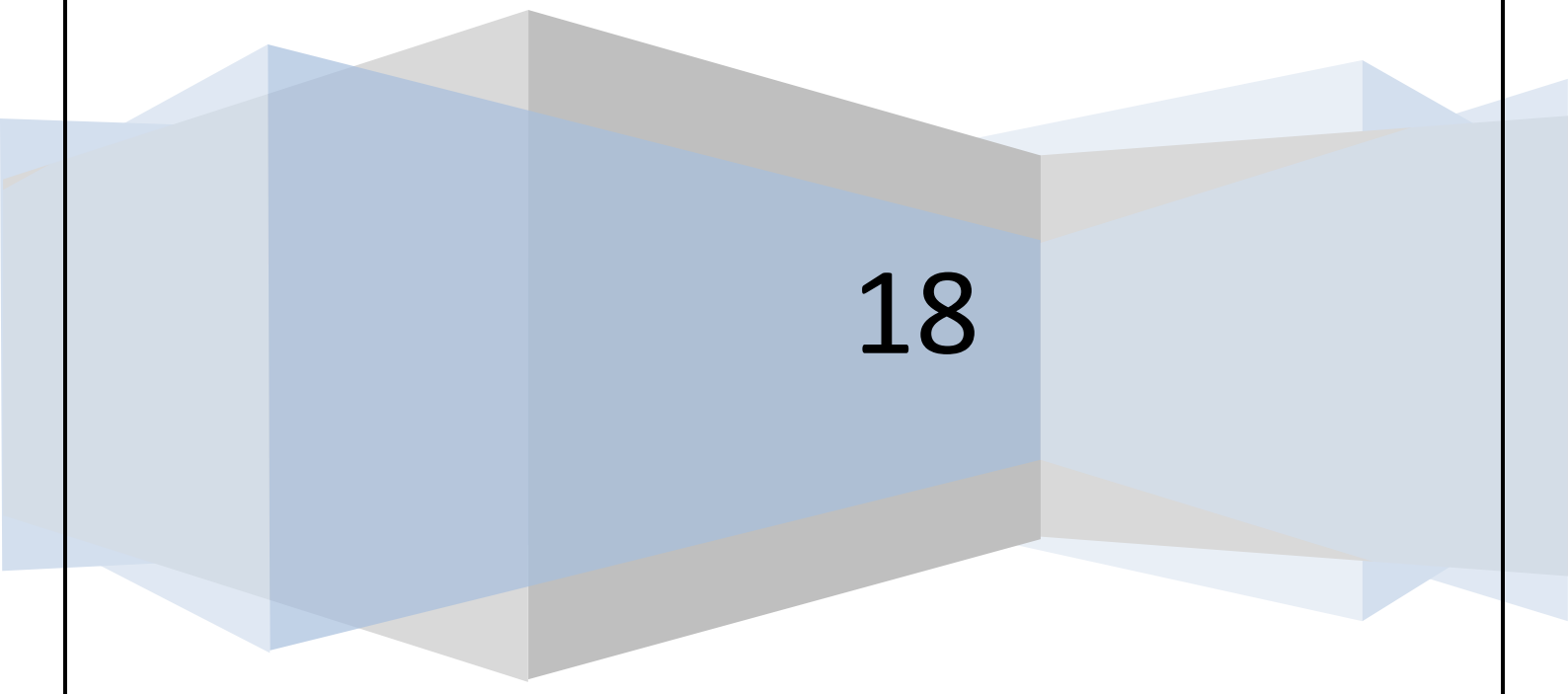
Jordan Industrial Ports Company

JIPC Terminal Guideline



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JIPC Terminal Guideline

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Contents

1 Introduction

Jordan Industrial ports company (JIPC), Jordan's premier gateway for international fertilizer commerce. Established in 2009, strategically located in Aqaba, 22km south of downtown Aqaba, the Port encompasses **23,577** m square of land, 3 cargo Jetties. As an integrated fertilizer commerce hub offering sea and land connectivity, JIPC plays a vital role in the Jordan's economy.

Jordan Industrial Ports Company is a joint venture between Arab Potash Company and Jordan Phosphate Mines Company, where Aqaba Development Company granted the right to develop, operate and upgrade the industrial ports to increase Terminal capacity of dry and liquid bulk materials imports and exports, to cope with APC and JPMC and their affiliates for the next 30 years' expendables.

The Port is committed to provide its service to customers and stakeholders through maintaining industry-leading facilities, excellence and high safety and environmental awareness. Through 134 million JOD infrastructure investment program, efficiency and productivity will continue to increase.

JIPC's offers three fully serviced berths capable of handling dry and liquid bulk up to 9 million tons per year. The maximum port draft is 21m, and it's capable of serving Vessels up to 100,000 DWT.

JIPC Guideline introduces a comprehensive operations related data, associated with safety precautions during any performed operation on the Industrial terminal, whether it's related to dry or liquid bulk handling, all the data had been established taking into consideration JIPC's polices, local and international laws, terminal marine operations and terminal services

2 Marine Navigation

JIPC Location and coordinates:
Latitude: 29-31 North,
Longitude: 35-01 East
Admiralty chart: 8 and 801 Admiralty NP pilot Book: 64

East Jetty:
West Jetty:
North Jetty:
Navigation Light:

3 Time Zone:

GMT + 2 hours in (winter), 3 hours in (summer). UNCTAD Locoed: JO AQJ.

4 Radio Station:

JIPC radio station call sign is Jyothi Coastal Radio Station, operates 24 hours a day, transmits weather forecasts twice a day, and provides telephone and telegraph with Communications cover the Gulf of Aqaba, East Africa, the Indian Ocean, the Arabian Sea, the Mediterranean Sea and the Atlantic Ocean. GMDSS communication equipment coverage Al, A2 services to ships.

5 Anchorage Area:

Anchorage, pilotage, Towage, and mooring requirement or activities are according to JMA and APMSCO procedures and protocols.

6 Terminal Services

Refer to Industrial Terminal Services Charges List.

7 Existing Jetty

The Existing Industrial Jetty is a double-side berthing of bulk carriers and includes a seaward berth, West Berth, designed to accommodate solid bulk carriers up to 50,000 DWT and a landward berth, East Berth, for liquid bulk carriers up to 30,000 DWT.
The West Berth will be used for the import of bulk Sulphur and the export of bulk potash (MOP), fertilizer (NPK), di-ammonium phosphate (DAP).
The East Berth will be used to import liquid ammonia and to export liquid phosphoric acid (PA). The following table summarizes the main particulars of the maximum vessels expected at each berth,

Parameter	West Berth	East Berth
Vessel type	Solid bulk carrier	Liquid bulk carrier
Deadweight tonnage	50,000 DWT	30,000 DWT
Length Overall [LOA]	190.0 m	183.1 m
Length Between Perpendiculars [L_{BP}]	183.0 m	176.9 m
Beam [B]	32.3 m	32.2 m
Depth [D]	17.5 m	14.0 m
Loaded draught [T_L]	12.5 m	10.7 m
Ballast draught [T_B]	6.2 m	6.5 m

Table 01: Existing Jetty Max. Design vessels characteristics

7.1 Berth Layout

The jetty head is approximately 282 m long and 41 m wide with an additional mooring dolphin at the southern end connected by a catwalk. Berth orientation from north to longitudinal axis is 187º for West Berth and 7º for East Berth.

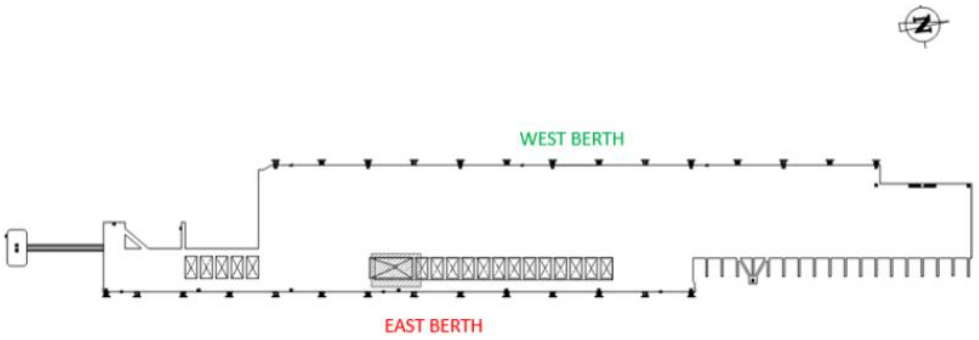

Figure 01: Berth Layout.

7.2 Bollards

The mooring points consist of twenty bollards of 100 t of capacity, eleven at the West Berth and nine at the East Berth. Eighteen bollards are located at the jetty head, ten at the West Berth and eight at the East Berth, whereas two bollards are located on the southern mooring dolphin. The bollards are T-head type, spaced 30 m. The following figure illustrate their main dimensions.

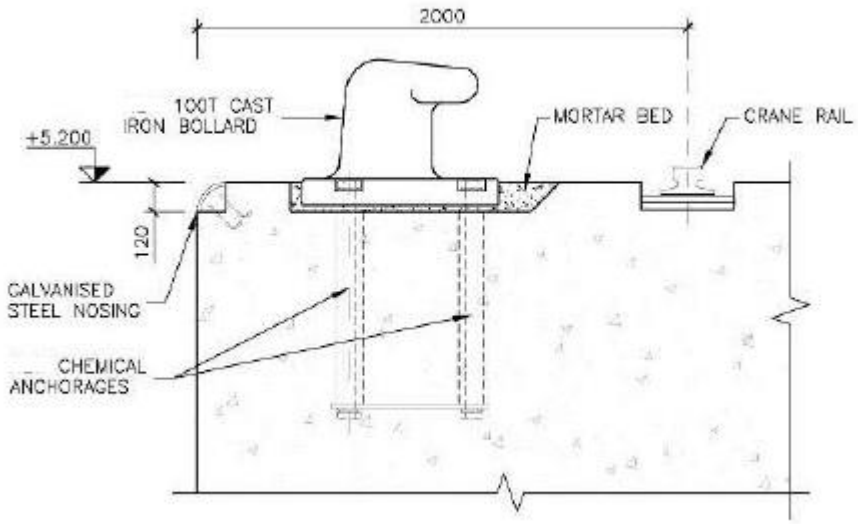

Figure 02: Bollard details.

7.3 FENDERS

The mooring points consist of fourteen fender units at the East Berth
Energy absorption: 821 kNm
Reaction force: 1,301 kN
The rated capacity of each fender unit corresponds to 52.5% of deflection

7.4 Marine Equipment Designation

The following figures illustrate the designation used for the West Berth and East Berth of The bollards and fenders; upper-case letters and lower-case letters, respectively.

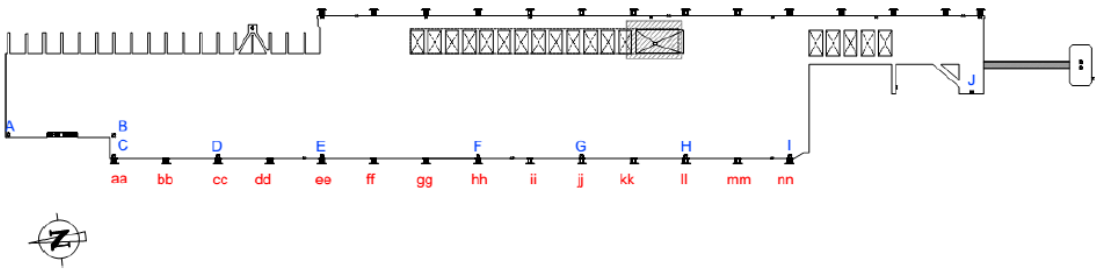

Figure 03: West Berth marine equipment designation

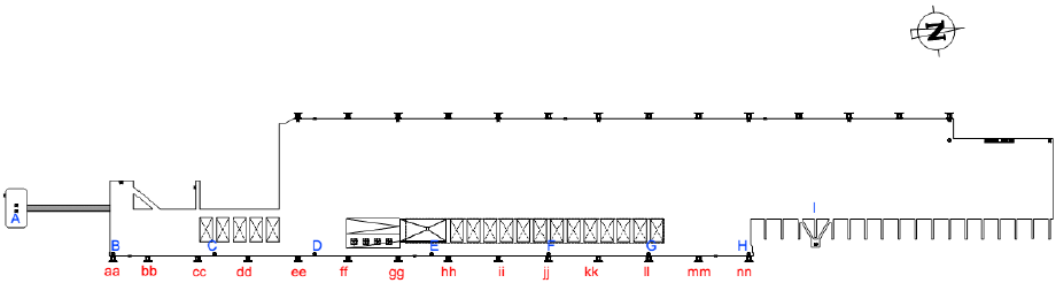

Figure 04: East Berth marine equipment designation

7.5 Mooring Layout

The following figures illustrate mooring arrangements for the design vessels.

7.6 West Berth Mooring Layout:

In below figure the design solid bulk carrier (DWT 50,000 t) is moored as symmetrically as possible. Six bollards (from C to I) are assumed to receive a pair of mooring lines from the design vessel.

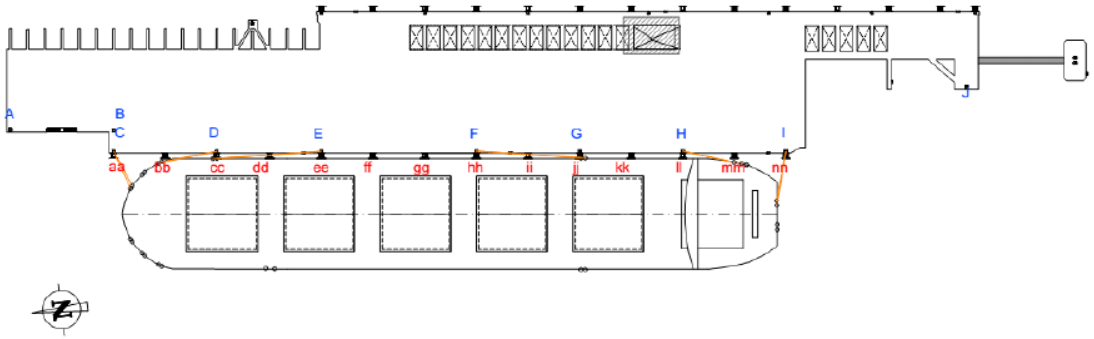

Figure 05: Mooring arrangement of the design solid bulk carrier (DWT 50,000 t) at West Berth.

7.7 East Berth Mooring Layout:

In below figure the design vessel is considered moored on port side, since it a common practice mooring layout for the operations at the East Berth. The design chemical tanker (30,000 DWT) is moored aligning its central manifold with the northern PA loading arm. Six bollards are assumed to receive a pair of mooring lines from the design vessel, bollards from B to H at the jetty head and bollard A at the southern mooring dolphin.

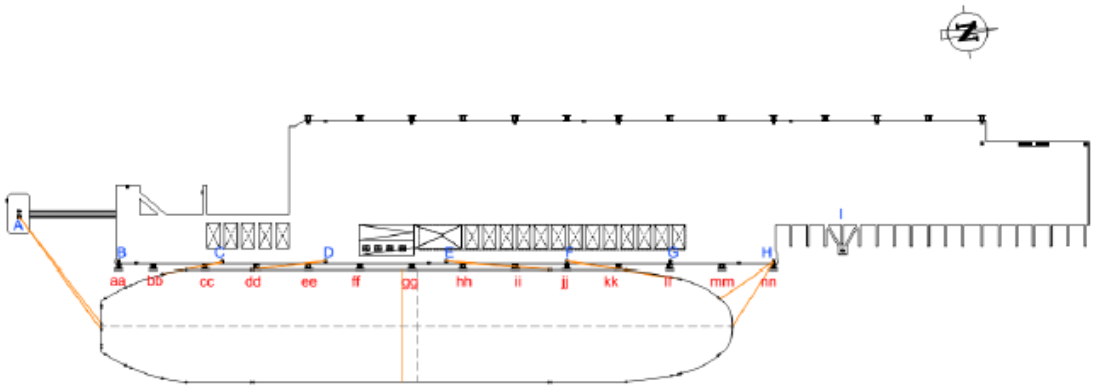

Figure 06: Mooring arrangement of the design chemical tanker carrier (DWT30,000 t) at East Berth

8 North Jetty (New Jetty)

The North (New) Dry Bulk Jetty is be able to accommodate bulk carriers ranging from 5,000 DWT to 100,000 DWT. The following table summarizes the principal characteristics of the maximum and minimum design vessels:

Parameter	Min. design vessel	Max. design vessel
Vessel type	Bulk Carrier	Bulk Carrier
Deadweight tonnage	5,000 t	100,000 t
Length Overall [LOA]	110 m	255 m
Length Between Perpendiculars [LBP]	100 m	245 m
Beam [B]	15.5 m	39.2 m
Depth [D]	8.6 m	21.0 m
Loaded draught [T_L]	6.2 m	15.2 m
Ballast draught [T_B]	4.0 m	7.1 m
Loaded displacement	6,900 t	118,000 t
Ballast displacement	4,300 t	50,300 t

Table 02: North Jetty Design vessels characteristics.

8.1 Berth Layout

North Jetty layout accommodate the bulk carriers being starboard side position as it's the most suitable mooring option.

North Jetty comprise the following main structures:

1. Main Jetty accommodate the waterside ship loader support structure, the fendering system and the bollards.
2. Landside Jetty accommodate the landside ship loader, the conveyor gallery support structure and tripper cars.
3. Perpendicular Access Bridges connecting the two jetties.
4. Approach Bridge linking the Landside Jetty to the shore.
5. Two Mooring Dolphins completing the jetty head: the existing Northern Mooring Dolphin, with two quick release hooks, is a shared facility between the existing Phosphate Rock Terminal and North Dry Bulk Jetty.

North Jetty equipped with fenders and bollards. Two double quick release hooks (QRH) are located on the independent mooring dolphins.

8.2 Mooring and Fendering System

8.2.1 Fenders

Fifteen super cone fenders type TCN 1600 H – grade C0 Prosertek is installed to absorb the berthing energy of the carriers. These fender units are able to deflect considerably under the mooring and berthing loads, with an energy absorption RPD of 1,440 kNm, returning to their original shape after unloading. The reaction force RPD of the fender is 1,739 kN corresponding to 72.0% of deflection. The following figure illustrate fender dimensional details. The super cone fenders location is shown in the figure below. The fender pitch varies between 8.75 m and 13.50 m.

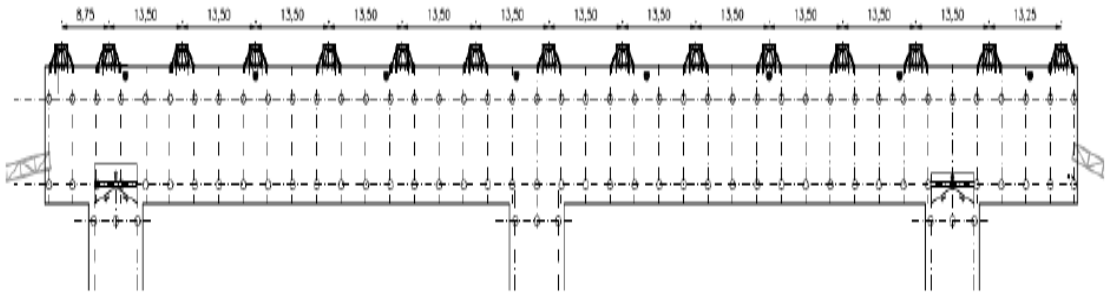

Figure 07: Fender location at Main Jetty

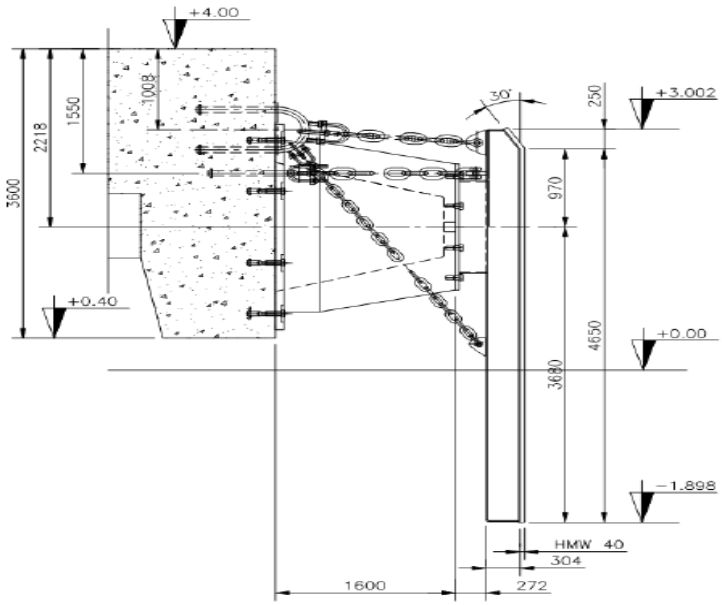

Figure 08: Fender dimensions.

8.2.2 Bollards and Mooring hooks

The mooring points consist of eight bollards of 150 t of capacity and two double quick-release hooks of 125 t of capacity per hook. The bollards are situated on the Main Jetty, along its length, spaced a maximum distance of 24 m. One quick release hook installed on the existing northern mooring dolphin and used for breast and head/stern line mooring. The second quick release hook placed on the new southern mooring dolphin.

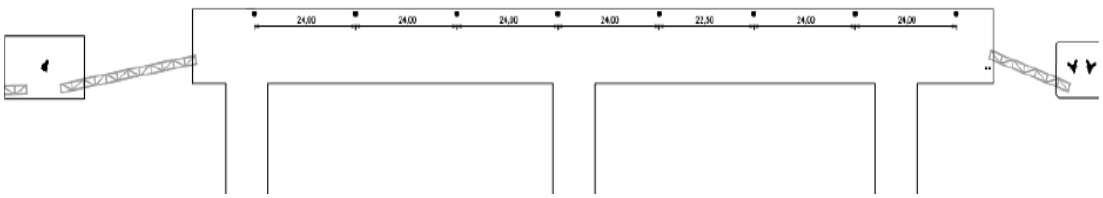

Figure 09: QRH and bollard location.

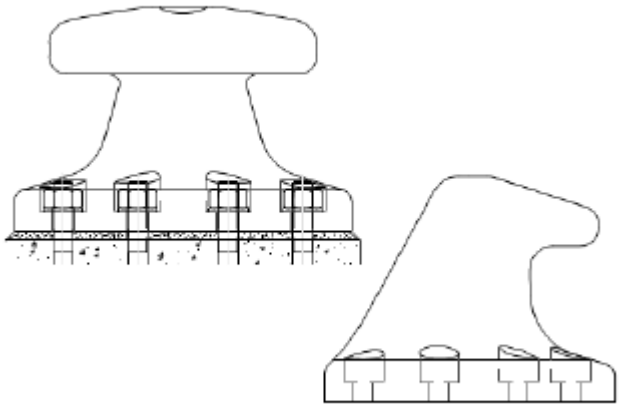

Figure 10: Bollards 150 t

8.2.3 Marine Equipment Designation

Bollards and hooks designations are indicated in upper-case letters, whereas fender designations are given in lower-case letters.

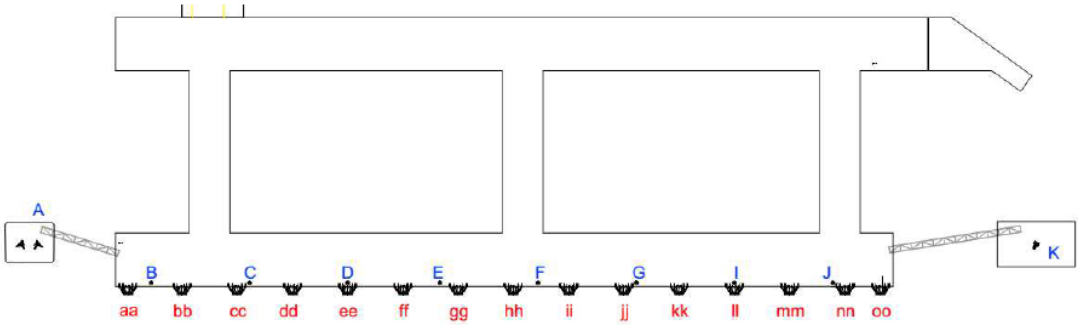

Figure 11: Marine equipment designation

8.2.4 Mooring Layout

The adopted mooring arrangement for the representative bulk carriers shown in the following figures. The design bulk carriers are moored as symmetrically as possible by means of breast and head/stern lines to restrict the lateral movements and spring lines to restrain longitudinal excursions. It can be noticed that, for the largest design vessels, the breast lines run quite perpendicular to the ship. For the smallest design vessels, the mooring arrangement incorporates head and stern lines with a prevalent longitudinal orientation and some lateral component to restrain lateral environmental forces. A total of twelve mooring lines are considered for the vessel mooring. Six bollards of 150 t of capacity are assumed to receive each pair of mooring lines from the smallest bulk carrier, whereas, in the case of the

maximum ship, four bollards of 150 t of capacity are used along with the two quick release hooks.

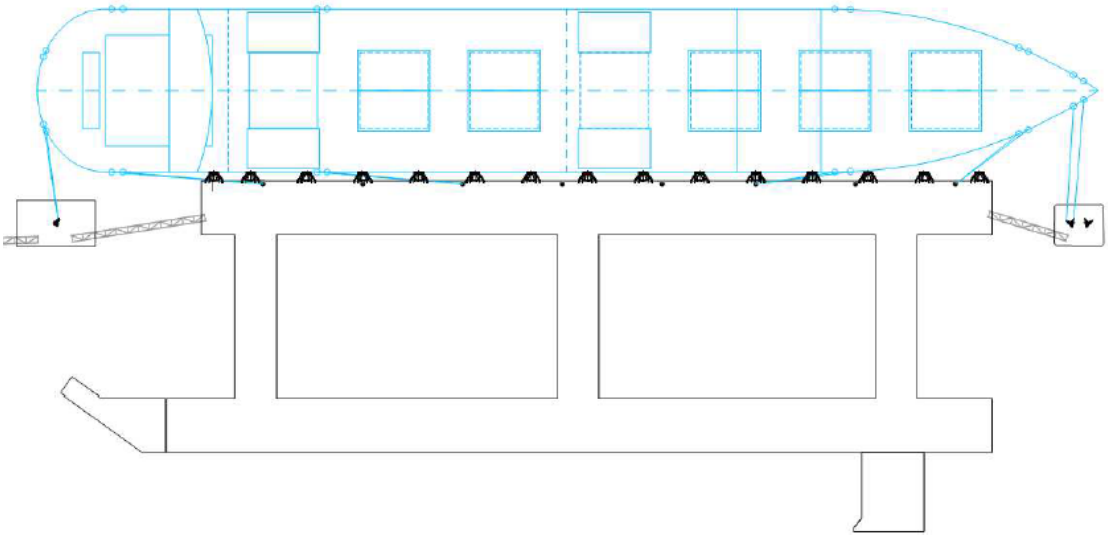

Figure 12: Bulk carrier 100,000 DWT starboard side moored.

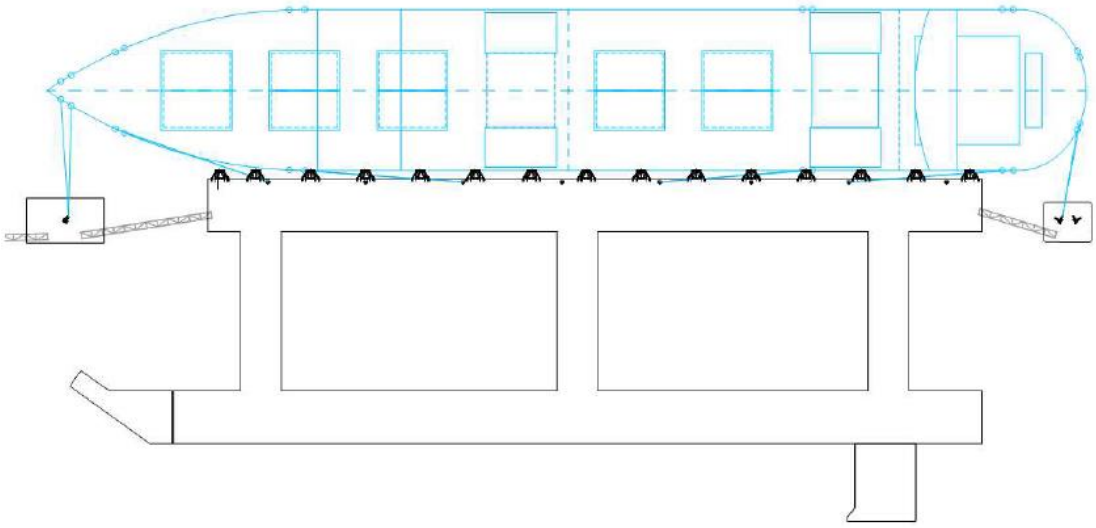

Figure 13: Bulk carrier 100,000 DWT port side moored.

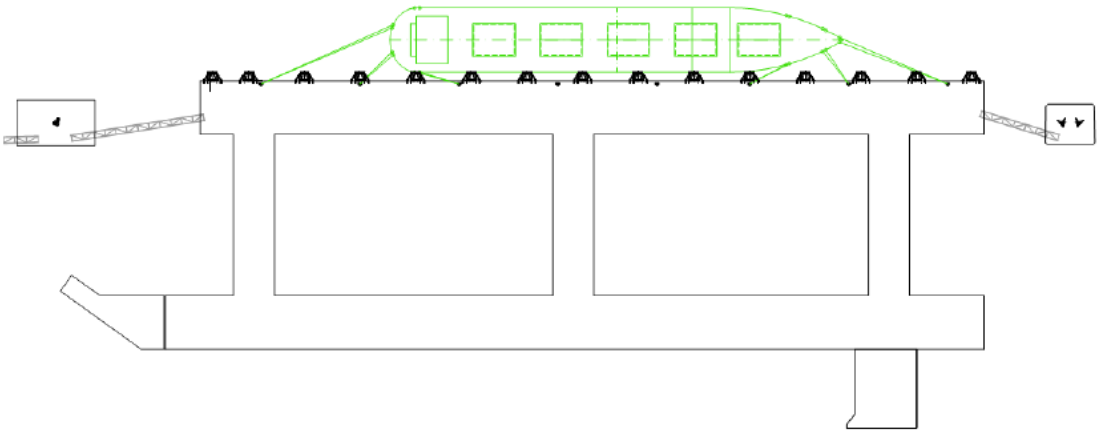

Figure 14: Bulk carrier 50,000 DWT starboard side moored.

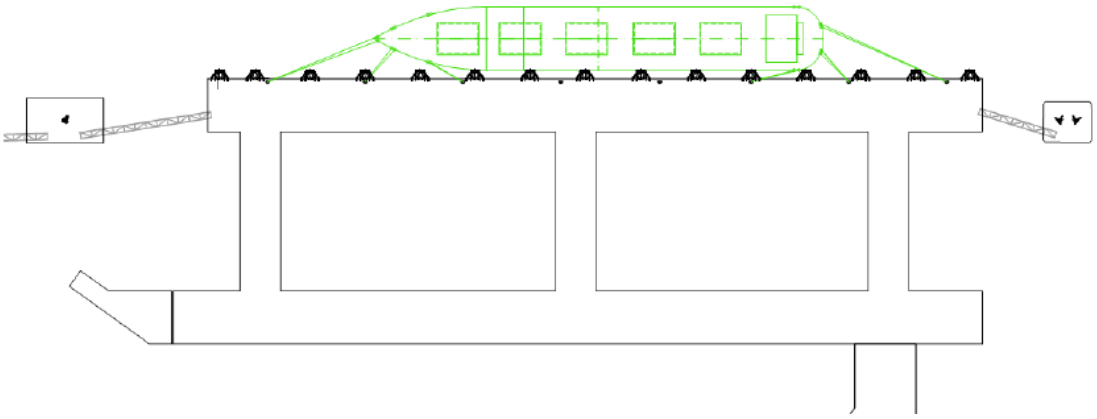

Figure 15: Bulk carrier 50,000 DWT port side moored

9 Maritime Climate Conditions

The maritime climate information for wind, wave, tide and current summarized in the following paragraphs.

9.1 Wind

The wind data-set consists of hourly average wind speeds reported every hour for the period of January 1989 to December 2009. The mean and maximum wind speeds are 6.21 m/s and 17.1 m/s respectively. Figure 16 provides a rose plot of the wind data-set and shows that the prevailing wind direction is from the North-Northwest (73% probability).

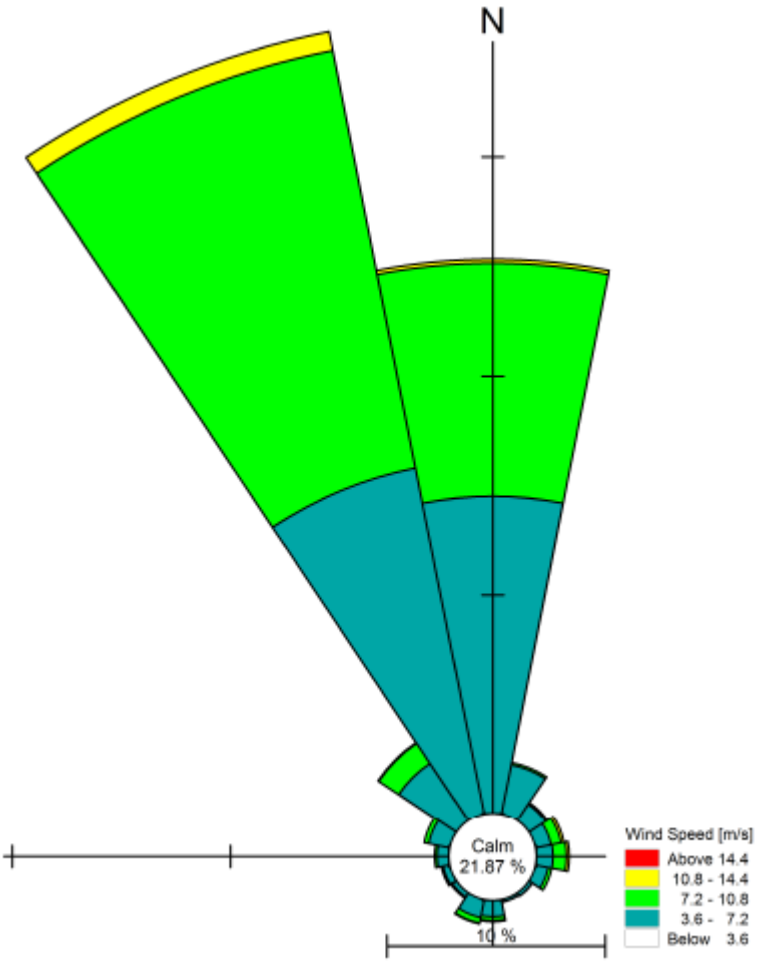

Figure 16: Wind rose at Industrial terminal

The vast majority of the speeds below 10 m/s. The wind rose below shows that the wind comes mainly from E and S sectors for the North Jetty.

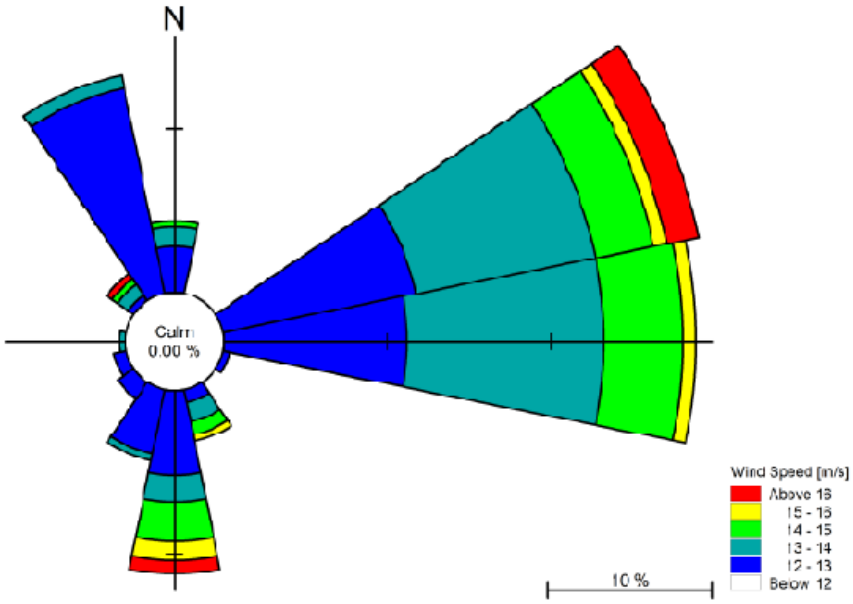

Figure 17: Wind rose considering W12 wind speed at North Dry Bulk Jetty.

9.2 Waves

The offshore wave climate is characterized by waves generated from the N and the NNW direction sectors. At the Industrial Jetty, propagated wave climate is characterized by waves generated from the NNW and the NW direction sectors, which differ from the offshore characteristics due to refraction. Figure 18 includes a wave rose for the offshore wave dataset and the one obtained at the Industrial Terminal.

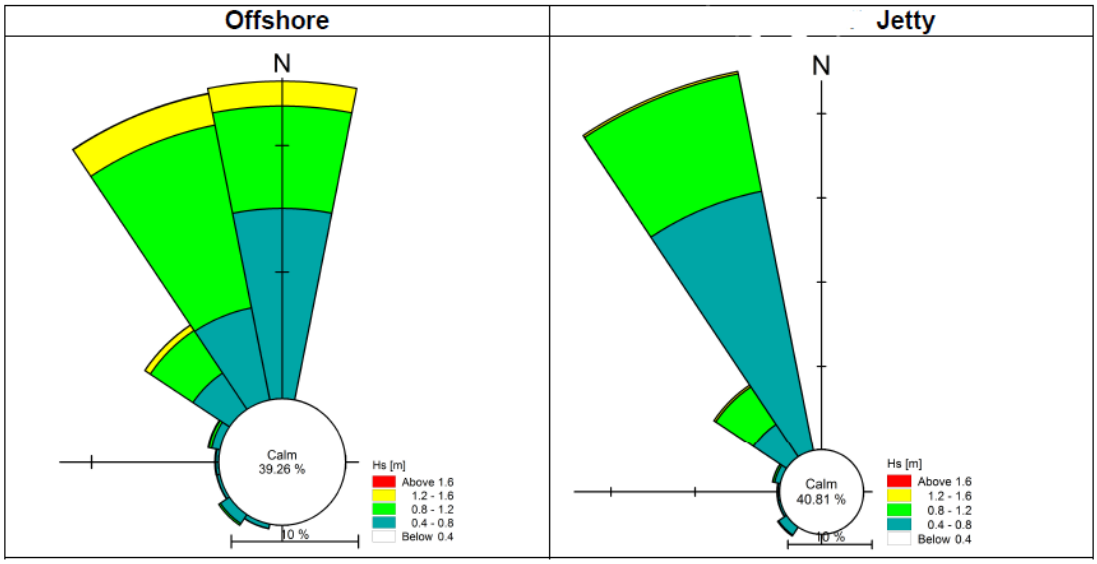

Figure 18: Wave Roses Offshore and at the Industrial Terminal

9.3 Current

Current velocity at Industrial Terminal was not considered, since it is not expected to have impacts on the dynamic moored vessel behavior due to its low magnitude.

9.4 Water Levels

The water level at the New Dry Bulk Jetty are directly related to tidal fluctuation. The tidal information is following summarized:

HAT	+ 1.50 meters	Highest Astronomical Tide
MHWS	+ 1.10 meters	Mean Spring High Water Level
MHWN	+ 0.90 meters	Mean Neaps High Water level
MSL	+ 0.70 meters	Mean Sea Level
MLWN	+ 0.50 meters	Mean Neaps Low Water level
MLWS	+ 0.30 meters	Mean Springs Low Water Level
LAT	0.00 meters	Lowest Low Astronomical Tide
CDL	0.00 meters	Chart Datum Level

10 Operational Limits

PIANC Criteria for Movements of Moored Ships in Harbours (PIANC, 1995) regarding safe mooring criteria are included in this section. The showen limits are referred to peak-to-peak values, except for sway, which is zero to peak.

10.1 Existing Jetty

The acceptable movements for surge, sway, yaw for solid bulk carriers, as well as the maximum amplitudes for surge and sway accepted by tankers with loading arms as cargo handling equipment are summarized in the table below.

Motion	PIANC (1995)	
	Solid bulk carrier	Liquid bulk carrier
Surge (m)	5	3
Sway (m)	2.5	3
Heave (m)	-	-
Yaw (°)	3	-
Pitch (°)	-	-
Roll (°)	-	-

Table 03: Maximum acceptable motion amplitudes of Existing Jetty

With regard to the mooring line and fender forces, the limiting values are as follows:

For the mooring lines, the maximum permissible tension load in synthetic ropes is set at 50% of the minimum breaking load (MBL).

In the case of the cell fenders, the maximum allowable deformation is 52.5% of the total length of the rubber unit.

MAXIMUM ACCEPTABLE FORCES (t)	
Mooring lines vessel - West Berth	35 t
Mooring lines vessel - East Berth	34 t
MAXIMUM ACCEPTABLE DEFORMATION (m)	
SC 1450 fender	0.76 m

Table 04: Maximum acceptable force & deformation of Existing Jetty

10.2 North (New) Jetty

The maximum motion amplitudes for bulk carriers with conveyor belt as cargo handling equipment are summarized in the table below.

Motion	PIANC (1995) and ROM 2.0-11 Bulk carriers
Surge (m)	5
Sway (m)	2.5
Heave (m)	-
Yaw (°)	3
Pitch (°)	-
Roll (°)	-

Table 04: Maximum acceptable motion amplitudes of North Jetty.

No limiting value for vessel roll is mentioned by PIANC guidelines for operating conditions. For bulk carriers stay at North berth, ROM 2.0-11 recommendations set the value of permissible roll at +/-4º. Concerning the mooring line and fender forces, the limiting values are as follows:

1. For the mooring lines, the maximum permissible tension load in synthetic ropes is 50% of the Minimum Breaking Load (MBL).
2. In the case of the cone fenders, the maximum allowable deformation is 72% of the total length of the fender.

MAXIMUM ACCEPTABLE FORCES (t)	
Mooring lines vessel of 5,000 DWT	25.0 t
Mooring lines vessel of 100,000 DWT	47.5 t
MAXIMUM ACCEPTABLE DEFORMATION (m)	
SCN 1600 fender	1.15 m

Table 05: Maximum acceptable force & deformation of North Jetty.

11 Regulation for Vessels

11.1 ISPS Code

That the security system and associated security equipment of the ship has been verified in accordance with section 19.1 of part A of the ISPS Code. That the verification showed that the security system and any associated security equipment of the ship is in all respect satisfactory and that the ship complies with the applicable requirements of chapter XI-2 of the convention and part A of the ISPS Code.

11.2 Entrance to JIPC Area

The gate access to the Port Area is controlled by Port Police Personnel. Port users need to obtain port pass to enter into port area. All visitors and/or service suppliers are legally bound to safety regulation including PPE wearing inside the terminal from the main gate.

Violators will be barred from entering the terminal. Supplies and ship stores delivered by vehicles to vessels at JIPC will grant access into JIPC Area with prior authorization from the terminal supervisor. Similarly, items taken out from port area shall be subject to scrutiny by JIPC security personnel and gate pass authorization by JIPC terminal supervisor is required.

11.3 Vessel Entry

All vessels calling Aqaba Port are subject to inspection according to international conventions & regulations.

Documents to be checked by PSC:

- Log book (retained by the port authorities during the vessel's stay).
- Tonnage certificates.
- Ship's registry certificate.
- All ships certificates on board.

11.4 Emergency Towing Wire

Emergency towing wires to be positioned on the seaside bow and quarter back ward. The aye of the wires should be maintained not more than 2 meters above the water line and adjusted during operations. They should be made fast on the ship's bits, while having sufficient slack on deck to provide towing length of 50 meters. Means should be provided to prevent the slack from accidentally running into the water, these means should be arranged that can easily be broken by a tug boat's crew.

11.5 Safe Access

The access of people between the shore and the vessels is through gangway. The responsibility to provide safe access to the vessel lies on the Master. A proper gangway must have safety net underneath and the gangway is secured to a rigid foundation. No shore personal shall board the vessel until access through the gangway has been declare safe by JIPC safety Officer.

11.6 Goods, Ship Spares, Ship Supplies

Transfer of goods, ship spares, and ship supplies only can take place before commencement or after completion of cargo transfer, nevertheless causing any delay on normal loading/discharging operation.

Deliveries of small quantities of stores, supplies or equipment parts that do not require special handling and that can be hand-carried by crew members up the gangway are allowed during daylight hours upon specific authorization by JIPC terminal supervisor.

11.7 Ship Readiness

The ship must be able to move under its own power at short notice. Any repairs or other that requires immobilization are not permitted while alongside the berth.

Should immobilization be necessary, written application, giving nature of repairs and the duration, should be made to the shift controller at least 24 hours before arrival. Whether permission is granted or not will depend on the prevailing situation at time of berthing and discretion of the shift controller.

11.8 Visitors

No visitors other than those people who have business with the vessel will be allowed on board unless approval has been granted by JIPC and the Master of the vessel. It is the responsibility of the Master to ensure that visitors comply with the terminal regulations during the vessel's stay at the terminal.

Terminal staff shall have the right to board any vessel at any time to ensure that these regulations are observed and shall have the right to stop operation in the event of contravention of any provision of the regulations.

11.9 Communication

For general communication:

1.	JIPC Terminal Supervisor on Duty	Mobile:0770810087 Tel:00962-03-2017461
2.	JIPC Head of Operations	Mobile:0776983762
3.	Pilot –VTS	VHF: Channel 16 -12 Mobile :0791698770
4.	JIPC HSSE Manager	Mobile: 0775424333 Tel: 00962-03-2017461

11.10 Working Equipment's, Vehicles & Tools

User wanted to bring in any equipment and tools into the terminal must obtain Permit from JIPC terminal supervisor. Only vehicles with safety precaution shall be allowed to enter the terminal with prior approval from JIPC terminal supervisor.

11.11 Waste Management

There are no disposal facilities available at the Terminal. The environmental legislation requires the producer of waste material, including hazardous wastes and oil from pollution incidents, to provide for the storage of such material.

The daily produced inoffensive waste could be disposed through JIPC appointed contractor. Agent for the vessel arrange through officer for such services.

11.12 Health Service

JIPC provides first aid ambulances and emergency health services, to all ships in the port.

Hospitals and doctors provide medical services for crew or passengers on-board, through arrangement with the agent.

11.13 Bunkering

Bunkering can only take place before commencement or after completion of cargo transfer, bunkering is allowed during cargo handling operation as long as not causing any delay on normal loading/discharging operation. For both cases, prior approval from JIPC terminal supervisor must first be obtained.

11.14 Prevention Pollution at the Sea

In the event of any spillage of oil from a vessel, irrespective of reasons of source, the Master shall be held responsible for all expenses involved in the cleaning up of such spillage.

12 Safety Regulations

Jordan Industrial Ports Company (JIPC) is committed to protecting the health and safety of all persons in the workplace including employees, contractors, customers and visitors. JIPC delivers this commitment through its Safety and Environment Management System that is integrated with all JIPC's organized activities related to services and people.

We will take all reasonable and practical steps to improve work safety conditions and priority will be given to areas of accident prevention and control, hazard control and removal, injury protection, health preservation, health promotion and rehabilitation.

As a minimum, JIPC is committed to comply with all occupational health and safety legislation and other voluntary standards applying to JIPC's operations.

Occupational Health and Safety is an individual and shared responsibility of all employees, contractors, customers and visitors. Acceptance of the following responsibilities is essential to success of the policy.

We are responsible for:

- Maintaining a healthy and safe workplace.
- Integration of occupational health and safety into all aspects of the workplace.
- Provide clear instructions and information, and adequate training, to ensure employees are competent to do their work
- The development, implementation and monitoring of an occupational health and safety system.

- Maintaining a risk management system to appropriately control risks in the workplace.

JIPC Employees Are Committed to:

- Working in a healthy and safe manner at all times.
- Encouraging others to work in a healthy and safe manner.
- Co-operating and supporting JIPC Management and the occupational health and safety representatives in promoting occupational health and safety in the workplace.
- Reporting and addressing unsafe conditions that comes to their attention.
- Being fit for work.

JIPC is morally and legally committed to maintaining Health, Security, Safety and Environment to the staff, end users, sub-contractor and the berthing ships along with all the services need.

13 Health:

- We manage business activities to keep health risks to a minimum.
- We provide a healthy working environment with the appropriate level of surveillance and support.
- We provide expert medical support to our people to ensure that appropriate health examinations and preventative medicines are provided.
- We promote good occupational health by ensuring compliance with regulatory requirements and by providing clear guidance and information through our health principles.

Health principles we will:

- Work according to applicable health laws, codes and regulations
- Promote and maintain a positive health culture
- Provide and maintain healthy working conditions
- Consult our people on matters affecting their health
- Assess and control the health risks arising from our work activities
- Strive to prevent work-related ill health
- Make appropriate medical care available at all work-sites

Safety:

- We operate a risk management approach to our activities whereby we identify hazards, assess the associated risks and then work to eliminate the hazards or reduce the risks to an acceptable level.

- Everyone who observes an unsafe situation or who feels it is not safe to continue with a task has a duty to intervene and stop the job. Such intervention will always be supported by JIPC Management.
- We are convinced that encouraging safe behavior and highlighting the importance of personal safety as a way of life will help to create a work environment where our people are safe and secure.
- Our safety culture and management are supported by the JIPC safety principles which include all safety training.

- **Jordan Industrial Ports Company safety principles will:**

  - Work according to applicable safety laws, codes and regulations
  - Promote and maintain a positive safety culture
  - Review every incident and implement actions to prevent future occurrence
  - Assess and control any safety risks arising from our work activities
  - Consult our people on matters affecting their safety
  - Provide and maintain safe work equipment and places of work
  - Control, use and store hazardous substances safely.

14 Security:

JIPC is absolutely committed to providing our people with secure arrangements for their work environment and for away from home activities such as travel and business trips. We operate security networks on both a regional and global basis to manage security issues, to develop and implement security plans and to monitor local security intelligence. It is our policy to engage with local communities and to be sensitive to any local community issues.

JIPC works in compliance with the International Ship and Port Facilities Security Code (ISPS), and we maintain ship and worksite security plans which are regularly tested.

JIPC maintains its effective security programs through compliance with international protocols, ships' flag-state rules, industry best practice and our own rules and procedures.
Security principles we will:

- Promote and maintain a positive security culture along with advance training
-
- - Assess and manage threats so that we can protect our people and assets
- - Take account of security issues in all aspects of our operations and planning
- - Issuing declaration of security (DOS) with all relevant ships flying under higher security level than the terminal regarding ISPS code

14.1 DECLARATION OF SECURITY

Jordan Industrial Ports Company

Name of Ship: ……

Port of Registry: ……

IMO Number: ……

Name of Port Facility: ……

This Declaration of Security is valid from …… until …… for the following activities

-
-
-

……
(list the activities with relevant details):

under the following security levels:

Security level(s) for the ship: ……

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

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

This form of Declaration of Security is for use between a ship and a port facility. If the Declaration of Security is to cover two ships, this
model should be appropriately modified.

	The affixing of the initials of the FSO or SSO under these columns indicates that the activity will be done, in accordance with the relevant approved plan, by:	
Activity	**The port facility**	**The ship**
Ensuring the performance of all security duties		
Monitoring restricted areas to ensure that only authorised personnel have access		
Controlling access to the port facility		
Controlling access to the ship		
Monitoring of the port facility, including berthing areas and areas surrounding the ship		
Monitoring of the ship, including berthing areas and areas surrounding the ship		
Handling of cargo		
Delivery of ship's stores		
Handling unaccompanied baggage		
Controlling the embarkation of persons and their effects		
Ensuring that security communication is readily available between the ship and the port facility		

The signatories to this agreement certify that security measures and arrangements for both the port facility and the ship during the specified activities meet the provisions of Chapter XI-2 and Part 'A' of the Code that will be implemented in accordance with the provisions already stipulated in their approved plan or the specific arrangements agreed to and set out in the attached annex.

Dated …… on the ……

In case of emergency, you have to contact immediately the following contact numbers:

PFSO	Deputy
Ahmad Halman	Mahmoud Bani Saker
0795319799	0798981133

14.2 Ship Shore Safety Checklist

The responsibility and accountability for the safe conduct of operations while a ship is at a terminal are shared jointly between the ship's Master and the Terminal Representative JIPC.
Before cargo or ballast operations commence, the Master, or his representative, and the Terminal Representative should:

- Agree in writing on the transfer procedures, including the maximum loading or unloading rates.
- Agree in writing on the action to be taken in the event of an emergency during cargo or ballast handling operations.
- Complete and sign the Ship/Shore Safety Check-List.
- Terminals will to issue an explanatory letter to the Masters of visiting ships advising them of the terminal's expectations regarding the 365 SAFETY MANAGEMENT © ICS/OCIMF/IAPH 2006 joint responsibility for the safe conduct of operations, and inviting the co-operation and understanding of the tanker's personnel.
- An example of the text for such a letter is in Section 26.3.4. While the Ship/Shore Safety Check-List is based upon cargo handling operations, it is recommended that the same practice is adopted when a tanker presents itself at a berth for tank cleaning.

- **Guidelines for Ship Shore Safety Checklist Use**

Guidelines for completing the Check-List and to assist in responding to each individual statement are included in Section 26.4. 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 initialing 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.

Some of the 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. 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.

شركة الموانىء الصناعية الأردنية
Jordan Industrial Ports Company

Ship/Shore Safety Check-List

Ship information			
Ship's Name	Berth	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.		N/A	R	
6. The terminal's fire-fighting equipment is positioned and ready for immediate use.	N/A		R	
7. The ship's cargo and bunker hoses, pipelines and manifolds are in good condition, properly rigged and appropriate for the service intended.		N/A		
8. The terminal's cargo and bunker hoses or arms are in good condition properly rigged and appropriate for the service intended.	N/A			
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.		N/A	R	
11. Temporarily removed scupper plugs will be constantly monitored.		N/A	R	
12. Shore spill containment and sumps are correctly managed.	N/A		R	
13. The ship's unused cargo and bunker connections are properly secured with blank flanges fully bolted.		N/A		
14. The terminal's unused cargo and bunker connections are properly secured with blank flanges fully bolted.	N/A			
15. All cargo, ballast and bunker tank lids are closed.		N/A		
16. Sea and overboard discharge valves, when not in use, are closed and visibly secured.		N/A		

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Bulk Liquid - General	Ship	Terminal	Code	Remarks
17. All external doors, ports and windows in the accommodation, stores and machinery spaces are closed. Engine room vents may be open.		N/A	R	
18. The ship's emergency fire control plans are located externally.		N/A		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.		N/A	R	
20. All cargo tank atmospheres are at positive pressure with oxygen content of 8% or less by volume.		N/A	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.		N/A	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 ate 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	
27. The hazards associated with toxic substances in the cargo being handled have been identified and understood.				H2S Content: Benzene Content:
28. An International Shore Fire Connection has been provided.				
29. The agreed tank venting system will be used.			A R	Method:
30. The requirements for closed operations have been agreed			R	

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Bulk Liquid – General	Ship	Terminal	Code	Remarks
31. The operation of the P/V system has been verified.		N/A		
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.		N/A	A R	
34. Adequate electrical insulating means are in place in the ship/shore connection	N/A		A R	
35. Shore lines are fitted with a non-return valve, or procedures to avoid back filling have been discussed.	N/A		P R	
36. Smoking rooms have been identified and smoking requirements are being observed.		N/A	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.		N/A		
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.		N/A		
43. Electric cables to portable electrical equipment within the hazardous area are disconnected from power.				
44. Window type air conditioning units are disconnected.		N/A		
45. Positive pressure is being maintained inside the accommodation, and air conditioning intakes, which may permit the entry of cargo vapours, are closed.		N/A		
46. Measures have been taken to ensure sufficient mechanical ventilation in the pump room.		N/A	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: