



### **TERMINAL INFORMATION AND PORT REGULATION**

3<sup>rd</sup> EDITION, 2023

# SOLID PRODUCT JETTY, PENGERANG INTEGRATED COMPLEX



# SOLID PRODUCT JETTY, PENGERANG INTEGRATED COMPLEX INFORMATION AND REGULATION



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#### 1.0 GENERAL DEFINITION AND ACRONYMS

SPTS - SPT Services Sdn. Bhd.

PRPC UF – Pengerang Refinery Petrochemical Utilities and Facilities Sdn. Bhd.

PIC – Pengerang Integrated Complex

SPJ – Solid Product Jetty

JPA – Johor Port Authority (Lembaga Pelabuhan Johor); The Regulatory body that regulates the operations of ports in Johor Port water limits under the Port Authorities Act, 1963.

*JPBi* – A web base Terminal Operating System for Johor Port Berhad. Link is https://jpbi.johorport.com.my/

*MLLW* – Mean Lower Low Water (MLLW) is simply the lowest of the two low tides per day (or the one low tide) averaged over 19 years. These 19 years are called the National Tidal Datum Epoch (NTDE), which currently runs from 1983 through 2001. The current proposed release date for new NTDE products is 2025.

*MHHW* – Mean Higher High Water (MHHW), is the average height of the highest tide recorded at a tide station each day during the recording period. Among other things, it is used as a datum to measure the navigational clearance, or air draft, under bridges.

UKC – Under Keel Clearance

TEUs – Twenty-foot Equivalent Unit

*TPH* – Tons per hour. The unit is used to measure the transfer speed of Sulphur products through the conveyor.

RFID - Radio Frequency Identification

*VMT* – Vehicle Mounted Terminal

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*ISO* – The International Organization for Standardization is an international standard-setting body composed of representatives from various national standards organizations.

VSD - Variable Speed Drive

SOLAS – The International Convention for the Safety of Life at Sea (SOLAS) is an international maritime treaty that sets minimum safety standards in the construction, equipment and operation of merchant ships. The convention requires signatory flag states to ensure that ships flagged by them comply with at least these standards.

IMDG – International Maritime Dangerous Goods Code is accepted by MSC (Maritime Safety Committee) as an international guideline for the safe transportation or shipment of dangerous goods or hazardous materials by water on a vessel.

*MARPOL* – The International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978 (MARPOL 73/78, MARPOL is short for International Convention for the Prevention of Pollution from Ships and 73/78 short for the years 1973 and 1978).

COLREGS – The International Regulations for Preventing Collisions at Sea 1972 (COLREGs) are published by the International Maritime Organization (IMO) and set out, among other things, the "rules of the road" or navigation rules to be followed by ships and other vessels at sea to prevent collisions between two or more vessels.

*ISM Code* – The International Safety Management (ISM) Code provides an international standard for the safe management and operation of ships at sea.

*UNCLOS* – The United Nations Convention on the Law of the Sea (UNCLOS), also called the Law of the Sea Convention or the Law of the Sea Treaty defines the rights and responsibilities of nations with respect to their use of the world's oceans,

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establishing guidelines for businesses, the environment, and the management of marine natural resources.

APELL – Awareness and Preparedness for Emergencies at Local Level (APELL) was initiated in response to several chemical accidents that resulted in deaths and injuries, environmental damage, and extensive economic impacts in the surrounding communities.

*OPRC* – International Convention on Oil Pollution Preparedness, Response and Co-operation is an international maritime convention establishing measures for dealing with marine oil pollution incidents nationally and in cooperation with other countries.

HNS Convention – The HNS Convention (Hazardous and Noxious Substances by Sea Convention) is an international convention created in 1996 to compensate for damages caused by spillage of hazardous and noxious substances during maritime transportation.

*ISPS* - The International Ship and Port Facility Security (ISPS) Code is an amendment to the Safety of Life at Sea (SOLAS) Convention (1974/1988) on Maritime security including minimum security arrangements for ships, ports and government agencies.

#### 2.0 BASIC PRINCIPLES

#### 2.1 Statement of Purposes and Disclaimer

This booklet information had been developed by SPTS to serve as a guideline that contains the essential requirements of Marine and Terminals operations.

SPTS shall use its reasonable endeavor to ensure the accuracy of the data contained herein, provided however SPTS does not warrant the accuracy of such data. SPTS reserves the right to modify this manual at any time.

SPTS does not accept any responsibility for any error, omission or for the consequences of using this information booklet for any purpose whatsoever.

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Vessel Masters are free and welcome to seek further clarification on any other matters.

For ease of understanding, "The Terminal" in this booklet is referring to Solid Product Jetty Terminal unless stated otherwise.

#### 2.2 Jurisdiction

Terminal Users, Shipping Agents, Vessel Masters, Crew members, Third Party Service Providers to the vessel, PRPC UF and SPTS employees are all required to comply with the provisions of this booklet.

#### 2.3 Objectives

This information booklet shall:

- Provide general terminal information and contact information to terminal users and Vessel Masters for vessel arrival and departure.
- Inform Vessel Master and operators of SPTS policies, procedures and restrictions.
- Allow the Vessel Master to review port and terminal information to ensure vessels' conformity with the terminal's requirements.
- Provide technical information on the terminal, its berths, mooring arrangements and cargo operation system.
- Provide technical information for emergency procedures.

#### 3.0 TERMINAL INFORMATION

#### 3.1 General Information of Solid Product Jetty

The Terminal is located at the southwest of PIC and SPJ (the SPJ Facility's offshore portion), located approximately 1.8km into the Johor strait, within the Johor Port Authority (JPA) boundaries.

JPA is vested with the Port Authorities Act (1963) powers to regulate all marine and port activities within Pasir Gudang port limits.



The facility is designed for inbound or outbound containerized and bulk cargo, for solid petrochemical products, liquid petroleum products, gas, chemicals, Sulphur and all petroleum byproducts.

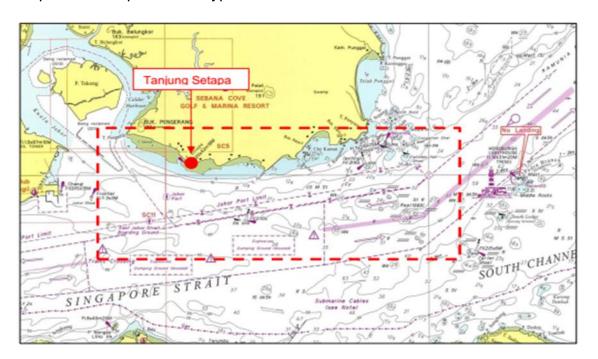


Figure 1: Terminal Site on the Southern Coast of Pengerang District

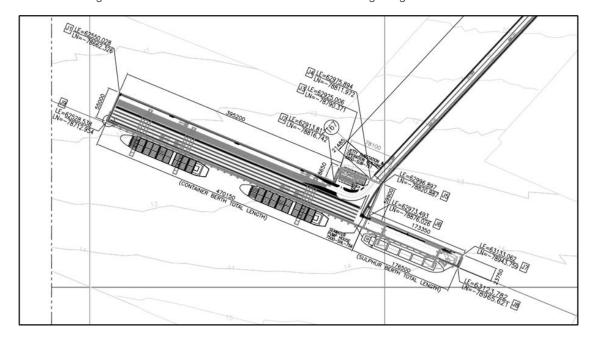


Figure 2: Location of Container Berth and Sulphur Berth at SPJ



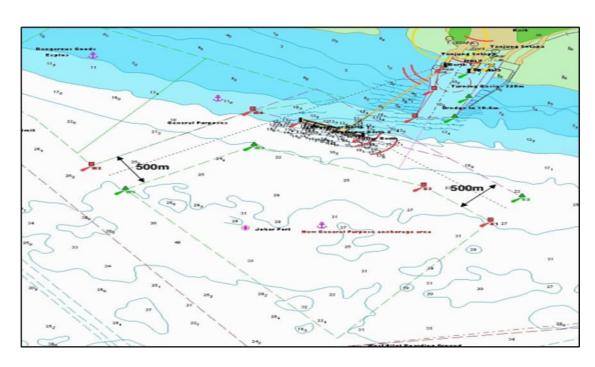


Figure 3: General Purpose Anchorage (Lat: 01 Deg.19.10' N. Long: 104 Deg.06.98' E)

#### 3.2 Berth Specifications

BERTH	BT01 & BT02	BT03
Dead Weight Ton (DWT)	10,000 – 15,000	5,000 – 15,000
Length of Berth (m)	470.2	176.5
LOA (m)	134.0 – 162.0	110.0 – 149.0
Chart Datum (m)	12.5	
Draft (m)	10.2	10.8
Freeboard (m)	NIL	7.0  *For freeboard greater than 7.0 shall be approved by SPJ with certain conditions and disclaimers.
Vessel Hatch Type	NIL	Folding  *For hatch types other than those stated above, shall be approved by SPJ with certain conditions and disclaimers.
Beam (m)	21.0 – 25.6	15.0 – 21.8



BERTH	BT01 & BT02	BT03
Maximum Displacement (MT)	14,000 – 20,000	6,900 – 20,500
Trestle	1.35 km x 15.6 m	
Jetty Head (m)	56.0 m x 700.0 m	
Shore to Ship (km)	1.7	
MLLW (m)	0.44	
Lowest Astronomical Tide (m)	0.00	
MHHW (m)	2.90	
Highest Astronomical Tide (m)	2.97	
Dock Water Density	Brackish (1,005 −1	,015kg/m3) to Salt
Dook water bensity	(1015 to 1029 kg/m3)	
UKC	1.00	

Table 1: SPJ Berth Specifications

Conditions and disclaimers set by SPJ before accepting any incoming vessels are as follows:

- For LOA greater than SPJ berth specification, only one vessel shall be berthed at one time.
- For DWT greater than SPJ berth specification, SPJ shall be considered on the vessel's arrival DWT.
- For freeboard greater than SPJ berth specification, said vessel shall be in full ballast condition before berthing.
- Tween deck hatch cover lifting type is not advisable unless a ship crane is used to lift.
- SPJ shall not hold any liability for damage to the vessel or any claimable matters related to the vessel.
- Unavoidable stoppage due to bad weather is under the jurisdiction and instruction Captain or Chief Officer of the bulk vessel.



• Any other case-to-case basis requirement that SPJ reserves to set.

Wind Speed Average	4.0 - 7.0 knots (from 180° and
	270° direction)
Extreme Winds Associated with	20.0 – 25.0 knots
Sumatran Squall	
Wave Height	Less than 0.6 m
Extreme Wave Height Condition	0.7 m – 1.5 m
Tidal Current at Berth	1.0 – 2.7 knots (Ebbing / Flooding,
	East – West Direction)
Visibility	Not affected by fog, but visibility
	range be impaired by heavy
	rainfall, haze, squalls and storms.

Table 2: Wind, Wave, Tidal and Visibility

General Direction of Prevailing Winds	135° - 180° (South / South East)
Average Wind Speed	0 – 15.0 knots
Current Directions	90° / 270° (Ebb / Flood)
Current Speed	1.0 – 2.7 knots

Table 3: Normal Historic Weather Conditions

SPJ waterfront is well shielded from tsunami risks and North East Monsoon generated swells on the South China Sea by surrounding land masses.

#### 3.3 Terminal Capacity

Total Ground Slot	1200 TEUs
Yard Capacity (per annum)	228,334 TEUs

Table 4: Container Yard Capacity

Total Ground Slot	360 TEUs
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Table 5: Empty Storage Area Capacity

Maximum Stockpile Capacity	30,000 Metric Tons
Stockpile Capacity (per annum)	360,000 Metric Tons

Table 6: Sulphur Stockpile Capacity

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#### 3.4 Terminal Equipment

Quay Crane		
Unit	2 units	
Type of Crane	Rope towed trolley, hinged boom-	
	type gantry crane	
Rated Load		
Single Container Under	40.6 Metric Tons	
Spreader	40.0 Metric Toris	
Overload Under Spreader	50.75 Metric Tons	
Under Cargo Beam	61.0 Metric Tons	
Spreader Type	20' 40' 45' telescopic spreader	
Span (Gantry Rail Gage)	30.5 m	
Trolley Traverse		
Outreach (Spreader Mode)	38.0 m	
Outreach (Cargo Beam Mode)	38.0 m	
Back Reach	15.0 m	
Total Length of Trolley Travel	83.5 m	
Lift		
Above Rail	28.0 m	
Below Rail	15.0 m	
Total	43.0 m	
Clearance Height Under Portal	14.0 m	
Overall Height of Crane Approx.	57.0 m	
Overall Height with Boom Up Approx.	80.0 m	

Table 7: Quay Crane Specifications



Rubber Tyre Gantry		
Unit	4 units	
Rated Load	40.6 Metric Tons	
Lifting Height Under	21.0 m	
Spreader	21.5 111	
Stacking Height	5 + 1 Tier	
Stacking Lanes	6 Lanes	
Trolley Travel Distance	19.07 m	
Trolley Speed	70.0 m/min	

Table 8: Rubber Tyre Gantry Specifications

Prime Mover	
Unit	41 units
5ft Wheel	Elevated Holland Fifth Wheel
Horsepower	220 HP
Other Features	RFID Mounted – 23 units
	VMT Installed – All units

Table 9: Prime Mover Specifications

Commercial Trailer	
Units	23 units
Length	40 ft
Load Capacity	28 Metric Tons / Static Load: 80 Metric Tons
Net Weight	28,620 kg

Table 10: Commercial Trailer Specifications

Port Trailer	
Units	18 units
Length	40 ft
Load Capacity	28 Metric Tons / Static Load: 80 Metric Tons
Net Weight	28,620 kg

Table 11: Port Trailer Specifications



Container Reach Stacker	
Unit	1 unit
Stacking Specification	Capable Stacking 5 High 9' 6"
	Containers
	45 Metric Tons under spreader twist
Lifting Charification	lock 1 <sup>st</sup> -row 5th level,
Lifting Specification	31 Metric Tons at 2nd row 4th Level
	16 Metric Tons at 3rd row 3rd level
Spreader Specification	Hydraulic 20'-40' Container Top Lift
	Spreader

Table 12: Container Reach Stacker Specifications

Empty Container Handler (Single)	
Unit	2 units
Load Spec	8 Metric Tons
(Load center, nominal and max)	o wethe rons
Stacking Specification	6 high 9' 6" ISO containers
Spreader Specification	Hydraulic 20'-40' / Top Lift Spreader

Table 13: Empty Container Handler (Single) Specifications

Empty Container Handler (Double)	
Unit	2 units
Load Spec	9 Metric Tons
(Load center, nominal and max)	3 Wether Forts
Stacking Specification	7 high 8' 6" ISO containers
Spreader Specification	Hydraulic 20'-40' / Side Lift Spreader

Table 14: Empty Container Handler (Double) Specifications



Forklift	
Unit	4 units
Capacity	3 Metric Tons
Load Specification	0.6 m
Lifting Height	5.01 m and 6.02 m

Table 15: Forklift Specifications

Ship loader	
Unit	1 unit
Туре	Belt Conveyor
Conveyor Belt Speed	2.5 knots
Belt Width	0.8 m
Tripper Belt Width	1.0 m
Dust Control Method	Dust Suppression in Transfer Chutes
Transfer Speed	Up to 360 TPH
Travel Distance	100.0 m
Boom Length	21.0 m
Chute Type	Telescopic
Feature	Material Level Detection

Table 16: Ship loader Specifications

Reclaimer	
Unit	1 unit
Transfer Speed	Up to 360 TPH
Туре	Two Scraper – Reclaimer Booms

Table 17: Reclaimer Specifications

Stacker	
Туре	Rail–Mounted Luffing Boom
Transfer Rate	Up to 150 TPH
Features	Metal Detector, VSD Driven

Table 18: Stacker Specifications



Conveyor	
Operating	Semi-Automated Import and Export System
Dust Control Method	Water Spray Dust Suppression
Measurement and Transfer	
Speed	
Tripper Conveyor	1.0 m Wide, 55 kW (VSD), Up to 360 TPH
Pipe Conveyor	1.2 m Wide, 2 x 200 kW (VSD), 1.98 km, Up
	to 360 TPH
Reclaimer Conveyor	1.0 m Wide, 55 kW (VSD), Up to 360 TPH
Stacker Conveyor	0.8 m Wide, 30 kW (VSD), Up to 150 TPH
Feeder Conveyor	0.1 m Wide, 22 kW, Up to 150 TPH
Other Features	Belt Weigh Scales
	Metal Detector
	Conveyor Magnet
	VSD Driven

Table 19: Conveyor Specifications

Dumper Unloading Hopper	
Unit	1 unit
Space Area	4.5 m <sup>2</sup> and 6 m deep
Receiving Capacity	40 Metric Tons
Dust Control Method	Ducted Ventilation System with Dust
	Filter
	Sheeted Building at Ramp – Level
	Water Spray Dust Suppression
Transfer Rate	Up to 150 TPH

Table 20: Dumping Unloading Hopper

Tipper Truck				
Unit 8 units				
Brand MAN				

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Capacity	30 Metric Tons
Dust Control Method	Automatic Canvas

Table 21: Tipper Truck Specifications

#### 3.5 Relevant Charts and Nautical Publications

Vessel Masters is to ensure that they have the latest editions of all relevant charts and other nautical publications for safe navigation:

Admiralty Chart No.: BA 4042, 4043, 4044

MAL Chart No.: MAL 515, MAL 6124

#### 3.6 Documentation Requirements

Vessel Master is responsible for all required documentation for entry into the Terminal. Master is advised to check with their local shipping agents for the most up-to-date list of documentation required by the authority.

#### 3.7 Acts, Codes, Legislations and Regulations

The following acts, codes, legislations and regulations are relevant to one or more of the Terminal's day-to-day business and operations as well applied during an emergency.

International Conventions. Codes and Recommendations:

- International Convention for the Safety of Life at Sea (SOLAS) 1974;
- International Maritime Dangerous Goods (IMDG) Code;
- International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78);
- International Regulations for Avoiding Collisions at Sea 1972 (COLREGS);
- International Safety Management Code for the Safe Operation of Ships and Pollution Prevention 2002 (ISM Code);



- UN Convention on the Law of the Sea 1982 (UNCLOS);
- UNEP Awareness and Preparedness for Emergencies at Local Level (APELL) for Port Areas;
- International Convention on Oil Pollution Preparedness, Response and Co-operation (OPRC);
- Hazardous and Noxious Substances (HNS Convention 2001);
- International Ship Management (ISM);
- International Ship and Port Facility Security (ISPS) Code;
- International Convention on Standard of Training, Certification and Watch Keeping for Seafarers 1978 as amended (1995); and
- ILO Code of Practice

#### National Legislations:

- Environmental Quality Act 1974 & Subsidiary Legislation;
- Occupational Safety and Health Act 1994;
- Merchant Shipping Ordinance 1952 as amended by the Merchant Shipping Act 1991;
- Johor Port Authority By-laws 1979;
- Act 488 (Port Authorities Act 1963 Revised 1990);
- Ports (Privatization) Act 1990; and
- Fire Services Act 1981

#### Guidelines:

- International Maritime Organization (IMO);
- International Association of Ports and Harbors (IAPH);

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- International Navigation Association (PIANC);
- Incident Command System (ICS);
- Oil Companies International Marine Forum (OCIMF);
- International Chamber of Shipping (ICS)

#### 3.8 Terminal Policies

All vessel crew members and terminal visitors are required to fully comply with SPTS policies at all times while within the Terminal. Failure to comply with any of the policies shall be subject to actions as stated in the policies.

Policies applied within the Terminal:

- Integrated Health, Safety, Security and Environment Policy
- Drug and Alcohol Policy
- Stop Work Policy
- Petronas ZeTo Rules compliance

#### 4.0 TERMINAL ENTRY PROTOCOLS AND INFORMATIONS

#### 4.1 Non-Compliance

Vessels are accepted for calling at the Terminal after they have been screened by SPTS and Johor Port Marine (JPM) and when they can comply with all regulations for safe cargo operations.

SPTS reserves the right to, suspend, stop cargo operations or require the removal of any vessel from berth for:

- Disregard of Terminal, Port, National and International maritime regulations
- Defects in the vessel's equipment, manning or operations; in the reasonable opinion the Terminal presents a hazard to the Terminal, its

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personnel, operations or the environment. The Terminal is not liable for any costs incurred by the vessel, its Owners, Charterer, or Agents; as a result of suspension or removal for the above reasons.

#### **4.2 Vessel Conformity**

All vessels calling at the Terminal are required to adhere to the followings:

- Submit its vessel particular and register in JPBi System
- Full compliance with all regulations of the related authorities such as the Marine Department, JPA, Customs, Immigration and Health Department
- Shall be in seaworthy condition from arrival and departure.

#### 4.3 All Notices

All notices related to vessel calling at the Terminal shall be sent to the following:

Attention: Mohd Fadzli Samsudin (Head of Operation, SPTS - SPJ)

Telephone: +6019 743 5657

Email: mohd.fadzli@spts.com.my

Attention: Fadzilul Khair Omar (Planning Manager, SPTS - SPJ)

Telephone: +6019 758 7890

Email: fadzilul.khair@spts.com.my

Attention: Duty Shift Planning / Operation Executive, SPTS -SPJ

Telephone: +6019 776 0273

Lane Line: +607 253 5888 (ext.: 1233)

Email: G SPTSOPSEXE@spts.com.my

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Attention: Duty Shift Planning Supervisor, SPTS - SPJ

Lane Line: +607 253 5888 (ext.: 1234)

Email: planning.supervisor@spts.com.my

Additionally, all notices shall include PRPC UF representatives as the

following:

Attention: Muhammad Izzat Abu Bakar (PRPC UF - SPJ)

Telephone: +6013 722 2302

Email: mizzat.abubakar@petronas.com

Attention: M Nizam Damon Nori (PRPC UF - SPJ)

Telephone: +6019 778 0240

Email: nizam.damonnori@petronas.com.my

#### 4.4 Notice of Vessel Arrival

Vessel intending to call at the Terminal shall be applied for a berth to the SPTS person in charge as stated in Item 4.3 on the expected time of vessel arrival (ETA) at the following intervals:

- 72 hours prior to arrival
- 48 hours prior to arrival
- 24 hours prior to arrival
- 12 hours prior to arrival

Vessel Operator is responsible to provide vessel arrival information to the Terminal Planner. The information can be provided via email fax or hard copy.

Global vessel calls information is to be given ultimately 7 work days prior to the estimated vessel arrival date or at least 24 hours before the first container

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to be loaded on the vessel arrives at the Terminal, whichever is first. The information must consist of:

- Vessel Name and Call Sign
- Vessel Voyage Number
- ETA
- Call Sign
- Estimated Number of Discharge and Load Moves
- Gross Registered Tonnage (GRT) and Net Registered Tonnage (NRT)
- Vessel's LOA
- Next Port
- Arrival and Departure Draft (Fore and Aft)
- Arrival freeboard
- Vessel Hatch Type
- Vessel's General Arrangement

#### 4.5 Pilotage

Vessels entering and departing SPJ are required to have a Pilot on board as per Johor Port Authority (JPA) Section 29 (A) of the Port Authorities Act 1963. Weather permitting, vessels may enter or depart SPJ on 24 hours basis.

The minimum notice period may be reduced to 2 (two) hours pending the availability of the tug boats and pilots. Emergency departures will be instructed by SPTS. The contact information of JPB Marine Services is as follows:

Attention: Johor Port Control

Office No.: +607 251 2620

Mobile No.: +6019 775 2297

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Email: pdm@johorport.com.my / jpc@johorport.com.my

#### 4.6 Tug Services

Tug arrangements shall be made directly by the vessel's shipping agent to JPB and SPTS shall be notified simultaneously.

#### 4.7 Tug Requirements

JPB / SPTS requires that a minimum of two (2) 50 Metric Tons BP Azimuth Stern Drive (ASD) or equivalent tugboats shall be available for arrivals and departures to ensure the safe berthing and unberthing of vessels calling at the Terminal regardless of vessels being fitted with thrusters.

#### 4.8 Pilot Boarding

The vessel is required to communicate with the Pilot Station via VHF on Channel 11 for boarding instructions. The Pilot Boarding Ground (PBG) is located in position [01° 17.767' N,104° 08.046' E].



Figure 4: Johor Port Pilot Boat

Vessels are requested to contact Johor Port Control at least 3 (three) hours before arrival at the PBG on Channel 11 for arrival instructions.

The lowest rung of the Pilot ladder should be rigged 1.5m (5 ft approximately) above the waterline. If the vessel freeboard is more than 7m, a combination ladder is required. (IMO requirements).

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- When boarding, the Pilot ladder shall be located at a safe location near amidships.
- Man ropes shall be provided during the disembarkation of the Pilot.
- NO boat ropes shall be utilized.
- Vessels are to proceed at a safe speed (recommended at 4 knots)
   whilst embarking/disembarking the pilot.

#### 5.0 BERTHING AND UNBERTHING PROTOCOLS

#### **5.1 General Overview**

The Terminal is operating 24 hours a day, 365 days a year, weather and sea conditions permitting.

Terminal entry and berthing are always subject to the prevailing weather. When transiting the port and mooring in conditions of reduced visibility and adverse weather, the decision to berth the vessel will be upon the advice of JPB/ SPTS. In the event of port congestion or safety considerations leading to stoppage of work at the terminal, vessel berthing may be subject to delays, and alternative arrangements will be considered and communicated accordingly.

The following table provides a guide to the status of the terminal operations as it relates to prevailing weather conditions. These guidelines are not hard and fast rules. At the time that a vessel movement is due to be carried out, should the prevailing wind conditions be complicated by unusual tidal flows, cross currents, or any other environmental, traffic, or other issues, the vessel movement will be contingent upon the agreement of Vessel Master and SPTS.

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#### **5.2 Terminal Wind Conditions**

**Operating Wind Speed Guidelines** 

Wind Speed				Operational Status					
Less	than	20	knots	(all	The	terminal	opens	for	all
directions)			opera	ations.					
Above 25 knots (all directions)			Suspend all operations.						

#### Note:

- First wind warning trigger at anemometer system when wind speed reaches 20 knots.
- Second wind warning trigger when wind speed reaches 25 knots. All crane motion is not allowed at this point.

#### Limiting Weather Criteria:

The limiting environmental parameters are as follows:

Wind Speed: 25 knots

Wave Height: 1.5 metre

Swell Height: 1.0 metre

Current Speed: 2.5 knots (ebb) and 2.7 knots (flood)

Abort berthing/unberthing vessel with trim by the head more than 1.5 M.

Existing and forecasted weather conditions shall be considered before the berthing or unberthing of the vessel provided that the berthing or unberthing of such a vessel shall not be carried out if the visibility is less than 1.0 Nautical Mile.

Vessel Vacating the Terminal Due to High Winds:



The decision of the vessel vacating the Terminal due to high winds will be upon the advice of JPB in consultation with the Terminal; however, the final decision rests on the Vessel Master.

#### **5.3 Berthing Procedure**

The pilot directs the navigation of the ship. However, the Master remains in overall command and control.

#### 5.4 Unberthing Procedure

Unberthing vessels will be planned accordingly upon booking made by shipping agents.

#### 5.5 Mooring

Vessels will be attended by a sufficient number of mooring crews. The minimum number of mooring lines used will be according to the specified design of the berth.

The mooring operation will be under the coordination of the Vessel Master, Pilot and Operation Supervisor.

The minimum requirement for mooring arrangement is stated below.

		MOORING		мос	ORING AI	RRANGE	MENT	
	VESSEL SIZE	LINES (at least)	AFT			FORWARD		
			Stern	Breast	Spring	Spring	Breast	Head
Barge	less than 100 mtr	8	2	1	1	1	1	2
Medium	less than 150 mtr	10	3	1	1	1	1	3
Large	150-170 mtr	12	4	1	1	1	1	4

#### 5.6 Unmooring

Operation Supervisor and mooring crew will await instructions from the Pilot to begin the unmooring process. The mooring lines will be released upon the advice of the pilot and the command of the Vessel Master.



#### 5.6 Berth Equipment

Approach Speed Indicator Board:

 No approach Speed Indicator Board at the Jetty. Berthing and Unberthing arrangements will be assisted by Operation Supervisor.

#### Gangway:

All berths are not equipped with an appropriately designed gangway.

#### **5.7 Marine Communications**

All vessels bound for the berths at SPJ are advised to report to SPTS. The call sign for SPJ is "SOLID PRODUCT JETTY". All vessels entering SPJ are required to contact the Terminal via channel 11 while transiting and entering SPJ.

International VHF Marine Radio Channels & Frequencies

Channel	Tx Frequency	Rx Frequency	Type of Traffic	
11	156.550 MHz	156.550 MHz	Port Operations & Ship Movements	
16	156.800 MHz	156.800 MHz	International Distress, Safety & Calling	

Remarks: Or any other reserve channel as instructed by Duty Pilot.

#### 5.8 Vessel's Requisition to Port Stay

A vessel wanting to overstay beyond the allowed three (3) hours after cargo completion shall request an overstay at least two (2) hours prior vessel's sailing time. Such request will be accepted on a case-to-case basis (emergency; death of crew members) provided there is no vessel wanting for the use of the berth and the terminal has not planned any maintenance activity on the berth. The terminal decision on such a request would be final. In case, the terminal refuses permission to overstay, the vessel will have to vacate the berth. The additional time beyond three (3) hours will be given on lay-up berth / idling charges till the outward pilot request time. Any vessel that stays beyond

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the allowable hours will be incurred a charge subject to Terminal and PRPC UF approval.

#### 6.0 TERMINAL – VESSEL SECURITY AND ACCESS

#### 6.1 Terminal – Vessel Security

Terminal - Vessel Security and access is the joint responsibility of the SPTS/PRPC UF and the vessel under the International Vessel and Port Security (ISPS) Code. The Marine Facility Security Officer (MFSO), and the Vessel Master or Vessel Security Officer (SSO) will review and agree to the security measures each will implement. This will be documented by the signing of the Declaration of Security (DOS), when appropriate.

Evidence of any serious breach, repeated deficiencies or significant lack of understanding or implementation of the requirements of the ISPS Code by the vessel's crew may result in cessation of cargo operations and rejection of Container Vessel/Bulk Carrier/Barge and or identified crew members or visitors.

There are CCTV cameras at several locations throughout the terminal through which activities within and around the terminal are monitored.

#### 6.2 Access to Terminal Facility and Vessel

Any person including Terminal Staff / Shipping Agent / Visitors / Contractors who wants to access the terminal facility or jetty area must obtain prior permission and approval from the Marine Facility Security Officer (MFSO).

Only terminal staff, visitors and contractors who have permission from the Marine Facility Security Officer (MFSO) can access the terminal / jetty facilities area.

#### 6.3 Fishing, Diving and Swimming

No fishing, diving or swimming is allowed from the Berth or vessel.

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#### 6.4 Crew Shore Leave and Repatriation

Shore leave isn't allowed at the Terminal.

For crew repatriation and shore leave purposes agents are advised to arrange so at the designated anchorages. In any event of an emergency such as for medical attention etc, exemptions can be granted accordingly by the Terminal.

#### 6.5 Drugs / Alcohol

At no time will any individual be allowed into the Terminal who is suspected of being under the influence of drugs or alcohol.

If it is suspected that the use of drugs and alcohol may affect safety at the terminal, operations will cease until the matter has been reported to and fully investigated by relevant authorities.

Operations will not resume until the company considers it is safe to do so and delay or cancellation in a vessel's departure could result and will be the account of the vessel.

#### 7.0 TERMINAL – VESSEL'S MISCELLANEOUS MARINE ACTIVITY

#### 7.1 Receipt and Delivery of Stores

All receipts and deliveries of stores, galley provisions, spare parts, etc. are not allowed whilst the vessel is at berth. However, such activities are permitted at the designated anchorages. In any event of an emergency such as a breakdown, exemptions can be granted accordingly by the Terminal.

#### 7.2 Bunkering

Bunkering for fuel and water is not allowed whilst the vessel is at berth. However, vessels in need of such commodities are advised to do so at the designated anchorages.

#### 7.3 Repair Facilities

There are no ship repair facilities at the Terminal. Vessels may perform minor repairs, maintenance and inspection procedures whilst at the terminal, but they

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shall not perform any maintenance on any control or propulsion system that could compromise the vessel's manoeuvrability in any way.

#### 7.4 Discharge of Ballast Water

There are no facilities available at the Terminal for the reception or disposal of ballast water. Vessels in need to de-ballast/ballast must comply with the ballast water policy of the Authorities before doing so.

#### 7.5 Handling of Non-Ballast Oily Waste and Garbage

The Terminal has no facilities for receiving or handling waste. However, the disposal of waste can be arranged by engaging the related local service providers through shipping agents.

Malaysia is a party to MARPOL 1973 modified 1978/1997 and Malaysia's National Laws prohibit dumping of wastes at sea and in the water.

#### 8.0 TERMINAL EMERGENCY PRECAUTIONS

#### 8.1 Fire detection system & equipment

The terminal is equipped with a comprehensive emergency and fire system as preventive measures for handling any emergency. The table below listed the equipment and system available at the terminal.

Type of Detector	Fire Fighting System	Emergency Alarm
Fire detector	Fire hydrant	Fire alarm
Toxic gas detector	Fire extinguisher	Toxic gas alarm
Flammable gas detector	Fire suppression system	Flammable gas alarm
Heat detector	Foam cart	Evacuation alarm

Table 22: SPJ Fire Detection System

#### 8.2 Emergency Procedure

In the event of any emergency based on the alarm sounding, listed below are measures and procedures to be taken for all SPTS staff, vendors, contractors and all its occupants.



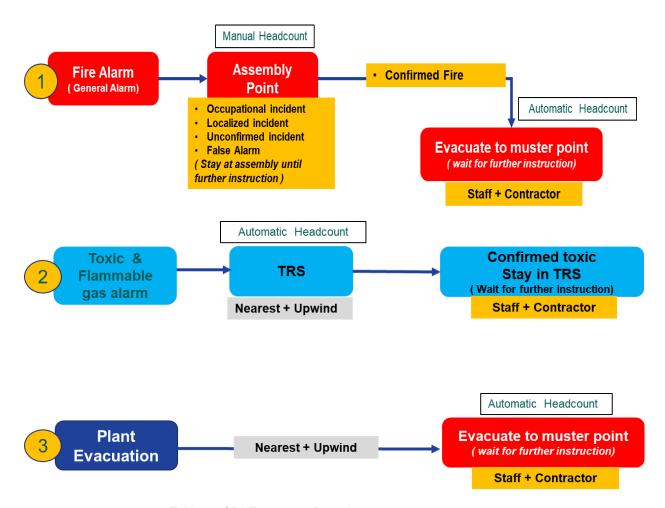


Table 23: SPJ Emergency Procedure



#### 8.3 SPTS Emergency Response Team

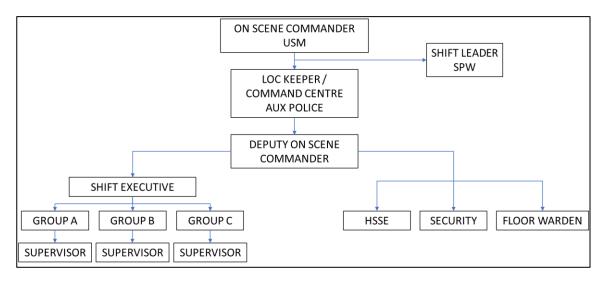


Table 24: SPJ Emergency Response Team

#### 8.4 Incident Action Plan (IAP)

Five major incidents have been identified. In the IAP, it stated the response strategy from the initial response, 1<sup>st</sup> on scene, 1<sup>st</sup> response and 2<sup>nd</sup> response as table out below



	PRIME MOVER TOPPLE JOURNEY FROM SPW TO SPJ							
RESPONSE STRATEGY: Confirm Incident: cleanup, equip	mentrescue							
Immediate action: 1. Confirm incident location 2. Barricade and control traffic movement	1. Confirm incident location							
Initial	Actions	Equipment / Resources	Details					
( ) Observer / Spotter ( ) Operation Executive ( ) Operator ( ) SPT Command Centre	Report to Operation Executive Report to Command Centre Command Centre confirms incident (location, severity, scale, visual based, etc.) and report to USM, SPW team leader & HSE UF. USM Notify to OCC. Notify to ERT members by PAGA system / walkie-talkie / phone To apply temporary RCP from Centralized Facility System PTW apply to CFS	Walkie-talkie     DCS     MACP	Identify incident location     Verify (location, severity, etc)     Notification to COMCEN by HSE on standby within 1 hour via (ws/sall/sms/email)     For others to communicate with USM, switch to USM channel     Subsequent action related to process-controlled shutdown (egidentification of affected services) by RSM and CSM					
1st Response	Actions	Equipment / Resources	Details					
1 DOSC   1	Identify Risk & Potential Risk     Numbers & Location of casualty (if any)     First aid treatment     Cordoned area and Provide diversion e.g.; cone, barricade and signage.     Identify Additional resources required     Salvation recovery e.g.; cargo, machinery, equipment and others. Traffic ingress to incident site stopped     Traffic flow to incident is clear of obstruction     Non-responders have evacuated the area     Cordoned area and Provide diversion     Direction signage to incident site is deployed     Security control	Walkie-talkie     RRT with full PPE 8, gas detector     Mobile Crane / Forklift / Tow Truck     Security patrolling vehicle	Maintain security control during salvation recovery incident area.					
2 <sup>nd</sup> Response	Actions	Equipment / Resources	Details					
Cleaning by SPTS contractor.  Conduct search and rescue if needed  Conduct search and			Cleaning by SPTS contractor.					
3 <sup>rd</sup> Response	Actions	Equipment / Resources	Details					
[ ]IC [ ]ERT/OSC [ ]EMT [ ]IC Authority	Update response     Handover command to authorities     Perform overhaul before advice UC / IC to declare stand down     Declare stand down and activate all clear siren	Staging / incident Area     Security patrolling vehicle	External responders report to OSC     Ensure ERT / external response wearing full firefighting PPE.					
Incident potential hazards	If the response is delayed, the situation might escalate to cause the topple material spill over half road.							
Other concern / hazards Traffic flow stuck, accident can be happened.								



	TIPPER TRUCK TOPPLE JOURNEY FROM SRU TO SPJ Mr. 100 SP							
RESPONSE STRATEGY: Confirm Incident: cleanup, equip	mentrescue							
Immediate action: 1. Confirm incident location 2. Barricade and control traffic movement	1. Confirm incident location							
Initial	Actions	Equipment / Resources	Details					
( ) Observer / Spotter ( ) Operation Executive ( ) Operator ( ) SPT Command Centre	Report to Operation Executive Report to Command Centre Command Centre Command Centre confirms incident (location, severity, scale, visual based, etc.) and report to USM, SPW team leader & HSE UF. USM Notify to CCC. Notify to ERT members by PAGA system / walkie-talkie / phone To apply temporary RCP from Centralized Facility System PTW apply to CFS	Walkie-talkie     DCS     MACP	Identify incident location     Verify (location, severity, etc)     Notification to COMCEN by HSE on standby within 1 hour via     (ws/call/sms/email)     For others to communicate with USM, switch to USM channel     Subsequent action related to process-controlled shutdown (eg identification of affected services) by RSM and CSM					
1st Response	Actions	Equipment / Resources	Details					
DOSC   TOSC / USM   TERT / CEFS / Security   DOSC/USM   Operation   TOSC   TERT / Security   TERT /	Identify Risk & Potential Risk     Numbers & Location of casuality (if any)     First aid treatment     Cordoned area and Provide diversion e.g.; cone, barricade and signage.     Identify Additional resources required     Salvation recovery e.g.: cargo, machinery, equipment and others. Traffic ingress to incident site stopped     Traffic flow to incident is clear of obstruction     Non-responders have evacuated the area     Cordoned area and Provide diversion     Direction signage to incident site is deployed     Security control	Walkie-talkie     RET with full PPE & gas detector     Mobile Crane / Forklift / Tow Truck     Security patrolling vehicle	Maintain security control during salvation recovery incident area.					
2 <sup>nd</sup> Response	Actions	Equipment / Resources	Details					
( ) OSC, ERT (SPTS) & CEFS ( ) OSC, ERT (SPTS) & CEFS ( ) OPEration	Check personnel evacuation status for missing person Weifly incident size/severity Conduct search and rescue if needed Salvation recovery e.g.: cargo, machinery, equipment and others.	Headcount check Rescue and Medical Emergency Equipment's Mobile crane, forklift, towing truck, shovel truck, lifting gears, jumbo bag and tipper truck Brush, shovel, plastic bag, jumbo bag Portable lighting (night) Signage reflector / beacon Security patrollling vehicle Cleaning by SPTS contractor.	Cleaning by SPTS contractor.					
3 <sup>rd</sup> Response	Actions	Equipment / Resources	Details					
L JIC L JERT / OSC L JEMT L JIC Authority	Update response     Handover command to authorities     Perform overhaul before advice UC / IC to declare stand down     Declare stand down and activate all clear siren	Staging / incident Area     Security patrolling vehicle	External responders report to OSC     Ensure ERT / external response wearing full firefighting PPE.					
Incident potential hazards	If the response is delayed, the situation might escalate to cause the topple material spill over half road.							
Other concern / hazards Traffic flow stuck, accident can be happened.								

3rd Response

Incident potential hazards

J ERT / OSC

1 IC Authority

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FIRE: SOLID PRODUCT JETTY; SULPHUR FIRE

Actions

If the response is delayed, the situation might escalate to cause bigger fire and thus creating bigger toxic release. Uncontrolled fire.

Conduct search and rescue if needed

Evacuation of ship crew if needed
 Declare Tier 2 if needed

Handover command to authorities

Toxic our released, due to combustion of Culphur

Declare stand down and activate all clear siren

Perform overhaul before advice UC / IC to declare stand down

Update response



· staging area

Portable monitor

Fire trucks
 Firefighting equipment

Equipment / Resources

1. Liquid carryover causes spill fire that require to extinguish.

· Headcount system record at assembly

#### RESPONSE STRATEGY: ISOLATION OF SOURCE- EVACUATE THE AREA - CONTROL FIRE 3. Evacuate the area, conduct headcount Immediate action: 4. Command centre info to SPW, USM, 1. Observer/spotter/patrolmen confirmincident, activate fire alarm, evacuate area, inform shift manager 2. Shift manager SPJ Command centre Initial Actions Equipment / Resources Details Activate Manual Call Point Identify fire location ( ) Observer / Spotter Walkie-talkie Pulled the Emergency Stop Pull Key Remarks: DOSC will play IRL role MACE ( ) Operation Asst. Thermal imaging sensor at hopper · Verify fire (location, severity, etc) 1 Patrolmen . Notification to COMCEN by HSE on standby within 1 hour via Report to Shift Leader ) Shift leader (Ops) (ws/call/sms/email) Report to OSC / Command Centre ( ) SPT Command Centre . For others to communicate with USM, switch to USM channel Command Centre confirms incident (location, severity, scale, visual based, etc.) and notify to DOSC, SPW shift leader and USM · Subsequent action related to process-controlled shutdown (eg Activate Fire Alarm, ERT members, Responder (e.g. CEFS) identification of affected services) by RSM and CSM 1st Response Actions Equipment / Resources Details Walkie-talkie · Determine any risk, potential casualties, fire location, severity, scale, · Identify fire source and zoning area Senior Fire Marshal / DOSC / OSC · ERT with full PPE & gas detector wind direction, adjacent pipes and equipment. Re asses zoning area CCTV at control room Hoses and Fittings (standby) . Stop all operation and evacuate jetty area. Check for injured person 1 ERT Evacuate SPTS staffs and contractor from the area ] ERT / CEFS PPE (lifejacket/lifebuoy) . Stand-by ERT, fire trucks, ambulance, BOMBA DOSC/OSC Identify Risk & Potential Risk Rescue and Medical Emergency . Senior Fire Marshal to advise OSC on additional support · Monitor vehicles & people movement through CCTV · Numbers & Location of casualty (if any) 1 DOSC/OSC/ERT spill kit (incase have spill) · Activation of EMT if required · Identify nearest water hydrant 1 DOSC/OSC/ERT · Ensure non-responders have evacuated & direct all external assistance Identify Additional resources required J DOSC/OSC/ERT to staging area. Identify fire equipment (fire suit, extinguishers) . Duty Managers may further to notify other relevant authorities (eg. Identify Additional resources required PDRM, DOE, DOSH, DO) if required Evacuation procedure 2<sup>nd</sup> Response Actions Equipment / Resources Details Check personnel evacuation status for missing person · Headcount system record at assembly • External responders report to OSC () OSC . Ensure ERT / external response wearing full firefighting PPE. Verify fire severity ( ) OSC · Portable monitor Advice for incident escalation if required ( ) ERT & CEFS Fire trucks, foam stock, Cooling down nearby equipment . Backup and standby responder ( ) OSC · Control and extinguished fire · Firefighting equipment ( ) OSC

Details

Ensure ERT / external response wearing full firefighting PPE.

· External responders report to OSC

2. Structure and associated equipment collapse due to lire exposure and material strength degradation.



	VESSEL COLLISION AT BERTH		REF. FOX.  Date in approved.  Ref. C.
RESPONSE STRATEGY: EVACUATE THE AREA Immediate action: 1. Observer/spotter confirm incident, communicate 2. Wharf Super inform Shift manager	Evacuate the area, conduct headcount with Piloton Board,  4. Command centre info to SPW, USM		
Initial	Actions	Equipment / Resources	Details
{   Observer / Spotter {   Operation Supervisor {   Operation Supervisor {   Shift Manager/DOSC {   Auxiliary Police {   SPT Command Centre }   MFSO } {   Master of Ship {   Chief Officer {   Shipping agent	Report to Operation Executive Alert Pilot on Board, Report to Command Centre Assess situation, advice for crowd control and evacuation Crowd Control, evacuate personnel and equipment Command Centre confirms incident (location, severity, scale, visual based, etc.) and notify to SPW, USM, JOHORPORT MARINE, LPJ Activate Evacuation Alarm, RT members Assess the security level Inform shipping agent Assist Master of Ship Liaise with SPTS Operation Manager and notify to Jabatan Laut	Walkie-talkie     MACP     Phone line     PAGA	Verify (location, severity, etc) For athers to communicate with USM, switch to USM channel  To a the severity of the severity
1st Response	Actions	Equipment / Resources	Details
DOSC   Senior Fire Marshal / DOSC / OSC   OSC	Identify collision place Check for injured person Identify Risk & Potential Risk Search and rescue (if any) Identify Additional resources required Evacuation procedure	Walkie-talkie RET with full PPE CCTV at control room Hoses and Fittings (standby) PPE (lifejschet/lifebuoy) Rescue and Medical Energency Equipment's Oil boom, spill kit (incase have spill)	Determine any risk, potential casualities, fire location, severity, scale, wind direction, adjacent pipes and equipment. Stop all operation and excuste jetty area. Stand-by ERT, fire trucks, ambulance, BOMBA Senior Fire Marshal to advise OSC on additional support Monitor vehicles. & people movement through CCTV Activation of EMT if required Finure non-responders have evacuated & direct all external assistance to staging area. Duty Managers may further to notify other relevant authorities (eg. PDRM, DOE, DOSH, DO) if required  The process of the process o
2 <sup>nd</sup> Response	Actions	Equipment / Resources	Details
() 05C () 05C () 05C () 05C () 05C () 05C	Check personnel evacuation status for missing person Verify damaged severity Advice for incident escalation if required Conduct search and rescue if needed Declare Tier 2 if needed	Headcount system record at assembly point.     Fire trucks     Firefighting equipment	External responders report to OSC     Ensure ERT / external response wearing full firefighting PPE.
3 <sup>rd</sup> Response	Actions	Equipment / Resources	Details
I JIC [ JEXT / OSC [ JEMT / OSC [ JEMT   JIC Authority	Update response     Handover command to authorities     Perform overhaul before advice UC / IC to declare stand down     Declare stand down and activate all clear siren	Headcount system record at assembly point.     Fire trucks     Firefighting equipment	External responders report to OSC     Ensure ERT / external response wearing full firefighting PPE.
Incident potential hazards	If collision is severed, might escalate to oil spill and fire incident	Liquid carryover causes spill fire that requ     Structure and associated equipment colla	uire to extinguish.  apse due to fire exposure and material strength degradation.
Other concern / hazards	Sinking of ship     Oil spill resulting from the collision		

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**VESSEL FIRE AT BERTH** RESPONSE STRATEGY: ISOLATION OF SOURCE-EVACUATE THE AREA - CONTROL FIRE Evacuate the area, conduct headcount Immediate action: 1. Observer/spotter confirm incident, inform vessel chief officer 4. Command centre info to SPW, USM, 2. Wharf Super inform Shift manager Initial Details Actions Equipment / Resources Report to Operation Executive Walkie-talkie · Identify fire location ( ) Observer / Spotter Alert Pilot on Board, Report to Command Centre · Remarks: DOSC will play IRL role ( ) Operation Supervisor Verify fire (location, severity, etc)
Notification to COMCEN by HSE on standby within 1 hour via Report to Utility Shift Manager (USM) ( ) DOSC Crowd Control, evacuate personnel ( ) Auxiliary Police Command Centre confirms incident (location, severity, scale, visual based, etc.) and notify to OCC, USM, JOHORPORT MARINE, LPJ ( ) SPT Command Centre . For others to communicate with USM, switch to USM channel Activate Evacuation Alarm, ERT members Subsequent action related to process-controlled shutdown (eg ( ) MFSO Assess the security level identification of affected services) by RSM and CSM ( ) Master of Ship Inform shipping agent ( ) Chief Officer Assist Master of Ship ( ) Shipping agent Liaise with SPTS Operation Manager and notify to Jabatan Laut 1st Response Details **Actions** Equipment / Resources · Determine any risk, potential casualties, fire location, severity, scale, Identify fire source Walkie-talkie | Senior Fire Marshal / DOSC / OSC · ERT with full PPE & gas detector wind direction, adjacent pipes and equipment. Liaise with Chief Officer on the location, and to support shipcrew if needed CCTV at control room
 Hoses and Fittings (standby) J OSC / USM . Stop all operation and evacuate jetty area. Check for injured person Evacuate SPTS staffs and contractor from the vessel | ERT / CEFS PPE (lifejacket/lifebuoy) Stand-by ERT, fire trucks, ambulance, BOMBA ) DOSC/OSC ) ERT Identify Risk & Potential Risk Senior Fire Marshal to advise OSC on additional support
 Monitor vehicles & people movement through CCTV Rescue and Medical Emergency Numbers & Location of casualty (if any) Equipment's Oil boom, spill kit (incase have spill) · Activation of EMT if required · Identify nearest water hydrant · Ensure non-responders have evacuated & direct all external assistance Identify Additional resources required to staging area. Evacuation procedure . Duty Managers may further to notify other relevant authorities (eg. PDRM, DOE, DOSH, DO) if required 2<sup>nd</sup> Response Actions Equipment / Resources Details ( ) OSC ( ) OSC Check personnel evacuation status for missing person · Headcount system record at assembly · External responders report to OSC Ensure ERT / external response wearing full firefighting PPE. Verify fire severity ( ) OSC Portable monitor Advice for incident escalation if required Fire trucks, foam stock, ( ) ERT & CEFS Cooling down nearby equipment . Backup and standby responder ( ) OSC Control and extinguished fire Firefighting equipment
 staging area () OSC Conduct search and rescue if needed · Evacuation of shipcrew if needed Declare Tier 2 if needed 3rd Response Equipment / Resources Actions Details Update response · Headcount system record at assembly External responders report to OSC
 Ensure ERT / external response wearing full firefighting PPE. | ERT / OSC Handover command to authorities Perform overhaul before advice UC / IC to declare stand down Portable monitor 1 IC Authority Declare stand down and activate all clear siren · Fire trucks · Firefighting equipment 1. Liquid carryover causes spill fire that require to extinguish. If collision is severed, might escalate to oil spill and fire incident Incident potential hazards



#### 9.0 TERMINAL - CONTAINER OPERATIONS

#### 9.1 EDI

SPTS intends to receive instructions from its customers and provide information on the execution of these instructions via standard EDIFACT messages. SPTS Operation Planning Section will strive to meet the needs of those customers who are not able to send or receive such standard instructions via EDI but have other means of electronic communication.

For all electronic communication a manual backup will be available

Message	Туре	Sender
Final Loading List	FLL	Vessel Operator
Stowage Plans for Departing		
Vessel	BAPLIE	Vessel Operator
Stowage / Loading Instructions	MOVINS	Vessel Operator

Table 25: EDI Messages:

#### 9.2 Container Import Operations

An import container from a vessel will be discharged using Quay Crane (QC) and is transported to the container yard via an internal truck or prime mover (PM) along the jetty at approximately 1.3 km.

Once arrived at the container yard, the container will be lifted off from the internal prime mover (PM) and stacked onto the designated yard position using Rubber Tyre Gantry (RTG). All instructions between Terminal Planners and Terminal Equipment Operator will be through Vehicle Mounted Terminal (VMT). In the container yard, the Import container will be stacked and segregated by services, sizes, types and other stacking factors.

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Deployment of terminal equipment (Quay Crane, Prime Mover and Rubber Tyre Gantry) is made by considering variable factors which can increase the container moves productivity and efficiency.

#### 9.3 Container Delivery and Receipt Operation

Container Operator will provide SPTS with a release instruction from an import container before trucking. The container operator will ensure that the container is released by Customs before the release to the Terminal is processed. If not possible, the Container Operator will send the container release instruction via e-mail or fax to the relevant Terminal Planner as stated in section 4.3.

The warehouse / Container Operator will provide SPTS with Pre-Arrival Advise on any export container before trucking. Container Operator will ensure that the container is cleared and released in the system by Customs before/after arrival at the terminal gate. Only Custom released containers will be planned for loading.

The Container Operator will perform the booking notification through Internet web access (JPBi / CATOS Web).

#### 9.4 Container Export Operations

The vessel Operator will provide a stowage instruction via EDI MOVINS message to Terminal Planners at least 24 hours before vessel ETA. The stowage must contain the vessel container load positions and a list of all containers to be loaded or re-stowed. The vessel Operator needs to submit Final Loading List (FLL) a minimum of twelve (12) hours prior to vessel ETA and ensure all containers had cleared by Customs.

Terminal planners are provided with guidelines on the optimum stowage to be planned, taking into account stability, deadweight, port rotation, movement of empties, forecasts of future cargo, and the special requirements of IMDG, out-of-gauge, containerized and refrigerated cargoes.

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The export container will be mounted by Rubber Tyre Gantry (RTG) onto the internal prime mover (PM) from the container yard and transported to the wharf area. Then, the export container will be loaded into the vessel by quay crane (QC) based on their cell position as per planned by Terminal Planners.

#### 10.0 TERMINAL – BULK OPERATIONS (SULPHUR)

#### 10.1 Sulphur Import Operations

Sulphur in granular form produced in the PIC plant will be transferred to Silo Refinery which is located 9.1 km from SPJ. Through a telescopic chute, Sulphur is transferred to Tipper Truck by 3 heaves with a total of approximately 30 Metric Tons.

A total of eight (8) Tipper Trucks equipped with automatic canvas, transport Sulphur from the Silo Refinery to Dumper Unloading Hopper at a distance of 9.1 km. Once tipped into the 40-ton receiving hopper equipped with water spray dust suppression, the Sulphur is transported through Belt Conveyors with a transfer rate of 150 Metric Tons per hour (TPH) to stockpile through Stacker.

The Luffing Boom Stacker transfers Sulphur to stockpile at Up to 150 TPH and the operational travel distance along BC-2 is approximately 170 m.

The stockpile capacity is 30,000 Metric Tons and has a footprint measuring approximately 32.5 meters wide and 198 meters length. The apex of the Sulphur will be approximately 10 meters above the base of the stockpile and the material angle of repose will be 25°.

#### 10.2 Sulphur Export Operations

Sulphur from the stockpile shall be transported to a vessel via Ship loader through Reclaimer and Pipe Conveyor. The reclaimer comprises two scraper-reclaimer booms which work in tandem to reclaim the full wide 32.5 meter stockpile.

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The reclaimer operates within the designated stockpile length, in this case, approximately 198m. Sulphur is transferred along Belt Conveyor and Pipe Conveyor at a rate up to 360 TPH on the Sulphur Export Jetty some 2km away, where the Sulphur is loaded onto the vessel at Berth no 1.

The Ship Loader is a rail-mounted machine comprising a tripper, a 15m long link conveyor inclined at 11° and the 21m long slewable, luffing boom conveyor. The boom can be slewed through a 130° total arc during operation, and can be stowed by slewing the boom to 90 degrees i.e., parallel with the BC-4 Conveyor centerline. The transport duration from the stockpile to the Ship Loader boom is approximately 16 to 18 minutes.

To prevent dust emission, the system includes with Water Spray Dust suppression system, telescopic chute, Pipe Conveyor and dust filters.

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#### Appendix A

#### Contact Information – SPTS

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	Mobile: +6012 910 9713	
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	Mobile: +6019 758 7890	
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	Mobile: +6012 707 0064	
AMFSO / HSE Officer	Tel: +607 253 5888 Ext. (1219)	knazar@spts.com.my
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MFSO / Security	Tel: +607 253 5888 Ext. (1220)	harun@spts.com.my
Officer	Mobile: +6019 776 0750	

Appendix B

Contact Information – General

Agency	Address	Contact No.	Website / Email
Johor Port Authority	Lembaga Pelabuhan Johor,	Tel: +607 253 4000	Web: http://www.lpj.gov.my
(JPA)	Jalan Mawar Merah 2,	Fax: +607 252 3730	Email: admin@lpj.gov.my
	Pusat Perdagangan Pasir Gudang 2,		
	81700 Pasir Gudang, Johor Malaysia		
Marine Department	Public Relations Assistant Officer, Ibu	Tel: +603 3346 7777	Web: http://www.marine.gov.my
Malaysia	Pejabat Laut, Peti Surat 12,	Fax: +603 3168 5289	E-mail: kpgr@marine.gov.my
	Jalan Limbungan,		
	42007 Pelabuhan Klang, Selangor.		
Johor Port Berhad	Corporate Communications Unit,	Tel: +607 253 5888	Web:
(JPB)	Johor Port Berhad,P.O. Box 151,	Fax: +607 251 0980	http://www.johorport.com.my
	81707 Pasir Gudang,		Email: jpb@johorport.com.my
	Johor, Malaysia.		
Majlis Keselamatan	Aras 2, Bangunan Dato' Mohamad	Tel: +607 290 8010/12	Web: www.mkn.gov.my
Negara (MKN)	Ibrahim Munsyi, Kota Iskandar,	Fax: +607 290 8013	
	79605 Iskandar Puteri Johor		
General Hospital	Hospital Sultanah Aminah, Jalan Abu	Tel: +607 225 7000	Web: http://hsajb.moh.gov.my
	Bakar, Masjid Sultan Abu Bakar,		
	80100 Johor Bahru		

Agency	Address	Contact No.	Website / Email
Immigration	Jabatan Imigresen Negeri Johor,	Tel: +607 233 8400	Web: http://app.imi.gov.my
Department	Tingkat 1-3 dan 8-14, Blok 1,	Fax: +607 234 4292	
	Kompleks Kementerian Dalam Negeri		
	(KDN), Taman Setia Tropika,		
	81200, Johor Bahru, Johor.		
Royal Malaysia	Ibu Pejabat,	Tel: +603 8882 2100	Web:
Customs	Jabatan Kastam Diraja Malaysia,	/ 2300 / 2500	http://www.customs.gov.my
	Kompleks Kementerian Kewangan,	Call Center: +603 7806 7200	
	No.3, Persiaran Perdana, Presint 2,		
	62956 Putrajaya.		
Ministry of Health	Kementerian Kesihatan Malaysia,	Tel: +603 8000 8000	Web: http://www.moh.gov.my
Department	Blok E1, E6, E7 & E10 Kompleks E,	Fax: +603 8888 6187	Email: kkm@moh.gov.my
	Pusat Pentadbiran Kerajaan		
	Persekutuan,		
	62590 Putrajaya, Malaysia.		
Department of	Jabatan Alam Sekitar Negeri Johor,	Tel: +607 235 6042	Web: http://www.doe.gov.my
Environment	Tingkat 1&2 Bangunan Hasil,	Complaints Line:	
	Jalan Padi Emas,	+603 8889 1972	
	Bandar Baru Uda,	Hotline: 1 800 88 2727	
	81200 Johor Bahru, Malaysia.		

Agency	Address	Contact No.	Website / Email
PRPC-CEFS (Center	Central Security Building,	Tel: +607 824 4999	
and Emergency Fire	Pengerang Integrated Complex,		
Station)	81600 Pengerang Johor Malaysia		
Fire Department	Balai Bomba dan Penyelamat	Toll Free Hotline (24 Hours):	Web: http://www.bomba.gov.my
	Jalan Dato' Wan Idris, 81930, Bandar	1800 888 994	Email: korporat@bomba.gov.my
	Penawar, Johor.	Tel: +607 822 4444	
		Fax: +607 882 4044	
Malaysia Marine	Agensi Penguatkuasaan Maritim	Tel: +607 219 9440	Web: https://www.mmea.gov.my
Enforcement Agency	Malaysia,	Fax: +607 219 9451	E-mail: adon@mmea.gov.my
(MMEA)	Wilayah Maritim Selatan, Jabatan		
	Perdana Menteri, Tingkat 16, Menara		
	Tabung Haji, Jalan Air Molek, 82720		
	Johor Bahru, Johor.		
Police Department	Ibu Pejabat Polis Daerah Kota Tinggi,	Tel: +607 883 1222	Email:kpdktinggi@rmp.gov.my
(Kota Tinggi)	Jalan Kota Kecil,	Fax: +607 882 2410	
	81900 Kota Tinggi, Johor.		
Royal Malaysian	Markas Tentera Laut,	Tel: +603 2071 3168	Web: http://www.navy.mil.my
Navy	Cawangan Tadbir Sekretariat,	Fax: +603 2692 4468	
	Kementerian Pertahanan,		
	Jalan Padang Tembak,		
	50634 Kuala Lumpur		

Agency	Address	Contact No.	Website / Email
Civil Defense	Ministry Of Defense,	Tel: +603 2059 8400	Web: http://www.mod.gov.my/
Department	5th Floor, Wisma Pertahanan,	Fax: +603 2691 4163	Email: portal@mod.gov.my
	Jalan Padang Tembak,		
	50634, Kuala Lumpur,		
	Wilayah Persekutuan		
Chemistry	Jabatan Kimia Malaysia Cawangan	Tel: +607 222 6569 /	Web: http://www.kimia.gov.my
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	Jalan Abdul Samad,	+607 227 6366	
	80100 Johor Bahru,	Fax: +607 223 8366 /	
	Johor, Malaysia.	+607 222 5366	
Pengerang Local	No.7, Jalan Kempas 1,	Tel: +607 886 2692	Web: ww.pbtpengerang.gov.my
Authority (PBT)	Taman Desaru Utama,	Fax: +607-886 2636 / 2635	
	81930 Bandar Penawar,		
	Johor Malaysia		
Petroleum Industry	Level 5, Menara Dayabumi,	Tel: +603 2783 6997	Web: www.pimmag.com.my
of Malaysia Mutual	Jalan Sultan Hishamudddin	Fax: +603 2783 6992	Email:
Aid Group	50050 Kuala Lumpur, Malaysia.	Hotline: +6019 313 1631	chinkonwing@petronas.com.my
(PIMMAG)			