipment should be in position.

Saudi Aramco normally supplies equipment, however the presence of the following suitable, certified for use and well-conditioned equipment will prevent delays in case of deficiency or malfunction.

- Chain Block.
- Spare spanners.
- Spare lifting strops.
- Spare bolts.

4.3.3 OCIMF Standard Manifold Arrangement

To secure the hoses to the vessel's manifold; the manifold arrangement must be as recommended in OCIMF publication "Recommendations for Oil and Chemical Tanker Manifolds and Associated Equipment".

4.3.4 Equipment Transfer

Saudi Aramco mooring and hose connecting equipment will be lifted aboard the tanker from the launch on either the port or starboard side by means of the ship's crane.

Normally, the transfer of equipment will be done once the ship is fully secured to SPM. If the ship requires cargo reducers, the transfer will be done as soon after the Pilot boards the vessel as possible. For this purpose, the hose handling crane shall be ready for immediate use and an adequate lee shall be provided.

To prevent injury to personnel and damage to the launch superstructure, the hoisting block must be secured and controlled by a handling line during the entire transfer operation.

4.4 Berthing - Sequence of Operations

4.4.1 Mooring/Line Boats

The launches and other terminal facilities are equipped with compatible VHF and UHF two-way radio equipment of adequate power.

4.4.2 Operational Limits

It has been generally agreed that mooring boats can operate in seas up to 6 ft in the hours of darkness, and 7 ft during the hours of daylight. These parameters are only guidelines. The decision to proceed with the operation should only be made after careful evaluation of the existing circumstances, and agreement with the mooring boats.

4.4.3 Optimum Approach Direction

Prior to making the final approach to the berth, it is important that the Master and the Pilot evaluate and agree, on all conditions and factors that will influence the mooring operation. These conditions and factors include: the tide, current, wind, swell and wave effect, and the direction in which the floating hose strings and hawsers are lying.

The optimum approach to the terminal is into the wind and sea. At times, this approach will not be possible, because of the current being at variance with the wind or sea conditions. Accordingly, it is incumbent upon the Master to exercise careful judgment when approaching the terminal, particularly during the hours of darkness and in poor visibility.

Particular attention must be given to the location of the floating hose string. Normally, the position of the floating hoses will be controlled by the currents, rather than by wind effect.

4.4.4 Approaching the Berth

When the optimum approach route has been selected, the tanker should proceed toward the terminal at a suitable speed, dependent upon the conditions at that time. Approximately 1,000 m from the berth, the vessel should have only sufficient way on for steerage.

The floating hose string should be on the port side. The tanker should make the final approach with the buoy on the port bow, rather than dead ahead. This permits the Pilot/Pilot Assistant on the bridge to observe the buoy at all times, and in the event of any misjudgment of the approach speed, there is no danger of overrunning the buoy.

It is extremely dangerous for small boats to lie in the path of large vessels, particularly when the larger vessel has a bulbous bow. Therefore, the ship's crew must carry the messenger line 50 ft aft (minimum) to one side of the ship before lowering the messenger line, thereby making it unnecessary for the boat to position itself dead ahead.

The tanker's approach speed must be reduced to a minimum, but sufficient to keep the ship's maneuverability.

4.4.5 Mooring Hawser Hookup

As the vessel approaches the berth, the floating hoses are towed away from the path of the approaching tanker.

When the vessel is approximately 300 to 460 m (1,000 to 1,500 ft) from the buoy, and still making way, the mooring boat will bring the port hawser pickup rope (80 mm diameter) and make it fast to the messenger. At the boat's signal, the pickup rope is heaved on deck.

Under No Circumstances Must Any Load Be Put on The Pickup Rope as This May Lead to The Failure of The Rope.

The tanker should be brought to a dead stop between 45 and 60 m (150 and 200 ft) from the buoy. At this point, the chafing chain is lifted into the bow chock and then to the bow chain stopper to be secured under the direction of the pilot. Ease back on the pickup rope until the weight is taken up.

Care must be taken to gradually transfer the load to the hawser, to avoid transient snatch loading that can result from a freely drifting tanker taking up hawser slack.

Repeat the operation for the starboard chain.

4.5 Connecting the Hoses

Connecting and disconnecting of cargo and bunker hoses is to be carried out by the ship's staff under supervision from the Pilot or appointed Pilot Assistant.

1. Lower the vessel crane hook clear of the ship side to the mooring boat.
2. The mooring boat crew will connect the hook to the designated hose.
3. Heave up the hose and retrieve the snubbing chain as directed by the Pilot Assistant.
4. Secure the snubbing chains as directed
5. Lower the hose and check for alignment of the hose flange with the vessels designated manifold flange.
6. Lower the hose onto the drip tray and restrict hose movement. Remove the hose blank flange.
7. Lift the hose and connect it to the manifold. Never use a wire strop or chain around the cargo or bunker hose.
8. All additional hoses should be connected using the repeated procedure and connected in the same way. It is important to use all of the bolt holes and a new gasket for every connection.
9. After all hoses are connected, cargo hoses must be supported in the way of the vessel's side rail by means of nylon belly bands hooked up to ship's crane. Be advised that the cargo hoses are partially resting on the saddle rail and most weight supported by the crane.

4.6 Use of Tug/Engine at Berth

Immediately after securing both chains, a tug will be placed on a towline at the stern of the vessel, using a vessel's line of suitable length and strength. The line is to be kept taut at all times.

Vessels that are only able to run their engines astern for short periods should maintain them in a state of readiness at short notice and use them as required to maintain position off the SPM. At such times, the Pilot should direct the operation from the forecastle with a vessel's officer and with the bridge manned by the Master.

4.7 Bow Watchman

At all times when at berth, there shall be an experienced crewmember on duty at the bow of the vessel. He shall be issued with a means of immediate communication with the Deck Officer on duty.

He shall observe the configuration of the hoses and mooring hawsers, and the proximity of the SPM and hoses to the tanker. He shall be alert to oil leaks or spills, unattached oil slicks in the vicinity and deteriorating weather conditions. He shall immediately report any abnormal event or deteriorating weather to the Deck Officer on duty.

See "SPM Hose Configurations Diagram" in the Annex to this section.

4.8 Manifold Watchman

At all times, when at berth and when cargo hoses are connected, there shall be a watchman on duty at the manifold. He shall observe the configuration of the hoses and the manifold connections. He shall be alert to oil leaks or spills, stress or chafing on the hoses or ancillary equipment and deteriorating weather conditions. He shall report any abnormality to the Deck Officer on duty.

4.9 The Deck Officer on Duty

The Deck Officer shall immediately report any abnormal events, deteriorating weather or other situations coming to his attention to the Pilot or Pilot Assistant on duty.

4.10 Gangways

The gangway is to be rigged and ready on the starboard side of the vessel, maintained at deck level.

4.11 Boarding Vessels at Berth

Small craft are not allowed in the vicinity of the vessel and no one is permitted to board or leave a vessel while cargo operations are in progress.

Should it become urgent for personnel to board or leave a vessel for any reason during the cargo operation, the Pilot must be contacted to request permission to shut down the cargo operation while the small craft is alongside.

4.12 Care of Berth Equipment

In bad weather, maintenance work is extremely difficult and involves possible danger to personnel. For this reason, vessels are requested to give as much assistance as possible by taking proper care of the mooring and hose equipment.

Hose/hawser maintenance is expensive. If Saudi Aramco judges that a vessel has misused any hose or hawser, the vessel will be liable for the expenditure incurred in making repairs.

4.13 Disconnecting the Hoses

On completion of loading cargo or bunkers, manifold valves must NOT be closed until the Pilot/Pilot Assistant directs. This is important for line clearing.

1. **Connect the forward hose chain to the crane hook, take the weight and disconnect the flange.**
2. **Replace the blank flange using all the bolts and a new gasket. Tighten the bolts to avoid uneven tension on the flange.**
3. **Lower hose to deck and secure.**
4. **Repeat with after hose and wait until back filling of the hoses is complete.**
5. **Bunker hose should be disconnected and securely blanked as soon as bunkering is completed and secured on deck until cargo loading is completed. It should be lowered into the water during back filling of the cargo hoses.**

6. When back filling is completed, secure the crane hook to the lifting hook of the after hose and raise the hose until the weight is taken off the snubbing chain.
7. Release the snubbing chain.
8. Lower the hose end into the water and trip the hook to release and guide hose end to mooring boat using appropriate small rope.
9. Repeat for the forward hose.

Return all Saudi Aramco tools and equipment to the steel basket, stow it in a seaman like manner, and prepare for lowering to the mooring boat, on either the port or starboard side, dependent on weather conditions.

4.14 Unmooring Procedure

1. Take the weight of the chain and hawser on the pickup rope using the windlass.
2. Disconnect chafing chain from the bow chain stopper.
3. Slowly slack the pickup rope until the support buoy is in the water and taking all of the weight of the chain.
4. Pay out the pickup line either to the mooring boat or as the ship clears the berth.

5 Berths Information

The specific gravity of seawater at Juaymah Crude Terminal is approximately 1.032.

Note: More information about berth information and diagrams of CALM/SALM type SPM buoys are in Annex III.

Loading Rates

Maximum crude loading rate is 130,000 barrels per hour and maximum bunker loading rate is 5,000 barrels per hour. Minimum topping-off rate is 25,000 barrels per hour.

Ballast and Slop Reception

None available.

Crude Oils Available:

- Arabian Light crude.
- Arabian Extra Light crude.
- Arabian Medium crude.
- Arabian Heavy crude.

Bunker Oil Available:

- A960 fuel oil (as bunkers).

5.1 Procedures at Berth

5.1.1 Loading Operations

The loading operation will be controlled by the ships' officers; however, radio communications with the Control Platform will be conducted by the Pilot or Pilot Assistant.

Under no circumstance is the flow to the vessel to be stopped by the vessel while switching tanks, etc. Need for emergency shutdown of loading aboard the vessel must be communicated by radio as mentioned above.

5.2 VHF Communications Failure

In the event of failure of radio communication systems, the vessel will sound five long blasts on the vessel's whistle followed by one, two, three, four, five and six short blasts for a vessel at Berth 31, 32, 33, 34, 35 or 36, respectively. Loading operations will be stopped and will not be resumed until communications have been restored.

6 Completion and Departure

6.1 Cargo Calculations and Release

The Cargo Officer should supply the Pilot with the ship's cargo loaded figures in U.S. (i.e., Gross) Barrels. The Pilot will not accept the figures until they are presented in writing on the Saudi Aramco ullage report form.

The pilot will transmit the figures to Saudi Aramco by radio or email to:

RTSHIPPINGACCOUNTINGGROUP@aramco.com

Or alternatively to

SNRHPT@aramco.com (+966 13 673 1152, +966 13 673 8787).

Results of ship/shore comparison take time and Masters are urged to prioritize the cargo calculations and completion of the ullage report form to avoid delay.

If the vessel is released, the Pilot will leave after unmooring is completed and the ship is clear of the berth. If the ship/shore difference is large and the vessel is not released, the Pilot will survey the cargo according to Saudi Aramco inspection procedures and report his findings to Saudi Aramco Terminal Planners.

Refer also to "COMMON RULES AND INFORMATION," Section 11.3 "CARGO CALCULATIONS AND RELEASE."

6.2 Departure

Upon completion of unmooring, the vessel will make a lee for the mooring and hose connecting equipment to be discharged onto the launch, on either port or starboard side.

The Pilot/Pilot Assistant will normally leave by helicopter.

A separate departure channel has been provided for all vessels using the Juaymah facilities. The vessel will proceed via the departure channel between Beacon J1 and Buoy J2, and then toward the Exit Buoy JE. The vessel should then set an easterly course north of Buoy JD to the Juaymah Light Float.

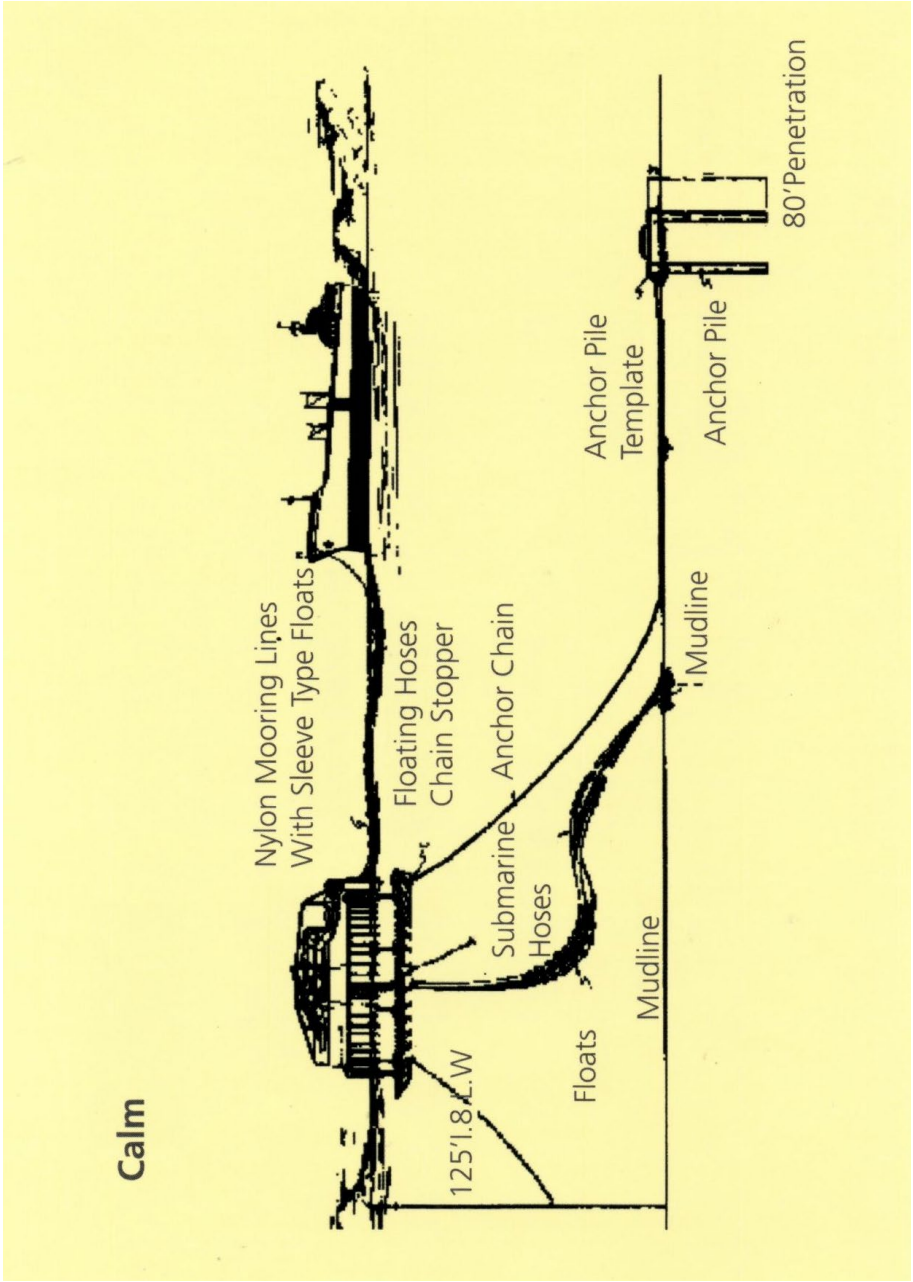
7 Annex

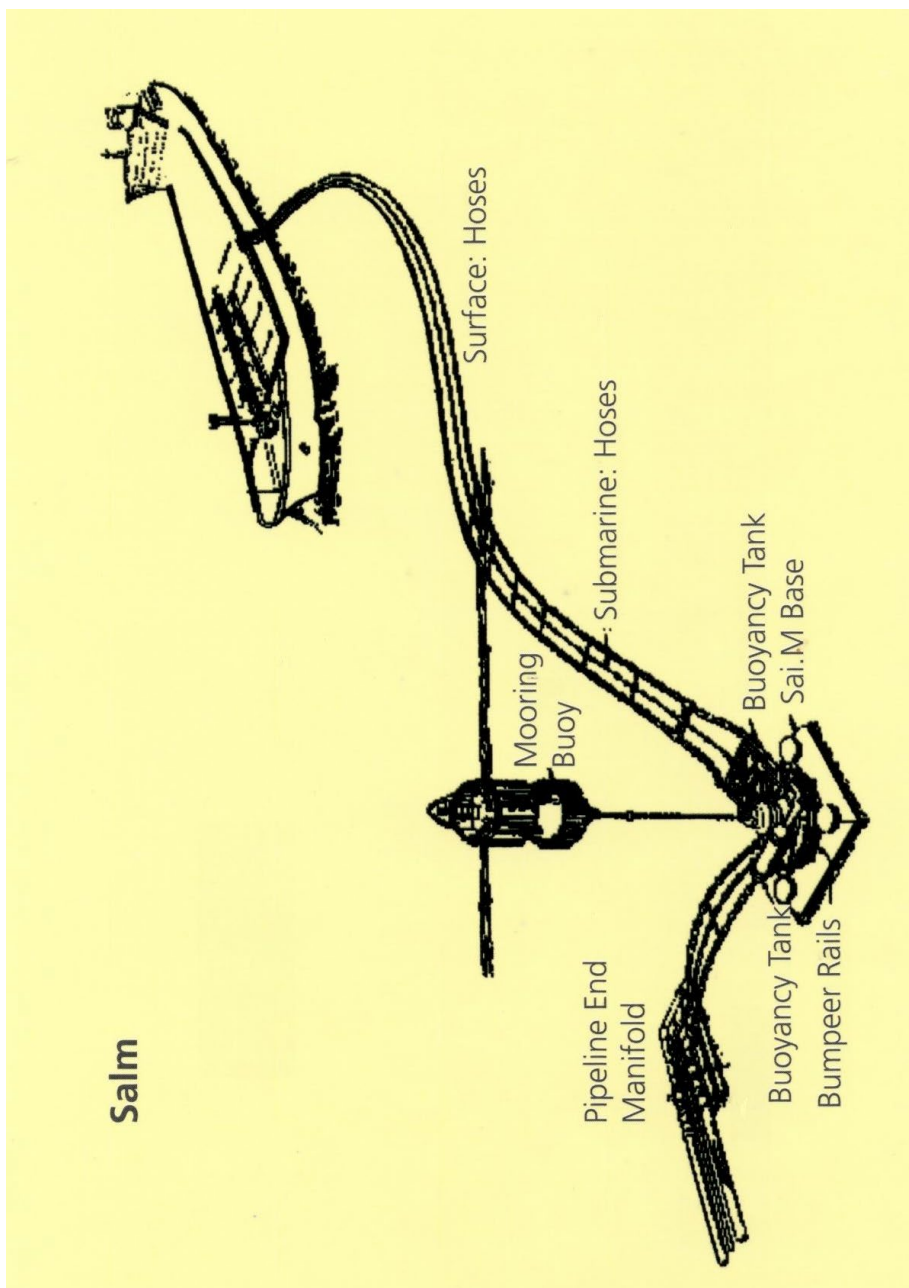
Location Charts

- Juaymah Terminal Area

Diagrams

- Calm Configuration
- Salm Configuration
- SPM Hose Configurations



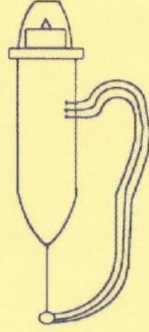


SPM Hose Configurations

**Salm Type Buoys
SPM's 34,35**

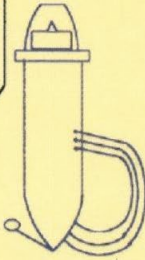
Correct Configuration

**Calm Type Buoys
SPM's 31,32,33,36**



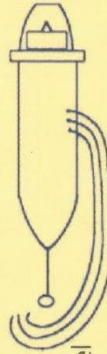
Two or Three Floats
Showing on Surface

Incorrect Configuration



Ship overriding buoy
Possible buoy and
hose Damage

Ship overriding buoy
Possible buoy and
hose Damage- Go Astern



Seabed Swivel
not turning
call for assistance



Ship overriding buoy
Excessive Hose Bending
Possible Buoy Damage
Go Green



Ship Overriding Buoy
Excessive Bending in
Hoses possible buoy
damage - go astern



Buoy Turntable
Not Rotating
Call for Assistance

Juaymah LPG Terminal

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Juaymah LPG Terminal

RULES REGULATIONS AND GENERAL INFORMATION

1 General

1.1 Location of Terminal

The Juaymah LPG Terminal consists of a two-berth pier at the end of a 10 km trestle.

1.2 Description of Terminal

The Juaymah LPG Terminal is a Saudi Aramco operated facility, designed to load Refrigerated Liquefied Petroleum Gas (RLPG) aboard LPG carriers ranging in size from 25,000 to 200,000 DWT.

A tower crane is located in the center of the loading platform. A helicopter landing platform and two small flares are located near the seaward end of the trestle. Note: For more information with regard to RLPG handling refer to GASRUL section.

1.3 Marine Terminal Assistance Fees

The Owners, Operators and Charterers of any vessel calling at Ras Tanura Port shall be liable and shall reimburse Saudi Aramco promptly and in full for all applicable Ras Tanura Marine Terminal Assistance Fees.

2 VHF Communications

2.1 While Underway/at Anchor

Vessels should maintain a constant listening watch - on VHF Channels 10 and 16, for information and instructions, from any of the following sources at Ras Tanura Port Control and/or Saudi Aramco Terminal Planners - when underway in the following areas:

- In the Arrival Channel north of Buoy "A."
- Juaymah Pilot Boarding Area.
- Juaymah SPM Area.
- LPG Anchorage.

2.2 Under Pilotage

The Harbor Pilots carry portable, intrinsically safe radios for contact with tugs, which operate on Saudi Aramco dedicated mooring frequencies. In addition, the ship's main VHF should be on Channel 13 as back-up communication.

2.3 At Berth

The Terminal will supply a portable intrinsically safe radio to the vessel. This radio operates on a UHF frequency, dedicated to each berth, by means of which constant communication can be maintained during loading.

3 Traffic Movements and Maneuvering

3.1 Vessel Traffic Management System (VTMS)

A mandatory Vessel Traffic Management System (VTMS) is in operation to improve navigational safety for all vessels within the Port of Ras Tanura. It achieves this by:

The Ras Tanura VTMS Operators Will Never, Under Any Circumstances, Assume Control Of, Or Responsibility for Vessels Navigating in The Area. The Port Captain May Issue Special Instructions in Exceptional Circumstances.

3.1.1 The Service Provided to Masters

The VTS Operator will provide the following information service for the Masters:

Information on channel and port conditions, congestion, weather, tides, navigational aids, etc.

Information on the movement of other vessels, dangerous maneuvering situations, vessels violating port rules and regulations, berthing prospects and anchoring conditions.

Advice on port rules regarding the movement of deep draft vessels and the priorities of vessel movements. It may be necessary for vessels arriving to reduce speed to permit safe passage for outgoing deep draft vessels.

3.1.2 Special Orders and Exceptional Circumstances

Whenever a potentially dangerous or hazardous situation exists within the Ports of Ras Tanura, the Port Captain or his Deputy may issue orders regarding same. Such orders will normally be relayed through the VTMS and will be preceded by the phrase "By Order of the Port Captain."

3.2 Traffic Rules

The following rules apply to all ships entering or leaving the Ports of Ras Tanura or Dammam by way of the Ras Tanura Channel. The separation zones and routes shown on the charts of the Ras Tanura Channel are approved by IMO. Violators of the routing recommendations will be reported to their Owners/Operators/ Agents and/or Charterers.

All limited speeds must be adhered to within Ras Tanura Port limits unless a controlled deviation is required for reasons of safety.

3.2.1 General

Vessels departing from North Holding Anchorage shall advise Ras Tanura Port Control on VHF, channel 10, of their intentions 30 minutes before weighing anchor. Vessels

departing from Ras Tanura Inner Anchorage shall advise Ras Tanura Port Control on VHF, channel 13.

Ships maneuvering in the area between the south extremity of the Ras Tanura Tanker Anchorage and the entrance to the “Departure Channel” (Buoy “H”) shall limit their speed to a minimum safe maneuvering speed.

3.2.2 Crossing Channel Separation Zones

Vessels crossing the Ras Tanura Channels for any reason should do so only with the concurrence of and under the guidance of Ras Tanura Port Control. This includes, for example, entering the arrival channel from the Northern Holding Anchorage.

3.2.3 Ships Bound to And from the Port of Dammam

Ships bound to and from the Port of Dammam shall keep to the eastern part of the Tanker Anchorage and avoid the maneuvering areas extending from the anchorage to the Sea Islands and Piers.

Outbound ships from Dammam shall, when passing Dammam Channel Buoy No. D11, alert Ras Tanura Port Control on VHF channel 13 of their estimated time of arrival at the southern extremity of the Tanker Anchorage.

3.2.4 Ras Tanura Arrival Channel Rules All inbound ships:

Navigating in The Departure Channel: Under No Circumstances Shall Inbound Vessels Navigate in The Departure Channel.

Reporting Positions: When Passing the Entry Buoy Report to Ras Tanura Port Control on VHF Channel 10. When Passing The “A” Buoy, Report Again to Ras Tanura Port Control on VHF Channel 10, Who Will Then Advise to Shift VHF Channel To 13.

Limited Speed: All ships using the Ras Tanura Port, Traffic Separation Scheme shall on passing the Ras Tanura, Approach Buoy or joining at any other point approved by Ras Tanura Port Control Center proceed at the following mandated speeds:

From Approach Buoy to Delta (D) Buoy: Not exceed a speed of 12 knots.

From Delta (D) Buoy to the South extremity of the Tanker Anchorage, all ships shall limit their speed to 5.0 knots or to the minimum required for safe maneuvering.

Overtaking: Vessels Shall Not Overtake Other Vessels After Passing The “D” Buoy.

Minimum Distance Between Vessels: Vessels Shall Maintain A Distance Of At least Two Miles from Vessels Proceeding in The Same Direction After Passing The “D” Buoy.

Navigate with Caution: Vessels Shall Navigate with Caution and Give Way to Vessels Departing from the Berths and Anchorages.

3.2.5 Ras Tanura Departure Channel Rules All Ships Using the Outbound Channel:

Navigating in the Inbound Channel: Under No Circumstances Shall Outbound Vessels Navigate in The Arrival Channel.

Overtaking: Vessels Shall Not Overtake Other Vessels Until After Passing The “B” Buoy.

Minimum Distance Between Vessels: Vessels Shall Maintain A Distance Of At Least Two Miles from Vessels Proceeding in The Same Direction Until Both Vessels Have Passed Clear of the “B” Buoy.

Limited Speed: All departing ships approved by Ras Tanura Port Control Center to use or join at any point the Ras Tanura Port, Traffic Separation Scheme shall proceed at the following mandated speeds:

From the South extremity of the Tanker Anchorage to the entrance to the Departure Channel and until passing Foxtrot (F) Buoy shall limit their speed to 5.0 knots or to the minimum required for safe maneuvering.

From Foxtrot (F) Buoy to Approach Buoy: Speed not exceeding 12 knots

Maximum Sailing Draft in The Departure Channel:

Shall Not Exceed 21.0 Meters Draft.

Have an Under-Keel Clearance Of At Least 1.5 Meters.

3.2.6 Anchorages and vessel Maneuvering Areas:

Limited Speed: Vessels not proceeding within the Ras Tanura Traffic Separation scheme and maneuvering while proceeding to and departing from the following areas shall limit their speed to 5.0 knots or to the minimum required for safe maneuvering.

The area between the South extremity of the Tanker Anchorage and the entrance to the Departure Channel (‘H’ and ‘20’ buoys).

North Holding Anchorage and within its boundaries

Juaymah LPG Anchorage and within its boundaries

Juaymah SPMs, 5.0-mile radius

Juaymah NGL Pier, 5.0-mile radius

4 Entering the Terminal

4.1 Routing to the LPG Terminal

See “Port of Ras Tanura” Section 4.1 “ARRIVAL DIRECTIONS” for general approach directions to the “Entry” buoy.

4.1.1 Arriving from Sea and From the Northern Holding Anchorage

After passing the Entry Buoy, turn toward the Juaymah Pilot Boarding Area approximately 2.5 miles NW of Buoy “A” and follow the normal routing given below.

4.1.2 Arriving from Ras Tanura Terminal

Having departed from Ras Tanura Terminal, follow the Departure Channel toward the mid-channel marker Buoy “A.” Proceed with due diligence through the Caution Area toward the Juaymah Pilot Boarding area approximately 2.5 miles NW of Buoy “A” area and follow the normal routing given below.

4.1.3 Normal Route to the LPG Terminal

During normal conditions of weather and traffic, an arriving vessel will be advised to proceed, from a position at Juaymah Pilot Boarding Area, by a route passing north of "J4" Buoy, to a position 1.8 miles E of the LPG Terminal.

4.2 Juaymah LPG Anchorage

This anchorage has been centered about 2.5 miles NE of the loading pier. The depth of water varies from 16 to 29 m and holding ground is fair. Ships shall use this anchorage only when directed to do so by Ras Tanura Port Control.

5 Berthing of Vessels

5.1 Pilot Boarding Position

The Juaymah LPG Pilot Boarding Area is situated in a position 1.5 miles E of the south end of Juaymah LPG terminal.

5.2 Mooring Procedures

5.2.1 Mooring Boats/Line Boats

Mooring boats are not used at Juaymah LPG Terminal.

5.2.2 Handling the Mooring Lines

Vessels should have heaving lines ready to take the shore messenger after landing alongside. The shore messenger should be made fast to the vessel's mooring line, which is then heaved ashore by capstan. The ship's heaving line should remain secured to the shore messenger, so that the messenger can be passed back and forth between shore and ship. Heavy wires should be sent one at a time and ropes two at a time. Jetty crews are continuously on duty to handle mooring lines but will not handle mooring lines aboard vessels.

5.3 Information on Berths

5.3.1 Construction and Alignment

There are two loading berths that are situated on opposite sides of a platform.

Berth 51 is the East (outer) berth.

Berth 52 is the West (inner) berth. There are four breasting dolphins at each berth and six mooring dolphins.

The berths are aligned 335° true compass bearing.

5.3.2 Products Available

Butane and Propane

(Note: Diesel oil bunkers and fuel oil bunkers are not available).

5.3.3 Ballast and Slop Reception

None.

5.3.4 Dock Water Density

Approximately 1.032.

5.3.5 Gangways

Shore gangways are used.

5.3.6 Cargo Loading Arms and Flange Sizes

Each berth is equipped with four 16" cargo loading arms. Each arm is fitted with connections, that can be adjusted to 12", 14" or 16" Class 150 ANSI/ASME flanges.

Each arm may be used for RLPG liquid or vapor return and each is fitted with quick connect/disconnect hydraulic couplers (QCDC). Each LPG loading line has an associated circulation return line.

5.3.7 Emergency Automatic Disconnection

All loading arms are fitted with a system for sequential automatic disconnection. This system will only be activated in an emergency situation, which requires the urgent removal of a ship from the berth.

5.3.8 Cargo Loading Rates

The maximum loading rate for individual products is 23,000 barrels per hour if only one product is requested. If the vessel is requesting two products, the maximum loading rate is 15,000 barrels per hour for each product.

5.3.9 Jetty Crews

Jetty crews are on duty continuously to operate the loading arms as required.

5.3.10 Ship/Shore Bonding

All loading connections are equipped with electrically insulated flanges, therefore ship to shore bonding wires must not be used.

5.3.11 Connecting a Vapor Line

A vapor line must be connected prior to loading LPG cargo or coolant. All excess vapors that cannot be handled by the vessel's recovery equipment, will be metered to flare.

5.3.12 Ship Manifolds

Manifolds should comply with the OCIMF publication 'Recommendations for Liquefied Gas Carrier Manifolds'. Due to the size and bulk of the QCDC couplers, a clear area around each manifold flange of at least 60 cm is required. The vessel should have suitable Class 150 ANSI/ASME reducers and spool pieces fitted to the manifolds it intends to use.

5.3.12.1 Manifold Strainers LPG

Vessels are advised to use a manifold strainer mesh suitable for LPG with a normal aperture of between 3.0mm and 5.0mm as detailed in SIGTTO/OCIMF 'Recommendations for Liquefied Gas Carrier Manifolds'.

6 Procedures at Berth

6.1 Duty Harbor Pilot and Tugs

6.1.1 Liaison

Whenever a vessel is at berth, a Harbor Pilot will stand by, either on board the vessel or on the loading platform. He will be in constant radio communication with the staff of the vessel and the jetty.

6.1.2 Stand-By Tugs

One or more tugs will stand by at anchor or moored in sight of the loading berths.

6.2 Loading Procedures

6.2.1 General

Special regulations govern the acceptance and loading of gas tankers at Saudi Aramco, which are detailed in the GASRUL section of this publication.

6.2.2 Stopping Operations

It is the responsibility of the vessel to advise the jetty operators to shut down cargo and bunker loading when the vessel's requirements of cargo and bunkers are met.

7 Completion and Departure

7.1 Vacating the Berth

Upon completion of loading, cargo calculation and disconnecting cargo arms, the vessel will be unberthed.

7.2 Pilotage

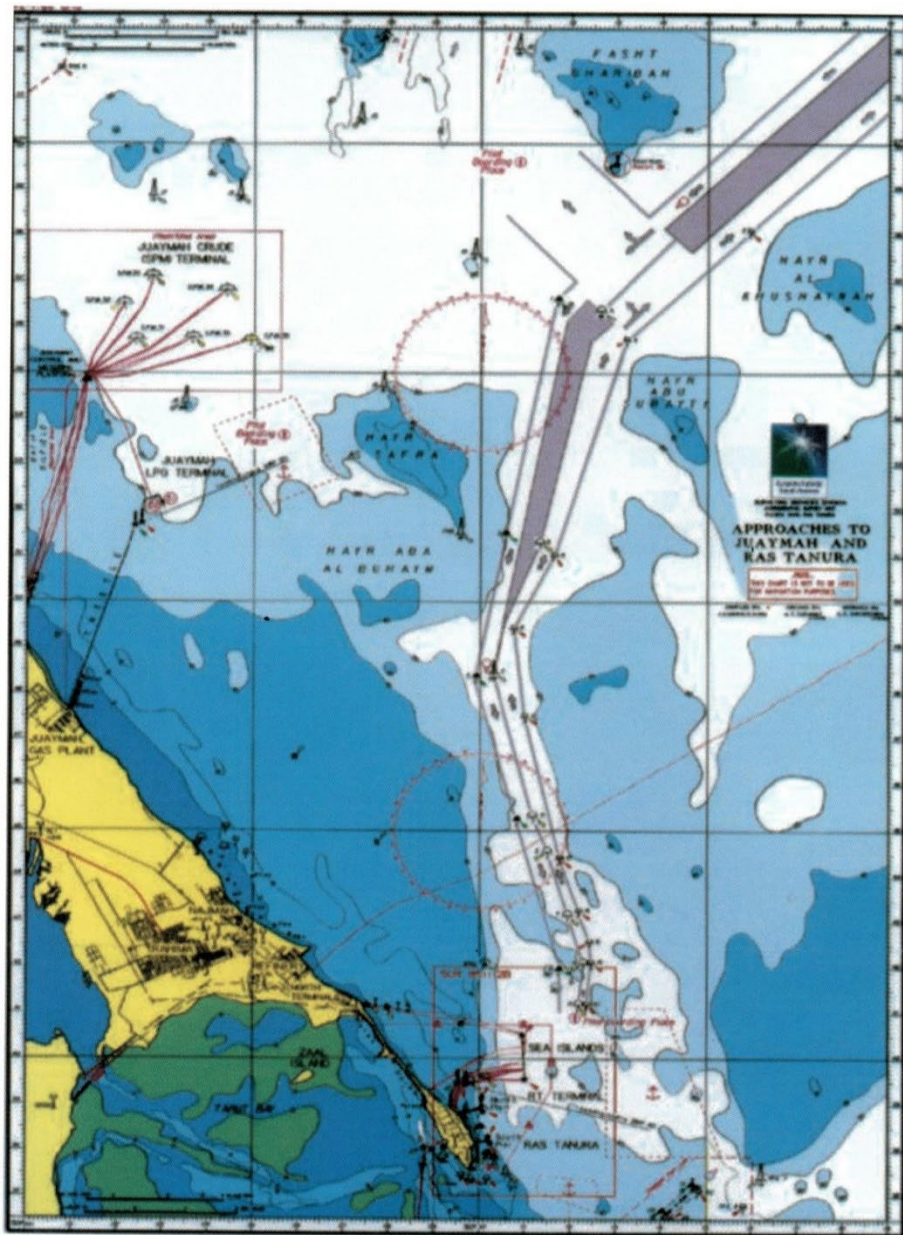
As soon as vessel is clear of the berth, the Harbor Pilot will disembark. The vessel will then be free to leave the Port, via the Juaymah Departure Channel, if early departure procedures are used and outward clearance has been received.

7.3 Proceeding to Anchorage

If the early departure procedure is not used, the vessel will proceed to either the Juaymah LPG anchorage or the North Holding Anchorage, to await document delivery by the Agent.

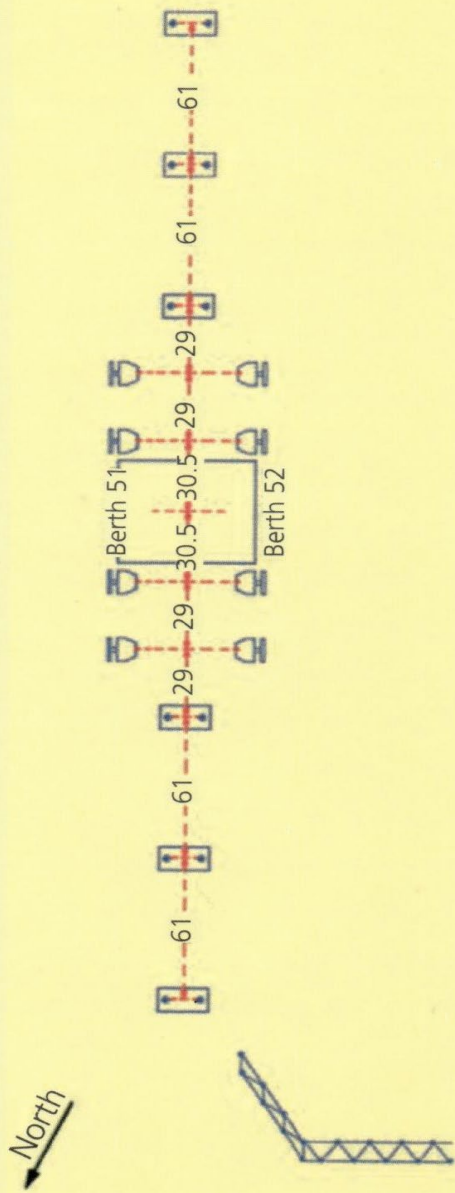
8 ANNEX

Location Chart - Approaches to Juaymah and Ras Tanura



Ju'amah NGL.
Berths #51 #52

Mooring Diagram



All Measurements in meters.

Port of Jeddah

**General Rules & Information, Jeddah Terminals
Including Contents Page & Annex**



Jeddah Terminal

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Jeddah Terminal

RULES REGULATIONS AND GENERAL INFORMATION

1 Port Description & Definition

Saudi Aramco's Jeddah Terminal is located on the Red Sea Coast and lies within the boundaries of the Jeddah Islamic Port.

1.1 The Jeddah Harbors

Saudi Aramco's Jeddah Terminal is comprised by two separate harbors:

- The Outer Harbor
- The Inner Harbor

These harbors are clearly shown on the attached chartlet at the end of this section.

1.2 Marine Terminal Assistance Fees

The Owners, Operators and Charterers of any vessel calling at Jeddah Terminal shall be liable and shall reimburse Saudi Aramco promptly and in full for all applicable Jeddah Marine Terminal Assistance Fees.

2 Navigational Information

2.1 Meteorology

2.1.1 Climate

The climatic conditions affecting the Port of Jeddah are seasonal. In winter onshore, air temperatures range from 25 °C during the day to about 12 °C at night. In summer, air temperatures range from 35 °C during the day to about 25 °C at night. Extreme air temperatures recorded in recent years in the area have been 49 °C in May and 6 °C in February.

Temperatures offshore are generally several degrees lower. Relative humidity varies throughout the year with average values between 65% and 70% in winter and 50% - 55% in summer, however values of 100% may occur for short periods around dawn. The average annual rainfall taken over a four-year period is 3.2 mm.

2.1.2 Winds

The prevailing wind is throughout the year from North/Northwest with wind speed of 15 knots and above, increasing during the afternoon. Storms may occur as frequently as every 5-10 days and have been known to last as long as two weeks although there is little drop in barometric pressure and very rarely any precipitation during these storms. Wind speeds of up to 40 knots may occur from the North or Northwest during the winter

months. Sometimes sudden change of wind direction from South in summer that could range up to 40 knots and may last for about 3 days (usually in August).

2.1.3 Tides and Currents

The tidal range is about 30 cm (1 ft.) at spring tides, but fluctuations due to non-tidal effects are up to about 50 cm (1.6 ft.). The fluctuations due to non-tidal effects are caused by storms which can cause mean sea level drop of 60 cm (2 ft.) during the storms and a significant increase in mean sea level after the storm or as it subsides. Generally, the tides are semi diurnal with a period of 12 hours 25 minutes. During recent years, a maximum range of 109 cm and a minimum range of 75 cm were observed. Currents in the area are influenced by local wind conditions, tide, and the general circulatory pattern of the Red Sea. Generally, currents within the port have been observed at less than 1/2 knot and run parallel to the coast. They are considerably influenced by surface wind activity.

2.1.4 Sea Conditions

Sea conditions can vary considerably within the port limits. Wave heights in the port area are usually lower than 40 cm during sea breezes, but during storms, waves in excess of 2 m are common outside the offshore reefs while waves exceeding 1 m are common in the inner port area. There is no distinct season in this respect.

2.1.5 Sea Salinity and Sea Water Temperature

Seawater temperature is similar to air temperatures and range between 20 and 31 °C. Salinity varies between 37 and 39 part per thousand.

2.1.6 Visibility

The incidence of fog is rare, but should it occur, it is more likely during the period from November to April. During the summer months from May to September the incident of poor visibility (less than 5 miles) can be quite high due to mist and haze. Throughout the year, dust storms may occur obscuring the coastline.

2.1.7 Extreme Weather ~ Echo Anchorage

Echo anchorage has some protection from the north and the northwest due to the reefs and orientation of the Red Sea. The anchorage is open to the southwest. Brief periods of strong south westerly winds produce the most dangerous situation. This is a November through March phenomenon that can be expected once each year.

The theoretical extremes based on one event every 50 years are:

- Extreme wind speed - 60 knots
- Extreme wave height - 7 meters, from the WSW
- Extreme swell - 3 meters

2.2 Charts and Publications

2.2.1 Charts

Charts are available in various forms, including paper-based tables and digital from worldwide Hydrographic agencies. Vessels should always use with the largest scale chart available maintained in an up to date format with the latest corrections and Notices to Mariners applied.

2.2.2 Tide Tables / Tidal Stream Atlas

Tide tables are published in various forms, including paper-based tables and digital tables. When using tide tables for Saudi Arabian waters the validity of data should be supplied by a trusted source for example Saudi Aramco or UK Admiralty, and should be maintained in an up to date format with the latest corrections applied.

2.2.3 Pilot Books / Sailing Directions

Pilot Books / Sailing Directions are published in various forms, including paper-based or digital booklets. When using information for Saudi Arabian waters the validity of data should be supplied by a trusted source for example UKHO, and should be maintained in an up to date format with the latest corrections applied.

2.2.4 List of Lights / fog signals and Lists of Radio signals

Lists of Lights / Fog signals and Radio Signals are published in various forms, including paper-based or digital booklets. When using information for Saudi Arabian waters the validity of data should be supplied by a trusted source for example UKHO, and should be maintained in an up to date format with the latest corrections applied.

2.3 Navigational Aids & Warnings

The shape and colors of the buoys in the terminal area and approaches comply with the IALA System, Region A.

2.3.1 Navigational Warnings

Navigation Warnings are broadcast by Jeddah Islamic Port

2.4 Anchorage Areas

2.4.1 Echo Anchorage

This is the main tanker anchorage at Saudi Aramco Jeddah Port. It is situated in position 21 23.9N, 039 05.5E. Tankers must contact Jeddah Islamic Port on CH. 12 and Saudi Aramco Port Control Center on CH. 11 prior to anchoring in order to avoid blocking SW channel. Ships must anchor as advised by Aramco port Control Center and keep clear from SW Channel.

2.4.2 Resta Channel

No anchorage is allowed except for ships in emergency after Senior Harbor Pilot permission is granted.

Entering the Harbor

3 Navigation & Arrival

3.1 Routing to the Terminal

3.1.1 Qaham Beacon to Inner Anchorage

This route is no longer used and is for emergencies only. It is controlled by Jeddah Islamic Port (JIP) and its pilotage. All vessels bound for Saudi Aramco Jeddah Terminals will use the South Approach Channel.

3.1.2 South West Channel

All vessels bound for Jeddah berths and terminals will use this channel, and Harbor Pilots will board West of the channel entrance at a position 1.5 - 2.0NM Southwest of the Murawas Buoy.

Vessels waiting to berth should anchor in the “Echo” anchorage, but keeping the South Channel entrance clear. Local bunker tankers of 5.5m draft or less may anchor in “Bravo” anchorage to the NW of Saudi Aramco inner anchorage.

3.1.3 Inner Terminal Approach Channel

Vessels up to a maximum draught of 11.5 meters can navigate the approach channel. Vessels up to a maximum length of 200 meters can use the turning circle off the berths. Berthing at inner terminal will be stern to the berth (Mediterranean moor) with two bow anchors.

Each vessel should have a minimum of two mooring winches at the poop deck with the ability to operate separately / simultaneously to handle stern lines. A minimum of eight (8) stern mooring lines (or six (6) where appropriate after taking into consideration the vessel’s DWT), shall be used to secure the tankers stern.

Anchors should be ready for use while berthing and then secured once the vessel is made fast alongside.

Each vessel should have a minimum of two anchors and two fully operational windlasses forward with the ability to operate separately / simultaneously and additionally when required let go / heave anchors and chain at designed speed.

4 Arrival Communications

Refer to “COMMON RULES & INFORMATION,” section 6.0 “RADIO

COMMUNICATIONS & MESSAGES,” and in particular section 6.4 “THE STANDARD MESSAGES.”

4.1 VHF Communications

4.1.1 Early Contact

VHF contact with Jeddah Aramco Port Control should be established within 100 miles of the Port on VHF Ch.11 (or more in good propagation conditions) and maintained when anchored.

4.1.2 Maintaining Contact

Radio watch must be maintained on channel 16 and 11 at all times. The following VHF Channels are used in Jeddah

Channel	Freq. (MHz)	Usage
16	156 - 800	International calling and distress

Jeddah Islamic Port channels

09	156 - 450	Pilotage and berthing operations
12	156 - 600	Signal station - working channel
69	156 - 475	Pilotage and berthing operations
13	156 - 650	Bunker vessels - operations

Saudi Aramco JRD Terminal Channels

11	156 - 550	Pilotage & Terminal operations
----	-----------	--------------------------------

5 Arrival Procedures

5.1 Arrival Direction

5.1.1 Approaching from the North

As the mountains are often obscured, the following directions for an approach from N have been recommended.

From a position 10nm SW from Shi'b al Kabir (Lat 21°40'N, Long 038°49'E) steer 094°. When Shi'b Qaham light beacon (Lat 21°27.3'N, Long 039°06.5'E) bears 141° distance 6.5nm it should be kept on that bearing until 2nm from it; this track lies in a white sector of the light.

5.1.2 Approaching from The South

From a position NNE of Shi'b Mismari, it is recommended to steer NNE with Shi'b Mismari light bearing 206°, astern and thence light beacon No 31, bearing 026°, ahead; this leads E of a rocky bank and Anchorage "D" and W of Shi'b Jeddah (Lat 21°28.5'N, Long 039°06.4'E) and Shi'b Qaham, to the entrance to Al Hariy.

5.2 Proceeding to Anchor

Tankers must contact Jeddah Islamic Port on CH. 12 and Aramco Port Control on CH. 11 prior to anchoring, to avoid blocking the SW channel. Vessels for the Jeddah terminal, which are instructed to anchor, to wait for a berth, shall do so in the "E" anchorage. Such vessels shall advise their anchoring time to the Jeddah Islamic Port Signal Tower on Channel 12 and to Jeddah Saudi Aramco Port Control on Channel 11.

5.3 Documentary Procedures

5.3.1 General Clearance

On arrival of the ship at anchor or berth, and given that all pre-entry requirements have been fulfilled, the ship will be boarded by the following for completion of the required formalities:

- Immigration Authorities
- Frontier Force
- Port Health Officer

5.3.2 Notice of Readiness:

Notice of Readiness (N.O.R.) should be addressed to Saudi Aramco, Jeddah Terminal.

6 Traffic Movements & Maneuvering

6.1 Vessel Traffic Management System

Vessels are forbidden to enter or navigate within the harbor limits without the approval of the Port Control Center.

6.1.1 Jeddah Islamic Port Control

All Marine services and shipping movement within the Port Limits of Jeddah Islamic Port Area are monitored and controlled by the Signal Station of the Islamic Port.

The station is manned 24 hours a day and maintains VHF-watch on Channel 12. Information can be provided to Masters and Pilots on all navigational matters, including wind and visibility, navigational aids and shipping movements within the Port Area. Port Surveillance Radar is in operation by the Islamic Port Signal Tower.

6.1.2 Saudi Aramco - Jeddah Port Control Center

In addition to Jeddah Islamic Port Control, the Jeddah Port Control Center provides all information on berthing schedules, availability of pilots, etc. Jeddah Port Control also monitors the movement of vessels entering the Saudi Aramco anchorage or the Saudi Aramco South West Channel.

The Port Control Center is equipped with VTMS system and maintains continuous watch on channel 11.

Berthing of Vessels

7 Pilotage

7.1 Pilot Boarding Area

Saudi Aramco, Jeddah Pilot boarding area for Jeddah Terminal bound vessels is approximately 1.5 – 2.0NM Southwest of Murawas Buoy. Pilot will embark and disembark from twin screw, or Voith Schneider pilot vessels or tugboats. When approaching the Pilot boat, the Master of every vessel must reduce speed to a minimum for steerageway, maintain VHF contact with the Pilot Boat, and provide a good lee.

7.2 Limiting Weather Conditions

- Limiting conditions for the Pilot to board the vessel are wave height of 2 meters and wind over 25 knots (Force 6).
- The limiting condition for berthing and mooring operations is wind speed over 30 knots.
- Unberthing operations not to be carried out in the Outer Harbor for ships in ballast condition if the wind speed is over 25 knots.
- Limiting conditions for berthing and unberthing from Inner Harbor at night is wind speed over 25 knots.

8 Berth Information

8.1 Information Common to All Berths

8.1.1 Products Available

BUNKERS

Fuel & diesel bunkers available by hose to chartered vessels.

FRESH WATER

Fresh water can be supplied by barges at Echo Anchorage through the ship's agent.

8.1.2 Ballast & Slop Reception

Not available.

8.1.3 Dock Water Density

Approximately 1.030.

8.1.4 Loading Rates

Maximum pressure on the cargo / bunker hoses is 7 Kg /cm².

8.2 Outer Harbor

8.2.1 Berth Construction

The jetties are extended concrete dolphins, protected by breasting dolphins. Cargo hoses are provided at each of the loading platforms.

Maximum approach velocity is 0.3 m/sec. perpendicular to berthing line at a maximum angle of skew of 7 degrees. Lighting of jetties consists of sodium vapor floodlights fixed on mast along the center of the jetty.

8.2.2 Berthing & Moorings

Vessels berth starboard side to the berths.

8.2.3 Use of Cranes

Crane of SWL 10 tons are required to lift the loading hoses.

8.2.4 Mooring Bitts

Vessels should have suitable mooring bitts to secure tugboats

8.3 Inner Harbor

8.3.1 Berth Construction

Lighting of jetties consists of sodium vapor floodlights fixed on mast along the center of the jetty.

8.3.2 Berthing & Moorings

Mediterranean moorings are used for all ships berthed in the Inner Harbor. Jeddah mooring boats will be used to assist during mooring operations.

(Note: Bunker Berth #3 maximum allowable DWT is 7500 MT)

9 Anchors

Both anchors should be operational with the ability to operate simultaneously and independently.

10 Mooring Bitts

Vessel should have suitable mooring bitts to secure tugboats.

11 Manifold Arrangements

Proper hose securing arrangements should be fitted on tankers using Jeddah Inner Harbor. Cargo hose connections will be carried out by the ship's crew and supervised by the terminal representative.

12 Berth Operations

12.1 Loading Documents

Loading/Discharge Agreement

Prior to loading/discharge, the Terminal Shift Supervisor will contact the officer in-charge for the loading/discharge operation on board the tanker and discuss and agree on the loading/discharge plan. Cargo Inspectors will board to take samples and measure the cargo.

12.2 International Ship and Port Facility Security Code Contact Information Jeddah Terminal Assistant PFSO:

Duty Senior Harbor Pilot

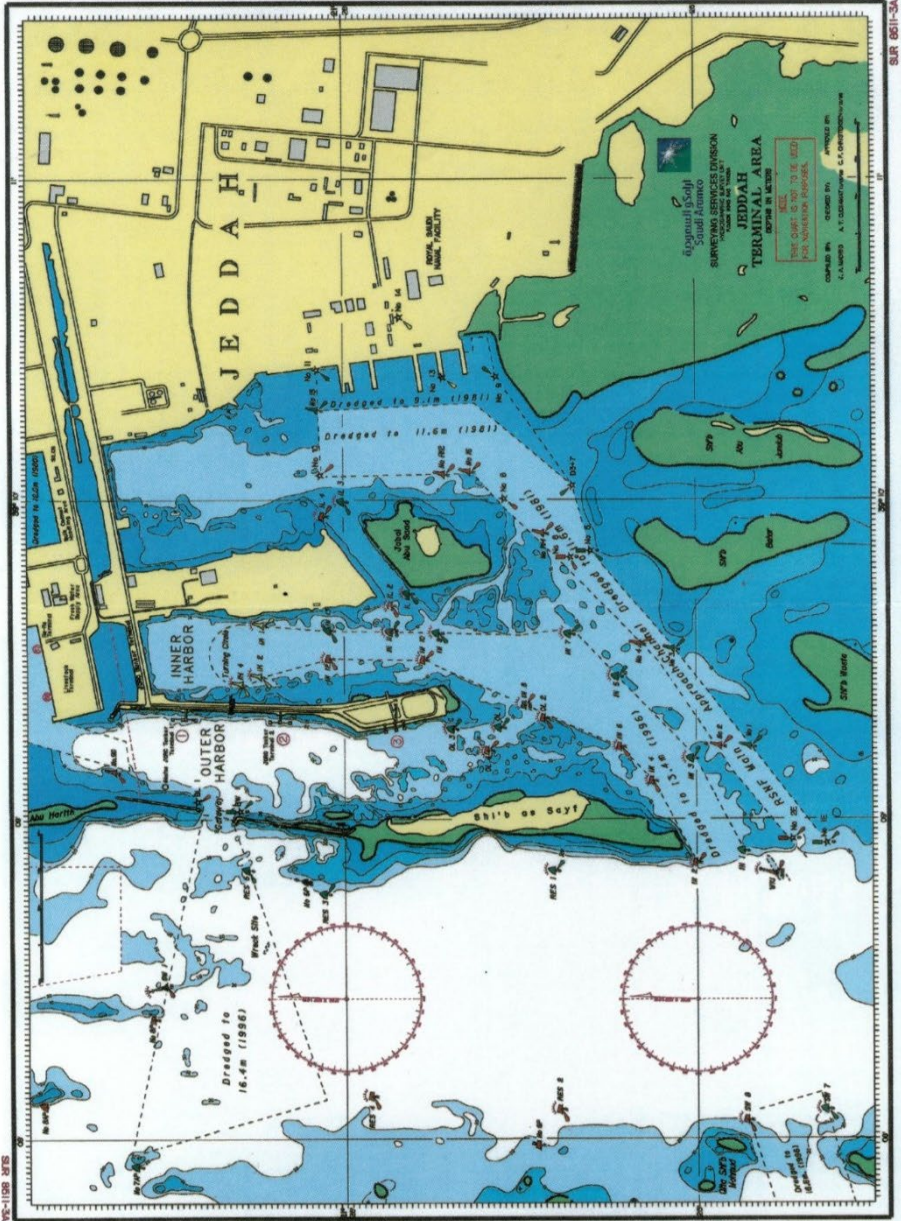
Tel. +966 12 4275666

Tel. +966 12 4275561- 24hrs contact

Tel. +966 12 4275577- 24hrs contact

Contact shipping agents or sailing directions for additional information.

Jeddah Terminal Area



14 Shipping Agent Contact Details

The following companies are available to act as ships agents at the Saudi Aramco Terminals.

Information contained in the below table may be altered by the organizations without notice or warning.

Jeddah Shipping Agencies							
Agency	Services	Phone	Mobile 1	Mobile 2	24 Hours	Fax	E Mail
Yusuf Bin Ahmed Kanoo (S5 Agency world)	1	(012) 263 6171	(050) 660 2257	-	-	(012) 263 3049	Jeddah@kanooshipping.com saudiarabia@kanooshipping.com
Gulf Agency Company, Saudi Arabia	1	(012) 663 5200	(053) 331 5648	(059) 976 3246 (059) 976 2874	(059) 976 3246	(012) 663 2325	jeddah@gac.com aodah.sulaiman@gac.com
Faisal M Higgi and Associates Co Ltd	1 2	(012) 645 4477	(059) 329 7677	-	-	(012) 645 4160	jeddah@faisal-higgi.com
Sharaf Shipping Agency Co. Ltd (Pride)	1	(012) 653 2926	(053) 142 7268	(055) 297 8948 (055) 442 3525	(056) 406 4398	(012) 657 2794	redseapops@ssajeddah.com
Saudi Shipping and Maritime Services Co. Ltd (Tranship)	1 3	(012) 642 4255	(050) 462 9142	(050) 667 8227	-	(012) 643 2821	bunker@tranship.com
Alkhomasia / Albakri Shipping	1 2	(012) 231 3657	(050) 467 2154	-	-	(012) 651 2908	info@alkhomasia.com msharif@alkhomasia.com
Hasan Al Harbi Corporation (HASCO)	1 2	(012) 642 5834	-	-	-	(012) 642 6871	info@hasco.com.sa
Haji Abdullah Alireza & co. ltd. (Alireza)	1	(012) 647 2233 Ext 331	(050) 564 8036	-	-	(012) 648 6310	opship@haaco.com capt.khalid@haaco.com
IBCO	3	(012) 647 0181 (012) 647 6002	(056) 241 1150	(055) 554 6497	(055) 403 7706	(050) 636 3765	ibco@ibcojed.com
Arabian Establishment for Trade and Shipping	1	(012) 652 5500	(050) 560 6110	-	(050) 560 6110	(012) 657 1104	aetjed@aetshipping.com

Shipping Agencies are locally licensed to provide services for - 1. Maritime Support Services 2. Chandlery services 3. Bunker Services

If dialing from an International destination: All landline / Mobile / Fax numbers must be preceded by Saudi Arabian country code. (00 966) or (+966) and then remove the first zero of the number. For example: Local (012) *** **** will become either 00 966 12 *** **** or +966 12 *** ****

Port of Jazan

Bulk Plant

**General Rules & Information,
Jazan Bulk Plant Terminal,
Including Contents Page & Annex**



Jazan Port for Bulk Plant Terminal

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Jazan Port for Bulk Plant Terminal

RULES REGULATIONS AND GENERAL INFORMATION

1 Port Description

1.1 Saudi Aramco Terminal – Sea Boundaries/Exclusion Zones

The Saudi Aramco Bulk Plant comes within the Jazan Port Authority boundary and is not owned or controlled by Saudi Aramco. Within the boundary Saudi Aramco has an exclusion zone around two (2) single point moorings (SPMs) for Tankers.

1.2 Marine Terminal Assistance Fees

The Owners, Operators and Charterers of any vessel calling at Jazan Bulk Plant Terminal shall be liable and shall reimburse Saudi Aramco promptly and in full for all applicable Jazan Bulk Plant Marine Terminal Assistance Fees.

2 Navigational Information

2.1 Meteorology

2.1.1 Climate

The prevailing wind is from west to north west. Winds of any strength tend to create short steep seas, which develop quickly. Westerly winds cause heavy seas and swells, which can last for a considerable period. For a more complete description of the winds of the Red Sea, refer to "Sailing Directions."

2.1.2 Visibility

Visibility in this area is generally fair to good but at times dust is held in suspension in the atmosphere and visibility is reduced to a very short distance. This phenomenon is more deceptive than fog in that mariners are apt to believe visibility to be greater than it actually is.

2.1.3 General Climate and Humidity

The climate of Jazan is comparatively hot for the Red Sea.

During the annual weather cycle, available data shows the most humid month to be January and the least humid month to be July. With an annual average percentage of humidity at 66%.

2.1.4 Tidal Range and Flow

The datum used by Saudi Aramco is based on the Lowest Astronomical Tide (LAT). All depths are quoted in meters.

Locally the tidal range varies with approximate heights of 1.10 meters during spring tides and 0.50 meters at neap tides.

Heights above LAT; High Water springs = 1.45m, Low Water neaps = 0.04m

The tidal current is generally weak but can be up to 1.5 knots. Due to the configuration of the coastline, a system of tidal currents prevails with flood tide setting toward northwest and ebb setting toward southeast. More detailed descriptions of tides and currents in the locality can be found in “Sailing Directions.”

2.2 Charts and Publications

2.2.1 Charts

Charts are available in various forms, including paper-based and digital format, from worldwide hydrographic agencies. Vessels should always use the largest scale chart available, maintained in an up to date format with the latest corrections and Notices to Mariners applied.

2.2.2 Tide Tables/Tidal Stream Atlas

Tide Tables are published in various forms, including paper-based books and digital tables. When using tide tables for Saudi Arabian waters the validity of the data should be supplied by a trusted source for example Saudi Aramco or the UK Admiralty, and should be maintained in an up to date format with the latest corrections applied.

2.2.3 Pilot Books/Sailing Directions

Pilot Books/Sailing Directions are published in various forms, including paper-based books and digital tables. When using information for Saudi Arabian waters the validity of the data should be supplied by a trusted source for example Saudi Aramco or the UKHO and should be maintained in an up-to-date format with the latest corrections applied. Admiralty publication NP64 includes the Jazan area.

2.2.4 List of Lights/Fog Signals and List of Radio Signals

List of Lights/Fog Signals and List of Radio Signals are published in various forms, including paper-based books and digital tables. When using information for Saudi Arabian waters the validity of the data should be supplied by a trusted source for example Saudi Aramco or the UKHO and should be maintained in an up to date format with the latest corrections applied.

2.3 Navigational Information and Warnings

Navigational Information and Navigational Warnings are broadcast by NAVTEX and Jazan Port Control Center.

2.4 Buoys, Fairways and Channels

The shape and colors of the buoys in the terminal area and approaches comply with the I.A.L.A. System, Region A.

2.4.1 Main Arrival/Departure Channel

The channel, developed and approved by IMO MSC and NSCR sub-committee is 90 NM transit length and is designed to facilitate the safe passage of all vessels calling at the Bulk Plant SPM.

All vessels should navigate the channel with caution, especially at the entrance where there is a marked shoal of 13.9 meters.

Buoy ID	Description	Latitude	Longitude	Flashing Light Characteristics	Color
101	Safe Water Mark	16° 56.772' N	41° 17.365' E	White, ISO 10 S	Red, White
102	Stbd Lateral Mark	16° 56.709' N	41° 18.842' E	Green, FL (2) 5S	Green
103	Stbd Lateral Mark	16° 59.790' N	41° 20.557' E	Green, FL (2) 5S	Green
104	Iso. Danger Mark	16° 59.720' N	41° 19.282' E	White, FL (2) 8S	Red, Black
105	Port Lateral Mark	17° 01.206' N	41° 18.797' E	Red, FL (2) 5S	Red
106	Stbd Lateral Mark	17° 02.537' N	41° 22.340' E	Green, FL (2) 5S	Green
107	Port Lateral Mark	17° 05.413' N	41° 20.794' E	Red, FL (2) 5S	Red
108	Stbd Lateral Mark	17° 08.411' N	41° 24.400' E	Green, FL (2) 5S	Green
109	Port Lateral Mark	17° 10.400' N	41° 22.620' E	Red, FL (2) 5S	Red
110	Stbd Lateral Mark	17° 13.524' N	41° 34.567' E	Green, FL (2) 5S	Green
111	Port Lateral Mark	17° 14.705' N	41° 33.299' E	Red, FL (2) 5S	Red
112	N. Cardinal Mark	17° 17.407' N	41° 42.373' E	White, Q (Racon)	Black, Yellow
112A	Port Lateral Mark	17° 19.152' N	41° 40.448' E	Red, FL (2) 5S	Red
113	Port Lateral Mark	17° 15.449' N	41° 49.632' E	Red, FL (2) 5S	Red
114	Stbd Lateral Mark	17° 10.198' N	41° 50.998' E	Green, FL (2) 5S	Green
115	Safe Water Mark	17° 10.449' N	41° 53.635' E	White, ISO 10 S	Red, White
116	Stbd Lateral Mark	17° 06.498' N	41° 56.501' E	Green, FL (2) 5S	Green
117	Port Lateral Mark	17° 06.247' N	42° 03.822' E	Red, FL (2) 5S (Racon)	Red
118	Stbd Lateral Mark	17° 02.300' N	42° 02.102' E	Green, FL (2) 5S	Green
119	Stbd Lateral Mark	17° 00.484' N	42° 07.402' E	Green, FL (2) 5S	Green
120	S. Cardinal Mark	17° 04.599' N	42° 07.501' E	White, Q (6) +LFL 15s	Yellow, Black

Please be aware that the navigation marks N4 and Bn#2 are close to but not part of the main navigation channel.

Buoy ID	Description	Latitude	Longitude	Flashing Light Characteristics	Color
N4	S. Cardinal Mark	17° 06.0' N	41° 24.5' E	White, Q (6) +LFL 15s	Yellow, Black
Bn #2	Port Lateral Pillar	17° 16.8' N	41° 33.5' E	Red, FL (3) 12 sec (Racon N)	Red

Vessels transiting the main arrival/departure channel and proceeding to Jazan Bulk Plant are advised to leave the channel between Buoys 119/120 and proceed in the vicinity of Buoys N12 and N13 to approach Jazan Bulk Plant SPMs or Anchorage ‘B’.

Buoy ID	Description	Latitude	Longitude	Flashing Light Characteristics	Color
N12	Safe Water Mark	16° 58.15' N	42° 22.8' E	White, ISO 4 S	Red, White
N13	Safe Water Mark	16° 53.75' N	42° 26.1' E	White, Occ 4 S	Red, White

Note: from time to time navigational marks may be off station and/or unlit. Please check Notices to Mariners and Navigational Warnings for the most up to date information.

2.4.2 Channel to / from Bulk Plant

The inner channel and entrance to Jazan Commercial Port Harbor is 4.5 nautical miles in length, 200m wide and dredged to a depth of 13.5m. The channel is marked by light buoys “G1” to “G7.”

Jazan Port harbor entrance has two breakwaters, one to the south and one to the northwest. Leading lights are situated near the root of the south breakwater and with a bearing line 096.5° (T) are provided to the harbor.

Note: from time to time navigational marks may be off station and/or unlit. Please check Notices to Mariners and Navigational Warnings for the most up to date information.

2.5 Anchorage Areas

The Port of Jazan is an open roadstead, protection is afforded by shoals and land to an extent where vessels do not normally experience heavy movement.

Jazan has (2) anchorage areas “A” and “B,” which are north and south of the Jazan entrance channel, respectively. Vessels bound for Jazan Bulk Plant terminals should use “B” Anchorage, which is 3.5 miles (west-southwest) of Jazan Port entrance breakwater end.

Vessels directed to anchor prior to berthing should anchor in Jazan “B” Anchorage, in 18 meters depth water. Holding ground is good with a depth of 12 to 20 meters.

There is a relatively shallow patch of ground to the north west of “B” Anchorage, with a charted depth of 11.9 meters.

Newly arrived tankers should be warned to avoid this patch when proceeding to the anchorage or the SPM. The position of the shallow patch is: Lat. 16. 52.30’N Long. 42. 26.95’E, and is approximately one (1) cable in circumference.

2.6 Submerged Pipelines Restricted Area/Prohibited Area

2.6.1 Prohibited Entry

No vessel shall enter any restricted or prohibited area without a Pilot on board. Fishing vessels are prohibited from fishing and / or anchoring in these zones.

2.6.2 Use of Anchors Prohibited

Under no circumstances shall anchors be used in these areas due to the existence of submerged pipelines.

3 Arrival Communications

Refer to “Common Rules and Information” section 6.0 “Radio communications & messages,” and in particular the arrival telex information.

3.1 Required Arrival Information

Vessels must advise their agent of the estimated and/or actual arrival time at Jazan “B” Anchorage. It is required that vessels provide a minimum of two notices of ETA information, at about 48 then at 24 hours steaming time, from Jazan where possible, or as soon as possible after leaving the previous port upon departure for Jazan, when there is less than 48 hours.

3.2 VHF Communications

Jazan Bulk Plant Terminal maintains a listening watch on VHF channel 11, which is used as the calling channel to confirm as required vessel berthing or anchoring.

Prior to berthing the Saudi Aramco Harbor Pilot will contact the vessel on VHF channel 11 & 16.

3.3 Early Contact

VHF contact with Jazan Port Control Center should be established as early as practicable and ideally within 100 nautical miles of the Port (subject to atmospheric conditions).

3.4 Arrival at the port

Vessels should call Jazan Port Control on VHF channel 16 for instructions to proceed.

3.5 Anchoring after arrival

On anchoring, the Master should call Saudi Aramco Jazan Harbor Pilots or Saudi Aramco Operations on VHF channel 11 giving the anchoring time and maintain monitoring of VHF channels 16 and 11 when anchored.

3.6 Maintaining Contact

More assistance may be received through Jazan Port Control on VHF channel 16.

In addition, the following channels are available: 11, 16, 71, 72 and 73.

Use of VHF at the berths within Jazan Port to contact Port Control Center, Marine Terminal, Saudi Aramco Operations Dept., Pilots or Agents is permitted.

3.7 Notice of Readiness

Notice of Readiness should be addressed to Saudi Aramco, Jazan Bulk Plant.

For more information, see “Common Rules and Information” section 7.2 Notice of Readiness.

4 Arrival Procedures

4.1 Arrival Directions

All inbound vessels arriving at the entrance to the North Channel shall establish early radio contact with Jazan Port Control on VHF channels 16 and 11, and proceed as instructed.

4.2 Proceeding in the North Channel

All vessels will monitor VHF channels 16 and 11 during channel passage.

4.3 Proceeding to Anchorage

A vessel with no berthing instructions directed to anchor, or a vessel with instructions to proceed to Anchorage B should make for a position approximately 3.5 miles west-southwest of the Jazan Port entrance breakwater. After anchoring, the vessel should immediately advise Jazan Bulk Plant Terminal by VHF of anchoring time. Thereafter the vessel should monitor VHF channel 11 for further instructions.

4.4 Proceeding to Jazan Bulk Plant SPM

For vessels going to a Jazan Bulk Plant SPM berth and maneuvering from either the channel or from the anchorage, the Harbor Pilot will board close to Tanker Anchorage (B).

5 Traffic Movements and Maneuvering

All inbound vessels arriving at the entrance to the North Channel shall establish early radio contact with Jazan Port Control on VHF channel 16 and 11, and proceed as instructed.

Berthing at the SPMs will be planned by the Duty Harbor Pilot in coordination with Jazan Port Control and Jazan Bulk Plant.

6 Harbor Facilities

6.1 Bunkers

Not available at the Bulk Plant Terminal.

6.2 Fresh Water

Not available at the Bulk Plant Terminal.

6.3 Provisions

Ship chandlers are available for the supply of limited quantities of provisions. They may be contacted through the ship's agent.

6.4 Medical and Hospital Services

Requirements for medical assistance or hospital services must be made through the ship's agent who can arrange treatment.

6.5 Airport

Nearest airport: King Abdullah Airport in Jazan City.

Airport facilities: Connecting flights to Jeddah, Riyadh and Dammam.

6.6 International Ship and Port Facility Security Officer

For - Jazan Bulk Plant

Contact the Assistant PFSO: Duty Senior Harbor Pilot

Tel. +966 12 4275666

+966 12 4275561- 24hrs contact

+966 12 4275577- 24hrs contact

Fax. +966 12 4275668

6.7 Other Information

Saudi Aramco Ports and Terminals are part of a national network of Ports and Terminals that are governed through pertinent national legislation. Thus, Saudi Aramco Ports and Terminals request all ships calling at its Terminals to liaise with their respective shipping agent to arrange for all MARPOL reception requirements.

Contact the local shipping agent or Sailing Directions for any additional information.

7 Shipping Agent Contact Details

The following companies are available to act as ships agents at the Saudi Aramco Terminals.

Information contained in the below table may be altered by the organizations without notice or warning.

Jazan Shipping Agencies							
Agency	Services	Phone	Mobile 1	Mobile 2	24 Hours	Fax	E Mail
Yusuf Bin Ahmed Kanoo (S5 Agency world)	1	(012) 263-6171	(050) 6602257	(054) 8738053	-	(012) 263 3049	Jizan@kanooshipping.com saudiarabia@kanooshipping.com
Faisal M Higgi and Associates Co Ltd	1 2	(017) 317 1113	(050) 439 8008	-	-	(017) 322 6205	jizan@faisal-higgi.com
Sharaf Shipping Agency Co. Ltd	1	(017) 323 4812	(053) 142 7268	-	-	(017) 323 4814	redseaops@ssajeddah.com
Hasan Al Harbi Corporation (HASCO)	1	(017) 334 3030	(056) 824 2506	(050) 537 3931	-	(017) 322 8276	jazan@hasco.com.sa
<p>Shipping Agencies are locally licensed to provide services for - 1. Maritime Support Services 2. Chandlery services 3. Bunker Services If dialing from an International destination: All landline / Mobile / Fax numbers must be preceded by Saudi Arabian country code. (00 966) or (+966) and then remove the first zero of the number. For example: Local (017) *** **** will become either 00 966 17 *** **** or +966 17 *** ****</p>							

Jazan Bulk Plant Terminal

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Jazan Bulk Plant Terminal

RULES REGULATIONS AND GENERAL INFORMATION

1 Port Location & Description

1.1 Location of Terminal

The Saudi Aramco Jazan Bulk Plant Terminal comes within the Jazan Port Authority boundary and is not owned or controlled by Saudi Aramco.

1.2 Marine Terminal Assistance Fees

The Owners, Operators and Charterers of any vessel calling at Jazan Bulk Plant Terminal shall be liable and shall reimburse Saudi Aramco promptly and in full for all applicable Jazan Bulk Plant Marine Terminal Assistance Fees.

1.3 Description of Terminal

The Saudi Aramco Jazan Bulk Plant, Marine Terminal comes within the Jazan City Port Authority boundary. Within the boundary Saudi Aramco has an exclusion zone around two (2) single point moorings (SPMs) for Tankers.

Each is a CALM SPM Buoy suitable for Tankers between 10,000 and 50,000 MT DWT. Information on suitable parameters for using the SPMs are listed in the Universal Berth Parameters including:

Max. L.O.A.: 220 meters

Max. Beam: 35 meters

Anchoring or fishing within the designated areas are prohibited without prior permission from Jazan Port Authority.

1.3.1 SPM buoy water Depth

SPM	Water Depth
1	17.70M
2	18.10M

1.2.2 Cargo Hoses

Each SPM is fitted with one 16" diameter floating cargo hoses and one 17" circumference, double braided nylon, 55.4 meters (180ft) long mooring hawser.

The tail end hose presented to the ship is 16" fitted with 16" flat face blank flange, a lifting eye, and lifting and snubbing lines.

Each hose weighs approx. 3.5MT and is designed for;

- Maximum throughput 18,000 BPH
- Normal operating pressure 11 Bar
- Design pressure 15 Bar

1.2.3 Cargo Hose Strings

The SPM #1 hose string is 256.0 M (840 ft.) long and SPM #2 hose string is 246.0 M (805 ft.) long

In the exceptional case of an SPM being taken out of service for maintenance or otherwise the cargo hose string may be transferred and connected to the other SPM. The result is an SPM connected with 2 hose strings to ensure flexibility and continuity of cargo operations.

1.2.4 SPM Marking

The SPM buoys are fitted with radar reflectors and navigation lights.

The navigation lights switch on automatically during hours of darkness.

Light character 2 FL +1LFL 15-sec. Range 8 NM.

1.2.5 Cargo Hose connection

Cargo hose connections will be carried out by the ship's crew and supervised by the terminal representative.

2 Entering the Terminal

2.1 Maximum Drafts

Under normal operating conditions the maximum arrival draft is 11.80M, and a positive (+) height of tide above Lowest Astronomical Tide (LAT).

2.2 Ballast Condition

Under normal operating conditions all vessels should comply with the "Common Rules and Information" Section 11.2 Ballast Operations Draft and Trim.

2.3 Vessels arriving

For vessels proceeding to a Jazan Bulk Plant SPM berth and maneuvering from either the channel or from the anchorage, the Harbor Pilot will board close to Tanker Anchorage (B).

2.4 VHF Communications

Jazan Bulk Plant Terminal maintains a listening watch on VHF channel 11, which is used as the calling channel to confirm as required vessel berthing or anchoring.

Prior to berthing the Saudi Aramco Harbor Pilot will contact the vessel on VHF channel 11 & 16.

Vessels on SPM must maintain a listening watch on

- VHF channel 10 for SPM 1
- VHF channel 11 for SPM 2

And coordinate all operations with the onboard Saudi Aramco Harbor Pilot.

2.5 Anchoring and Restricted Areas

The Port of Jazan City is an open roadstead, protection is afforded by shoals and land to an extent where vessels do not normally experience heavy movement.

Jazan has (2) anchorage areas “A” and “B,” which are North and South of the Jazan entrance channel, respectively. Vessels bound for Jazan Bulk Plant terminals should use “B” anchorage, which is 3.5 miles (west-southwest) of Jazan Port entrance breakwater end.

Vessels directed to anchor prior to berthing should anchor in Jazan “B” Anchorage. Holding ground is good with depth of 12 to 20 meters.

There is a relatively shallow patch of ground to the north west of “B” Anchorage, with a charted depth of 11.9 meters.

Newly arrived tankers should avoid this patch when proceeding to the anchorage or the SPM. The position of the shallow patch is: Lat. 16. 52.30’N Long. 42. 26.95’E, and is approximately one (1) cable in circumference.

No vessel shall enter any restricted or prohibited area without a Pilot on board. Fishing vessels are prohibited from fishing and/or anchoring in these zones.

Under no circumstances shall anchors be used in these areas due to the existence of submerged pipelines.

3 Pilotage, Mooring Rules and Operations for SPM Buoys

3.1 Pilot Boarding

The Harbor Pilot and, if assigned, Harbor Pilot Assistant and/or Harbor Pilot Trainee, will board the tanker close to Tanker Anchorage B. The Master should provide an adequate lee for embarking the Pilot team if they are to board by boat, or orient and prepare his/her ship as requested by the helicopter dispatcher, if the team is to board by helicopter.

Pilot boat operations and boarding activities from a launch are limited by the following weather conditions: a wave height of 2 meters and/or wind speed of more than 25 knots.

Harbor Pilots will not attempt to berth vessels bound for or at the SPM unless it is safe for the mooring boat to operate in the prevailing conditions.

At all times mooring boats shall operate within their allowable design specifications after a careful evaluation of the existing circumstances and weather conditions, carried out by the Harbor Pilot.

The Pilot/Pilot Assistant, as applicable, will advise the Master on all maneuvers and operations relative to berthing, connecting and disconnecting hoses and unberthing. Moreover, they will also provide all communications between ship and shore during cargo loading and be the Saudi Aramco Representative with respect to safety observations and other requirements

3.2 Helicopter Operations

Helicopter operations are not carried out routinely at Jazan Port.

In the eventuality that a helicopter may be required as part of an emergency or other procedure, all vessels should be prepared for helicopter operations to be carried out according to the "International Chamber of Shipping (ICS) - Guide to Helicopter/Ship Operations."

All vessels should have a copy of this booklet and the safety checklist relevant to helicopter operations on board.

3.3 Preparations Prior to Mooring

Ships assigned to the SPM buoys must comply with the OCIMF recommendations for equipment employed at single point moorings.

During the approach, while mooring/securing to the SPM, the vessel's anchors must be secured by stoppers to prevent accidental dropping with subsequent damage to the subsea pipelines and equipment.

Line handling during mooring/unmooring shall be performed by the ship's staff under instructions of the Pilot/Pilot Assistant.

Ship cargo cranes shall be rigged and ready to lift the hose connecting equipment basket from the launch from either side. If available, a trolley may be required to transport this equipment about the vessel's deck.

The vessel shall have the following equipment ready for use on the forecandle head.

- Large crow bar.
- Large intrinsically safe flashlight for night mooring.
- A messenger line 24 to 28 mm diameter, 150 m in length.
- Winch drum or empty spool drum to heave onboard the mooring pick up rope.

Where possible, the mooring line(s) should lead through a Panama chock in the center of the bow, rather than through a single port or starboard bow fairlead to reduce the possibility of yawing.

Power should be available to the winches (mooring deck equipment) on the forecastle and to the cranes at the ship's manifold to ensure they are ready to lift the ancillary mooring and hose handling equipment. The manifolds shall be prepared for cargo operations, as detailed in 3.3.2.

The Pilot/Pilot Assistant will check that all equipment for mooring and hose connecting operations are on board the launch and in working order prior to departure. Items such as chain hoists, gaskets, wrenches, flange bolt sets, butterfly valve handles, ullaging equipment, sample bottles, etc., may be required and placed on board.

3.3.1 Preparing the Forecastle Head

Ship's staff will prepare the forecastle head for the mooring operation at the instruction of the Pilot/Pilot Assistant.

3.3.2 Preparing the Port Side Manifold

All Saudi Aramco SPM terminals have been designed for port manifold vessels only. The cargo crane must be currently certified, tested and ready for use.

Two 16" flange connections to be fitted on cargo manifolds.

To avoid delays, the vessel should have reducers ready at the port side manifold to adapt to any other size requests.

Drip trays, absorbent material or sand and firefighting equipment should be in position.

Saudi Aramco normally supplies the following, but their presence will prevent delays in case of deficiency or malfunction.

- Handy-Billy/Chain block
- Spare spanners
- Spare wire strops
- Spare bolts

3.3.3 OCIMF Standard Manifold Arrangement

To secure the hoses to the vessel's manifold the manifold arrangement must be as recommended in OCIMF publication "Recommendations for Oil and Chemical Tanker Manifolds and Associated Equipment."

3.3.4 Equipment Transfer

Saudi Aramco mooring and hose connecting equipment will be lifted aboard the tanker from the launch on either the port or starboard side, by means of the ship's crane.

Normally, the transfer of equipment will be done once the ship is fully secured to SPM. If the ship requires cargo reducers, the transfer will be done as soon after the Pilot boards the vessel as possible. For this purpose, the hose handling crane shall be ready for immediate use and an adequate lee shall be provided.

To prevent injury to personnel and damage to the launch superstructure, the hoisting block must be secured and controlled by a handling line during the entire transfer operation.

3.4 Mooring Sequence of Operations

3.4.1 Mooring / Line Boats

Jazan Bulk Plant Terminal normally operates with two tugs and a mooring boat. Both tugs are available for mooring assistance at the SPMs.

The launches and other terminal facilities are equipped with compatible VHF and UHF two-way radio equipment of adequate power.

3.4.2 Operational Limits

Harbor Pilots should not attempt to berth vessels at the SPM unless it is safe for the mooring boat to operate in the current conditions. The decision to proceed with the operation should only be made in agreement with the mooring boats.

At all times mooring boats shall operate within their allowable design specifications. The Harbor Pilot should complete a careful evaluation of the existing circumstances and weather conditions including consideration of the wind speed and direction, the state of the sea including the assessment of swell and currents.

3.4.3 Optimum Approach Direction

Prior to making the final approach to the SPM, it is important that the Master and the Pilot evaluate and agree, on all conditions and factors that will influence the mooring operation. These conditions and factors include: the tide, current, wind, swell and wave effect, and the direction in which the floating hose strings and hawsers are lying.

The optimum approach to the terminal is into the wind and sea. At times this approach will not be possible, because of the current being at variance with the wind or sea conditions. Accordingly, it is incumbent upon the Master to exercise careful judgment when approaching the terminal, particularly during the hours of darkness and in poor visibility.

Particular attention must be given to the location of the floating hose string. Normally, the position of the floating hoses will be controlled by the currents, rather than by wind effect.

3.4.4 Approaching the SPM

When the optimum approach route has been selected, the tanker should proceed toward the terminal at a suitable speed, dependent upon the conditions at that time. Approximately 1,000 m from the berth, the vessel should have only sufficient way on for steerage.

The floating hose string should be on the port side. The tanker should make the final approach with the buoy on the port bow, rather than dead ahead. This permits the Pilot/Pilot Assistant on the bridge to observe the buoy at all times, and in the event of any misjudgment of the approach speed, there is no danger of overrunning the buoy.

In general, the vessel will approach the SPM on a heading against the wind and/or current whichever takes dominance.

It is extremely dangerous for small boats to lie in the path of large vessels, particularly when the larger vessel has a bulbous bow. Therefore, the ship's crew must carry the messenger line to a safe location aft of the bow, along the flat side of the hull before lowering the messenger line, thereby making it unnecessary for the boat to position itself right ahead or under the flare of the vessels bow.

The tanker's approach speed must be reduced to a minimum, but sufficient to keep the ship's maneuverability.

A tugboat may be secured right astern throughout the ships approach to the SPM as deemed necessary by the Harbor Pilot.

3.4.5 Mooring Hawser Hookup

As the vessel approaches the berth, the floating hoses are towed away from the path of the approaching tanker. In addition, the angle between the cargo hose and the pick-up rope should not be allowed to extend more than 90° and in no case the cargo hose and pick-up rope be in opposite directions.

When the vessel is approximately 300 to 460 m (1,000 to 1,500ft) from the buoy, and still making way, the mooring boat will bring the port hawser pickup rope (80 mm diameter) and make it fast to the messenger. At the boat's signal, the pickup rope is heaved on deck.

Under no circumstances must any load be put on the pickup rope as this may lead to the failure of the rope.

The tanker should be brought to a dead stop between 45 and 60 m (150 and 200ft) from the buoy. At this point, the chafing chain is lifted into the bow chock and then to the bow chain stopper to be secured under the direction of the pilot. Ease back on the pickup rope until the weight is taken up.

Care must be taken to gradually transfer the load to the hawser, to avoid any shock loading that can result from a freely drifting tanker taking up hawser slack.

3.5 Connecting the Hoses

Connecting cargo hoses is to be carried out by the ship's staff under instruction and supervised by the terminal representative:

Due to possible vessel induced movement to the crane wire/hook, the vessel must use guide ropes to reduce/control the hook movement at all times during raising and lowering operations.

1. **Lower crane hook to the mooring boat, which will connect it first of all to the forward hose.**
2. **Heave up until the blank flange is level with the hose rail.**
3. **Unshackle hose snubbing lines from the flanges.**
4. **Continue heaving up the hose as directed by the Pilot Assistant.**

5. Secure snubbing lines in a manner to facilitate possible slackening as directed.
6. Lower the hose to bring the hose flange to the manifold and check the alignment of the flanges.
7. Lower the hose onto the drip tray and removed the blank flange.
8. Lift the hose and connect it to the manifold. Never use a wire strop around cargo hoses.
9. If the ship is required to connect two cargo hoses then the second cargo hose is connected in the same way. It is important to use all of the bolt holes and a new gasket for every connection.
10. After all hoses are connected, they must be supported in way of the vessel's side rail, by means of nylon belly bands hooked up to ship's crane. Be advised that the hoses cannot touch the saddle rail at any time.

3.6 Use of Tug/Engine at Berth

After securing chains, a tug will be made fast astern using a vessel's line of suitable length and strength for the whole period the vessel is at the SPM, and utilized as necessary to keep a safe distance from the SPM and reduce any unnecessary strain.

The utilization of the tug is important at all times and particularly important during times of changing sea conditions and adverse weather conditions.

Vessels that are only able to run their engines astern for short periods should maintain them in a state of readiness at short notice and use them as required to maintain position off the SPM. At such times, the Pilot may direct the operation from the forecabin with a vessel's officer and with the bridge manned by the Master.

3.7 Bow Watchman

At all times when at berth, there shall be an experienced crewmember on duty at the bow of the vessel. He shall be issued with a means of immediate communication with the Deck Officer on duty.

He shall observe the configuration of the hoses and mooring hawsers, and the proximity of the SPM and hoses to the tanker. He shall be alert to oil leaks or spills, unattached oil slicks in the vicinity and deteriorating weather conditions. He shall immediately report any abnormal event or deteriorating weather to the Deck Officer on duty.

3.8 Manifold Watchman

At all times, when at berth and when cargo hoses are connected, there shall be a watchman on duty at the manifold. He shall observe the configuration of the hoses and the manifold connections. He shall be alert to oil leaks or spills, stress or chafing on the hoses or ancillary equipment and deteriorating weather conditions. He shall report any abnormality to the Deck Officer on duty.

3.9 The Deck Officer on Duty

The Deck Officer shall immediately report any abnormal events, deteriorating weather or other situations coming to his attention to the Pilot or Pilot Assistant on duty.

3.10 Gangways

The gangway is to be rigged and ready on the starboard side of the vessel, maintained at deck level.

3.11 Boarding Vessels at Berth

Small craft are not allowed in the vicinity of the vessel and no one is permitted to board or leave a vessel while cargo operations are in progress.

Should it become urgent for personnel to board or leave a vessel for any reason during the cargo operation, the Pilot must be contacted to request permission to shut down the cargo operation while the small craft is alongside.

3.12 Care of Berth Equipment

In bad weather, maintenance work is extremely difficult and involves possible danger to personnel. For this reason, vessels are requested to give as much assistance as possible by taking proper care of the mooring and hose equipment.

Saudi Aramco will hold the vessel responsible for all costs and/or losses resulting from damage to the mooring and hose equipment where they consider that the vessel has been negligent in taking proper care of them.

3.13 Disconnecting the Hoses

Disconnecting a single cargo hose or hoses is to be carried out by the ship's staff under instruction and supervised by the terminal representative:

Due to possible vessel induced movement to the crane wire/hook, the vessel must use guide ropes to reduce/control the hook movement at all times during raising and lowering operations.

1. Connect the hose strop and if two cargo hoses are connected the after-hose strop to the crane hook, take the weight and disconnect the flange.
2. Replace the blank flange using all the bolts and a new gasket. Tighten the bolts to avoid uneven tension on the flange.
3. Lower hose to deck and secure.
4. Repeat with forward hose, if two cargo hoses are connected.
5. Secure the crane hook to the lifting hook of the after hose and raise the hose until the weight is taken off the snubbing wires.
6. Release the snubbing wires, lower the hose to rail level and shackle the snubbing wires to the flanges.
7. Lower the hose end into the water and trip the hook to release.

8. Repeat for the forward hose if two cargo hoses are connected.

Return all Saudi Aramco tools and equipment to the steel basket, stow it in a seaman like manner, and prepare for lowering to the mooring boat on either the port or starboard side, dependent on weather conditions.

3.14 Unmooring Procedure

1. Take the weight of the chain and hawser on the pickup rope using the windlass.
2. Disconnect chafing chain from the bow chain stopper.
3. Slowly slack the pickup rope until the support buoy is in the water and taking all of the weight of the chain.
4. Pay out the pickup line either to the mooring boat or as the ship clears the berth.

4 Berth Information

The specific gravity of seawater at Jazan is approximately 1.025.

Cargo Rates

Will be set by the Harbor Pilot in coordination with the Terminal.

Each hose weighs approx. 3.5MT and is designed for:

- Maximum throughput 18,000 BPH
- Normal operating pressure 11 Bar
- Design pressure 15 Bar

Ballast and Slop Reception

Not available at the Jazan Bulk Plant Terminal.

4.1 Procedure at Berth

4.1.1 Cargo and Ballast Operations

Cargo rates will be set by the Harbor Pilot in coordination with the Terminal and as agreed with the vessel.

All cargo and ballast operations will be controlled by the ships' Officers.

Ballast and Slop Reception is not available at Jazan Refinery SPM Terminal.

Radio communications with the Terminal will be designated by the Pilot or Pilot Assistant. The need for emergency shutdown of discharging aboard the vessel must be communicated as soon as possible to the Harbor Pilot and Terminal.

4.2 VHF Communications Failure

In the event of failure of radio communication systems, the vessel will sound five long blasts on the vessel's whistle. Loading operations will be stopped and will not be resumed until communications have been restored.

5 Completion and Departure

5.1 Cargo calculations on arrival and departure

The Cargo Officer in coordination with the attending cargo surveyor and if necessary Harbor Pilot assistance, will supply the ship's cargo figures on arrival and prior to departure in U.S. (i.e., Gross) Barrels. The Terminal Representative will not accept the figures until they are presented in writing on the Saudi Aramco ullage report form.

Results of ship/shore comparison take time and Masters are urged to prioritize the cargo calculations and completion of the ullage report form to avoid delay.

If the vessel is released, the Harbor Pilot will leave after unmooring is completed and the ship is clear of the berth. If the ship/shore difference is large and the vessel is not released, the Cargo Officer in coordination with the attending cargo surveyor and if necessary Harbor Pilot assistance, will survey any cargo to Saudi Aramco inspection procedures and report the findings to Saudi Aramco Terminal Planners.

Refer also to "Common Rules and Information," Section 11.3 "Cargo Calculations and Release."

5.2 Departure

Upon completion of unmooring, the vessel will make a lee for the mooring and hose connecting equipment to be discharged onto the launch, on either port or starboard side.

The Pilot/Pilot Assistant will normally leave by Pilot launch.

All vessels using the Jazan facilities should then proceed outwards via the departure North Channel.

6 Annex

Location Chart

Port of Jazan

Primary & Downstream Industries

**General Rules & Information,
Jazan Refinery Marine Terminals,
Including Contents Page**



Port of Jazan Primary & Downstream Industries

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Port of Jazan

Primary & Downstream Industries

RULES REGULATIONS AND GENERAL INFORMATION

1 Port Description

1.1 Saudi Aramco Terminal – Sea Boundaries/Exclusion Zones

The Saudi Aramco Refinery Marine Terminal comes within the JPD Port Authority boundary.

2 Navigational Information

2.1 Meteorology

2.1.1 Winds

The prevailing wind is from West to North West. Winds of any strength tend to create short steep seas, which develop quickly. Westerly winds cause heavy seas and swells, which can last for a considerable period. For a more complete description of the winds of the Red Sea, refer to “Sailing Directions.”

2.1.2 Visibility

Visibility in this area is generally fair to good but at times dust is held in suspension in the atmosphere and visibility is reduced to a very short distance. This phenomenon is more deceptive than fog in that mariners are apt to believe visibility to be greater than it actually is.

2.1.3 General Climate and Humidity

The climate of Jazan is comparatively hot for the Red Sea.

During the annual weather cycle, available data shows the most humid month to be January and the least humid month to be July. With an annual average percentage of humidity at 66%.

2.1.4 Tidal Range and Flow

The datum used by Saudi Aramco is based on the Lowest Astronomical Tide (LAT). All depths are quoted in meters. Locally the tidal range varies with approximate heights of 1.10 meters during Spring tides and 0.50 meters at Neap tides.

Heights above LAT; HW Springs = 1.45m, LW Neaps = 0.04m

The tidal current is generally weak but can be up to 1.5 knots. Due to the configuration of the coastline, a system of tidal currents prevails with flood tide setting toward northwest and ebb setting toward southeast. More detailed descriptions of tides and currents in the locality can be found in “Sailing Directions.”

2.2 Charts and Publications

2.2.1 Charts

Charts are available in various forms, including paper-based and digital format, from worldwide hydrographic agencies. Vessels should always use the largest scale chart available, maintained in an up-to-date format with the latest corrections and Notices to Mariners applied.

2.2.2 Tide Tables/Tidal Stream Atlas

Tide Tables are published in various forms, including paper-based books and digital tables. When using tide tables for Saudi Arabian Waters the validity of the data should be supplied by a trusted source- e.g. Saudi Aramco or the UK Admiralty and should be maintained in an up-to-date format with the latest corrections applied.

2.2.3 Pilot Books/Sailing Directions

Pilot Books/Sailing Directions are published in various forms, including paper-based books and digital tables. When using information for Saudi Arabian Waters the validity of the data should be supplied by a trusted source - e.g. Saudi Aramco or the UKHO and should be maintained in an up-to-date format with the latest corrections applied. UK Admiralty publication, NP64 includes the Jazan area.

2.2.4 List of Lights/Fog Signals and List of Radio Signals

List of Lights/Fog Signals and List of Radio Signals are published in various forms, including paper-based books and digital tables. When using information for Saudi Arabian Waters the validity of the data should be supplied by a trusted source- e.g. Saudi Aramco or the UKHO and should be maintained in an up-to-date format with the latest corrections applied.

2.3 Navigational Information and Warnings

Navigational Information and Navigational warnings are broadcast by NAVTEX and Jazan Commercial Port Control Center.

2.4 Buoys, Fairways and Channels

The shape and colors of the buoys in the terminal area and approaches comply with the I.A.L.A. System, Region A.

2.4.1 Main Arrival/Departure Channel

The channel, developed and approved by IMO MSC and NSCR sub-committee is 90 NM transit length and is designed to facilitate the safe passage of all vessels, and particularly VLCC's calling at the SPM.

All vessels should navigate the channel with caution, especially at the entrance where there is a marked shoal of 13.9 meter.

Note: from time to time navigational marks may be off station and/or unlit. Please check Notices to Mariners and Nav. Warnings for the most up-to-date information.

Buoy ID	Description	Latitude	Longitude	Flashing Light Characteristics	Color
101	Safe Water Mark	16° 56.772' N	41° 17.365' E	White, ISO 10 S	Red, White
102	Stbd Lateral Mark	16° 56.709' N	41° 18.842' E	Green, FL (2) 5S	Green
103	Stbd Lateral Mark	16° 59.790' N	41° 20.557' E	Green, FL (2) 5S	Green
104	Iso. Danger Mark	16° 59.720' N	41° 19.282' E	White, FL (2) 8S	Red, Black
105	Port Lateral Mark	17° 01.206' N	41° 18.797' E	Red, FL (2) 5S	Red
106	Stbd Lateral Mark	17° 02.537' N	41° 22.340' E	Green, FL (2) 5S	Green
107	Port Lateral Mark	17° 05.413' N	41° 20.794' E	Red, FL (2) 5S	Red
108	Stbd Lateral Mark	17° 08.411' N	41° 24.400' E	Green, FL (2) 5S	Green
109	Port Lateral Mark	17° 10.400' N	41° 22.620' E	Red, FL (2) 5S	Red
110	Stbd Lateral Mark	17° 13.524' N	41° 34.567' E	Green, FL (2) 5S	Green
111	Port Lateral Mark	17° 14.705' N	41°33.299' E	Red, FL (2) 5S	Red
112	N. Cardinal Mark	17° 17.407' N	41° 42.373' E	White, Q (Racon)	Black, Yellow
112A	Port Lateral Mark	17° 19.152' N	41°40.448' E	Red, FL (2) 5S	Red
113	Port Lateral Mark	17° 15.449' N	41° 49.632' E	Red, FL (2) 5S	Red
114	Stbd Lateral Mark	17° 10.198' N	41° 50.998' E	Green, FL (2) 5S	Green
115	Safe Water Mark	17° 10.449' N	41° 53.635' E	White, ISO 10 S	Red, White
116	Stbd Lateral Mark	17° 06.498' N	41° 56.501' E	Green, FL (2) 5S	Green
117	Port Lateral Mark	17° 06.247' N	42° 03.822' E	Red, FL (2) 5S (Racon)	Red
118	Stbd Lateral Mark	17° 02.300' N	42° 02.102' E	Green, FL (2) 5S	Green
119	Stbd Lateral Mark	17° 00.484' N	42° 07.402' E	Green, FL (2) 5S	Green
120	S. Cardinal Mark	17° 04.599' N	42° 07.501' E	White, Q (6) +LFL 15s	Yellow, Black
121	Port Lateral Mark	17° 05.201' N	42° 08.698' E	Red, FL (2) 5S	Red
122	Stbd Lateral Mark	17° 04.949' N	42° 10.405' E	Green, FL (2) 5S	Green
201	Port Lateral Mark	17° 05.437' N	42° 09.759' E	Red, FL (2) 5S	Red
123	Stbd Lateral Mark	17° 06.440' N	42° 11.646' E	Green, FL (2) 5S	Green
124	Port Lateral Mark	17° 09.816' N	42° 13.163' E	Red, FL (2) 5S	Red
125	Stbd Lateral Mark	17° 08.699' N	42° 13.799' E	Green, FL (2) 5S	Green
126	Port Lateral Mark	17° 11.048' N	42° 13.358' E	Red, FL (2) 5S	Red
127	Stbd Lateral Mark	17° 10.501' N	42° 15.398' E	Green, FL (2) 5S	Green

Please be aware that the navigation marks N4 and Bn#2 are close to but not part of the main navigation channel.

Buoy ID	Description	Latitude	Longitude	Flashing Light Characteristics	Color
N4	S. Cardinal Mark	17° 06.0' N	41° 24.5' E	White, Q (6) +LFL 15s	Yellow, Black
Bn #2	Port Lateral Pillar	17° 16.8' N	41° 33.5' E	Red, FL (3) 12 sec (Racon N)	Red

2.4.2 Harbor Channel to / from port basin

JPDI Port Harbor is fitted with two breakwaters that create a shelter to the port basin and berth area. A Green Starboard hand beacon is fitted on the South breakwater and a red Port hand beacon is placed on the West breakwater.

Buoy ID	Description	Latitude	Longitude	Flashing Light Characteristics	Color
128	Stbd Lateral Mark	17° 12.197' N	42° 15.059' E	Green, FL (2) 5S	Green
903	Stbd Lateral Mark	17° 12.522' N	42° 15.344' E	Green, FL (2) 5S	Green
129	Port Lateral Mark	17° 13.467' N	42° 14.488' E	Red, FL (2) 5S	Red
905	Stbd Lateral Mark	17° 13.358' N	42° 16.085' E	Green, FL (2) 5S	Green
910	Port Lateral Mark	17° 13.964' N	42° 15.540' E	Red, FL (2) 5S	Red
907	Stbd Lateral Mark	17° 14.191' N	42° 16.822' E	Green, FL (2) 5S	Green
908	Port Lateral Mark	17° 14.460' N	42° 16.583' E	Red, FL (2) 5S	Red
301	Stbd Lateral Mark	17° 14.495' N	42° 17.091' E	Green, FL (2) 5S	Green
302	Port Lateral Mark	17° 14.643' N	42° 16.968' E	Red, FL (2) 5S	Red
303	Stbd Lateral Mark	17° 14.758' N	42° 17.410' E	Green, FL (2) 5S	Green
304	Port Lateral Mark	17° 14.909' N	42° 17.284' E	Red, FL (2) 5S	Red
305	Stbd Lateral Mark	17° 15.032' N	42° 17.730' E	Green, FL (2) 5S	Green
306	Port Lateral Mark	17° 15.171' N	42° 17.605' E	Red, FL (2) 5S	Red
307	Stbd Lateral Mark	17° 15.294' N	42° 18.052' E	Green, FL (2) 5S	Green
308	Port Lateral Mark	17° 15.440' N	42° 17.919' E	Red, FL (2) 5S	Red
309	Stbd Lateral Mark	17° 15.561' N	42° 18.369' E	Green, FL (2) 5S	Green
310	Port Lateral Mark	17° 15.705' N	42° 18.248' E	Red, FL (2) 5S	Red
311	Stbd Lateral Mark	17° 15.827' N	42° 18.693' E	Green, FL (2) 5S	Green
312	Port Lateral Mark	17° 15.968' N	42° 18.568' E	Red, FL (2) 5S	Red
313	Stbd Lateral Mark	17° 16.092' N	42° 19.013' E	Green, FL (2) 5S	Green
314	Port Lateral Mark	17° 16.238' N	42° 18.886' E	Red, FL (2) 5S	Red
315	Stbd Lateral Mark	17° 16.358' N	42° 19.330' E	Green, FL (2) 5S	Green
316	Port Lateral Mark	17° 16.499' N	42° 19.205' E	Red, FL (2) 5S	Red

Note: from time to time navigational marks may be off station and/or unlit. Please check Notices to Mariners and Nav. Warnings for the most up-to-date information.

The harbor approach channel is close to 5.0 nautical miles in length and 350m wide, with a minimum depth of 16.5m and is marked by a number of light buoys.

Additionally, blue colored leading lights with a bearing line 050.0° (T) are provided to the harbor basin.

Maximum Parameters for using the channel are:

Max. Arrival draft: 15.0 meters

Max. L.O.A.: 255 meters

Max. Beam: 46 meters

2.5 Anchorage Areas

JPDI port is an open roadstead, protection is afforded by shoals and land to an extent where vessels do not normally experience heavy movement. It has seven (7) designated anchorage areas.

1. **Tanker Anchorage (A) and ORE transfer anchorage area**
2. **Tanker Anchorage (B)**
3. **VLCC Anchorage Area**
4. **Working Anchorage (A)**
5. **Working Anchorage (B)**
6. **Special Purpose Anchorage**
7. **Explosives and Dangerous Cargo Anchorage**

Vessels bound for Saudi Aramco, Jazan Refinery Marine Terminals, if required to anchor, will be directed by Jazan Primary and Downstream Industries (JPDI) Port Control Center to a designated anchorage as applicable. Holding ground has been reported as good in all anchorages with depths averaging 25-30M. Detailed descriptions can be found on applicable charts and in sailing directions.

2.6 Submerged Pipelines Restricted Area/Prohibited Area

2.6.1 Prohibited Entry

No vessel shall enter any restricted or prohibited area without a Pilot on board. Fishing vessels are prohibited from fishing and / or anchoring in these zones.

2.6.2 Use of Anchors Prohibited

Under no circumstances shall anchors be used in these areas due to the existence of submerged pipelines.

3 Arrival Communications

Refer to “Common Rules and Information” section 6.0 “Radio communications & messages,” and in particular the arrival telex information.

3.1 Required Arrival Information

Vessels must advise their agent of the estimated and/or actual arrival time at the Harbor Pilot Boarding Area (PBA). It is required that vessels provide a minimum of two notices of ETA to PBA, at about 48, then at 24 hours steaming time or as soon as possible after leaving the previous port upon departure, when there is less than 48 hours.

3.2 VHF Communications

JPDI Port Control Center and Jazan Commercial Port Control Center maintain a listening watch on VHF Ch. 16.

JPDI uses VHF Ch. 09 as its calling channel.

3.3 Early Contact

VHF contact with JPDI Port Control Center should be established as early as practicable and ideally within 100 nautical miles of the Port (subject to atmospheric conditions).

3.4 Arrival at the port

All inbound vessels arriving to utilize the deep-water approach channel should call Jazan Commercial Port Control Center on VHF Ch. 16 for instructions to proceed.

For further information contact JPDI Port Control Center on VHF Channel 09.

Vessels are forbidden to enter or navigate within the Port Limits without the approval of the JPDI, Port Control Center.

3.5 Anchoring after arrival

Vessels directed to anchor, on anchoring, the Master should call JPDI Port Control on VHF Ch. 09 and give the anchoring time. Additionally, ships shall pass the same information to Jazan Commercial Port Control Center on VHF Ch. 16. Vessels should monitor VHF channels 16 and 09 when anchored.

3.6 Maintaining Contact

More assistance may be received through JPDI Port Control Center on VHF Ch. 16 and 09.

Use of VHF at the berths within JPDI Port to contact Port Control Center, Marine Terminal, Pilots or Agents is permitted.

3.7 Notice of Readiness

Notice of Readiness should be addressed to Saudi Aramco.

For more information, see “Common Rules and Information” section- 7.2 Notice of Readiness.

4 Arrival Procedures

4.1 Arrival Directions

All inbound vessels arriving to utilize the deep-water approach channel should call Jazan Commercial Port Control Center on VHF Channel 16 for instructions to proceed. For further information contact Jazan Primary and Downstream Industries (JPDI) Port Control Center on VHF Channel 09.

4.2 Proceeding in the Deep-Water Approach Channel

All vessels will monitor VHF channels 16 and 09 during channel passage.

4.3 Proceeding to Anchorage

A vessel with no berthing instructions directed to anchor, or a vessel with instructions to proceed to anchor will be instructed by JPDI Port Control Center of a designated anchorage. After anchoring, the vessel should immediately advise Jazan Commercial Port Control Center and JPDI Port Control Center by VHF Ch. 16 and 09 of anchoring time. Thereafter the vessel should monitor on VHF Ch. 16 and 09 for further instructions.

4.4 Proceeding to Jazan Bulk Plant SPM

For vessels proceeding to any Saudi Aramco Jazan Refinery Marine Terminal berth or the SPM, Harbor Pilots will board at the designated pilot boarding grounds. The maximum permitted arrival drafts are as applicable:

If proceeding to Marine Terminal SBM – 22.00(m) Maximum

If proceeding to Marine Terminal Alongside berth – 15.00(m) Maximum

5 Traffic Movements and Maneuvering

All inbound vessels arriving should call JPDI, Port Control Center on VHF Channel 16 for instructions to proceed.

Berthing will be planned by the JPDI Port Control Center in coordination with Duty Harbor Pilot and Jazan Refinery Marine Terminal. Vessels will be informed timely by JPDI Port Control Center on VHF Channel 09.

6 Harbor Facilities

6.1 Bunkers

Not available at Jazan Refinery.

6.2 Fresh Water

Not available at Jazan Refinery.

6.3 Provisions

Ship chandlers are available for the supply of limited quantities of provisions.

They may be contacted through the ship's agent.

6.4 Medical and Hospital Services

Requirements for medical assistance or hospital services must be made through the ship's agent who can arrange treatment.

6.5 Airport

Nearest airport: King Abdullah Airport in Jazan City.

Airport facilities: Connecting flights to Jeddah, Riyadh and Dammam.

6.6 International Ship and Port Facility Security Officer

For - Jazan Refinery Marine Terminal

Contact the JZRC PFSO: Industrial Security Superintendent, WRISOD

Tel. +966 12 427-7272

6.7 Other Information

Saudi Aramco Ports and Terminals are part of a national network of Ports and Terminals that are governed through pertinent National legislation. Thus, Saudi Aramco Ports and Terminals request all ships calling at its Terminals to liaise with their respective shipping agent to arrange for all MARPOL reception requirements.

Contact the local shipping agent or Sailing Directions for any additional information.

7 Shipping Agent Contact Details

The following companies are available to act as ships agents at the Saudi Aramco Terminals.

Information contained in the below table may be altered by the organizations without notice or warning.

Jazan Shipping Agencies							
Agency	Services	Phone	Mobile 1	Mobile 2	24 Hours	Fax	E Mail
Yusuf Bin Ahmed Kanoo (S5 Agency world)	1	(012) 263-6171	(050) 6602257	(054) 8738053	-	(012) 263 3049	Jizan@kanooshipping.com saudiarabia@kanooshipping.com
Faisal M Higgi and Associates Co Ltd	1 2	(017) 317 1113	(050) 439 8008	-	-	(017) 322 6205	jizan@faisal-higgi.com
Sharaf Shipping Agency Co. Ltd	1	(017) 323 4812	(053) 142 7268	-	-	(017) 323 4814	redseaops@ssajeddah.com
Hasan Al Harbi Corporation (HASCO)	1	(017) 334 3030	(056) 824 2506	(050) 537 3931	-	(017) 322 8276	jazan@hasco.com.sa
<p>Shipping Agencies are locally licensed to provide services for - 1. Maritime Support Services 2. Chandlery services 3. Bunker Services If dialing from an International destination: All landline / Mobile / Fax numbers must be preceded by Saudi Arabian country code. (00 966) or (+966) and then remove the first zero of the number. For example: Local (017) *** **** will become either 00 966 17 *** **** or +966 17 *** ****</p>							

Jazan Refinery Marine Terminal

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Jazan Refinery Marine Terminal

RULES REGULATIONS AND GENERAL INFORMATION

1 General

1.1 Location of Terminal

Located to the NW of Jazan. The Saudi Aramco Refinery Marine Terminal comes within the Jazan City for Primary and Downstream Industries Port Authority boundary.

1.2 Description of Terminal

The Saudi Aramco Jazan City for Primary and Downstream Industries, Refinery Marine Terminal, comprises three (3) tanker berths, one (1) bulk Sulphur berth and one (1) SPM Terminal.

The tanker berths and Sulphur berth share a turning basin with Jazan Primary and Downstream Industries Port, with the SPM Terminal located within the VLCC anchorage area.

The specific gravity of seawater at Jazan Refinery Marine Terminal is 1.025.

Anchoring or fishing within the Terminal areas are prohibited without prior permission Jazan Primary and Downstream Industries Port Authority.

1.3 SPM Terminal

1.3.1 SPM buoy

SPM	Water Depth at LAT
1	23.75M

The CALM SPM Buoy is suitable for Tankers between 150,000 and 320,000 MT DWT. Information on suitable parameters for using the SPMs are listed in the Universal Berth Parameters.

1.3.2 Cargo Hoses

Jazan Marine Terminal, SPM is equipped with two (2) floating hose strings, each string is fitted with a double closure breakaway coupling and a wheel-operated butterfly valve.

The SPM hoses are equipped with one 15-inch circumference, double braided nylon, 85.0 meters (279ft) long mooring hawser.

The tail end hose presented to the ship is 20" fitted with 20" flat face blank flange, a lifting eye and lifting and snubbing chains.

Each hose weighs approx. 6.0 MT and is designed for;

- Maximum throughput 15000 m³/hr., 94300 Bbl./hr.
- Normal operating pressure 16 Bar
- Design pressure 19.6 Bar

1.3.3 Cargo Hose Strings

The outboard hose string is 305.0m (1000ft) and the inner 293.0m (960ft) long.

1.3.4 SPM Marking

The SPM buoy is fitted with a radar reflector and a navigation light.

The navigation light switches on automatically during hours of darkness.

Light character; White 2 FL +1LFL 15-sec.

1.4 Tanker Berths #1, #2, #3

The Marine Terminal fixed berths are situated in JPDI Port Harbor.

The harbor is fitted with two breakwaters that create a shelter to the port basin and berth area for three (3) tanker berths and one (1) sulfur berth. Tanker berths #1 and #2 are located on the South Quay, Tanker berth #3 and the Sulphur berth are located on the East Quay. The Tanker berths and sulfur berth are standard conventional alongside berths.

The loading arms connections require a reducer size of 16" for liquid cargo and 10" for vapor and vapor return lines.

2 Entering Saudi Aramco Refinery Marine Terminal

2.1 Maximum Drafts

Under normal operating conditions with a positive (+) height of tide above LAT, the maximum permitted arrival drafts are as applicable;

If proceeding to Marine Terminal SBM – 22.00m Maximum

If proceeding to Marine Terminal #1, #2, #3, or Sulfur berth – 15.00m Maximum.

If at any time a vessel's under keel clearance is less than 1.5 meters at the berth, operations will be suspended until a rising tide increases the depth of water to safely allow operations to resume.

2.2 Draft and Trim including Ballast operations

Under normal operating conditions all vessels should comply with the "Common Rules and Information" Section 11.2 Ballast Operations draft and Trim.

2.3 Vessels arriving

Berthing will be planned by the JPDI Port Control Center in coordination with Duty Harbor Pilot and Jazan Refinery Marine Terminal.

For vessels proceeding to any Saudi Aramco Jazan Refinery Marine Terminal berth or the SPM, Harbor Pilots will board at the designated pilot boarding grounds.

2.4 VHF Communications

Jazan Primary and Downstream Industries (JPDI) Port Control Center maintain a listening watch on VHF Ch. 16 and Ch. 09, which is used as the calling channel.

2.5 Anchoring and Restricted Areas

Jazan Primary and Downstream Industries (JPDI) Port is an open roadstead and protection is afforded by shoals and land to an extent where vessels do not normally experience heavy movement. It has seven (7) designated anchorage areas.

1. **Tanker Anchorage (A) and ORE transfer anchorage area**
2. **Tanker Anchorage (B)**
3. **VLCC Anchorage Area**
4. **Working Anchorage (A)**
5. **Working Anchorage (B)**
6. **Special Purpose Anchorage**
7. **Explosives and Dangerous Cargo Anchorage**

Vessels bound for Saudi Aramco, Jazan Refinery Marine Terminal, if required to anchor, will be directed by Jazan Primary and Downstream Industries (JPDI) Port Control Center to a designated anchorage as applicable. Holding ground has been reported as good in all anchorages with depths averaging 25-30M. Detailed descriptions can be found on applicable charts and in sailing directions.

No vessel shall enter any restricted or prohibited area without a Pilot on board. Fishing vessels are prohibited from fishing and/or anchoring in these zones.

Under no circumstances shall anchors be used in these areas due to the existence of submerged pipelines.

2.6 Wind limits for mooring and Unmooring

For vessels in a loaded condition, berthing/unberthing alongside operations at the Marine Terminal, the wind must not be more than 30 knots.

For vessels in a ballast condition, berthing/unberthing alongside operations at the Marine Terminal, the wind must not be more than 25 knots.

3 Pilotage

3.1 Pilot Boarding

The Harbor Pilot and if assigned Harbor Pilot Assistant, Harbor Pilot Trainee, will board the tanker at the designated Pilot boarding grounds. The Master should provide an adequate lee for embarking the pilot team if they are to board by boat, or orient and prepare his ship as requested by the helicopter dispatcher if they are to board by helicopter.

Pilot boat operations and boarding activities from a launch are limited by the following weather conditions: a wave height of 1.5 meters and/or a wind speed of more than 25 knots.

Harbor Pilots will not attempt to berth vessels bound for or at the SPM unless it is safe for the mooring boat to operate in the prevailing conditions.

At all times mooring boats shall operate within their allowable design specifications after a careful evaluation of the existing circumstances and weather conditions, carried out by the Harbor Pilot.

The Pilot / Pilot Assistant, as applicable, will advise the Master on all maneuvers and operations relative to berthing, connecting and disconnecting hoses and unberthing. Moreover, they will also provide communications between ship and shore during cargo operations and be the Saudi Aramco Representative with respect to safety observations and other requirements

3.2 Helicopter Operations

Helicopter operations are not carried out routinely at Jazan City for Primary and Downstream Industries port.

In the event that a helicopter may be required as part of an emergency or other procedure, all vessels should be prepared for helicopter operations to be carried out according to the "International Chamber of Shipping (ICS) - Guide to Helicopter/Ship Operations"

All vessels should have a copy of this booklet and the safety checklist relevant to helicopter operations on board.

4 Mooring and Operations for SPM Buoys

4.1 Preparations for mooring at SPMs

Ships assigned to the SPM buoys must comply with the OCIMF recommendations for equipment employed at Single Point Moorings, (SPMs).

During the approach, while mooring/securing to the SPM, the vessel's anchors must be secured by stoppers to prevent accidental dropping, with subsequent damage to the subsea pipelines and equipment.

Line handling during mooring/unmooring shall be performed by the ship's staff under instructions of the Pilot/Pilot Assistant.

Ship cargo cranes shall be rigged and ready to lift the hose connecting equipment basket from the launch from either side. If available, a trolley may be required to transport this equipment about the vessel's deck.

The vessel shall have the following equipment ready for use on the forecastle head.

- Large crow bar.
- Large intrinsically safe flashlight for night mooring.
- A messenger line 24 to 28 mm diameter, 150 m in length.
- Winch drum or empty spool drum to heave onboard the mooring pick up rope.

Where possible, the mooring line(s) should lead through a Panama chock in the center of the bow, rather than through a single port or starboard bow fairlead to reduce the possibility of yawing.

Power should be available to the winches (mooring deck equipment) on the forecastle and to the cranes at the ship's manifold to ensure they are ready to lift the ancillary mooring and hose handling equipment. The manifolds shall be prepared for cargo operations, as detailed in 4.1.2.

The Pilot/Pilot Assistant will check that all equipment for mooring and hose connecting operations are on board the launch and in working order prior to departure. Items such as chain hoists, gaskets, wrenches, flange bolt sets, butterfly valve handles, ullaging equipment, sample bottles, etc., may be required and placed on board.

4.1.1 Preparing the Forecastle Head

Ship's staff will prepare the forecastle head for the mooring operation at the instruction of the Pilot/Pilot Assistant.

4.1.2 Preparing the Port Side Manifold

All Saudi Aramco SPM terminals have been designed for vessels to use port manifold configuration only.

The cargo crane must be currently certified, tested and ready for use.

Two 20" flange connections to be fitted on cargo manifolds.

To avoid delays, the vessel should have reducers ready at the port side manifold to adapt to any other size requests.

Drip trays, absorbent material and firefighting equipment should be in position.

Saudi Aramco normally supplies the following, but their presence will prevent delays in case of deficiency or malfunction.

- Handy-Billy/Chain block
- Spare spanners.

- Spare wire strops.
- Spare bolts.

4.1.3 OCIMF Standard Manifold Arrangement

To secure the hoses to the vessel's manifold the manifold arrangement must be as recommended in the OCIMF publication "Recommendations for Oil and Chemical Tanker Manifolds and Associated Equipment."

4.1.4 Equipment Transfer

Saudi Aramco mooring and hose connecting equipment will be lifted aboard the tanker from the launch on either the port or starboard side by means of the ship's crane.

Normally, the transfer of equipment will be done once the ship is fully secured to SPM. If the ship requires cargo reducers, the transfer will be done as soon after the Pilot boards the vessel as possible. For this purpose, the hose handling crane shall be ready for immediate use and an adequate lee shall be provided.

To prevent injury to personnel and damage to the launch superstructure, the hoisting block must be secured and controlled by a handling line during the entire transfer operation.

4.2 Mooring Sequence of Operations

4.2.1 Mooring/Line Boats

JPDI, SPM Terminal normally operates with two tugs and a mooring boat. Both tugs are available for mooring assistance at the SPM.

The launches and other terminal facilities are equipped with compatible VHF and UHF two-way radio equipment of adequate power.

4.2.2 Operational Limits

At all times mooring boats shall operate within their allowable design specifications after a careful evaluation of the existing circumstances and weather conditions, carried out by the Harbor Pilot.

The decision to proceed with the operation should only be made after careful evaluation of the existing circumstances, and agreement with the mooring boats.

4.2.3 Optimum Approach Direction

Prior to making the final approach to the SPM, it is important that the Master and the Harbor Pilot evaluate and agree, on all conditions and factors that will influence the mooring operation. These conditions and factors include: the tide, current, wind, swell and wave effect, and the direction in which the floating hose strings and hawsers are lying.

The optimum approach to the terminal is into the wind and sea. At times this approach will not be possible, because of the current being at variance with the wind or sea conditions. Accordingly, it is incumbent upon the Master to exercise careful judgment

when approaching the terminal, particularly during the hours of darkness and in poor visibility.

Particular attention must be given to the location of the floating hose string. Normally, the position of the floating hoses will be controlled by the currents, rather than by wind effect.

4.2.4 Approaching the SPM

When the optimum approach route has been selected, the tanker should proceed toward the terminal at a suitable speed, dependent upon the conditions at that time. Approximately 1,000 m from the berth, the vessel should have only sufficient way on for steerage.

The floating hose string should be on the port side. The tanker should make the final approach with the buoy on the port bow, rather than dead ahead. This permits the Pilot/Pilot Assistant on the bridge to observe the buoy at all times, and in the event of any misjudgment of the approach speed, there is no danger of overrunning the buoy.

It is extremely dangerous for small boats to lie in the path of large vessels, particularly when the larger vessel has a bulbous bow. Therefore, the ship's crew must carry the messenger line to a safe location aft of the bow, along the flat side of the hull before lowering the messenger line, thereby making it unnecessary for the boat to position itself right ahead or under the flare of the vessels bow.

The tanker's approach speed must be reduced to a minimum, but sufficient to keep the ship's maneuverability.

A tugboat may be secured right astern throughout the ships approach to the SPM as deemed necessary by the Harbor Pilot.

4.2.5 Mooring Hawser Hookup

As the vessel approaches the berth, the floating hoses are towed away from the path of the approaching tanker.

When the vessel is approximately 300 to 460 m (1,000 to 1,500ft) from the buoy, and still making way, the mooring boat will bring the port hawser pickup rope (80 mm diameter) and make it fast to the messenger. At the boat's signal, the pickup rope is heaved on deck.

Under no circumstances must any load be put on the pickup rope as this may lead to the failure of the rope.

The tanker should be brought to a dead stop between 45 and 60 m (150 and 200ft) from the buoy. At this point, the chafing chain is lifted into the bow chock and then to the bow chain stopper to be secured under the direction of the pilot. Ease back on the pickup rope until the weight is taken up.

Care must be taken to gradually transfer the load to the hawser, to avoid any shock loading that can result from a freely drifting tanker taking up hawser slack.

Repeat the operation for the starboard chain.

4.3 Connecting the Cargo Hoses

Connecting cargo hoses is to be carried out by the ship's staff under instruction and supervised by the terminal representative:

Due to possible vessel induced movement to the crane wire/hook, the vessel must use guide ropes to reduce/control the hook movement at all times during raising and lowering operations.

1. **Lower crane hook to the mooring boat, which will connect it first of all to the forward hose.**
2. **Heave up until the blank flange is level with the hose rail.**
3. **Unshackle hose snubbing chain from the flange.**
4. **Continue heaving up the hose as directed by the Pilot Assistant.**
5. **Secure the snubbing chain as suitable.**
6. **Lower the hose to bring the hose flange to the manifold and check the alignment of the flanges.**
7. **Lower the hose onto the drip tray and removed the blank flange.**
8. **Lift the hose and connect it to the manifold. The hose flange is fitted with camlock connections. Never use a wire strop around cargo hoses.**
9. **The second cargo hose should be connected in the same way.**
10. **After cargo hoses are connected, they must be supported in way of the vessel's side rail by means of nylon belly bands hooked up to ship's crane. Be advised that the hoses cannot touch the saddle rail at any time.**

4.4 Cargo and Ballast Procedure at SPM

Cargo rates will be set by the Harbor Pilot in coordination with the terminal and as agreed with the vessel.

All cargo and ballast operations will be controlled by the ships' Officers.

Radio communications with the Terminal will be designated by the Pilot.

In the event of failure of radio communication systems, the vessel will sound five long blasts on the vessel's whistle. Loading operations will be stopped and will not be resumed until communications have been restored.

Ballast and Slop Reception is not available at Jazan Refinery SPM Terminal.

A need for emergency shutdown of cargo operations aboard the vessel must be communicated as soon as possible to the Harbor Pilot and/or Terminal.

4.5 Use of Tug/Engine at Berth

After securing both chains, a tug may be placed on a towline at the stern of the vessel, using a vessel's line of suitable length and strength. The line will be kept taut at all times except during high wind periods.

Vessels that are only able to run their engines astern for short periods should maintain them in a state of readiness at short notice, and use them as required to maintain position off the SPM. At such times, the Pilot may direct the operation from the forecastle with a vessel's Officer and with the bridge manned by the Master.

4.6 Bow Watchman

At all times when at berth, there shall be an experienced crewmember on duty at the bow of the vessel. He shall be issued with a means of immediate communication with the Deck Officer on duty.

He shall observe the configuration of the hoses and mooring hawsers, and the proximity of the SPM and hoses to the tanker. He shall be alert to oil leaks or spills, unattached oil slicks in the vicinity and deteriorating weather conditions. He shall immediately report any abnormal event or deteriorating weather to the Deck Officer on duty.

4.7 Manifold Watchman

At all times, when at berth and when cargo hoses are connected, there shall be a watchman on duty at the manifold. He shall observe the configuration of the hoses and the manifold connections. He shall be alert to oil leaks or spills, stress or chafing on the hoses or ancillary equipment and deteriorating weather conditions. He shall report any abnormality to the Deck Officer on duty.

4.8 The Deck Officer on Duty

The Deck Officer shall immediately report any abnormal events, deteriorating weather or other situations coming to his attention to the Pilot or Pilot Assistant on duty.

4.9 Gangways

The gangway is to be rigged and ready on the starboard side of the vessel, maintained at deck level.

4.10 Boarding vessels at SPM

Small craft are not allowed in the vicinity of the vessel and no one is permitted to board or leave a vessel while cargo operations are in progress.

Should it become urgent for personnel to board or leave a vessel for any reason during the cargo operation, the Pilot must be contacted to request permission to shut down the cargo operation while the small craft is alongside.

4.11 Care of SPM Berth Equipment

In bad weather, maintenance work is extremely difficult and involves possible danger to personnel. For this reason, vessels are requested to give as much assistance as possible by taking proper care of the mooring and hose equipment.

Saudi Aramco will hold the vessel responsible for all costs and/or losses resulting from damage to the mooring and hose equipment where they consider that the vessel has been negligent in taking proper care of them.

4.12 Disconnecting the Cargo Hoses

Disconnecting cargo hoses is to be carried out by the ship's staff under instruction and supervised by the terminal representative:

Due to possible vessel induced movement to the crane wire/hook, the vessel must use guide ropes to reduce/control the hook movement at all times during raising and lowering operations.

1. **Connect the after-hose stop to the crane hook, take the weight and disconnect the flange.**
2. **Replace the blank flange using the camlocks and a new gasket.**
3. **Lower hose to deck and secure.**
4. **Repeat with forward hose.**
5. **Secure the crane hook to the lifting hook of the after hose and raise the hose until the weight is taken off the snubbing chains.**
6. **Release the snubbing chain, lower the hose to rail level and shackle the snubbing chain to the flanges.**
7. **Lower the hose end into the water and trip the hook to release.**
8. **Repeat for the forward hose.**

Return all Saudi Aramco tools and equipment to the steel basket, stow it in a seaman like manner, and prepare for lowering to the mooring boat on either the port or starboard side, dependent on weather conditions.

4.13 Unmooring from SPM Procedure

1. **Take the weight of the chain and hawser on the pickup rope using the windlass.**
2. **Disconnect chafing chain from the bow chain stopper.**
3. **Slowly slack the pickup rope until the support buoy is in the water and taking all of the weight of the chain.**
4. **Pay out the pickup line either to the mooring boat or as the ship clears the berth.**

5 Mooring and Operations for Tanker and Sulfur Berths

5.1 Mooring/Line Boats

JPDI Port, SPM Terminal normally operates with two tugs and a mooring boat. Both tugs are available for berthing assistance at the SPM.

The launches and other terminal facilities are equipped with compatible VHF and UHF two-way radio equipment of adequate power.

5.2 Operational Limits

At all times mooring boats shall operate within their allowable design specifications after a careful evaluation of the existing circumstances and weather conditions, carried out by the Harbor Pilot.

The decision to proceed with the operation should only be made after careful evaluation of the existing circumstances, and agreement with the mooring boats.

5.3 Mooring Lines

The mooring arrangements will require the ship to prepare 3 headlines and stern lines, 3 breast lines forward and aft and 2 spring lines forward and aft.

Ships assigned to the Marine Terminal berths must comply with the OCIMF Mooring Equipment Guidelines.

Vessels should have heaving lines ready. After landing alongside a heaving line should be passed to shore. When the heaving line is received by the shore it will be attached to the shore messenger. The messenger will be attached to the ship's lines and the shore mooring gang will heave the ship mooring lines ashore. It is normal for heavy wires to be sent ashore one at a time and ropes may be sent 2 at a time.

Only jetty personnel are to handle mooring lines ashore.

5.4 Ship/Shore Connections

Jetty crews are on duty continuously to handle cargo hoses/arms and will make all connections/disconnections.

All cargo connections are equipped with electrical insulating flanges; therefore, ship to shore bonding cables must not be rigged.

5.5 Cargo

Each berth suitability for cargo is itemized on the Saudi Aramco Universal Berth Parameters table.

Berths #1 and #2 are suitable for Chemical, Chemical Vapor (Paraxylene and Benzene), Product, Fuel Oil and Crude Oil.

Berth #3 is suitable for RLPG (C3, C4), Chemical, Chemical Vapor (Paraxylene and Benzene), Fuel Oil and Product.

Vessels involved in the transfer of RLPG at Berth #3 should follow all applicable procedures as documented in Saudi Aramco, Port and Terminals, Rules, Regulations and General Information, Section 8 Gasrul.

Maximum and minimum cargo rates including topping off rates are specific to each loading arm.

The rates and parameters for each cargo operation will be discussed and agreed between the vessel and a terminal representative during the pre-cargo operations meeting.

While at berth, ship will maintain communication with the PCC on the VHF and with the Marine Terminal Operations on Bravo radios that will be provided by the Terminal Operator.

In the event of failure of radio communication systems, the vessel will sound five long blasts on the vessel's whistle. Loading operations will be stopped and will not be resumed until communications have been restored.

5.6 Gangways/Access Ladders

The Terminal will provide a shore gangway during the ship stay, however ships are required to prepare a ship gangway on the seaside / offshore side to be utilized as a secondary means of access.

6 Completion and Departure

6.1 Cargo calculations on arrival and departure

The Cargo Officer in coordination with the attending cargo surveyor and if necessary Harbor Pilot assistance, will supply the ship's cargo figures on arrival and prior to departure in U.S. (i.e., Gross) Barrels. The Terminal Representative will not accept the figures until they are presented in writing on the Saudi Aramco ullage report form.

Results of ship/shore comparison take time and Masters are urged to prioritize the cargo calculations and completion of the ullage report form to avoid delay.

If the vessel is released, the Harbor Pilot will leave after unmooring is completed and the ship is clear of the berth. If the ship/shore difference is large and the vessel is not released, the Cargo Officer in coordination with the attending cargo surveyor and if necessary Harbor Pilot assistance, will survey any cargo to Saudi Aramco inspection procedures and report the findings to Saudi Aramco Terminal Planners.

Refer also to "Common Rules and Information," Section 11.3 "Cargo Calculations and Release"

6.2 Sailing Drafts

Under normal operating conditions with a positive (+) height of tide above LAT, the maximum permitted sailing drafts are as applicable:

If departing Marine Terminal SBM – 22.00m Maximum

If departing Marine Terminal #1, #2, #3, or Sulfur berth – 15.00m Maximum.

If at any time a vessel under keel clearance is under 1.5 meters at the berth, operations will be suspended until a rising tide increases the under-keel clearance.

6.3 Sailing Trim

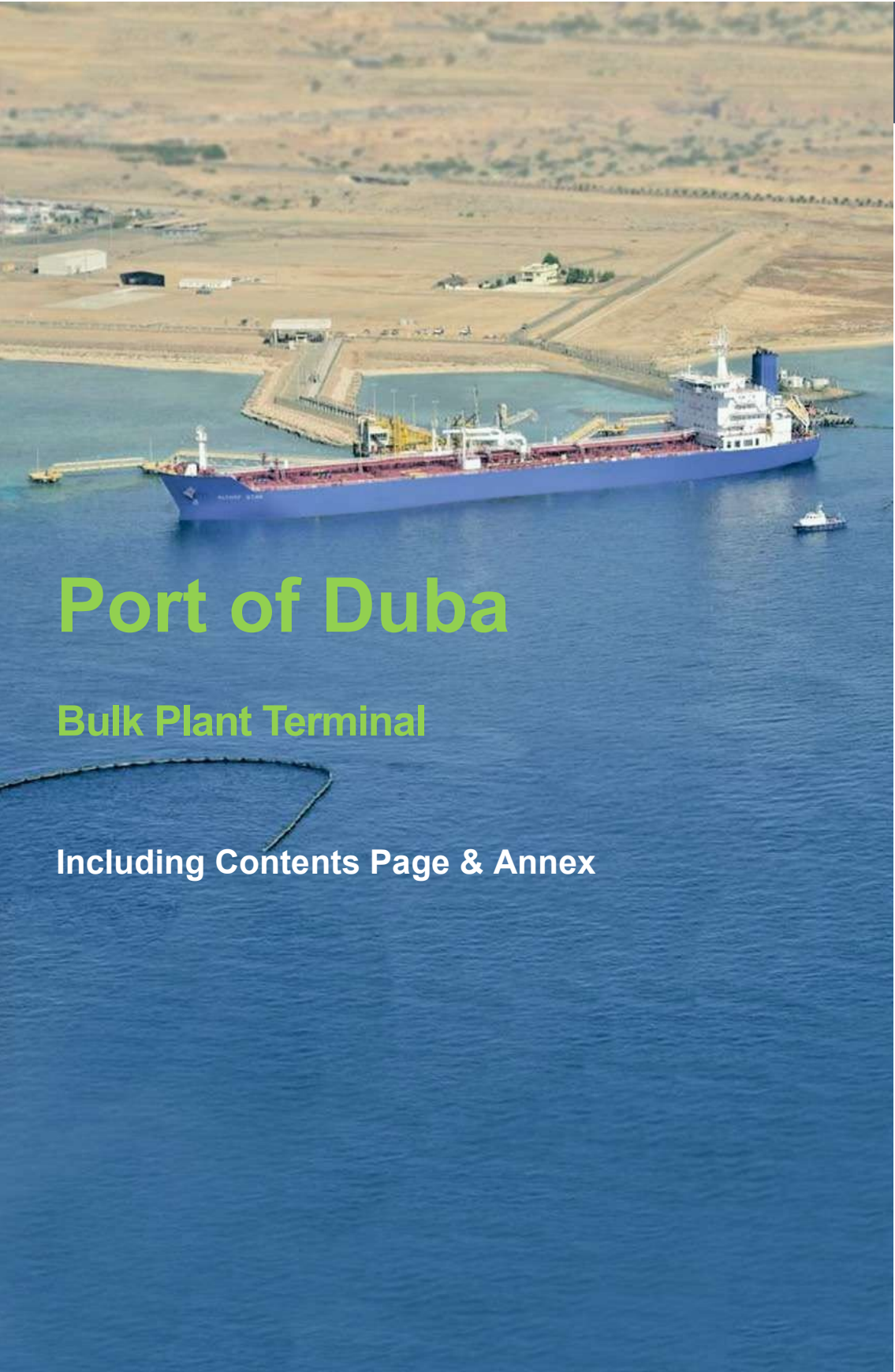
Under normal operating conditions all vessels should comply with the “Common Rules and Information” Section 11.2 Ballast Operations Draft and Trim.

6.4 Departure

Upon completion of unmooring, if required the vessel will make a lee for any mooring/hose connecting equipment to be discharged onto a launch, on either port or starboard side.

The Pilot/Pilot Assistant will normally leave by Pilot launch.

All vessels using the Jazan facilities should then proceed outwards via the appropriate departure route/channel



Port of Duba

Bulk Plant Terminal

Including Contents Page & Annex

Duba Bulk Plant Terminal

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Duba Bulk Plant Terminal

RULES REGULATIONS AND GENERAL INFORMATION

1 Location and Description

1.1 Location

Duba Bulk Plant is located in the northern part of the Red Sea, about 5 km southeast of the town of Duba, and about 200 km southwest of Tabuk.

Duba has a commercial port about 35 Km North of - and entirely separate from – Saudi Aramco's Duba Bulk Plant Terminal.

1.2 Description of the Terminal

There is one berth with multiple product loading facilities. A causeway connects the berth to the shore facilities, pipelines, custody metering systems and storage tanks. The Terminal receives diesel oil and gasoline. A tank farm, capable of storing these products, is situated adjacent to the Terminal. Berthing instructions will be received from Duba Terminal on VHF channel 11.

1.3 Marine Terminal Assistance Fees

The Owners, Operators and Charterers of any vessel calling at Duba Bulk Plant Terminal shall be liable and shall reimburse Saudi Aramco promptly and in full for all applicable Duba Bulk Plant Marine Terminal Assistance Fees.

2 Navigational Information

2.1 Meteorology

2.1.1 Weather

Prevailing winds are northwesterly.

A low to moderate swell can be expected mainly from either northwest or southwest.

2.1.2 Tidal Range & Flow

The tide has a maximum range of 1.5 meters. The flood tide runs in a southeasterly direction. The ebb is westerly.

2.1.3 Weather Warnings

Available information should be obtained from NAVTEX if fitted. The on-board pilot will advise the ship of any weather warnings received while the ship alongside.

2.2 Charts & Publications

2.2.1 Charts

Charts are available in various forms, including paper-based tables and digital from worldwide hydrographic agencies. Vessels should always use the largest scale chart available maintained in an up to date format with the latest corrections and Notices to Mariners applied.

2.2.2 Tide Tables / Tidal Stream Atlas

Tide tables are published in various forms, including paper-based tables and digital tables. When using tide tables for Saudi Arabian waters the validity of data should be supplied by a trusted source for example Saudi Aramco or UK Admiralty, and should be maintained in an up to date format with the latest corrections applied.

2.2.3 Pilot Books / Sailing Directions

Pilot Books / Sailing Directions are published in various forms, including paper-based or digital booklets. When using information for Saudi Arabian waters the validity of data should be supplied by a trusted source for example UKHO, and should be maintained in an up to date format with the latest corrections applied.

2.2.4 List of Lights / Fog Signals and Lists of Radio Signals

Lists of Lights / Fog Signals and Radio Signals are published in various forms, including paper-based or digital booklets. When using information for Saudi Arabian waters the validity of data should be supplied by a trusted source for example UKHO, and should be maintained in an up to date format with the latest corrections applied.

2.3 Anchorage Areas

An undesignated but exposed anchorage lies about 10 miles south-southwest from the berth. The minimum depth of water here is 16.2 meters chart datum, and covers an approximate area swept by a 2.5-mile radius. (Water depths adjacent to the berth are in excess of 100 meters.) Note: There is no anchorage marked on the charts of the area.

2.4 Drifting / Waiting area

Vessels choosing not to anchor or requested to drift clear of port limits must maintain a listening watch on VHF channel 11 for Dubai Terminal berthing information.

2.5 Navigational Aids

There is no VTMS in Dubai Terminal. The area is marked with four Cardinal Buoys named as D1, D2, D3 and D4. They are used around the fixed jetty to mark areas of shallow water.

3 Radio Communications

3.1 Contacting Saudi Aramco

Vessels calling at Duba are normally loaded coastal tankers coming from Saudi Aramco Western Region ports. There are no direct communications or pre-arrival messages between Duba Bulk Plant Terminal and the vessels.

Instead, information is sent by the vessels to their charterers/owners/agents on leaving the loading port. The agents then will notify the Terminal of the vessel's ETA. Ships, departing Yanbu' Terminal bound for Duba, are advised to contact Yanbu' Aramco VTSO on channel 11, to update their ETA.

3.2 Contacts After Departure

After the Harbor Pilot has disembarked, the vessel will have no further communication with the Terminal.

4 Arrival Procedures

4.1 Anchoring/Berthing

Most vessels arrive from Yanbu' and approach the terminal on a course about 025° (T). Vessels either anchor at the anchorage area upon arrival or proceed directly to the Pilot Boarding Area according to instructions. Vessels may anchor in the anchorage area without a pilot.

If Masters elect to drift, rather than dropping anchor, then a distance of no more than 10 miles is to be maintained from Duba fixed jetty.

4.2 VHF Communications

All local VHF communications between vessels and the Terminal/Pilots are on VHF channel 11, unless otherwise advised. If the vessel does not have channel 11, then, an alternative channel will be used as agreed by both ship and shore.

- The Duba Bulk Plant shall be contacted 2 hours before arrival on channel 11. When at anchor, vessels should keep a listening watch on both VHF channels 11 and 16.
- Anchoring time shall be passed to Duba Bulk Plant on channel 11.

4.3 Pilot Boarding Position

The Pilot boards between 2 and 4 miles south-southwest of the Terminal. In circumstances where the wind is 30 knots or more in any direction, berthing operations will be cancelled until the weather moderates.

5 Mooring Procedures

5.1 Mooring Craft

Two tugs of approximately 60 tons bollard pull (Azimuth Type) are used for berthing and unberthing operations.

5.2 Berth Information

A single berth is available to handle the berthing and unloading of ships from 150m to 200m LOA. Minimum displacement is 30,000 DWT up to a maximum of 65,000 DWT. The berth facilities include mooring dolphins, breasting dolphins and interconnecting walkways.

Dock Water Density is between 1.025 and 1.026, depending on time of year.

6 Berth Operations

6.1 Duty Harbor Pilot and Tugs

The Harbor Pilot will remain on board throughout the discharge. While on board he will conduct regular safety checks. Should the weather deteriorate, the Harbor Pilot will decide whether to stop operations and remove the vessel from the berth.

While the vessel is at the berth, both tugs will remain on continuous standby.

6.2 Discharge Operations

On completion of berthing, a Saudi Aramco inspector will board the vessel to discuss the discharge operation.

6.2.1 Pre-Discharge Inspections

Ship and shore staff will carry out cargo calculations. A Bulk Plant Inspector will board the vessel on completion of mooring, for the purpose of ullaging, calculations and documentation.

6.2.2 Documentation

A copy of the Bill of Lading is given to Bulk Plant Inspector, together with the ullage report from loading Port, Quality Certificate and Certificate of Origin of the cargo.

Discharge rates and pressures will be agreed and Notice of Readiness will be given to him verbally. On completion of these tasks the Inspector will leave.

6.2.3 Starting Cargo Discharge

When the loading arms are connected, the vessel's cargo officer must inform Bulk Plant Operations and await instructions to commence discharge. If there are two grades for discharge, commence with the grade instructed by the shore and after 30 minutes commence the second grade.

6.2.4 Continuous Discharge

Once discharge is commenced, there will be no stoppages until all the cargo is discharged or until there is no shore ullage remaining. The maximum permitted discharge pressure at ships manifold is stipulated by the Bulk Plant Inspector but is about 7 kg/cm².

6.3 Stopping

In the normal course of events, the ship will stop on completion of discharge. Operations can be halted either by the shore, through VHF communication to the vessel, or by the Pilot on board, should the weather deteriorate. Vessels must be prepared to vacate the berth immediately at any time during adverse weather.

In circumstances where the wind is 35 knots or more in any direction, cargo operations will be suspended, until the weather moderates. Cargo loading arms will be disconnected if wind speed is 40 knots or more and the ship prepared to un-berth in case the vessel has to vacate the berth.

If the Pilot halts the discharge, the shore must be informed prior to stopping and given the reason.

6.4 Completion

On completion of discharge, the Inspector will board the vessel, carry out a tank inspection, and issue a tank dry certificate. It is the Inspector who will release or detain the vessel in cases of cargo quantity discrepancies. A copy of the time sheet and pumping log should be given to the Inspector.

6.4.1 Port Clearance

The Bulk Plant Inspector will deliver the port clearance papers.

7 Departure

7.1 Vacating the Berth

When the vessel has been released, and necessary formalities completed, the vessel is free to sail and shall vacate the berth immediately.

7.2 Departure Pilotage

The Saudi Aramco Pilot will take the ship at least one mile clear of the terminal area on a heading of course 206° (T) before disembarking on the pilot boat.

7.3 Proceeding to Anchorage

Should the vessel have need to vacate the berth because of bad weather, the Pilot will hand over to the Master as soon as the vessel is clear of the berth. The Master will then take his vessel to anchor. The Master is fully responsible for anchoring his vessel.

The Pilot in this case may stay on board and re-berth the vessel when the weather improves.

8 Facilities

8.1 Divers

The Frontier Force will supply divers through the Bulk Plant if needed in an emergency. In other cases, divers must be brought in from Yanbu' or Jeddah.

8.2 Medical & Hospital Services

In an emergency, the Agent will arrange with the Frontier Force for sick crew to go ashore for medical treatment. There is only one hospital in Dubai town (about 5 km away).

If the crewmember needs hospitalization, the vessel's owners must send a representative to officially arrange for the crewmember to stay in Saudi Arabia until the ship returns or until the crewmember is repatriated.

8.3 International Ship and Port Facility Security Code

DUBA ASSISTANT PFSO:

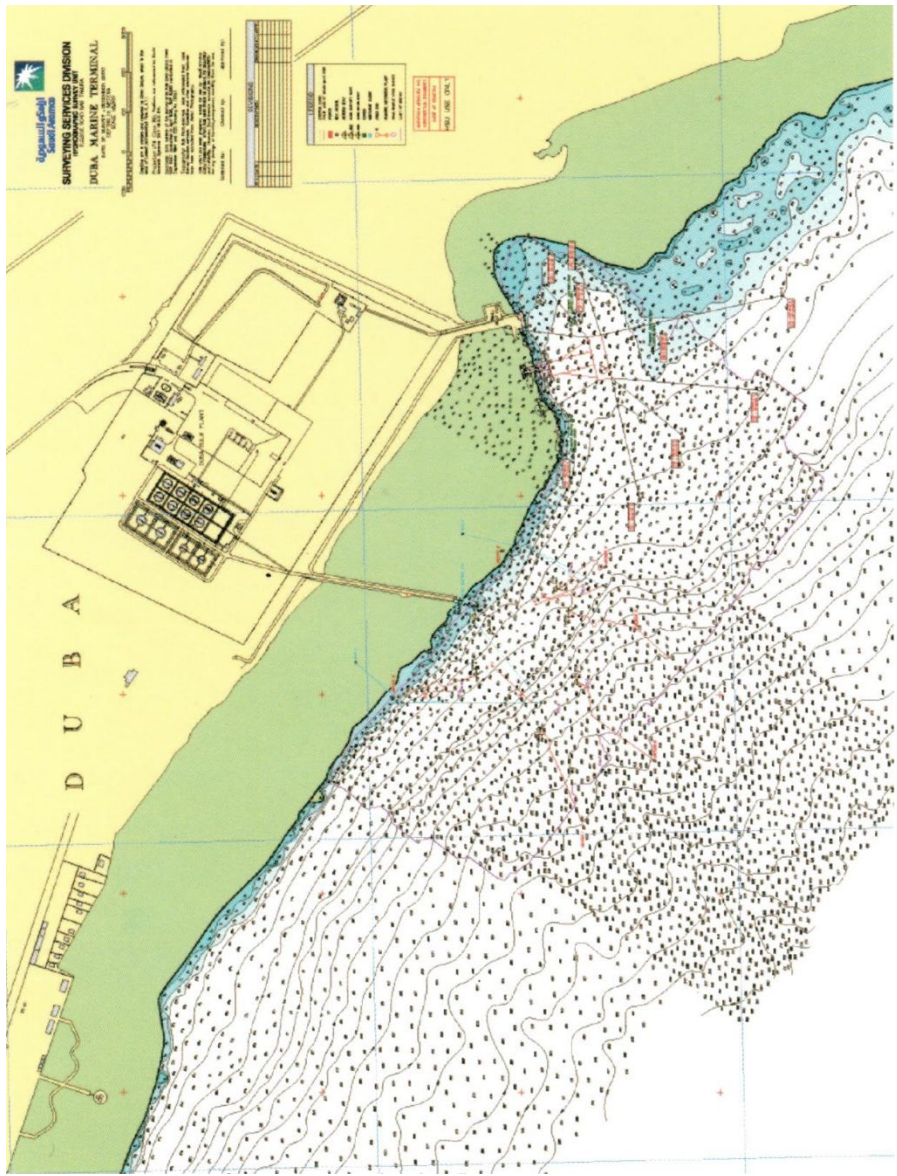
Tel: +966(12) 427 - 5666/5567 - 24 hrs. contact

Fax: +966(12) 427 - 56684502

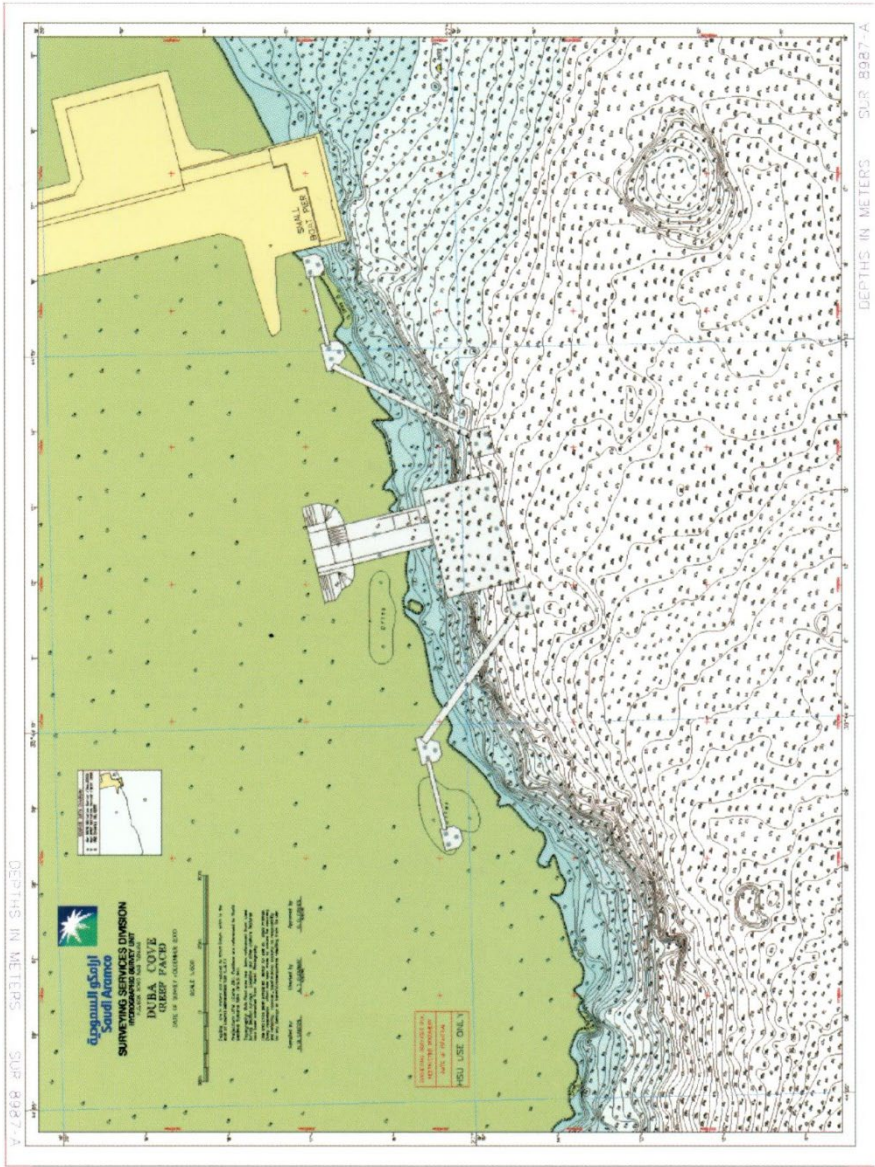
Contact local shipping agents or consult sailing directions for further information.

9 Annex

Duba Marine Terminal



Duba Bulk Plant Terminal



10 Shipping Agent Contact Details

The following companies are available to act as ships agents at the Saudi Aramco Terminals.

Information contained in the below table may be altered by the organizations without notice or warning.

Dubai Shipping Agencies							
Agency	Services	Phone	Mobile 1	Mobile 2	24 Hours	Fax	E Mail
Yusuf Bin Ahmed Kanooc (S5 Agency world)	1	(012) 263-6171	-	-	-	(012) 263 3049	duba@kanooshipping.com saudiarabia@kanooshipping.com
Gulf Agency Company, Saudi Arabia	1	(014) 432 1625	(053) 331 5648	-	-	(014) 432 3315	duba@gac.com aodah.alhawiti@gac.com
Sharaf Shipping Agency Co. Ltd (Pride)	1	-	(056) 406 8940	(056) 406 4398	(056) 406 4398	-	redseaops@ssajeddah.com
Hasan Al Harbi Corporation (HASCO)	1 2	(014) 432 0555			-	(014) 432 0044	diba@hasco.com.sa
Faisal M Higgi and Associates Co Ltd	1 2	(014) 432 1288	(050) 534 8103	-	(014) 322 2046	(014) 432 0418	duba@faisal-higgi.com
Shipping Agencies are locally licensed to provide services for - 1. Maritime Support Services 2. Chandlery services 3. Bunker Services							
If dialing from an International destination: All landline / Mobile / Fax numbers must be preceded by Saudi Arabian country code. (00 966) or (+966) and then remove the first zero of the number. For example: Local (014) *** ***** will become either 00 966 14 *** ***** or +966 14 *** *****							

Yanbu Industrial Port

**General Rules & Information,
Yanbu Terminals,
Including Contents Page**



Yanbu Industrial Port

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Yanbu Industrial Port

RULES REGULATIONS AND GENERAL INFORMATION

1 General Rules & Information

1.1 Port Description & Definition

Yanbu Industrial Port is situated in the Western Province of Kingdom of Saudi Arabia on the shore of the Red Sea.

1.2 Port Boundaries

Yanbu Port boundaries includes three separate installations which form Saudi Aramco's Yanbu Terminals.

1.3 Yanbu North Crude Terminal

Yanbu North Crude Terminal comprises a jetty trestle with four loading berths. Terminal can accept vessels up to 500,000 DWT with dredged depth of 32 meters below LAT. The jetty trestle is connected to shore by a free-standing trestle and a causeway. All four loading berths are fixed structures with fixed loading platforms, breasting dolphins and mooring dolphins. There are four 20-inch crude oil loading arms and two 12-inch fuel oil loading arms at each of the loading platforms at berths 61, 62, 63, and 64. The fuel oil loading arms are also used to receive ships slops to retain at Saudi Aramco Mobil Refinery (SAMREF) slop reception facility. Each crude oil loading arm is capable of handling 32,500 bph maximum. Using four arms, the maximum flow rate per berth is 130,000 bph: and the min. topping-off rate is 20,000 bph. The maximum loading rate per fuel oil loading arm is 14,500 bph. For more information refer to the Berth Parameters section of this publication.

1.4 Yanbu North Refined Product Terminal

A jetty trestle with four loading berths (berth No. 91 and 92 Outer) with maximum depth of 16 meters and (berth No. 93 and 94 Inner) with maximum depth of 11.5 meters) connected to shore by a causeway. All four loading berths are fixed structures with fixed loading platforms, breasting dolphins and mooring dolphins. For more information refer to the Berth Parameters section of this publication.

1.5 Yanbu South Terminal

Yanbu' South Terminal comprises a jetty trestle with three loading berths (101, 102, 103). Terminal can accept vessels from 35,000 DWT up to 500,000 DWT with maximum sailing draft of 27.0 m. The jetty trestle is connected to shore by a free-standing trestle and a causeway. All three loading berths are fixed structures with fixed loading platforms, breasting dolphins and mooring dolphins. There are four 20-inch crude oil loading arms. Each crude oil loading arm is capable of handling 33,000 bph maximum.

Using four arms, the maximum flow rate per berth is 132,000 bph. For more information refer to the Berth Parameters section of this publication.

The terminal consists of the following:

- Three (3) loading berths (101, 102 & 103).
- Loading Berth # 101 & 103 can accommodate tankers in the size range from 35,000t DWT to 320,000t DWT.
- Loading Berth # 102 can accommodate tankers in the size range from 100,000t DWT to 500,000t DWT.
- Four (4) 20" hydraulically operated loading arms per berth

2 Navigational Information

2.1 Meteorology

2.1.1 Climate

The climatic conditions affecting Yanbu' Terminal are seasonal. In winter onshore, air temperatures range from 25 °C during the day to about 12 °C at night. In summer air temperatures range from 35 °C during the day to about 25 °C at night. Extreme air temperatures recorded in recent years in the area have been 49 °C in May and 6 °C in February.

Temperatures offshore are generally several degrees lower. Relative humidity varies throughout the year with average values between 65% and 70% in winter and 50% - 55% in summer, however values of 100% may occur for short periods around dawn. The average annual rainfall taken over a 4-year period is 3.2 mm.

2.1.2 Winds

The prevailing wind throughout the year is westerly, with a wind speed 6 kts and above, increasing during the afternoon. Storms occur as frequently as every 50 days, and sometimes can last as long as two weeks, although there is little drop in the barometric pressure, and very rarely any precipitation during these storms. Wind speeds of up to 50 kts may occur from the northwest and the northeast directions and during the spring and winter months.

2.1.3 Tides & Currents

The tidal range is about 1 meter at spring tides, but fluctuations due to non-tidal effects are up to 3 meters. Fluctuations due to non-tidal effects are caused by storms, which can cause a mean sea level drop of 0.5 meter, and a significant increase in mean sea level after the storm or as it subsides. Generally, the tides are semidiurnal with a period of 12hr 25 minutes.

Currents in the area are influenced by local wind conditions, tide, and the general circulatory pattern of the Red Sea. See Admiralty Sailing Directions for specific information.

2.1.4 Sea Conditions

Sea conditions can vary considerably within the port limits. Wave heights in the port area are usually lower than 2 meters during sea breezes.

2.1.5 Sea Salinity and Sea Water Temperature

Seawater temperature is similar to air temperatures and range between 20°C and 31°C. Salinity varies between 35-39 parts per thousand.

2.1.6 Visibility

The incidence of fog is rare, but should it occur, it is more likely during the period from November to April. Fog horns are provided at both terminals to alert ships in cases of poor visibility. During the summer months from May to September incidents of poor visibility (less than 5 miles) can be quite high due to mist and haze. Throughout the year, dust storms may occur obscuring the coastline.

2.1.7 Extreme Weather

The extreme temperature occurs in summer time with readings above 49 °C. The rainy season extend from October to April. The maximum rainfall occurs in winter months. Wind speed can reach more than 48 kts associated with the thunderstorms.

2.2 Navigational Aids

The shape and colors of the buoys in the terminal area and approaches comply with the IALA System, Region A.

2.3 Anchorage Areas

2.3.1 Anchorage

Anchorage within the harbor boundaries:

23° 55' 00" N 38° 12' 30" E

23° 56' 00" N 38° 12' 48" E

23° 57' 18" N 38° 12' 36" E

23° 56' 36" N 38° 10' 42" E

23° 56' 12" N 38° 11' 18" E

2.4 Entering the Harbor

2.4.1 Navigation & Arrival

Vessels calling at the Saudi Aramco Yanbu Oil Terminals are assigned berths based on a variety of factors, including: nomination date, time of arrival, product to be loaded, vessel size, and available berths.

2.4.2 Routing to The Terminal

Arrival and Departure of Vessels Notification to the Port Management

The Masters of vessels bound for a port within the jurisdiction of these rules must give preliminary notice of the vessel's intended arrival, as per Saudi Aramco standard arrival telex, and in compliance with Saudi Ports Authority (MAWANI) regulations.

2.5 Charts and Publications

2.5.1 Charts

Charts are available in various forms, including paper-based tables and digital from worldwide Hydrographic agencies. Vessels should always use with the largest scale chart available maintained in an up to date format with the latest corrections and Notices to Mariners applied.

2.5.2 Tide Tables / Tidal Stream Atlas

Tide tables are published in various forms, including paper-based tables and digital tables. When using tide tables for Saudi Arabian waters the validity of data should be supplied by a trusted source for example Saudi Aramco or UK Admiralty, and should be maintained in an up to date format with the latest corrections applied.

2.5.3 Pilot Books / Sailing Directions

Pilot Books / Sailing Directions are published in various forms, including paper-based or digital booklets. When using information for Saudi Arabian waters the validity of data should be supplied by a trusted source for example UKHO, and should be maintained in an up to date format with the latest corrections applied.

2.5.4 List of Lights / fog signals and Lists of Radio signals

Lists of Lights / Fog signals and Radio Signals are published in various forms, including paper-based or digital booklets.

When using information for Saudi Arabian waters the validity of data should be supplied by a trusted source for example UKHO, and should be maintained in an up to date format with the latest corrections applied.

3 Arrival Procedures

3.1 Arrival Directions

Approaching from the North

24°02'00" N 37°45'00" E

Approaching from the South

23°27'00" N 38°27'00" E

4 Arrival Communications

Refer To "Common Rules & Information," Section 6.0 "Radio Communications & Messages," And in Particular Section 6.4 "The Standard Messages."

4.1 VHF Communications

Early Contact

VHF contact with Yanbu' Industrial Port Control Center should be established within 100 miles of the Port on VHF CH.16 or CH. 11 (or more in good propagation conditions) and maintained when anchored.

Maintaining Contact

Radio watch must be maintained on channel 16 and 11 at all times. The following VHF Channels are used

Channel	Freq. (MHz)	Usage
16	156-800	International calling and distress.
Yanbu' Port Channels		
67,68	(156,375), (156.425)	Pilotage and berthing operations
10, 11, 13		Signal station - working channel.
71, 73		Pilotage and berthing operations.
Saudi Aramco Yanbu' Terminal Channels		
6	800	General calling and operations
67, 68	(156,375) (156,425)	General calling and operations

5 Documentary Procedures

Documentation must comply with Saudi Ports Authority (MAWANI) regulations.

Notice of Readiness

Notice of Readiness (N.O.R.) should be addressed to the applicable Saudi Aramco terminal.

6 Traffic Movements & Maneuvering

6.1 Vessel Traffic System

Vessels are forbidden to enter or navigate within the harbor limits without the approval of the King Fahad Industrial Port Control Center.

All marine services and shipping movements within King Fahad Industrial Port limits are monitored and controlled by King Fahad Industrial Port Control Center. The station is manned 24 hours a day and maintains a continuous VHF watch. Information can be provided to Masters and Pilots on all navigational aspects, including wind and visibility, navigational aids and shipping movements within the port area. The station will also provide a liaison with the terminal operators and emergency services.

7 Berthing of Vessels

7.1 Pilot Boarding Area

Ships should contact Yanbu Industrial Port Control Center on VHF CH. 16 or CH. 11 two (2) hours before arrival.

Approaching from the North

24°02'00" N 37°45'00" E

Approaching from the South

23°46'2" N 38° 24'1" E

7.2 Limiting Weather Conditions

7.2.1 Berthing

Terminal	Wind Speed
Yanbu North Crude Terminal	30 Knots
Yanbu South Terminal	30 Knots
Yanbu North Refined Product Terminal	25 Knots

7.2.2 Unberthing

There are no wind restrictions for unberthing. The above limits are to be considered as guidelines only, and the final decision will rest with the pilot. Limiting conditions for the Pilot to board the vessel are wave height of 3 meters or wind over 30 knots. Limiting conditions for berthing and mooring operations are wind speed over 25 - 30 knots depending on berth assignment.

For berthing and unberthing purposes, wind, sea, and tidal conditions have to be assessed and within acceptable limits in order that during the final docking, maximum approach speed and angle are within tolerable limits of the berth Approach Speed Monitoring system (ASM).

7.3 Pilotage

Pilotage is compulsory for all vessels entering, navigating within or leaving the pilot zones in all Saudi Aramco Oil Ports and Terminals. Pilotage and marine operations for ships calling Saudi Aramco terminals at Yanbu are provided by the Saudi Port Authority (MAWANI).

The Master of every vessel when approaching the Pilot Boat for the purpose of picking up a pilot must reduce speed to the minimum required to maintain steerage way, maintain VHF contact with the pilot boat and provide a good lee if necessary.

8 Berth Information

8.1 Information Common to All Berths

8.1.1 Products Available

North Terminal products loaded include Crude Oil and Fuel Oil South Terminal product loads Crude Oil Refinery products loaded including Diesel Oil, Fuel Oil, Kerosene, MTBE, Naphtha, PG and BAS.

8.1.2 Bunkers

North Terminal bunkers: Available - Fuel Oil

South Terminal bunkers: Not available

Refinery Terminal bunkers available - Fuel Oil, Diesel Oil

8.1.3 Fresh Water

Not available.

8.1.4 Ballast & Slop Reception

Bunker fuel oil loading arms are used to receive ships' slops for retention at SAMREF slop reception facility. Masters should, consistent with requirements for safe stress and segregation, keep the propeller submerged and minimize stern trim.

8.1.5 Dock Water Density

The specific gravity of seawater is approximately 1.025.

9 Berth Operations

9.1 Loading Documents

Loading/Discharge Agreement

Prior to loading/discharge, the Terminal Shift Supervisor will contact the officer in-charge for the loading/discharge operation on board the tanker and discuss and agree on the loading/discharge plan. Cargo Inspectors will board to take samples and measure the cargo.

10 Shipping Agent Contact Details

The following companies are available to act as ships agents at the Saudi Aramco Terminals.

Information contained in the below table may be altered by the organizations without notice or warning.

Yanbu Shipping Agencies							
Agency	Services	Phone	Mobile 1	Mobile 2	24 Hours	Fax	E Mail
Yusuf Bin Ahmed Kanoo (S5 Agency world)	1	(014) 322 2123 (014) 322 4754 Ext 0, 201, 215, 217	(050) 334 5582	(055) 390 0332	-	(014) 322 2011	yanbu@kanooshipping.com saudiarabia@kanooshipping.com
Faisal M Higgi and Associates Co Ltd	1	(014) 322 2046 Ext : 114/133	(050) 439 8008	-	(014) 322 2046 Ext : 114/133	(014) 322 4388	Ops01@faisal-higgi.com main@faisal-higgi.com
Sharaf Shipping Agency Co. Ltd (Pride)	1	(014) 393 3284 (014) 393 3285 (014) 393 3286	(053) 142 7268	-	-	(014) 393 3287	redseaops@ssajeddah.com
Gulf Agency Company, Saudi Arabia	1	(014) 322 3992 (014) 322 8765	(055) 880 1790	-	-	(014) 321 1231	yanbu@gac.com
Alkhomasia Shipping & Trading Est.	1 2	(014) 396 0049 (014) 396 0052	(054) 524 4054	-	-	(014) 396 0041	talmalki@alkhomasia.com
Arabian Establishment for Trade and Shipping	1 2	(014) 322 2109	-	-	(055) 536 2522	(014) 391 1439	aetyanbu@aetshipping.com hussain.hamden@aetshipping.com
<p>Shipping Agencies are locally licensed to provide services for - 1. Maritime Support Services 2. Chandlery services 3. Bunker Services</p> <p>If dialing from an International destination: All landline / Mobile / Fax numbers must be preceded by Saudi Arabian country code. (00 966) or (+966) and then remove the first zero of the number. For example: Local (014) *** **** will become either 00 966 13 *** **** or +966 13 *** ****</p>							

Gasrul

**RLPG Terminals, Juaymah, Jazan
Including Contents Page**



GASRUL

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GASRUL

Rules Regulations and General Information

Preface

The rules prepared by Saudi Aramco concerning the safe handling of gas tankers at the berth, the vessel safety inspection check list, and forms of declaration and agreement between the Master of a gas tanker and Saudi Aramco, are based on the IMO Codes for the Construction and Equipment of Ships carrying Liquefied Gases in Bulk and include the EGC Code, the GC Code and the IGC Code.

They also incorporate recommendations and guidelines issued by

- The International Chamber of Shipping (ICS).
- The Oil Companies International Marine Forum (OCIMF).
- The Society of International Gas Tanker & Terminal Operators (SIGTTO).
- The International Association of Independent Tanker Owners (INTERTANKO).

Saudi Aramco handles only Refrigerated Liquefied Petroleum Gases (RLPG) on the gas tankers to which these rules apply and whenever a gas tanker has dangerous substances other than RLPG on board and is accepted by Saudi Aramco for handling at the berth, their safe containment shall be in accordance with the requirements of internationally recognized Codes and Guides and such other authoritative sources of relevant information concerning the substances as may be appropriate.

These rules have been introduced by Saudi Aramco to ensure the safe handling of RLPG cargos and as evidence of the determination of Saudi Aramco to support the internationally recognized standards.

1 General

1.1 Application

- 1.1.1 Except as provided for, these rules shall apply to gas tankers at the berth under the following conditions:
- a. RLPG cargo operations.
 - b. Having onboard any LPG and/or other liquefied gases either as a part cargo, cargo residue or coolant.
- 1.1.2 These rules do not apply to a gas tanker at the berth when handling cargo other than RLPG.
- 1.1.3 Nothing in these rules shall interfere with the requirements of any special or additional rules or regulations, which may be made by the Government or Saudi Aramco in respect of the vessel to which these rules apply.

1.2 Jurisdiction

Gas Tankers, the Masters and Crews thereof are subject to these rules and the applicable laws of Saudi Arabia when the vessel is at any Saudi Aramco berth. Both shall be strictly enforced.

NOTE: Masters are advised to consult their Agent in respect of the interpretation of Government Law or Regulation.

1.3 Unsafe Conditions

When any operation being conducted in the vicinity of the vessel represents in the opinion of the Master, an unacceptable safety hazard to the vessel, handling shall be suspended at the request of the Master until such time as any corrective action, which may be required is taken.

1.4 Berth Assignment

Assignment of gas tankers to Saudi Aramco berths will be in accordance with the procedures and requirements of Saudi Aramco.

1.5 Acceptability

- 1.5.1 Gas tankers that are not of an approved design for the transport of RLPG at atmospheric pressure will not be accepted.
- 1.5.2 In accepting orders to handle RLPG at a Saudi Aramco terminal, the Master of a gas tanker shall ensure that the safe minimum operating temperature and the maximum operating pressure of the vessel's cargo containment system is compatible with the boiling point of the RLPG to be handled.

1.5.3 All cargo requirements are to meet the following criteria:

	Top Temp.	Bottom Temp.	Pressure
Propane (A140)	-22 °C	-39 °C	70 mbs. or 0.07 kg/cm ²
Butane (A-160)	14 °C	0 °C	70 mbs. or 0.07 kg/cm ²

1.5.4 When provision cannot be made by the vessel to arrive with cargo tanks ready for loading in the condition required (for example, a new gas tanker; a gas tanker arriving from dry-dock or repair yard; or subsequent to a necessary change in cargo grade) acceptance shall be subject to prior arrangement and agreement with Saudi Aramco.

1.5.5 A gas tanker will not be accepted when it is unable to comply with these rules.

1.6 Responsibility

The Master and Crew of a gas tanker at berth shall be responsible at all times for the safety of the vessel and shall make provision to exercise all necessary precautions to maintain the integrity and efficiency of the closed cargo containment system and cargo system with which the vessel is provided.

1.7 Prior to Cargo operations

1.7.1 Cargo operations shall not start until quarantine clearance has been granted to the vessel in accordance with the requirements of the Port.

1.7.2 The Master and Terminal shall complete the Ship Shore Safety Checklist including Part "D" Bulk Liquefied Gases.

1.8 Vessel Access and Emergency Escape

1.8.1 Access to the accommodation shall always be at levels above the main cargo area deck.

1.8.2 Gangways shall be carefully tended at all times and adequately illuminated at night. Personnel shall use only the designated access.

1.8.3 Means for emergency escape shall be provided on the side of the vessel opposite to the loading connections. For security reasons, the means for emergency escape shall be stowed at deck level in such a manner as to be ready for expeditious use in an emergency condition and shall be of adequate length to reach the water at all times.

1.9 Penalties

1.9.1 Disregard of or failure to fully comply with any of these rules or any safety practices generally accepted in the marine transport industry will result in the suspension of all operations and the vessel will be required to vacate the berth.

- 1.9.2 Vessels presented for loading with deficient equipment or machinery will not be berthed. If such deficiency becomes apparent after berthing, the vessel will be required to vacate the berth.
- 1.9.3 Safety violations due to negligence on the part of the vessel's personnel will result in the suspension of loading operations for investigation and correction.
- 1.9.4 Removal from the berth as a result of safety violations or deficiencies will be at the vessel's expense and Saudi Aramco will not accept responsibility for any resulting delay to the vessel.
- 1.9.5 Gas tankers with unacceptable safety performances will not be accepted at Saudi Aramco berths on subsequent voyages.

1.10 Hazardous Gases

- 1.10.1 Masters of gas carriers berthed at Saudi Aramco marine terminals where crude oil is handled shall be aware that the crude oil may contain dissolved Hydrogen Sulphide (H₂S) in concentrations, which may be hazardous. Saudi Aramco provides upon request, a list of recommendations concerning the hazards of Hydrogen Sulphide.
- 1.10.2 Masters shall recognize that potentially dangerous flammable and other hazardous gas concentrations may originate from sources other than their own vessels.

2 Certificates of Fitness

2.1 Valid Certificate of Fitness Issued

A gas tanker must be issued with a valid Certificate of Fitness and able to meet the requirements of these rules.

3 Defects and Deficiencies

3.1 On or Prior to Arrival

- 3.1.1 Prior to arrival the Master of a gas tanker shall report to the Terminal any defect or deficiency which may prevent compliance with these rules.
- 3.1.2 Any defect or deficiency reported to the Terminal shall be jointly investigated by the Master in consultation with the Terminal to establish if the reported defect or deficiency represents a safety hazard for any reason.
- 3.1.3 When any vessel is found upon inspection to have any safety defect or deficiency in contravention of any appropriate Certificate or in contravention of these rules, that vessel may be subject to delay in berthing and/or handling until such time as the defect or deficiency is corrected to the satisfaction of the Terminal.

3.2 Reports to Owners, Operators and Others

Defects, deficiencies or violations of safety rules which are not promptly corrected or which represent an immediate or potential threat to the safety of cargo operations shall be reported to the Owners/Operators of the gas tanker concerned and to other organizations and authorities for information or appropriate action.

4 Repairs and Maintenance

4.1 Readiness to Vacate Berth

Boilers, main engines, steering machinery and other equipment essential for maneuvering shall be maintained so as to enable the vessel to be unberthed under full engine power at short notice. Repairs and other work, which may immobilize the vessel, shall not be undertaken.

4.2 Gas Freeing and Tank Washing

Gas freeing and tank washing at the berth is prohibited.

4.3 Repairs and Other Work

4.3.1 Repair or maintenance of any part of the cargo containment system or cargo system in the cargo area or in gas dangerous zones, other than of a routine operational nature, is prohibited.

4.3.2 Any work in the cargo area, other than work associated directly with handling and/or safety procedures, is prohibited.

4.4 Hydrates and Antifreeze

When cargo operations are believed to be adversely affected by the formation of hydrates within the cargo system which require the injection of antifreeze into the system, such injection procedures shall be subject to the permission of the Terminal who shall have sole discretion as to whether or not the proposed procedures are of a routine operational nature.

4.5 Funnel Uptakes and Boiler Tubes

Every precaution shall be undertaken to ensure that sparks do not escape from the funnel.

4.6 Radio and Radar Equipment

The servicing of radio and radar equipment shall not be permitted without the written agreement of the Terminal.

5 Fire Precautions and Emergency Procedures

5.1 Prior to Cargo operations

Prior to the start of Cargo operations, the Master shall;

- a. Provide dates and results of the last regular full test of the fire main and water spray systems in the cargo and accommodation areas.
- b. Agree on the action to be taken in the event of an emergency condition.

5.2 Naked Lights, Smoking and Cooking Appliances

- 5.2.1 Open flames or fires, exposed incandescent material and any other sources of ignition are prohibited on deck and in other places where there is a risk that flammable gas may be present.
- 5.2.2 Personnel entering any space designated as a Gas Dangerous Zone shall not introduce any potential source of ignition (e.g., matches, mechanical or electronic lighters, non-approved radios, etc.) into the space.
- 5.2.3 Smoking shall only be permitted in places in the after accommodation which have been jointly agreed in writing by the Master and the Terminal and suitable notices shall be posted at the entrance or entrances to the designated smoking places.
- 5.2.4 No place shall be considered suitable for smoking unless
 - a. It is enclosed accommodation aft of the cargo area.
 - b. It has no doors which open directly onto the outside deck.
 - c. All ports and windows are kept closed.
 - d. Doors into passageways are kept closed except when in use.

5.3 Electrical Equipment

- 5.3.1 The use of portable electrical equipment on flexible leads (power cords) is prohibited in the cargo area, gas dangerous zones, and in any other area or spaces where flammable gas may be present. The power cords for such equipment shall be disconnected and removed from the area, zone or space.
- 5.3.2 Electrical installations shall be maintained so as to minimize the risk of fire and explosion from flammable products. Modifications to electrical equipment and/or wiring, which have not been approved by an appropriate authority, shall not be accepted.
- 5.3.3 Battery operated hand torches (flashlights) shall be in good condition and of a type certified to be safe for use in hazardous locations.
- 5.3.4 Domestic radios, electronic calculators, recorders and other battery powered equipment of a type which has not been approved, shall not be used on deck or in any place where flammable gas may be present.

- 5.3.5 Portable VHF/UHF transceivers shall be of an intrinsically safe type, which is approved by a competent authority. When used, this equipment shall be in good condition.
- 5.3.6 Main radio equipment shall not be used and main transmitting aerials shall be earthed.
- 5.3.7 Radar scanners shall be switched off.

5.4 Emergency Signal

- 5.4.1 In the event of fire or other emergency conditions the vessel shall sound continuous short blasts on the whistle.
- 5.4.2 The Master will be advised of the sound signals used by the Terminal in the event of an emergency condition and will also be advised by the Terminal whenever that signal is to be used for test or drill purposes.

5.5 Fire Mains

- 5.5.1 The firewater main and on the deck water spray or water curtain systems shall be available for immediate use.
- 5.5.2 The draft, trim and list (angle of heel) of the vessel shall be controlled to ensure that there is no interruption in the supply of seawater to any of the fire or spray pumps.
- 5.5.3 At least two firewater hoses with dual purpose spray/jet capability shall be connected to the fire main in the cargo area and each such hose shall be laid out ready for immediate use.
- 5.5.4 When a permanent installation dry powder type fire extinguishing system is provided, at least one dry powder hose/nozzle of adequate length to discharge dry powder at the loading connection shall be available for immediate use.

5.6 Stopping of Cargo operations

Cargo operations shall be stopped whenever;

- a. There is danger of fire or explosion on board the vessel or on shore.
- b. There are high concentrations of any dangerous gases on or in the vicinity of the vessel or berth.
- c. It is considered unsafe to continue due to leaks or spillage.
- d. It is considered unsafe to continue due to weather or tidal conditions.
- e. There is any emission of sparks or flames from the vessel's funnel.
- f. There is significant electrical or mechanical failure adversely affecting the safety of cargo operations.
- g. The vessel is found to be violating any safety rules or procedures and fails to take immediate corrective action.

- h. There is significant movement of the vessel affecting the safety of the transfer connections.
- i. It is considered unsafe to continue due to the stability, draft, trim or list condition of the vessel.
- j. There is a failure of the agreed means of communication between the vessel and the Terminal.
- k. Required by the Terminal.
- l. Required by the vessel.

NOTE: If practical, the ship and shore should communicate before stopping cargo.

5.7 Electrical Continuity

Electrical continuity bonding wires shall not be used between the vessel and the berth at any time. Loading arms for RLPG are equipped with approved insulation pieces.

The Terminal will ensure the adequacy of insulation on gangways provided to the vessel when necessary.

6 Inert Gas Requirements

6.1 Acceptance Conditions

- 6.1.1 LPG shall not be loaded into any gas tanker unless all the cargo tanks and their associated cargo systems have an oxygen concentration of less than five percent by volume and a positive pressure.
- 6.1.2 When a gas tanker arrives at the berth with warm cargo tanks, the Master shall make provision to allow the Terminal to obtain atmosphere samples from each warm tank for the purpose of oxygen content analysis.

6.2 Hold Spaces and Inter-Barrier Spaces

- 6.2.1 As per ISGOTT hold and inter-barrier spaces are to be properly inerted or filled with dry air.
- 6.2.2 When there is no requirement to maintain the cargo tank hold spaces or inter-barrier spaces in an inert condition, the Master shall confirm or demonstrate to the Terminal that those spaces are free of any cargo gases.

6.3 Use of Inert Gas

Inerting of the cargo containment or cargo system at the berth is prohibited except to maintain the inert condition standard of hold or inter-barrier spaces.

6.4 Inert Gas Equipment

Inert gas systems provided on or to a vessel for the purpose of Inerting or clearing the vessel's cargo manifolds of dangerous substances shall be used for that purpose if required by the Terminal.

7 Leaks, Spillage and Gas Detection

7.1 Leaks and Spillage

7.1.1 When any leak or spillage of dangerous substances occurs during cargo operations, the following action shall be taken immediately:

- a. Stop all cargo and bunker operations.
- b. Use the vapor return system if this will assist in relieving pressure at the leak source.
- c. Prohibit all smoking and the use of naked lights.

7.1.2 Cargo operations shall be discontinued when LPG accumulates in the spill tank at the cargo manifold, and appropriate action shall be taken to vaporize the LPG in a safe and controlled manner.

7.2 Deck Scuppers

7.2.1 The deck scuppers of gas tankers may be kept open for the purpose of avoiding any dangerous accumulation of cargo on deck in the event of a major leak or spillage, subject to the agreement of the Terminal and provided that an ample supply of water is immediately available at all times in the cargo area.

7.2.2 When a vessel is equipped with arrangements to prevent the flow of dangerous substances from the cargo area to other deck areas of the vessel, the overboard deck scuppers in other deck areas protected by such arrangements shall be effectively plugged, to contain fuel tank overflows.

7.3 Gas Detection - Permanent Installation

A permanent installation gas detection system shall be properly calibrated and set for the cargo. The system shall be in continuous operation monitoring the appropriate spaces.

7.4 Gas Detection - Portable Equipment

7.4.1 Not less than one set of portable gas detection equipment in good order and condition and suitable for each grade of cargo on board the vessel shall be provided.

7.4.2 Appropriate means shall be provided on board the vessel for calibrating and testing the required portable gas detection instruments.

7.5 Breathing Apparatus and Protective Clothing

Sufficient sets of self-contained breathing apparatus and protective clothing in good working order shall be provided and maintained for immediate use.

7.6 Sea and Overboard Discharge Valves

When not in use, sea and overboard discharge valves shall be closed and secured against inadvertent use.

7.7 Spill Tanks

Suitably constructed spill tanks conforming to gas code requirements shall be provided to contain a reasonable volume of LPG, which may result from leak or spillage at loading connections.

8 Emergency Shut Down (ESD)

8.1 Information Required

- 8.1.1 In vessels equipped with a manual and/or automatically activated ESD, the Master shall provide the Terminal with information relating to the following operating features of the system prior to the start of cargo operations.
- a. The minimum time required to close the vessel's liquid loading manifold valve when loading at the vessel's maximum requested loading rate.
 - b. The date of the last test of the ESD activating elements.
- 8.1.2 The Master shall confirm that the crew are aware of the location and use of the ESD and are also aware of the dangers that may result from the accidental triggering of the system during cargo operations.
- 8.1.3 When the vessel is berthed, the Terminal shall be informed whether the vessel is equipped with the SIGTTO ship/shore ESD.

8.2 Use of the ESDS

- 8.2.1 The use of the ESDS at any time during cargo operations shall be at the discretion of the vessel subject to acceptance of the system by the Terminal.
- 8.2.2 Whenever a vessel's ESDS is activated during cargo operations, the Master shall provide the Terminal with a written explanation if so requested.

NOTE: Ship/Shore ESD systems must comply with SIGTTO or gas code(s) recommendations.

9 Control and Supervision

9.1 Supervision

- 9.1.1 All cargo, bunker, ballast or other handling shall be competently and constantly supervised.
- 9.1.2 A designated responsible person or persons shall be appointed by the Master to supervise cargo operations on board the vessel.

9.2 Watch Keeping

Adequate crew shall be on board at all times to maintain a proper watch and to operate the appropriate shipboard equipment in case of an emergency condition.

9.3 Access to Cargo Area

As far as it is practical, access to the cargo area or gas dangerous zones of the vessel shall be restricted to personnel directly involved in handling and safety maintenance procedures.

10 Communications

10.1 Agreement

- 10.1.1 Prior to the start of cargo operations, the Master and the Terminal shall agree on the primary means of communication between the vessel and the shore.
- 10.1.2 Information relating to routine and emergency communications between the vessel and the Terminal shall be prominently displayed.

10.2 English Language

Communications between the vessel and the Terminal shall be in the English Language.

10.3 Primary Means

- 10.3.1 Primary means of communication between the vessel and the Terminal shall normally be by an approved portable radio supplied by Saudi Aramco.

NOTE: Replacement batteries for the Saudi Aramco radios are available from the Terminal on request.

- 10.3.2 A portable radio loaned to the vessel by Saudi Aramco shall be continuously monitored by the person responsible for cargo operations on board.

10.4 Serious Emergency Condition

A responsible Senior Officer of the vessel shall be designated to communicate with a Senior Representative of Saudi Aramco in the event of fire, explosion or other serious emergency condition on board the vessel.

11 Ventilation and Openings

11.1 Accommodation and Service Spaces

- 11.1.1 All air intakes and openings of the accommodation, service and control station spaces shall each be provided with well maintained, efficient and readily available closing devices capable of preventing the passage of dangerous substances into those spaces.
- 11.1.2 If at any time it is suspected that dangerous substances are being drawn into the accommodation, central air conditioning and mechanical ventilating systems shall be stopped and intakes closed or covered.
- 11.1.3 Window type air conditioning units shall be disconnected from the power supply.

11.2 Cargo Control Rooms

Cargo control rooms used for the monitoring of cargo operations and/ or the remote operation of cargo and other valves or machinery required for cargo operations shall be continuously ventilated by mechanical means.

NOTE: Saudi Aramco recommends that in the interests of safe cargo operations, cargo control rooms be air conditioned, particularly during the summer months.

11.3 Cargo Machinery Spaces

- 11.3.1 Cargo machinery spaces shall be provided with approved mechanical ventilating systems, which shall be in continuous operation except as may be required in an emergency condition.
- 11.3.2 When it is practical, the ventilating system of cargo machinery spaces containing electric motors shall be so arranged as to maintain a positive pressure in the space.
- 11.3.3 Doors, scuppers and drain openings leading to the open cargo area deck from cargo machinery spaces containing electric motors shall be kept closed except when they may be required for routine inspection or maintenance.

11.4 Air Locks

- 11.4.1 When air locks are provided to any enclosed space in the cargo area, the two or more doors forming the air lock shall be maintained in a substantially gas-tight condition and each door shall be capable of self-closing without any holding back arrangements.
- 11.4.2 Alarms and/or automatic machinery trip systems fitted to air locks and activated by improper use of the air lock shall be maintained in the correct working order.

12 Transfer Connections

12.1 OCIMF Recommendations

Aramco supports OCIMF recommendations for gas tanker manifold standards (0 °C to minus 104 °C) as a means of providing safe RLPG transfer connections.

12.2 Loading Arms

12.2.1 Loading arms shall be connected to the vessel so that stress or strain, particularly at the maximum loading rate, will not cause the loading connections to leak.

12.2.2 Under normal operating conditions, loading arms will not be connected or disconnected until it is demonstrated to the satisfaction of the Terminal that the vessel's loading connections are free of cargo liquid and at atmospheric pressure.

12.3 Loading Connections

12.3.1 The clear space surrounding each loading connection (Quick Connect Disconnect Coupling "QCDC") shall be adequate (including proper spacing and support for the loading arm jacks), to ensure that the connection can be safely made, unmade and inspected by the Terminal, and to ensure that in an emergency the loading arms and QCDCs can be safely retracted by remote control.

12.3.2 Every precaution shall be taken to ensure that there is no release of cargo gas or liquids from the vessel or loading connections when loading arms are being connected or disconnected.

12.4 Vapor Return

The gas tanker shall be connected to at least one vapor return line for the principle purpose of ensuring that pressure within the vessel's cargo system does not exceed operational limits.

12.5 Blanks (Blind Flanges)

All cargo containment and cargo system pipeline connections capable of being readily opened to atmosphere (other than safety relief valves) shall be efficiently blanked (blinded) with gas-tight seals prior to berthing.

12.6 Flexible Hoses

Flexible hoses and other temporary connections shall be disconnected from the permanent cargo system.

12.7 Manifold Strainers

- 12.7.1 Means shall be provided in vessels equipped with strainers for the Terminal to confirm prior to the start of loading that such filters are clear and do not restrict the free flow of RLPG to the vessel. Vessels are advised to use a manifold strainer mesh suitable for LPG with a normal aperture of between 3.0mm and 5.0mm as detailed in SIGTTO/OCIMF 'Recommendations for Liquefied Gas Carrier Manifolds'.
- 12.7.2 All LPG ships fitted with strainer must have the mesh size of more than 0.84mm/20mesh. Ships that do not comply with requirement should remove such strainer prior berthing to avoid back pressure and blockage.
- 12.7.3 Permission to clear or replace blocked manifold cargo strainers at the berth shall be at the sole discretion of the Terminal and when such permission is given, every precaution shall be undertaken to ensure the safe conduct of necessary procedures.

12.8 Manifold Reducers and Spool Pieces

- 12.8.1 Reducers or spool pieces supplied by the vessel to facilitate the connection of the loading arms shall be approved for the purpose, suitable for the grade of cargo or bunkers to be handled and shall be in place prior to arrival at berth.
- 12.8.2 The vessel's flanges shall be well maintained and free from corrosion, pitting or deep scoring, which may permit leakage during handling.

13 Cargo Machinery, Equipment and Instruments

13.1 General

Prior to arrival at the berth, all the vessel's machinery, equipment instruments and their respective alarm systems provided for the proposed cargo operations, shall be tested and adjusted or calibrated as necessary to ensure their reliability during cargo operations.

13.2 Cargo Machinery

All cargo machinery including cargo reliquification units, cargo vaporizers, cargo gas blowers, pressure relief valves, compressors, main cargo pumps, booster pumps shall be approved for the purpose and be maintained in good condition.

13.3 Cargo Machinery Spaces

- 13.3.1 When approved gas-tight bulkheads are provided between a cargo machinery space and any associated electric or motor switchboard space, the seals and other approved arrangements to prevent the passage of dangerous gas from the cargo machinery space to the electric motor or switchboard space shall be maintained in good condition.

13.3.2 Cooling water discharges from cargo machinery spaces shall be discharged on the offshore side.

13.4 Liquid Level Gauges

13.4.1 Not less than one approved means of measuring the liquid level shall be provided for each cargo tank.

13.4.2 Cargo tank sighting ports shall, if the vessel is so equipped, be maintained in a good and gas-tight condition and each such port shall be equipped with a suitable protective cover.

13.5 Pressure Gauges

13.5.1 Not less than one means of accurately indicating the vapor pressure shall be provided for each cargo tank.

13.5.2 Not less than one means of accurately indicating pressure in each liquid and vapor cargo manifold shall be provided.

13.5.3 A local reading pressure gauge shall be provided at each of the vessel's loading connections.

13.5.4 Each hold space or inter-barrier space that is required to be maintained in the inert condition shall be provided with a means of accurately indicating the space pressure.

13.6 Temperature Gauges

Not less than two temperature indicating devices shall be provided for each cargo tank, one placed at the bottom of the tank and the second near the top of the tank at or directly below the MATFL.

13.7 Safety Pressure Relief Valves

When approved means are provided for altering the settings of cargo tank safety gas pressure relief valves, they shall be set prior to arrival at the berth in the appropriate position for the proposed cargo operations.

13.8 Cargo Drains and Sampling Connections

Cargo line drain, cargo sampling and similar cargo containment or cargo system connections shall be effectively closed and gas-tight except when required by the Terminal or the vessel in the execution of agreed sampling procedures.

13.9 Cargo Tanks

When a cargo tank is provided with insulation, the insulation shall be maintained in a good condition.

13.10 Cargo System Pipelines and Valves

- 13.10.1 Pipelines, which may contain cargo as a liquid or gas, shall be well maintained and free of significant corrosion.
- 13.10.2 Non-approved temporary repairs to defective cargo system pipelines and valves are unacceptable.
- 13.10.3 All cargo pipeline insulation shall be maintained in good condition.
- 13.10.4 Cargo system valves, and when provided, their remote control and position indicating systems, shall be maintained in an efficient condition.

13.11 Failure or Malfunction

Failure or malfunction of any essential cargo machinery, equipment, instruments or their respective alarms during cargo operations shall be brought to the immediate attention of the Terminal.

14 Venting, Vapor Return and Cargo System Pressure

14.1 Venting

- 14.1.1 The controlled venting of dangerous substances to atmosphere other than by means of the vapor return line is strictly prohibited.
- 14.1.2 The manual operation of cargo system safety pressure/vacuum relief valves, or the operation of any pressure or vacuum relieving systems other than safety relief valves and the vapor return system is prohibited.

14.2 Vapor Return

- 14.2.1 Prior to the start of cargo operations, the procedures for use of the vapor return or vapor recovery systems shall be agreed by the Master in writing.
- 14.2.2 At least one vapor return line connection shall be maintained at all times for the principal purpose of ensuring that pressure within the vessel's cargo system does not exceed defined limits.
- 14.2.3 The use of either the shore recovery system or the shore flaring system, when the vapor return system is open, will be at the discretion of the Terminal.
- 14.2.4 When only one vapor return line is available and more than one grade of cargo is handled, the adequacy of that one vapor return line to ensure compliance with the safety principals of these rules shall be mutually agreed between the Master and the Terminal before cargo operations are started.
- 14.2.5 The acceptance of any vapors returned from a vessel for the purpose of processing in a shore vapor recovery system is entirely at the discretion of Saudi Aramco. Vapors not accepted for recovery shall be flared off and Saudi Aramco

reserves the right to recover from the vessel the cost of any Saudi Aramco product, which may be lost as a result.

14.3 Cargo Tank Pressure

- 14.3.1 Cargo tank pressures shall be constantly monitored by a responsible person from the vessel for the purpose of ensuring that the maximum safe pressures are not exceeded.
- 14.3.2 The pressure of any cargo tank shall be maintained within the range between zero gauge minimum (atmospheric pressure) and a maximum, which shall not exceed 70% of the MARVS for that cargo tank or at the discretion of Saudi Aramco
- 14.3.3 Whenever the pressure of any cargo tank reaches 60% of the MARVS or such lesser percentage as may be required by Saudi Aramco the Terminal shall be advised and the loading rate shall be reduced.
- 14.3.4 Whenever the pressure of any cargo tank reaches 70% of the MARVS or such lesser percentage as may be required by Saudi Aramco the Terminal shall be advised and loading operations shall be suspended and the cause of the pressure increase investigated. This delay cost will be to vessel's account.
- 14.3.5 The dangers of developing a negative pressure condition in the cargo containment system or cargo system shall be recognized and adequate precautions taken to avoid the introduction of atmospheric air into a flammable product.

14.4 Cargo System Pressure

The pressure in cargo pipelines and other parts of the cargo system shall be maintained to ensure an adequate safe margin between the pressure generated during cargo operations and the approved setting of safety pressure relief valves in the pipelines or cargo system.

14.5 Pressure Relief Valves

- 14.5.1 Safety pressure relief valves provided for hold spaces or interbarrier spaces maintained in the inert condition and may discharge directly to atmosphere if the system is so designed.
- 14.5.2 When any liquid accumulates in the venting system downstream of safety pressure relief valves so as to provide a potential for valve malfunction or when there is any cargo leakage past a safety pressure relief valve, cargo operations shall be stopped and the vessel shall, at the discretion of the Terminal, vacate the berth until the accumulated liquid is drained and the venting system is gas-free.

15 Cargo Stowage

15.1 Cargo Information

- 15.1.1 Provision shall be made by the vessel to ensure the availability of information data on the physical and chemical properties of the RLPG and of any other dangerous or unstable substance, which may be on board the vessel on arrival.
- 15.1.2 When a gas tanker has on board any cargo other than propane (C3) or butane (C4), the Master shall provide such information concerning the cargo as may be required for the purpose of determining acceptance of the vessel by Saudi Aramco. When the other cargo is butadiene or other substance subject to the requirements of the IMO Gas Tanker Code for Certificate of Inhibition, the Master shall provide Saudi Aramco with appropriate Certificate giving details of the inhibitor added to the cargo.

15.2 Cargo Segregation

- 15.2.1 Prior to the start of cargo operations, a copy of the cargo stowage plan, which shall include existing and proposed stowage of all cargo on board the vessel, shall be provided to the Terminal, and the plan shall be regularly updated and maintained on the vessel during loading.
- 15.2.2 Any part cargo, cargo residues or coolant on board on arrival which is not in accordance with the Saudi Aramco classification of propane (C3) or butane (C4) shall be maintained in a segregated cargo system.
- 15.2.3 The transfer of any dangerous substances other than propane or butane from a segregated cargo system to any other part of the cargo system is prohibited.
- 15.2.4 Propane shall not be loaded into cargo tanks containing butane liquids classed as part cargo, cargo residues or coolant.
- 15.2.5 Butane shall not be loaded into cargo tanks containing propane liquids classed as part cargo, cargo residues or coolant.
- 15.2.6 The mixing of butane and propane liquids in a vessel's cargo tanks or in any other part of the cargo system is prohibited. Except when purging, injecting antifreeze or the mixing of butane or propane with any other substance on board is also prohibited.
- 15.2.7 When handling fully refrigerated propane or butane separately or concurrently, every precaution shall be taken to prevent any hazardous physical reactions by selecting cargo tanks with separate liquid pipeline arrangements.
- 15.2.8 Part cargo and cargo residues of propane and butane that are not to be commingled with propane or butane from Saudi Aramco shall also be maintained in a safe condition to prevent leaks or the venting of gas to the atmosphere.

15.3 Cargo Contamination and Samples

- 15.3.1 It shall be the responsibility of the Master to ensure that RLPG loaded and/or commingled at Saudi Aramco berths is not contaminated or altered by any part cargo, cargo residue, or any other substance.
- 15.3.2 Whenever samples are required to be taken from the cargo system of a gas tanker by Saudi Aramco, the Master shall make proper provision to allow the sample to be obtained by a Saudi Aramco Representative.
- 15.3.3 Contaminated vapor (as may be determined at the sole discretion of Saudi Aramco) shall not be accepted for processing in a shore vapor recovery system.

15.4 Ammonia Vapor in Cargo Tanks

- 15.4.1 If the previous cargo carried by a vessel was ammonia, the vessel must arrive with the cargo tanks inerted and with an oxygen content of 5% or less.
- 15.4.2 The maximum allowable ammonia content in the cargo tank atmosphere will be 20 ppm by volume.

15.5 Excess Loading

Every precaution shall be undertaken to ensure that cargo is not loaded in excess of the agreed quantity or the vessel's MATFL. In agreeing the cargo quantity to be loaded, the Master shall take note that Saudi Aramco does not provide facilities for the discharge of LPG. The potentially disastrous consequences, which may result from over filling a cargo tank with RLPG, shall be recognized.

16 Coolant, Purging and Cool Down

16.1 Coolant

- 16.1.1 Prior arrangements shall be made with Saudi Aramco for cargo operations involving coolant loading, purging and cooling down.
- 16.1.2 It shall be the responsibility of the Master to determine the quantity of any coolant required by the vessel for the purpose of purging and/or cooling down of the cargo system to the standards required by these rules. Saudi Aramco shall be advised of this requirement not less than 72 hours prior to arrival of the vessel. The Master shall estimate the time required to safely complete purging or cooling down and the Terminal shall be so advised.
- 16.1.3 Any coolant supplied whether for purging or cooling down, shall not be loaded into more than one cargo tank (excluding deck tanks) designated for that purpose by the Master and agreed to by the Terminal.
- 16.1.4 The use of an approved deck tank for coolant loading shall be at the discretion of the Terminal.
- 16.1.5 Prior to the start of coolant loading, the Master shall estimate the time required to safely complete loading and so advise the Terminal.

16.1.6 On completion of coolant loading, a gas tanker may, at the discretion of Saudi Aramco, be required to leave the berth and conduct any further purging or cooling down at anchor.

16.2 Purging

16.2.1 Purging of any part of the cargo system shall only be permitted subject to the approval of the Terminal.

16.2.2 When purging is permitted, displaced gas from the vessel's cargo system shall be disposed of by way of the vapor return system provided.

16.3 Cooling Down Cargo Tanks

16.3.1 Cooling down cargo tanks shall only be permitted when the tanks have been adequately purged so that any cargo system pressures generated by the loading of coolant can be safely contained by the vessel's reliquefaction system and/or the vapor recovery system if available.

16.3.2 Cooling down of any cargo tank shall only be permitted subject to the approval of the Terminal.

16.4 Suspended Operations During Purging and Cooling Down

Except for coolant loading associated with purging and cooling down, other loading operations shall be suspended until the Terminal is advised that purging and/or cooling down is completed.

17 General Cargo Operations Procedures

17.1 Precautions

17.1.1 Immediately prior to the start of cargo operations, it shall be confirmed that:

- a. All variable setting cargo system alarms are correctly set to the levels appropriate to the proposed and agreed cargo operations procedures.
- b. Due allowance has been made for the maintenance of acceptable pressures in cargo tanks containing part cargos or cargo residues.
- c. Safety pressure relief valves are correctly set.

17.1.2 The Terminal shall be advised when the vessel is ready in every respect for the start of cargo operations and every precaution shall be undertaken to ensure that when loading RLPG, the initial loading rate shall be such that cargo tanks and cargo pipelines are gradually and evenly cooled to prevent thermal stress or dynamic shock and avoid hazardous rates of pressure increase.

17.2 Loading Rates

17.2.1 The maximum safe loading rate shall be provided in writing and agreed with the Terminal prior to the start of cargo operations.

17.2.2 In determining the maximum loading rate, every precaution shall be undertaken to ensure that the declared rate can be safely achieved and is compatible with the temperature of the cargo system, the capacity and efficiency of the reliquefaction system, the condition of cargo tank insulation, the load temperature and grade of cargo to be handled and the maximum cargo system pressures as designed.

17.2.3 When “topping-off” a cargo tank, every precaution shall be undertaken to ensure that the loading rate is compatible with a capability to safely stop loading into that tank when MATFL is reached.

17.3 Loading Temperature

17.3.1 The vessel will be advised of the RLPG temperature in the berth circulation line prior to the start of cargo operations and upon request to the Terminal during loading, and shall take note that significant cargo temperature increases can occur between the berth circulating lines and the vessel’s loading connection as a result of low loading rates.

17.3.2 While Saudi Aramco will endeavor to provide RLPG at the lowest practical temperature, there is no guaranteed maximum temperature of the RLPG delivered to the ship.

17.4 Concurrent Handling

17.4.1 It shall be the responsibility of the Master to determine the capability of his vessel to handle a number of different substances concurrently and the Terminal shall be so advised.

17.4.2 Permission to handle a number of different substances concurrently shall be at the discretion of the Terminal.

17.5 Cargo Measurement

The contents of all cargo tanks, including deck tanks, shall be measured in accordance with agreed procedures for the purpose of determining the total quantity of LPG cargo on board the vessel as part cargo, cargo residues or coolant:

- a. Prior to the start of any cargo loading operation.
- b. Whenever cargo operations are suspended and the vessel is required to vacate the berth for any reason other than an emergency condition.
- c. At the completion of loading operations.
- d. Whenever required by Saudi Aramco during cargo operations.

NOTE: Ju’aymah Gas Plant always transfers RLPG via shore turbine meters to ships. The turbine meters determine the amount of cargo loaded, which is verified by ship tank measurement in accordance with agreed procedures.

18 Ballast and Ship Fuel Oil Handling

18.1 General

- 18.1.1 Procedures for the safe and pollution free handling of ships fuel oils and ballast shall comply with these rules and be subject to the agreement of the Terminal.
- 18.1.2 The Deck Watch shall make frequent inspections of the vessel for the purpose of detecting any leakage of oil to the sea and the Terminal shall be immediately advised whenever any such leakage is detected.
- 18.1.3 The increased risk of pollution to the sea by oil from gas tankers when ship fuel oil and/or ballast is being handled shall be recognized and the appropriate IMO Conventions and other Port requirements shall be observed.

18.2 Ballast

The handling of ballast in segregated ballast tanks shall be at the discretion of the Master and every precaution shall be undertaken to ensure that the vessel is maintained in a stable condition, upright and with a suitable trim so that the vessel is ready to vacate the berth at short notice.

18.3 Ship Fuel Oil

- 18.3.1 Ship fuel oils shall normally be loaded concurrently with cargo provided that the Master and the Terminal agree that no unacceptable safety or pollution risk will develop.
- 18.3.2 The maximum safe loading rate for ship fuel oils shall be provided in writing and agreed with the Terminal prior to the start of bunkering.
- 18.3.3 Prior to the start of bunkering, the Master and the Terminal shall agree in writing as to the party responsible for determining when the nominated quantity of bunkers has been delivered.

18.4 Ballast and Ship Fuel Oil Tank Lids

Ballast and ship fuel oil tank lids shall be closed and secured except as may be agreed with the Terminal.

19 Gas Tanker Mooring

19.1 General

- 19.1.1 It shall be the responsibility of the Master and Crew to ensure that the mooring arrangement is adequate in all respects to maintain the gas tanker in the berthing position during cargo operations. The Master shall accept guidance and provide mooring lines additional to the minimum requirements whenever so advised by the Terminal.
- 19.1.2 All of the mooring lines used to secure the gas tanker at berth shall be constantly monitored and carefully tended throughout.
- 19.1.3 All of the mooring lines, mooring winches, roller fairleads, mooring and towage equipment with which the gas tanker is provided shall be in good condition and properly maintained.
- 19.1.4 Any defect or deficiency in the mooring and towage equipment with which the ship is equipped shall be reported to Saudi Aramco prior to arrival.

19.2 Anchors

- 19.2.1 On completion of mooring, the anchors shall be effectively secured and lashed in the hawsepipes so as to prevent their accidental use at berth.
- 19.2.2 Masters shall be aware of areas where use of anchors is prohibited due to the presence of underwater oil pipe lines and other submerged installations.

19.3 Mooring Winches

- 19.3.1 Subject only to the suitability of mooring line leads (fairleads/chocks) every gas tanker shall utilize all of the mooring lines mounted on independent mooring winches.
- 19.3.2 All mooring winches shall be ready for immediate use.
- 19.3.3 Any mooring line used that is not mounted on an independent mooring winch shall be turned up on a set of mooring bits. The mooring winch brake must be set whenever the winch is unattended.

20 Appendix - Glossary of Terms and Abbreviations

Administration

The Government of the country in which the gas tanker is registered.

Anti-Freeze

A substance introduced to the cargo system of a gas tanker for the purpose of preventing or reducing the formation of water ice crystals or hydrates.

Approved

Equipment, material or procedures approved by an Administration or otherwise recognized by International Codes in the absence of an Administration approval. It shall also mean equipment of a design that has been tested and certified for use under given hazardous conditions and approved by an appropriate authority. The authority shall have certified the equipment as safe for use in a specified hazardous atmosphere.

Authorized Person

Any person authorized by the Government of Saudi Arabia to exercise the power or perform the duties in respect of which the expression is used.

Berth

Any berth, dock, pier, jetty, quay, wharf, mooring, anchorage or terminal at which Aramco is the authorized person in charge.

Butane (C4)

A commercial grade of C4 LPG consisting predominantly of butanes and/or butylene's. The general Saudi Aramco code number for this product is A-160 and it is classified as a dangerous substance.

Cargo

Products listed in Chapter XIX of the IMO Codes for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk and its successors.

Cargo Area

That part of a gas tanker, which contains the cargo containment system and cargo machinery, spaces and includes the deck areas over the full beam and length of the ship above the foregoing.

Cargo Machinery

Cargo pumps, cargo compressors, cargo vaporizers, cargo gas blowers, inert gas generators, their motors, control equipment, and other cargo handling equipment. It shall also include where appropriate, primary and emergency power supply, circulating pumps, other auxiliary machinery and equipment essential to the safe and efficient operation of the cargo machinery.

Cargo Machinery Spaces

Any space in the cargo area of a gas tanker which contains cargo machinery.

Cargo Control Room

A space on board a gas tanker designed and equipped for the control of cargo handling and other cargo related operations.

Cargo Containment System

The arrangement for the containment of cargo on gas tankers including, if fitted, a primary and secondary barrier, associated insulation and any intervening spaces and adjacent structure if necessary for the support of these elements

Cargo Residues

Quantities of cargo on board the vessel on arrival at the berth totaling less than 10% of each compatible cargo grades to be loaded.

Cargo System

The cargo tanks, deck tanks, cargo machinery and their related pipelines, valves, control systems and ancillary equipment designed and provided for the containment, control and handling of cargo on gas tankers.

Cargo Tank

The liquid tight shell designed to be the primary container of cargo and includes all such containers whether or not associated with insulation and/ or secondary barriers.

Certificate of Fitness

A certificate issued to a gas tanker by or on behalf of an Administration in accordance with the relevant codes for the construction and equipment of gas tankers certifying that the construction and equipment of the said vessel are such that certain liquefied gases may be carried in the vessel.

Coolant

RLPG loaded into a gas tanker or liquefied gas stored onboard a Gas Tanker for the purpose of purging and cooling down the vessel's cargo system.

Cooling Down

The procedure by which the temperature of the cargo system on a gas tanker is reduced to a level compatible with these rules.

Commingle

The mixing of Saudi Aramco RLPG with any part cargo or other similar and compatible RLPG on board a gas tanker.

Dangerous Substance

Any substances shipped in bulk and subject to the requirements of the IMO Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk and its successors, in so far as such substances may constitute a hazard to those in the Port area or environment and shall include gaseous mixtures of which such substances form a constituent part.

Deck Tank

A deck mounted cargo tank; that is, an approved tank, which may be provided on a gas tanker for the stowage of coolant, cargo or other substances, and be capable of being efficiently segregated from other parts of the cargo system.

Emergency Condition

A hazardous situation, which is a radical departure from normal, operating conditions and which constitutes an immediate or potential threat to human life or property.

Emergency Shutdown

An approved system designed to shut down the cargo system of a gas tanker from one or more remote locations on board the vessel in the event of an emergency condition.

Emergency Procedures

Written procedures approved by the Administration and/or the Owners of a gas tanker for the efficient control and containment of an emergency condition on board the vessel.

Gas

Gas and/or vapor when used in respect of gas tanker cargo containment systems, cargo systems and cargo handling.

Gas Tanker

A special purpose vessel constructed and equipped for the transportation of liquefied gases in bulk.

Gas Dangerous Zone

Zones or spaces on board a gas tanker designated as gas dangerous by the Administration or zones or spaces recognized as gas dangerous by international codes in the absence of an Administration designation.

Handling

The operation of loading and unloading a gas tanker, transfer of substances to or from or within a gas tanker, and ullaging, sampling, sounding or other ancillary operations at the berth.

Hold Space

The space on a gas tanker enclosed by the vessel's structure in which a cargo containment system is situated and may elsewhere be referred to as a Void Space.

Interbarrier Space

The space on a gas tanker between a primary and secondary barrier, whether or not completely or partially occupied by insulation or other material and may elsewhere be referred to as a Void Space.

Inert Gas

A gas which is incapable of supporting combustion and is chemically and operationally compatible with RLPG at the temperatures likely to occur within the spaces to be inerted on a gas tanker. It is classified as a dangerous substance and may be supplied to the vessel or manufactured on board.

Inerting

The process of providing a non-combustible environment by the addition of compatible inert gas. Inerted or Inert Condition means that the atmosphere of the space to which it refers is incapable of supporting combustion.

LPG

A Liquefied Petroleum Gas consisting predominantly of butanes, propane, butylene's and propylene or mixtures of them, which can be retained in a liquid form by compression or refrigeration or a combination of compression and refrigeration.

Loading Arm

An articulated pipeline assembly and associated pieces used for the purpose of transferring petroleum products including RLPG between the berth and a gas tanker and may be elsewhere be referred to as a Hard Arm.

Loading Connection

The associated pieces of a loading arm used to connect it to a gas tanker's cargo or bunker manifold presentation flange; and related to a vessel means that section of the cargo or bunker manifold between the presentation flange and the first efficient valve.

Manifold

The pipelines of a gas tanker's cargo or bunkering system provided for the purpose of transferring RLPG or bunkers between the vessel and the berth.

Manifold Area

That area or areas of a gas tanker in which the cargo and/or bunker manifolds are situated.

MARVS

The approved Maximum Allowable Relief Valve Setting of a cargo tank.

MATFL

The Maximum Allowable Tank Filling Level, i.e., the maximum level as approved by an appropriate authority and to which any cargo tank of a gas tanker may be safely loaded with liquid cargo.

Master

Means, when used in relation to a gas tanker, any person (other than a Pilot) having the command, charge or management of the vessel for the time being and may be construed in these rules, at the option of the master, as a responsible person delegated by the Master to undertake general or specific duties in liaison with the Terminal Representative, provided that the Master shall at all times have sole responsibility for the application of these rules.

Mean Temperature

The average temperature indicated by the total number of efficient temperature sensing devices installed in the space or that part of the space to which it refers.

NGL

Natural Gas Liquids, a feedstock from which LPG is produced.

Operating Manual

Written procedures approved by the Administration and/or Owners of a gas tanker for safe and efficient cargo handling, transfer, gas-freeing, ballasting, tank cleaning and changing cargos.

Part Cargo

Quantities of cargo on board the vessel on arrival at the berth totaling 10 percent or more of each of the compatible cargo grades to be loaded.

Pressure

Force per unit area. A positive pressure means a pressure in excess of the atmospheric pressure and a negative pressure means a pressure less than atmospheric.

P.S.I.: Pounds per square inch.

Mbs: Millibars (thousandths of a bar).

Kg/cm²: Kilograms per square centimeter.

Pressure Recorder

An instrument designed to continuously monitor and record pressures in cargo tanks and/or other spaces or units of the cargo containment or cargo system.

Propane (C3)

A commercial grade of C3 LPG consisting predominately of propane and/or propylene. The general Saudi Aramco Code Number for this product is A-140 and it is classified as a dangerous substance.

Purging

The introduction of a suitable gas (inert gas or cargo gas depending on the situation) for the purpose of displacing an unacceptable atmosphere in all or part of that system.

Responsible Person

A competent person, i.e., a person possessing qualifications, training and experience which satisfies the appropriate authority that he is competent to carry out the duties required of him.

Reliquefaction System

Means, in respect of gas tankers, a system, which regulates the pressure in the cargo, tanks by means of mechanical refrigeration.

Reliquefaction Unit

An independent section of the reliquefaction system of a gas tanker which usually consists of one or more compressors with their driving motors, control systems and any other necessary equipment, such as heat exchangers, which will permit the unit to operate independently of the remainder of the reliquefaction system.

RLPG

Fully refrigerated LPG, i.e., LPG at a temperature corresponding to the boiling point of that LPG at atmospheric pressure.

Saudi Aramco

The Saudi Arabian Oil Company (Saudi Aramco) as the authority in charge of operating the berth at which these rules apply.

Service Spaces

Spaces outside the cargo area used for galleys, pantries containing cooking appliances, lockers and storerooms and workshops other than those forming part of machinery spaces. Cargo service spaces are spaces within the cargo area used for workshops, lockers and storerooms of more than two square meters in area.

SIGTTO

Society of International Gas Tanker & Terminal Operators.

Skilled Person

A person having the knowledge and experience to perform a certain duty.

Span Gas

An approved gas mixture formulated and certified for the purpose of calibrating and testing gas detection equipment with which a gas tanker may be provided.

Terminal Representative

The responsible person or persons designated by Saudi Aramco to exercise the power or perform the duties in respect of which the expression is used.

Unstable Substance

A substance, which may present a hazard under transport or storage, conditions due to spontaneous reaction (polymerization, decomposition, etc.) unless the necessary specific precautions have been taken to prevent such a hazard (e.g., inhibition, dilution, refrigeration) or other equally effective measures.

Vapor Return System

A system provided at the berth, which enables a gas tanker to transfer gas vapor ashore.

Universal Berth Parameters



Saudi Aramco

Ports and Terminals

Universal Berth Parameters

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SAUDI ARAMCO – PORTS AND TERMINALS – UNIVERSAL BERTH PARAMETERS

GENERAL COMMENTS

1. All depths, drafts and distances are in meters.
2. Minimum SWL of cranes handling 16” and 20” cargo hoses are 10T and 15T respectively.
3. Maximum Trim during operations is, unless stated, 1.5% LOA and propeller fully immersed.
4. High Modulus Polyethylene (HMPE) mooring lines in compliance with OCIMF guidelines are acceptable to replace mooring wire requirements.
5. An Asterisk (*) placed next to text denotes new or amended information since the last revision

RAS TANURA PORT - NORTH PIER

Berth	Depth at L.A.T.	Max Arrival Draft	Max Sail Draft	DWT MT (x 1000)			Berth Lengths				Connections		Loading arm limits above L.A.T.				Max Stern Overhang	
							Max L.O.A.	Product		Naphtha			Product		Naphtha			
								Min	Max	BCM	SCM	BCM	SCM	Cargo	Bunker	Min		Max
6	13.6	12.6	12.6	16	70	Mothballed	257	165	92	—	—	8 - 12”	4”	—	—	—	—	24.5
7	12	8.84	11.0	—	60	Mothballed	183	102	81	—	—	—	—	Hoses	Hoses	—	—	24.5
8	14.1	13.1	13.1	16	115	—	233	137	96	88	145	8 - 12”	4 - 12”	4.9	18.9	5.0	23.5	24.5
9	13.6	8.84	11.8	—	90	—	238	112	126	—	—	8 - 12”	4 - 12”	4.9	18.9	—	—	—
10	15.1	14.1	14.1	16	135	—	380.8	197	183.8	—	—	8 - 12”	4 - 12”	4.9	18.9	—	—	—
11	13.6	8.84	12.6	—	95	—	380.8	225.3	155.5	—	—	8 - 12”	4 - 12”	4.9	18.9	—	—	—

1. All Berths - Minimum distance between ships 15.50m.
2. The moorings of a ship at Berth #11 must be checked prior to #9 around #11 berthing /unberthing operations.
3. Maximum drafts for ships using the East Channel is 10.67m and / or not exceeding 244m LOA.
4. Ships entering the Departure Channel are NOT permitted to turn short round, but must proceed to Juaymah turn off point if required to return to Ras Tanura, or vice versa.
5. During berthing of small ships to Berth #9 or #11, prior to passing the North end of the North Pier at least one tug must be secured, after passing the North end of the North Pier, the ship should approach the berth with astern movement, stern first.

SAUDI ARAMCO – PORTS AND TERMINALS – UNIVERSAL BERTH PARAMETERS

RAS TANURA PORT - SEA ISLAND

Berth	Depth at L.A.T.	Max Sailing Draft Ships Head		DWT MT (x 1000)		Disp MT (x 1000)	Berth Lengths				Connections (All connections 150ANSI / ASME)		Loading arm limits above L.A.T.		
							Max L.O.A.	Distance (Max)		Minimum			Crude		
		North	South	Min	Max	Max Arrival		BCM	SCM	BCM	SCM	Cargo	Bunker	Min	Max
15	26.5	21.0	19.5	60	300	150	427.1	214	213.1	109.7	109.7	12-16"	6-10"	5.33	31.84
16	26.5	21.0	17.0	60	220	90	427.1	214	213.1	109.7	109.7	12-16"	6-10"	5.33	31.84
17	25.5	21.0	19.5	90	327	150	420.6	207.6	213	121.9	121.9	12-16"	6-10"	6.24	33.67
18	26.5	21.0	—	90	327	150	420.6	207.6	213	121.9	121.9	12-16"	6-10"	6.24	33.67
19	27.0	21.0	—	150	500+	—	533.4	266.7	266.7	121.9	121.9	12-20"	12-16"	6.24	36.72
20	27.0	21.0	19.5	150	500+	—	533.4	266.7	266.7	121.9	121.9	12-20"	12-16"	6.24	36.72

- Maximum draft in the Arrival Channel shall be 16.3m plus the rise in height of tide (up to a maximum of 18.0m).
- Maximum draft in the Departure Channel shall be 19.50m plus the rise in height of tide (up to a maximum of 21.0m) with minimum under keel clearance of 1.50m.
- Lining up to the Departure Channel is compulsory for vessels of 20.50m or more and at Masters request for vessels of 150,000DWT and more.
- Berth #15 – Minimum forward parallel body length is 64.0m.
- Berth #17 – Manifold not at mid length – Max distance stern to manifold is 167.5m.
- Maximum draft – Passing south of Sea Island not to exceed 17.0m.
- Vessels draft over 17.0m – All vessels shall be berthed on the East side berths of Sea Island and are not to pass South of a line drawn due East between Berth #6 and Berth #8 during Berthing / Unberthing operations.
- In agreement with OSPAS planner / Shift Superintendent and SHP – Vessels with a draft over 17.5m, on any berth, awaiting cargo release or vessels waiting tide may be allowed to stay for a maximum of 3 hours if the berth is not needed. However, if a ship shore difference is declared then the vessel must proceed to deep draft anchorage North of Sea Island for investigation.
- All vessels shall be normally berthed on a Northerly heading - Exceptions are Berth 15, 16, 17, 20, where during ebb tide and strong SEly wind and taking into consideration max departure draft as indicated on berth parameters, Senior Harbour Pilot permission must be granted.

SAUDI ARAMCO – PORTS AND TERMINALS – UNIVERSAL BERTH PARAMETERS

RAS TANURA PORT - JUAYMAH CRUDE TERMINAL

Berth	Depth at L.A.T.	Max Arrival Draft	Max Sail Draft	DWT MT (x 1000)		Line Capacity Bbbs		Connections		SPM Type	Hose String Length	Mooring Hawser		Chaffing Chain		Pickup Rope		SPM Light Characteristics	
				Min	Max	Shore/Plat	Plat/SPM	Cargo	Bunker			Length	Circ	Length	Dia.	Port	Stbd		
31	32.1	26.0	26.0	150	500	125,000	24,000	16/20"	12"	CALM	335	54.8	15"	9.15	76mm	152	76	Fl (1) Y	10secs
32	33.8	26.0	26.0	150	500	125,000	44,000	16/20"	12"	CALM	335	54.8	15"	9.15	76mm	152	76	Fl (2+1) Y	15secs
33	34	26.0	26.0	150	500	125,000	66,000	16/20"	12"	CALM	335	54.8	15"	9.15	76mm	152	76	Fl (3) Y	12secs
34	35	26.0	26.0	150	750	125,000	86,000	16/20"	12"	SALM	335	54.8	15"	9.15	76mm	152	76	Fl (4) Y	10secs
35	32	26.0	26.0	150	750	125,000	58,000	16/20"	12"	SALM	335	54.8	15"	9.15	76mm	152	76	Fl (5) Y	20secs
36	36	26.0	26.0	150	500	125,000	86,000	16/20"	12"	CALM	335	54.8	15"	9.15	76mm	152	76	Fl (6) Y	15secs

- Juaymah SPM - Arrival Channel - max draft is 21.30m.
- A Ship with draft exceeding 21.30m to an absolute draft of 26.00m will require special routing and arrangements in accordance with RT PCC instructions.
- Max Trim during berthing operation is 0.7% of LOA and propeller fully immersed.
- All vessels proceeding to and from berths must keep a minimum of 2.0m under keel clearance at all times.
- Cargo Load Rate - Min 25,000BPH, Max 16" hoses, 110,000 BPH, 20" hoses 130,000BPH. Max Load Rate - Bunkers – 5,000BPH

RAS TANURA PORT - JUAYMAH NGL

Berth	Depth at L.A.T.	DWT MT (x 1000)		Berth Lengths			Connections	Loading arm limits above L.A.T.		Cargo tank maximum operating pressures 1.0PSI – 70Mbs – 0.07Kg/cm ²			
				Max L.O.A.	LPG			LPG	Min	Max	Cargo Tank minimum operating temperature requirements (°C)		
		Min	Max		BCM	SCM	Cargo				Min	Max	Propane A140 (C3)
											Top	Bottom	Top
51	23.8	25	200	421	210.5	210.5	12-16"	7.76	30.6				
52	23.8	25	200	421	210.5	210.5	12-16"	7.76	30.6	- 22	- 39	+14	0

- Berth #52 – No berthing / Unberthing during Ebb tide (Approx. HW +4.0Hrs) if the ship is on a Northerly Heading.
- All vessels are normally berthed on a Northerly heading - Exceptions could be made during ebb tide and strong SEly wind, Senior Harbour Pilot permission must be granted.
- Vessels which have used Propane liquids as coolant for tanks to be loaded with Butane will not be accepted.

SAUDI ARAMCO – PORTS AND TERMINALS – UNIVERSAL BERTH PARAMETERS

DUBA PORT																
Berth PTMS No	Depth at L.A.T.	Max Arrival Draft	Max Sail Draft	DWT MT (x 1000)		Disp MT (x 1000)		Berth Lengths			Connections	Loading arm limits above L.A.T.		Grade Type	Weather Restrictions if wind	
								L.O.A.	Parallel body Minimum			Parallel body Minimum	Cargo			
				Min	Max	Min	Max		Min	Max	Min		Max			
#1 405	15	12.8	12.8	12	50	30	65	200	30	30	60	12"	4.8	15.7	*MDO Gasoline	Berthing < 30knots Cargo suspension > 35Knots Unberthing > 40knots

- Duba Port - Maximum swell for berthing and cargo operations is 2.0m

Yanbu berths wind restrictions – Any vessel condition. Limiting conditions for Berthing or Mooring operations are 30knots, depending on berth assignment.

YANBU – NORTH CRUDE TERMINAL*																
Berth	Depth at L.A.T.	Max Arrival Draft	Max Sail Draft	DWT MT (x 1000)		Disp MT (x 1000)		Berth Lengths			Connections		Loading arm limits above L.A.T.		Max Loading Rate (x 1000) BPH/Arm	
								L.O.A.	Parallel body Minimum				Parallel body Minimum	Cargo		
				Min	Max	Arr. Max	Max		FPBL	APBL	Min	Max		Cargo	Fuel	Min
61	28.04	25.0	25.0	80	275	185	356.5	39	39	78	16,20,24"	8,10,12"	7.32	23.16	32.5	17.8
62	32.0	29.0	29.0	80	500	390	420.0	40.5	40.5	81	16,20,24"	8,10,12"	7.32	29.26	32.5	17.8
63	27.43	24.5	24.5	120	# 275	185	356.5	66.1	66.1	132.2	16,20,24"	8,10,12"	7.32	23.16	32.5	17.8
64	25.90	23.0	23.0	100	400	300	404.0	54.5	54.5	109	16,20"	8,10,12"	7.32	23.16	32.5	17.8

Berth 63 Max DWT can be increased up to 315,000 during Berth 62 outage only as per CSD evaluation letter #CSD/RE&CED/CEU-L-02/09

SAUDI ARAMCO – PORTS AND TERMINALS – UNIVERSAL BERTH PARAMETERS

YANBU – NORTH REFINED PRODUCT TERMINAL*

Berth PTMS No	Depth at L.A.T.	Max Arrival Draft	Max Sail Draft	DWT MT (x 1000)		Disp MT (x 1000)	Berth Lengths		Connections		Loading arm limits above L.A.T.		Grade Type
							L.O.A.				Cargo		
				Min	Max	Max	Min	Max	Cargo	Bunker	Min	Max	
91 501	16	14.2	14.2	20	60	80	156	236	*6,8,10,12"	*8,10,12"	4.1	16	BW, FOB, FOC, JP-4, KE, MDC, MDB, MDO, NA, PG, PW, RG
92 502	16	14.2	14.2	20	80	107	156	260	*6,8,10,12"	*8,10,12"	4.1	16	
93 503	11.5	9.8	9.8	3	20	27	76	164	*6,8,10,12"	*6,8,10"	1.7	12.6	BW, FOB, FOC, JP-4, KE, MDC, MDB, MDO, NA, PG, PW, RG (CA, LPG, TEL for 94 only)
94 504	11.5	9.8	9.8	3	20	27	76	164	*4,6,8,10,12"	*6,8,10"	1.7	12.6	

1. *Manifold Variance distances –
 - i. Manifold to stern - Max Dist. - Manifold should be at amidships +/- 6m,
 - ii. Maindeck to center of manifold - Minimum Dist. 1.2M
 - iii. Ship Rail to Manifold – Minimum Dist. 1.5M
 - iv. Between manifold centers– Minimum Dist. 1.1M

YANBU – SOUTH TERMINAL

Berth	Depth at L.A.T.	Max Arrival Draft	Max Sail Draft	DWT MT (x 1000)		Disp MT (x 1000)	Berth Lengths			Connections	Loading arm limits above L.A.T.		Max Loading Rate (x 1000) BPH/Arm	
							L.O.A.	Parallel body Minimum	Parallel body Minimum		Cargo			
				Min	Max	Max	Max	FPBL	APBL	Minimum	Cargo	Min	Max	Cargo
101	28.5	22.6	22.6	35	320	370	348.5	35	35	70	16,20,24"	4.8	29.5	33.0
102	32.0	27	27	100	500	590	411.5	44.5	44.5	89	16,20,24"	4.8	29.5	33.0
103	28.5	22.6	22.6	35	320	370	348.5	35	35	70	16,20,24"	4.8	29.5	33.0

SAUDI ARAMCO – PORTS AND TERMINALS – UNIVERSAL BERTH PARAMETERS

JEDDAH – OUTER HARBOR														
Berth PTMS No	Depth at L.A.T.	Max Arrival Draft	Max Sail Draft	DWT MT (x 1000)		Berth					Connections		Grade Type	Weather Restrictions. At "Ballast" and "Loaded" conditions
						L.O.A.	Parallel body Minimum		Parallel body Minimum	Min Crane SWL (MT)	Cargo	Bunkers		
				Min	Max		FPBL	APBL						
MB#1 201	16.4	14.0	14.0	40	100	250	37	23	60	10	12"	8"	*PG, JP-4, MDO, AL, Reduced Crude,	25 ----- 30 knots
MB#2 202	16.4	14.0	14.0	40	100	250	53	53	106	10	12"	8"	*JP-4, MDO, ULSFO, FO, Reduced Crude,	

JEDDAH – INNER HARBOR													
Berth PTMS No	Depth at L.A.T.	Max Arrival Draft	Max Sail Draft	DWT MT		Berth				Connections		Grade Type	Weather Restrictions. At "Ballast" and "Loaded" conditions
						L.O.A.	Anchors to be used at the berth	Stern lines (Ropes)		Min Crane SWL (MT)	Cargo		
				Maximum	Minimum								
BB #2 102	7.0	5.5	5.5	6,000	120	2	6	1.0	8"	8"	*Not in use	25 ----- 30 knots	
BB #3 103	10.0	8.5	8.5	7,500	120	2	6	1.0	8"	8"	*ULSFO, MDO		
BB #4 104	12.5	11.0	11.0	30,000	180	2	8	5.0	12"	8"	*ULSFO, MDO, Lube-Oil		
LB #5 105	13.0	11.0	11.0	30,000	180	2	8	3.0	8"	8"	Lube-Oil		
CP #6 106	13.4	11.5	11.5	50,000	185	2	8	10.0	12'	8"	*PG, JP-4, FO, MDO, ULSFO, Reduced Crude		
CP #8 108	12.8	11.5	11.5	50,000	200	2	8	10.0	12"	8"	*PG, JP-4, FO, MDO, ULSFO, Reduced Crude		

- Jeddah Port – Inner harbour – All vessels must have a minimum of two mooring winches at the poop deck to handle stern lines and must have two operational anchors with the ability to operate simultaneously.

SAUDI ARAMCO – PORTS AND TERMINALS – UNIVERSAL BERTH PARAMETERS

PORT OF JAZAN PRIMARY AND DOWNSTREAM INDUSTRIES – TERMINAL BERTH 1																	
Berth	Depth at L.A.T.	Max Arrival Draft	Max Sail Draft	DWT MT (x 1000)		Disp MT	Length Overall	Minimum Parallel Body Length			Loading Arms Limits above LAT		Max Loading Rate (BPH/Arm)		Center Manifold Location		Arm
				Min	Max	Max		Max	FPBL	APBL	Total	Min	Max	Export	Import	Bow to center of manifold	
Berth 1	16.50	15	15	10	120	134,583	286	24	24	48	4.15	21.6	–	–	122	164	T02-007
													15	–	126	160	T02-001
													8	–	130	156	T02-004
													15	PG:15 MTBE:7	134	152	T02-022
													15	15	138	148	T02-002
													15	15	142	144	T02-003
													12	12	146	140	T02-021
													15	15	150	136	T02-024
													VGO:13 FO:12	VGO:13 FO:12 Crude:11.5	154	132	T02-005
													12	FO:12 Crude:11.5	158	128	T02-006
													NA	NA	162	124	F1
NA	NA	166	120	F2													

SAUDI ARAMCO – PORTS AND TERMINALS – UNIVERSAL BERTH PARAMETERS

PORT OF JAZAN PRIMARY AND DOWNSTREAM INDUSTRIES – TERMINAL BERTH 2																	
Berth	Depth at L.A.T.	Max Arrival Draft	Max Sail Draft	DWT MT (x 1000)		Disp MT	Length Overall	Minimum Parallel Body Length			Loading Arms Limits above LAT		Max Loading Rate (BPH/Arm)		Center Manifold Location		Arm
				Min	Max	Max	Max	FPBL	APBL	Total	Min	Max	Export	Import	Bow to center of manifold	Stern to center of manifold	
Berth 2	16.50	15	15	10	120	134,583	286	24	24	48	4.15	21.6	—	—	122	164	T02-007
													15	—	126	160	T02-001
													8	—	130	156	T02-004
													15	PG:15 MTBE:7	134	152	T02-022
													15	15	138	148	T02-002
													15	15	142	144	T02-003
													12	12	146	140	T02-021
													15	15	150	136	T02-024
													VGO:13 FO:12	VGO:13 FO:12 Crude:11.5	154	132	T02-005
													12	FO:12 Crude:11.5	158	128	T02-006
													NA	NA	162	124	F1
NA	NA	166	120	F2													

SAUDI ARAMCO – PORTS AND TERMINALS – UNIVERSAL BERTH PARAMETERS

PORT OF JAZAN PRIMARY AND DOWNSTREAM INDUSTRIES – TERMINAL BERTH 3																	
Berth	Depth at L.A.T.	Max Arrival Draft	Max Sail Draft	DWT MT (x 1000)		Disp MT	Length Overall	Minimum Parallel Body Length			Loading Arms Limits above LAT		Max Loading Rate (BPH/Arm)		Center Manifold Location		Arm
				Min	Max			Max	Max	FPBL	APBL	Total	Min	Max	Export	Import	
Berth 3	16.50	15	15	10	120	134,583	295	24	24	48	4.15	21.6	—	—	129	166	T03-007
													15	—	133	162	T03-001
													8	—	137	158	T03-004
													15	PG:15 MTBE:7	141	154	T03-022
													15	15	145	150	T03-002
													15	15	149	146	T03-003
													12	12	153	142	T03-021
													15	Naphtha:15 C3:500m ³ /Hr. C4:500m ³ /Hr.	157	138	T03-024
													VGO:13 FO:12	VGO:13 FO:12	161	134	T03-005
													12	12	165	130	T03-006
NA	NA	169	126	F1													
NA	NA	173	122	F2													

1. Connections will normally be cargo 16", Vapor 10" for all Terminal berths

SAUDI ARAMCO – PORTS AND TERMINALS – UNIVERSAL BERTH PARAMETERS

PORT OF JAZAN PRIMARY AND DOWNSTREAM INDUSTRIES - BULK TERMINAL – BERTH 4 - SULFUR

Berth	Plant No	Depth at L.A.T.	Max Arrival Draft	Max Sail Draft	DWT MT (x 1000)		Disp MT (x 1000)		Berth	Ship Loader Location			Jetty Info - Number of Bollards	Loading Cargo (Export)
					Min	Max	Min	Max		LOA Max	Bow to center of ship loader	Stern to center of ship loader		
*Berth #4	*T04	*16	*15	*15	—	*40	—	*48.5	*217	*108.5	*108.5	*58.0	*11 QRH	*Solid Sulfur

1. *Sulfur berth is not supported by a fixed gangway.
2. *Only one ship can be accommodated at the same time at Berth 3 or 4.

PORT OF JAZAN PRIMARY AND DOWNSTREAM INDUSTRIES – SPM TERMINAL

Berth	Plant No	Depth at L.A.T.	Max Arrival Draft	Max Sail Draft	DWT MT (x 1000)		Connections		Min Crane SWL	Loading Rate	Mooring Hawser		SPM Type	SPM Light Characteristics		Type of operation	
					Min	Max	Cargo	Fuel			Max	Length		Circ	White Morse Code U (.-.)	15 secs	Loading Cargo (Export)
SPM	T 10	23.75	22	22	150	320	20	—	20	15000 m ³ /Hr. @ 10 Bar	85	15"	CALM		15 secs	—	Crude Oil

1. SPM connections are 2 floating hoses with a 20" connection each as per drawing no. VA-373361-001

SAUDI ARAMCO – PORTS AND TERMINALS – UNIVERSAL BERTH PARAMETERS

JAZAN BULK PLANT - SPM TERMINAL

Berth PTMS No	Depth at L.A.T.	Max Arrival Draft	Max Sailing Draft	DWT MT (x 1000)		Ships Beam	Connections	Min Crane SWL	SPM	Mooring Hawser		SPM Light		Grade Type	Weather Restrictions if wind
				Min	Max	Max	Cargo		Type	Length	Circ	Characteristics			
SPM#1 301	17.7	11.8 + Tide	11.8 + Tide	10	50	35	16"	10.0	CALM	55.4	17"	Fl (2) +LFI	15 secs	*PG (91 + 95)	Berthing < 30Knots Cargo suspension > 35Knots Unberthing > 40Knots
SPM#2 302	18.1	11.8 + Tide	11.8 + Tide	10	50	35	16"	10.0	CALM	55.4	17"	Fl (2) +LFI	15 secs	*MDO JP-4	

CARGO TYPE - KEY

BW	Ballast Water (Discharge)	JP-4	Jet Fuel	MDC	Marine Diesel Cargo	PG	Premium Gasoline	CA	Caustic Soda
FOB	Fuel Oil Bunkers	KE	Kerosene	MDO	Motor Diesel Oil	PW	Potable Water	LPG	Liquefied Petroleum Gas
FOC	Fuel Oil Cargo	NA	Naphtha	MDB	Marine Diesel Bunkers	RG	Regular Gasoline	TEL	Tetra Ethyl Lead
MTBE	Methyl Tertiary Butyl Ether	ULSFO	Ultra-Low Sulfur Fuel Oil	VGO	Vacuum Gas Oil	C3	Propane	C4	Butane

Marine Terminal Assistance Fees

Ras Tanura Port

Jeddah Marine Terminal

Duba Bulk Plant Terminal

Jazan Bulk Plant Terminal



Marine Terminal Assistance Fees

Ras Tanura Port

Jeddah Marine Terminal

Duba Bulk Plant Terminal

Jazan Bulk Plant Terminal

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1 General Terms and Conditions

1.1 General

Saudi Aramco provides a wide range of services at Ras Tanura Port (which includes Ju'aymah), Jeddah Marine Terminal, Duba Bulk Plant Terminal and Jazan Bulk Plant Terminal to support all visiting tankers with their operational requirements, from their arrival to their departure.

On each visit prior to each berthing, Masters are required to sign a Marine Terminal Assistance Fees Acknowledgement Form, acknowledging their acceptance of applicable fees. Failure to do so will be grounds for rejection of any tendered Notice of Readiness or request to berth. Where a berthing operation is deemed un-chargeable by Saudi Aramco, the signed form will be retained for record keeping purposes only.

This annex outlines the fees applicable for such services.

1.2 Payment

The owners, operators and charterers of any ship calling at Ras Tanura Port, Jeddah Marine Terminal, Duba Bulk Plant Terminal and Jazan Bulk Plant Terminal are jointly liable to pay Saudi Aramco for services. Payment should be completed through an approved ship agent. Liable parties shall ensure payment is made timely.

Once full payment is received from any of the aforementioned parties, no further obligation shall rest on the others.

Failure to pay fees on time may result in the refusal to grant acceptance to the ship for future port calls at the port.

1.3 Applicable Terminals

Services and charges listed in this document are applicable to all terminals within the boundaries of Ras Tanura Port, Jeddah Marine Terminal, Duba Bulk Plant Terminal and Jazan Bulk Plant Terminal.

2 Port and Terminal Services

The following mandatory services are provided, as required, to all vessels calling at Ras Tanura Port, Jeddah Marine Terminal, Duba Bulk Plant Terminal and Jazan Bulk Plant Terminal. Services are chargeable as tabulated in section 4.

2.1 Harbor Pilotage

All movements of vessels to and from the berths in the proximity of Saudi Aramco facilities shall be under the direction of a Saudi Aramco Harbor Pilot. Ras Tanura Port Jeddah Marine Terminal, Duba Bulk Plant Terminal and Jazan Bulk Plant Terminal provide a mandatory licensed and authorized Harbor Pilot service, offering local knowledge and navigational support to each ship.

In Ras Tanura Port the harbor pilotage fee is charged linearly proportional to the gross tonnage of the ship.

At Jeddah Marine Terminal the harbor pilotage fee is charged in accordance with the applicable fee category corresponding to the deadweight tonnage of the ship.

At Duba Bulk Plant Terminal and Jazan Bulk Plant Terminal harbor pilotage fees are charged in accordance with the Terminal applicable fee.

2.2 Pilot Transfer/Transportation

The transportation service includes all necessary modes to transport the Harbor Pilot to and from the ships.

2.3 Tug Boats

The services of tug boats, including docking tugs, is provided to each ship to support safe maneuvering to and from berths.

2.4 Mooring Boats (SPM only)

At all Ju'aymah SPM Buoys, purpose-built boats are provided to each ship, regardless of its size. These boats will carry out a range of SPM activities, such as mooring and unmooring, cargo hose maneuvering for connection and disconnection needs, and will also offer support while a vessel is on a buoy.

2.5 Mooring Service

At Jeddah Marine Terminal the mooring line placement procedure will be provided by line boats which have the duty to assist in the transport of mooring lines to the designated mooring positions and facilitate a low risk and controlled mooring service.

3 Disclaimer

The fees listed in this document address the provision of services in the ordinary course, and do not account for delays or possible operational impacts. Outside the scope of these ordinary services, additional fees may apply. Such fees are dealt with on a case-by-case basis, and are not necessarily covered in this annex.

4 Tables of Charges

4.1 RT Terminals (North Pier and Sea Island)

Ras Tanura Port - These tables are accurate as of April 1, 2022.

Fee Category	Summer Deadweight	Pilotage per gross tonne	Pilot Transfer	Tug Boats	Mooring Boats
A	0 – 10,000	\$0.05	\$2,966	\$3,409	NA
B	10,001 – 80,000	\$0.05	\$2,966	\$8,938	NA
C	80,001 – 130,000	\$0.05	\$2,966	\$16,490	NA
D	130,001 – 200,000	\$0.05	\$2,966	\$26,018	NA
E	200,001 and higher	\$0.05	\$2,966	\$29,078	NA

4.2 Juaymah NGL

Fee Category	Summer Deadweight	Pilotage per gross tonne	Pilot Transfer	Tug Boats	Mooring Boats
F	All	\$0.05	\$2,966	\$12,014	NA

4.3 Juaymah SPM

Fee Category	Summer Deadweight	Pilotage per gross tonne	Pilot Transfer	Tug Boats	Mooring Boats
G	All	\$0.0708	\$2,966	\$9,673	\$21,017

Notes to the Ras Tanura Port tables of charges:

- Each fee listed is per visit.
- Fees in the tables are exclusive of Value Added Tax (VAT).
- Fees are subject to change at any time, and notification in this regard may be only to the ship's agent.

Calculation Example:

A ship calling Ras Tanura, Sea Island with a summer DWT of 160,000 and GT of 81,000. The port call was smooth with no issues. She is calling Sea Island Berth 19.

Therefore, as per table 4.1, she falls into the D fee category.

Total Fees per port call are calculated as follows:

Pilotage + Pilot Transfer + Tug Boats = Total

$(\$0.05 \times 81,000) + \$2,966 + \$26,018 = \$33,034$

4.4 Jeddah Marine Terminal

Jeddah Marine Terminal - This table is accurate as of February 1, 2023.

Fee Category	Summer Deadweight	Pilotage	Tug Boats	Mooring Service	Pilot Transfer
C	25,001 – 50,000	\$11,373	\$36,273	\$988	\$6,725
D	50,001 – 90,000	\$18,108	\$55,631	\$1,033	\$7,041
E	90,001 and higher	\$24,373	\$74,344	\$1,033	\$7,041

Notes to the Jeddah Marine Terminal table of charges:

- Each fee listed is per visit.
- For vessels of 25,000 Summer Deadweight and below, the fees set out in Western Region Terminals Department Form 46 apply.
- Fees in the table are exclusive of Value Added Tax (VAT).
- Fees are subject to change at any time, and notification in this regard may be only to the ship's agent.

Calculation Example:

A ship calling at Jeddah Marine Terminal with a Summer Deadweight of 52,000. The port call was smooth with no issues.

Therefore, as per table 4.4, she falls into the D fee category.

Total Fees per port call are calculated as follows:

Pilotage + Tug Boats + Mooring Service + Pilot Transfer = Total.

\$18,108 + \$55,631 + \$1,033 + \$7,041 = \$81,813.

4.5 Duba Bulk Plant Terminal

Duba Bulk Plant Terminal - This table is accurate as of March 1, 2023.

Terminal	Pilotage	Pilot Transfer	Tug Boats	Total Fee
Duba Bulk Plant	\$5,072.14	\$22,197.88	\$68,096.10	\$95,366.12

Notes to the Duba Bulk Plant Terminal table of charges:

- Each fee listed is per visit.
- Fees in the table are exclusive of Value Added Tax (VAT).
- Fees are subject to change at any time, and notification in this regard may be only to the ship's agent.

4.6 Jazan Bulk Plant Terminal

Jazan Bulk Plant Terminal - This table is accurate as of March 1, 2023.

Terminal	Pilotage	Pilot Transfer	Tug Boats	Total Fee
Jazan Bulk Plant	\$11,189.66	\$16,162.98	\$71,158.68	\$98,511.32

Notes to the Jazan Bulk Plant Terminal table of charges:

- Each fee listed is per visit.
- Fees in the table are exclusive of Value Added Tax (VAT).
- Fees are subject to change at any time, and notification in this regard may be only to the ship's agent.