



LCT Terminal

Information and Jetty Regulations

Rayong, Thailand



Revision : 6
Effective Date : 5th September, 2023

WARNINGS

SMOKING

Smoking is prohibited in the restricted areas and on vessels. Only designated area is allow for smoking and “Smoking Area” sign shall be posted. Failure of comply with this obligation may cause operation to stop and vessel shall leave the jetty after investigation complete and receipt of written assurance from the Master that effective controls have been established. The master shall issue warning letter to violator. The company has prohibited smoking at any time in any place on/or adjacent to the Berths area.

POLLUTION

It is an offence to:

- Spill oil
- dump garbage
- emit excessive funnel smoke
- VOCs from Fugitive Source

All incidents will be investigated and prosecution could result.

PPE

All crew and concern staff are obligated to wear PPE as posted on the signs at the terminal Jetty.

ALCOHOL/DRUGS

The use and/or possession of alcohol and/or drugs within company properties are prohibited. Master shall terminate operation that operated by employee and/or contractors who are stoned. Operation will not be resumed unless it has reported and investigated by relevant authorities. The company shall consider safety as priority prior restart operation and this may cause delaying and/or cancellation of vessel's departure.

The company therefore shall take liberty to deny access for person who seem be drugged into restricted area.

COMMUNICATION

1. The instruction for Berthing/Unberthing at entrance bouy and/or pilot station should be made through Port control VHF channel 13,and 16.
2. Berthing/Unberthing operation shall be contacted Berthing Master through VHF channel 13 and Back up VHF 16.

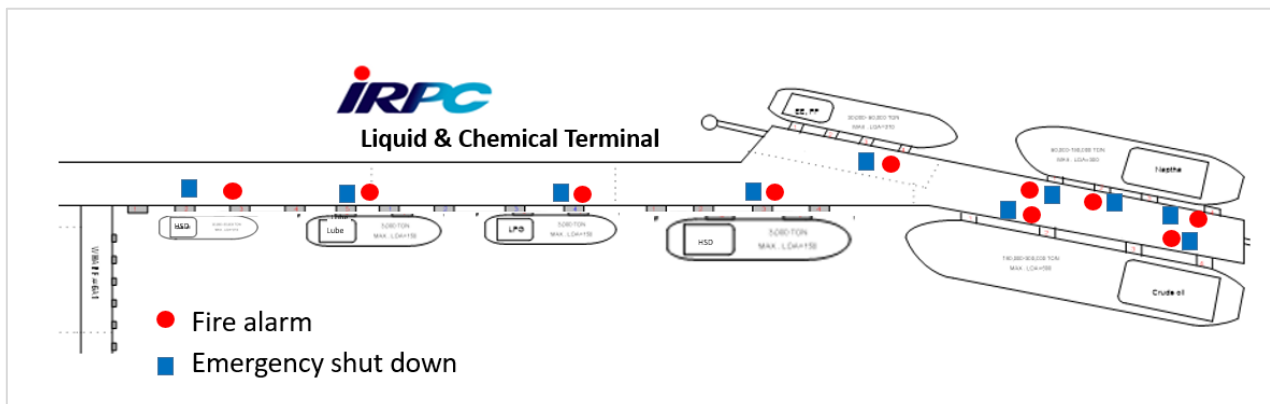
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3. Co-operation of loading/unloading shall be contacted through the terminal control room.
4. Emergency services for fire, police, and ambulance shall be contacted through the terminal control room telephone system. For vessels, shall be contacted the control room or Loading Master for assistance.

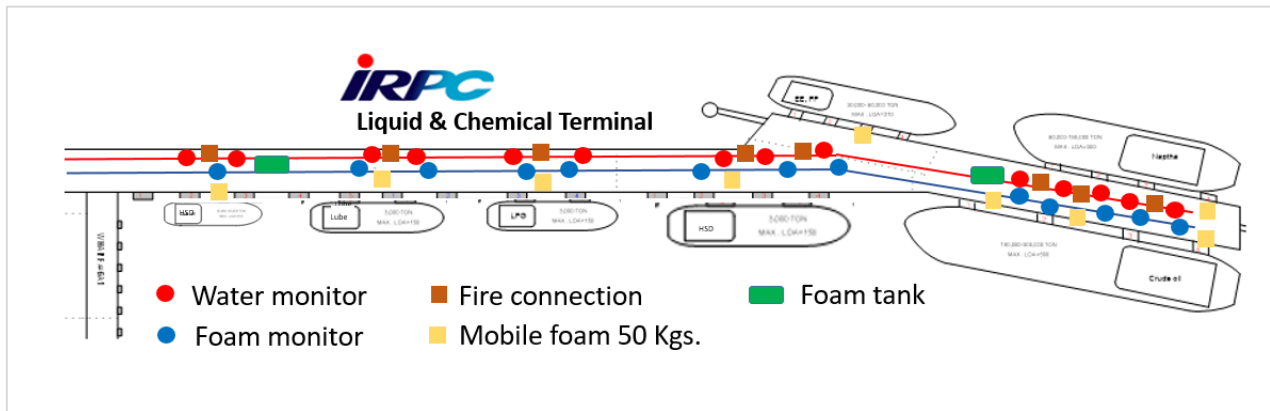
Station	Communication	Contact
IRPC Port Control e-mail:portcontrol@irpc.co.th	VHF Radio Telephone	Channel 12,13,16 +6684-5556534, +6638-802548 +6638-611333 ext. 1797
Control Room e-mail:lcp@irpc.co.th	VHF Radio Telephone	Channel 17 +6681-1721278, +6638-611333 ext. 2122-3

IN THE EVENT OF AN EMERGENCY :

- Contact master or port controller via IRPC designated VHF or telephone
- Activate fire alarm by pressing fire alarm button at berth.
- Fire extinguishers are available at every berth.
- The water monitors may be controlled from the berth or the control room.
- The water curtains are available on wharf no.2A, 2B.
- Portable foam monitor are available each berth.
- A minimum 30 minutes supply of 3 % AR-AFFF foam concentrate may also be introduced into the local monitor system on each berth.
- Apply the ship's emergency procedure.
- 2.5 Inch Fire fighting connection (International ship/shore connection) are available each berth.
- Fire tugs/trucks are available up on requested.
- Emergency escape routes are provided.



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REFERENCES

- A. Oil Companies International Marine Forum: (OCIMF)
 - Standards for Oil Tanker Manifolds and Associated Equipment.
 - Mooring Equipment Guidelines.
 - Guidelines for the Control of Drugs and Alcohol onboard Ship.
- B. The International Safety Guide for Oil Tankers and Terminals (ISGOTT). 6th edition 2021.
- C. The International Chamber of Shipping Tanker Safety Guides for Chemical and Liquefied Gas Tankers (SIGOTT).
- D. International Maritime Organization.
- E. Convention for the prevention of pollution by ship – MARPOL, Annex I, II.
- F. Port authority department regulation.

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PORT INFORMATION

General

The integrated Refinery and Petrochemical Complex (IRPC) terminal is situated 3 items east of Rayong city or 180 KMs. South-East of Bangkok, Thailand in position lat. 12° 38.2' N long. 101° 18.2' E and consists of Jetty 1 call "LCT" for serving Refinery and Petrochemical feedstock and product and Jetty 2 call "BCT" for serving general cargo and container.

A vessel must be compatible to all aspect of the berth. Especial, a vessel's manifold which must be a permanent design (including pipelines, valves and supports etc.) as part of vessel structure. . All vessels shall have manifold arrangements which comply with the standards recommended by the OCIMF – Standards for Tanker Manifolds and Associated Equipment.

Permission to enter the berth

Ship Vetting :

The vessel over 500 DWT. shall be passed PTT ship vetting process and evaluate with SIRE inspection reports with satisfactory/ suitable result, before cargoes operation at IRPC terminal.

Terminal feedback: The vessel during Berth/ cargo operation/unberth. If IRPC terminal found any negative incident, IRPC terminal shall keep record and send terminal feedback to PTT Ship vetting to review her performance for next acceptance and next call.

All vessel must permission from IRPC port to enter the berth.

Permission shall be subjected to special restriction or condition if:-

- A. The vessel is in danger of sinking,
- B. The vessel, or it's cargo ,is on fire,
- C. The vessel is overloaded,
- D. The vessel is leaking,
- E. The vessel is in unstable condition.

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Overall length restriction

A. LCT Jetty 1 Berth Parameters

Berth no.	Max. LOA	Depth (Max. draft)	Max. DWT
1	158 M.	7.6 M.	20,000
2A	293 M.	13.0 M.	250,000
2B	340 M.	17.5 M.	250,000
3A	277 M.	11.5 M.	80,000
3B	277 M.	13.0 M.	80,000
4	210 M.	9.0 M.	50,000
5	120 M.	5.5 M.	4,000

B. LCT Jetty 1 serving

Berth No.	Serving Product / Raw Material
1	LPG, Mixed C4, Butene-1, Acrylonitrile, Butadiene, Styrene, Cyclohexane, Cyclohexanone, Propylene Oxide, Ethylene, Propylene, Press. Propylene, Benzene
2A	Crude oil, Naphtha, Diesel, Gasoline, White spirit, C9 Aromatic, Extract, Slack Wax, Lube Base Oil, Benzene, Toluene, Mixed xylene, Acrylonitrile, Butadiene, Styrene, Ammonia, Ethylene, Propylene, Mineral Oil, Propylene Oxide, VAM, Fuel oil , LSWR, TDAE, Mixed aromatic, LCO
2B	Crude oil, Diesel, Gasoline, White spirit, C9 Aromatic, Fuel oil, LSWR
3A	Naphtha, Diesel, Gasoline, White spirit, C9 Aromatic, Mixed –xylene, Toluene, Mixed aromatic, LCO, Fuel oil
3B	Diesel, Gasoline, LPG, Mixed C4, Toluene, Mixed xylene, Press. Propylene, Butadiene
4	Asphalt, Extract, Slack Wax, Lube Base Oil, Benzene, Mixed Xylene, Toluene, Diesel, TDAE, CLO, Fuel oil
5	Naphtha, Diesel, Gasoline, White spirit, C9 Aromatic, Mixed –xylene, Toluene, LPG, Mixed C4, Asphalt, Fuel oil, Butene-1, Press. Propylene

Pilot Boarding Area

Area A: Entrance buoy (lat.12.3 0.0 N.,long.101.15.5 E.) for VLCC & deep draft vessel.

Area B: Buoy no.6 (lat.12.35.0 N.,long.101.16.6 E.) for vessel draft not more than 12 meter.

Area C: Buoy no.8 (lat.12.36.5 N.,long.101.17.3 E.) for small vessel draft less than 8 meter.

Pilot

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Pilot is compulsory in IRPC Port. He is able to enter any vessel both day and night time depends on tide and weather. Professional pilot service is rendered to every vessel which is calling at IRPC Port. The pilot will serve berthing with the assistance of tug (see also "Tugs").

Tugs

Tugs usage is compulsory for berthing and un-berthing "in normal weather condition" the number of tugs require as list below.

Vessel LOA / DWT.	For Berthing	For Un-berthing
DWT < 10,000	1	1
DWT 10,000 - 49,999	2	2
DWT 50,000 - 119,9999	3	2
DWT 120,000 - 199,999	4	3
DWT 200,000 - 249,999	5	3
DWT 250,000 – 350,000	6	4

In Port limit area; IRPC Tugs and Working boats refuse to be responsibility any cause from delay, damage during berthing and un-berthing operation.

Mooring

Normally sea / swell condition during SW monsoon mostly safety condition. The master still need to careful and work and co-operator closely with berthing master/loading master who look after "IRPC Port" at all the time.

Mooring gangs and mooring boats are compulsory and provided by IRPC Port. Mixed mooring is occasionally acceptable if they are not in the same mooring post.

Tidal information

- Tide tables of Thai waters (Pak nam Rayong)
- B.A. Tide tables vol. 1(Gulf of Thailand)
- Refer to Tide table, Hydrographic Department, Royal Thai Navy

Remark :

- An under keel clearance at Berth / Jetty safety margin of 10% of Draft or 0.6 m. has been allowed.
- Deeper drafts may be accepted on occasion depends on the predicted height tide and must be agreed with the IRPC Port Manager.

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- Shore gangways are provided subject to the vessel physical shape.
- Fresh water and Bunkers are available. However, these may be arranged through the ship's agent.
- Vessels are expected to arrive with clean ballast, as there are limited shore ballast reception facilities.
- Ballasted water containing chemicals and/or waste incompatible with the shore water effluent treatment plant must not be discharged ashore.
- Clean ballast water, and water from segregated ballast tank may be discharged overboard subject to the approval of the Port Authority and the Company. Ballast water from non-
 - Segregated ballast tank shall either be retained on board or discharged into Company tankage.
 - Slop and waste from vessel tanks may be discharged to the shore reception facility However, ship must be inform to Terminal before berthing at least 7 days and must be declaration of kind, hazard, quantity, quality or any information which Terminal require for consideration and prepare Terminal facilities.

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1. Definitions

1.1 Approved equipment

Only tested and/or approved equipment (by either government agencies or classification society) is allowed for operation in IRPC port. This is compulsory for safety in hazardous environment.

1.2 Flammable

Capability of being ignited, and burning

1.3 Loading Master

The Loading master is appointed by the IRPC Port include his deputy and assistants.

1.4 Hot work or Heating

Work involving sources of ignition or temperatures sufficiently high to cause the ignition of a flammable gas mixture. This includes any work requiring the use of welding, burning or soldering equipment, blow torches, some power driven tools, portable electrical equipment which is not intrinsically safe or contained within an explosion proof housing, sand blasting, or internal combustion engines.

1.5 Inert Condition

A condition in which the oxygen content throughout the atmosphere of a tank has been reduced to 8 per cent or less by volume by the addition of inert gas.

1.6 Intrinsically safe

An electrical circuit or part of a circuit is intrinsically safe if any spark or thermal effect produced normally (i.e. breaking or closing the circuit) or accidentally (e.g. by short circuit or earth fault) is incapable, under prescribed test conditions, of igniting a prescribed gas mixture.

1.7 Main deck

The main deck of a tanker is the steel plating forming the top of the cargo tanks, cofferdams and pump rooms. For the purpose of these regulations, the main deck shall be deemed to include a weather deck if fitted, and the structure, fittings and insulation of cargo tanks stated partially or totally above the main deck.

1.8 IRPC Port Manager

The person is appointed by the company as the senior representative of IRPC or his authorized representatives.

1.9 Master

The Master shall be understood to mean the Master or his duly authorized deputy or any person who for the time being is in charge of the vessel.

1.10 Naked lights

Unconfined flames and fires, exposed incandescent material, lamps and electrical equipment of a non-approved pattern. Equipment likely to cause sparking shall be treated as naked lights.

1.11 OCIMF

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Oil Companies International Marine Forum.

1.12 Operations

The loading , discharging and transferring of petroleum and chemicals, ballasting, de-ballasting, bunkering, tank cleaning, purging and gas freeing.

1.13 Regulation

The regulation is contained this document, amendment, and modification from time to time attached hereto and made part thereof.

1.14 Responsible Ship's Officer

The Master or an Officer who was delegated responsibility for any operation or duty.

1.15 Shift Supervisor

The person who was appointed by the Company to takes responsibility for an operation and/or duty at the IRPC Terminal.

1.16 Terminal

IRPC Terminal.

1.17 The Company

IRPC Public Company Limited.

1.18 Tanker

A ship which the greater part of the cargo space is constructed or adapted for the transportation of petroleum and or chemicals.

1.19 Vessel

Any ship, dredger, craft or other floating navigable object.

2. Application

Regulations contained in this document will be applied within the Restricted Area and other areas associated with the jetties.

3. Conditions of acceptance

3.1 Berthing

Vessel will normally berth when it has been determined by the Shift Supervisor when a berth and the nominated cargo and/or tank are available.

3.2 Time alongside

For vessels loading and/or discharging, time will be count from all lines fast and gangway on board (Once the notice of Readiness was signed off) to last line let go. However, the time will not be count if any delay cause by either weather conditions and/or traffic controls.

3.3 Removal of vessel

The Company reserves the right to suspend operations and may require the removal of

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vessel from a jetty for:

- Exceeding reasonable berth time. Such right shall apply before the expiry of the period if the Company establishes beyond reasonable doubt that, due to vessel's fault, operations are unlikely to be completed within the period.

- Flagrant or continued disregard of Regulations.

- Unsatisfactory ship equipment, crew performance or operations that in the opinion of the Company present a hazard to the Company's premises, personnel, operations or the vessel.

- Failure to utilize satisfactorily the available jetty facilities and in the opinion of the Company, constitutes an unacceptable constraint on the Company's operations.

- In case of emergency.

3.4 Costs incurred

The Company shall not be liable for any costs incurred by a vessel, its Owners, Operators, Charterers, Agents or others as a result of:

- Refusal to load all or part of the nominated quantity.

- Delay to or suspension of loading.

- Overloading and subsequent correction.

- Requirement to vacate a jetty.

3.5 Overloading

The Company reserves the right to monitor the loading of any vessel to ensure compliance with International Load Line Regulations and to notify the appropriate Authority in the event of contravention.

3.6 Pollution

Charges will be levied against a vessel in respect of costs incurred for manpower, equipment and supplies which may be used or mobilized in readiness to contain or remove oil or other pollutants spilled, or caused to be spilled, by that vessel.

4. Arrival

4.1 Information Exchange

Prior to, or on arrival at the Terminal, the Master shall discuss with the company:-

- Origin and quantity of ballast and whether it is to be retained discharged overboard or discharged ashore.

- Quality issues, with regard to any hazardous characteristics of the petroleum on board or previous petroleum cargo carried.

- Quantity, property, and ordering of the petroleum will be loaded or discharged.

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- Ship capacity, shore loading, discharge rates, and operation pressure.
- Location of manifold relative to the bow, side, height above deck and distance between connections.
- Number, size and material of liquid and vapor manifold connections to be utilized.
- Defects in ship and/or equipment which may affect to performance or maneuverability.
- Details of crew, ad expected visitors while in port. Method of storing, if applicable.
- Whether Crude Oil washing is to be undertaken whilst alongside.
- Any other concern information of the vessel regarding safe operation.

4.2 Mooring

- Unauthorized personnel are not allowed on the berth during the mooring or unmooring.
- It is prohibited to moor a vessel at the terminal without the permission an approval of the Manager or the berthing master
- Under adverse bad weather condition, Shift Supervisor, Port Controller, and Master of a vessel may give command to terminate operation.
- The Master shall ensure that the vessel is secured alongside with proper ropes and/or wires. Mooring lines of the same material shall be used for all head and stem, and breast lines.
- A maximum of two lines need to be secured to any one mooring bollard or quick releasing hook on the Jetty. Self tensioning winches must not be used in automatic mode and winch brakes must be kept hardened up except when moorings are being tended.
- Mooring lines used in any particular direction of service (head/stern lines, breast lines, spring lines) shall be of similar breaking strength, elasticity and material, Under no circumstances will a mixture of wire and synthetic ropes in the same direction of service or to the same dolphin be acceptable except mooring additional to the requirements.
- Mooring wires or ropes shall be secured with the proper vessel and/or provided anchorage. It is not acceptable to turn up mooring line at the drum end.
- Mooring need to be observed carefully to control vessel movement. The supervisor shall suspend the operation of the mooring, which inadequate handling
- Towing wire must be provided properly to vessel size and it should be rigged and secured with offshore bow, and quarter by towing eyes at above of water level. Sufficient slack wire should be maintained on deck for an emergency.
- Berth and Un-berth operation is prohibited if wind speed more than 20 knots and wave height more than 2 meters.
-

5. Access

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5.1 Personnel Access to Restricted area

- The Company and Port Regulations require that only authorize persons shall be allowed access to the Terminal and they must comply with any restrictions place upon them.
- Person appears to be affected by drugged or alcohol will be refused to access the Terminal.
- The Master shall provide the company list of crews and visitors before their appearance for the shore gate pass. The pass will be provided to individual for entering the terminal.
- Officials of the Company and Port Authority shall have the right to board a vessel at any time for validation.
- Visitors are not allowed to board any vessel unless permission from the Master and Shift Supervisor. And visitors are under the Master responsibility. The ship's Master (via ship's agent) shall arrange a list of visitor and notice in advance to terminal prior vessel alongside. Failure to comply with this requirement, the ship will not be allowed to enter the terminal.
- Visitor and/or crew member are not allowed to walk along the terminal area. And the Terminal would provide vehicle to serve from terminal to main gate.

5.2 Ship's Gangway

In case of shore gangway not applicable, the vessel need to provide a suitable gangway for safe access, properly rigged with side rails, safety net and lifebuoy, and ensure that during night time while using the gangway. In the case of excessive freeboard, the means of access/egress shall include an upper platform and bulwark ladder for safety access to the ship's deck.

5.3 Emergency Escape Route

- In case of regular access is not available, the vessel (master) must ensure alternative escape off the vessel is provided.
- In case of emergence evacuation, the assembly points are located at the end of wharf no.2A and Security Gate.

5.4 Vehicles

- Vehicle is not allowed to enter the Terminal without permission.
- Vehicle will normally not allowed to enter the pier, and Jetty Head without permission. And a hot work permit will be issued and gas test will be conducted every time, prior vehicle access.
- No vehicle may be parked so as to restrict free access along roadways to the pier and Jetty heads or to any safety equipment. The vehicle must be left unlocked with the engine switched off and the keys in the ignition when unattended.

6. Safety and Planning

6.1 Operations

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Operations shall not commence until :-

6.1.1 Acknowledgement of Regulations

The Master has signed a letter of acknowledgment of the Regulations.

6.1.2 Safety Checklist

The Master and Supervisor have jointly completed the Ship/Shore Safety Checklist.

6.1.3 Procedure and Communication

The Master and Supervisor have confirmed in writing that all relevant valves aboard and ashore are properly set. They also need to agree on operation and communication procedures, and will be adhered to:

- Loading rate.

The Master has confirmed in writing that the agreed loading rates are consistent with the design capability of the vessel having due regard to the proper control of the operation.

- Inert gas system (IGS).

Vessel with approved IG system is required to oxygen content 8% or below by volume in the tank at all time while at the berth.

- Operation :

The Company will not allow any operation on vessel that fitted with an inert gas system while handling petroleum product and/or ballast. Unless it is satisfied that the system is fully operational and all cargo tanks are inerted with oxygen content 8% or below by volume.

- Personal Protection Equipment (PPE).

The ship's crew required to wear appropriate PPE during working on ship's deck through out vessel stay within ITPC premises which consist of long-sleeved shirt or cover all, safety glasses, safety helmet, safety shoes and proper gloves.

6.2 Notices

6.2.1 Gangway

Notification in the English and other languages must be posted obviously on board and vessel access points. The message is the following;

<p>WARNING NO NAKED LIGHTS NO SMOKING NO UNAUTHORIZED PERSONS</p>

6.2.2 Fire

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The company is required to provide Fire Notification and ~~Notice supplied by the Company~~ shall be displayed in prominent position within the accommodation.

6.2.3 Smoking

The Smoking Notification shall be displayed in prominent positions within the accommodation.

7. Emergency Actions

7.1 Procedure

Upon arrival at the Terminal, the Master and Shore Representative shall discuss for emergency response if any. This shall include procedure and communication. In the event emergency, staff shall request assistance from; Police, Fire Brigade, and Ambulance via Loading master, IRRRC VHF Radio Channel 12,13,16.

The Master is responsible to ensure that on-board crew understand shore fire fighting arrangement/protocol.

7.2 Fire precautions

The vessel's fighting appliances, including main and emergency fire pumps shall be made ready for immediate use. At least two fire hoses, fitted with water jet/fog nozzles shall be uncoiled and connected to the fire main on the main deck near the manifold.

7.3 International shore fire connection

- An international shore fire connection shall be connected to the ship's fire main in the vicinity of the gangway. At least two portable fire extinguishers shall be placed adjacent to the ship's manifold.

7.4 Raising the alarm

- Should fire break out on the vessel, the master or responsible officer shall make an immediate signal by prolonged sounding of the ship's whistle and by sounding the ship's fire alarm. The Berthing master shall be alerted immediately.

8. Avoidance of Oil Pollution

8.1 Discharge

No petroleum shall be discharged or allowed to escapes overboard from any vessel both in and nearby the Terminal.

8.2 Ballast water

The Company and/or Port Authority permit discharge overboard of segregated ballast and clean ballast water subject to inspection and approval. Apart from above, all ballast water shall be retained on board or discharged via the ballast water system into the Company's tankage.

8.3 Waste water

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Wastewater shall be treated at the Refinery Effluent Treatment Plant. Tankers are prohibited from pumping untreated wastewater (including swage and sanitary waste) to the sea whilst berthed, and/or nearby terminal, and/or shoreline. Recently, IRPC is not accepting wastewater at all.

8.4 Scuppers

During operations, all vessels' scuppers shall be plugged and no leak or spill on board. The spillage is allowed overboard and shall be swept. Swabs and or sawdust used for mopping up spillage must be brought ashore for destruction.

Vessels fitted with Scupper Plugs must cement to ensure that no leakage overboard through the scupper in case of overflow on the deck.

During heavy rainfall, deck areas may be drained by slightly loosening the aftermost scupper. Crew must ensure that no oil and/or oily sheen escape overboard during this operation.

8.5 Bunkering

The OCIMF Bunker Checklist must be completed by the Master and Supervisor prior to any transferring of bunker.

Vessels are not permitted to transfer bunkers internally while alongside the berth including bunker transferring from bulk tanks to day/service tanks.

Vessels are permitted to transfer bunkers by approved truck only and must contact through Ship Local Agent.

8.6 Spillage

Any leakage and/or spillage must be reported immediately to the Control room, and the operation will be suspended until the leakage or spillage is stopped and complete cleaned up operation which will be considered by the Supervisor. The Supervisor may mobilize resources to response the situation on behalf of the Master.

9. Avoidance of Air Pollution

9.1 Funnel Smoke

Boiler tube blowing is prohibited and must be taken to eliminate excessive smoke and sparking from funnels.

9.2 Emission Control

Emission from cargo tank into Atmosphere is not allowed. The vapor in cargo tank must go through the P/V Valve system and safety relief valve system.

10. Conditions to be Observe During Operations

10.1 Safety precaution during operation

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Operations shall be conducted in accordance with the international Safety Guide for Tankers and Terminals and the international Chamber of Shipping Tanker Safety Guide for Chemicals and Liquefied Petroleum Gasses, as appropriate. In particular, the following will apply :

10.2 Manning

Sufficient personnel under the supervision of a responsible officer shall remain on board at all time to control routine operations and any emergency situations.

10.3 Communication

A responsible officer with good command of the English language must be on watch, on deck or in the Cargo Control Room at all time for supervising on Cargo/Ballast Handling operations. The terminal will supply each vessel, against receipt, with a portable VHF radio for communication with the Loading Master. The Responsible Ship's Officer must use the agreed ship/shore communication channel throughout cargo operations. A responsible staff of the tanker's crew must follow Supervisor's directions and take action on his responsible. The officer shall be stationed at the vessel's manifold at all times.

10.4 Doors, ports and windows

All doors, ports and windows in the amidships accommodation shall be kept closed. Outside-room door is not allowed for screening. If doors have to be opened for access/egress they should be closed immediately after use.

10.5 Tank lids and hatches

Cargo tank lids and bunker hatches shall be kept closed and secured at all time.

10.6 Hose connections

Cargo and bunker manifold connections should be fully bolted at all time. Unused connections should, in addition, be fully blanked off.

10.7 Pump room

The pump room ventilation system must be active at all time and the pump room environment must be maintained in a good condition for safety reason and it should be inspected every hour to ensure that no ingress of oil into the pump room bilge.

Each inspection will be recorded in the vessel's Deck Logbook.

10.8 Ventilator

Ventilator should be deep trimmed to prevent the entry of petroleum gas, particularly on tanker which depends on natural ventilation. The ventilator should be covered, plugged, or closed if any petroleum gas be able to enter the pump room.

10.9 Air conditioning and mechanical ventilation systems

Intakes for air conditioning or mechanical ventilation systems should be adjusted to prevent the entry of petroleum gas into the accommodation or machinery spaces, preferably by recirculation of the air inside the

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enclosed space. If at any time it is suspected that gas is being drawn into the accommodation, the air conditioning and mechanical ventilation systems should be stopped and the intakes covered or closed.

10.10 Window type air conditioning units

Window type air conditioning units which are not certified for using in the presence of flammable gas or bring air in from outside, the superstructure must be electrically disconnected. and external ventilators or intakes covered or closed.

10.11 Closed operation

Loading, discharging, ballasting or de-ballasting must be conducted in a closed mode which does not permit the gauging and sampling of cargo tanks. Using a manual method via sighting or ullaging ports or other openings, causing a emission of gas to atmosphere.

10.12 Gas evolution

Loading shall be stopped or reduce rate if there is an unusual evolution and accumulation of gas.

10.13 Overboard discharge valve

Overboard discharge valves connected to the cargo and bilge water system will be sealed on arrival. Except in an emergency, seals may be removed with the permission of the Supervisor and in his presence.

10.14 Prescribed signals

Unless alternative signals are required by the Port Authority the vessel must by day fly flag "B" of the international Code and by night exhibit an all round red light.

10.15 Change in operation

The Master shall give 15 minutes verbal notice to the Supervisor before any alteration to, or completion of, any operation. Any major deviation from the agreed cargo plan shall be recorded in writing to avoid confusion.

10.16 Weather precautions

Operation shall be suspended if in the event of electrical storm, periods of high and/or strong wind. This will be considered and judged by either the ship's responsible officer or the Supervisor. While tank is openings, cargo valves and valves in the gas line vent shall then be closed.

10.17 Crude Oil washing, tank cleaning and gas freeing

Crude Oil washing, tank cleaning and gas freeing of cargo tanks (including inert gas purging) need an approval letter from the Loading Master. Permission will be subjected to berth availability, provided that all Safety and operational requirements need to be provided as determined by the Supervisor. It needs to be met safety and operational requirements in accordance with the International Safety Guide for Oil Tankers and Terminals.

10.18 Stores handling

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The handling any form of packed or general cargo will be subject to the specific written approval by the Supervisor. The item which be able to handle by hand may carry through the ship's gangway. Metallic object or package to be wrapped properly suitably wrapped to prevent the generation of sparks. During the handling package, access to and from the ship shall not be obstructed. Major items of ship's stores may be handled during operation provided that :

1. Petroleum with a flash point greater than 60°C is being handled.
2. Prior approval has been given by the Shift Supervisor or Manager.
3. Operations are not affected.
4. Stores are delivered is not allowed.

11. Inert Gas System

11.1 Operation

The Company will not allow operation on any vessel that fitted with an inert gas system when handling petroleum product and/or ballast unless it is satisfied that the system is fully operation and all cargo tank is inerted with oxygen content 8% or below by volume.

Any venting from cargo tank is not allowed. The vapor in cargo tank must be controlled by the P/V Valve system and safety relief valve system.

11.2 Effectiveness

A positive pressure above atmospheric and oxygen content of 8% or less must be maintained in the cargo and ballast space (other than segregated ballast tanks) throughout operation.

11.3 Failure

In the event of failure of the inert gas system, it is the responsibility of the Master to suspend operations immediately and notify the Supervisor. Operation shall not be restarted until the system is inspection completely.

12. Control of Ignition Sources

12.1 Smoking

Smoking is prohibited in the Terminal and on vessel within the Restricted Area, except as herein defined.

- Smoking is strictly prohibited on board vessels alongside a berth except in the two areas which defined by the Master and Loading Master. The two locations shall be situated inside the accommodation, abaft the cargo tanks and no doors or ports opening directly on to or above the main deck.
- Smoking notification for designed room shall be displayed on board whilst the vessel is alongside.
- The Loading Master may, when circumstances warrant, prohibit smoking altogether.

12.2 Matches and lighters

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The carrying and use of matches and lighters is prohibited except an approval by the Shift Supervisor for specific purpose. Where the carrying or use of matches is permitted such matches shall be of the safety type. The staff must handle matches and lighters with care.

12.3 Prevention of sparks

Opening and closing of hatches, connecting and disconnecting loading arms and any other operation on deck using metal instruments shall be carried out in a manner that avoids the generation of sparks.

12.4 Radio transmitters

A vessel's radio station transmission equipment, except low energy transmitters such as are used for satellite and VHF communication, shall not be used in the Restricted Area and aerials shall be earthed.

12.5 Portable VHF/VHF sets, lamps and hand lamps

Using portable VHF/VHF sets, lamps shall be of need an approval. The use of portable electric lamps and equipment on flexible cables is prohibited within the cargo tanks and adjacent spaces over the tank deck.

12.6 Portable telecommunications systems

The use of portable telecommunications systems is prohibited within the Restricted Area.

12.7 Photograph

Photography is prohibited unless authorized by the Manager and if necessary a hot work permit issued.

12.8 Galley stoves

The use of galley stoves and other cooking equipment need a permission from the Master and Loading Master.

12.9 Movement of tugs and other craft

During operation, no vessel or small craft shall be allowed alongside the vessel unless approval by the Supervisor and agree with the Master. When tug and/or other craft are alongside a vessel, all cargo system must be stop.

12.10 Repair work

Repair work in hot or cold work or the use of naked light is prohibited unless the permission letter from the Manager. Repair work include, but is not restricted to, boiler tube cleaning, chipping and scraping, hull painting, testing and servicing of electrical equipment (including radar, radio and domestic electrical equipment). If repair operation is approved, the detail of specified repairs, method statement and a list of shore workmen employed on a vessel must be given to the Supervisor before start repairing. If repair work period is impact to immobilization of the vessel's main engines, the Supervisor shall be notified the actual beginning and completion period of time.