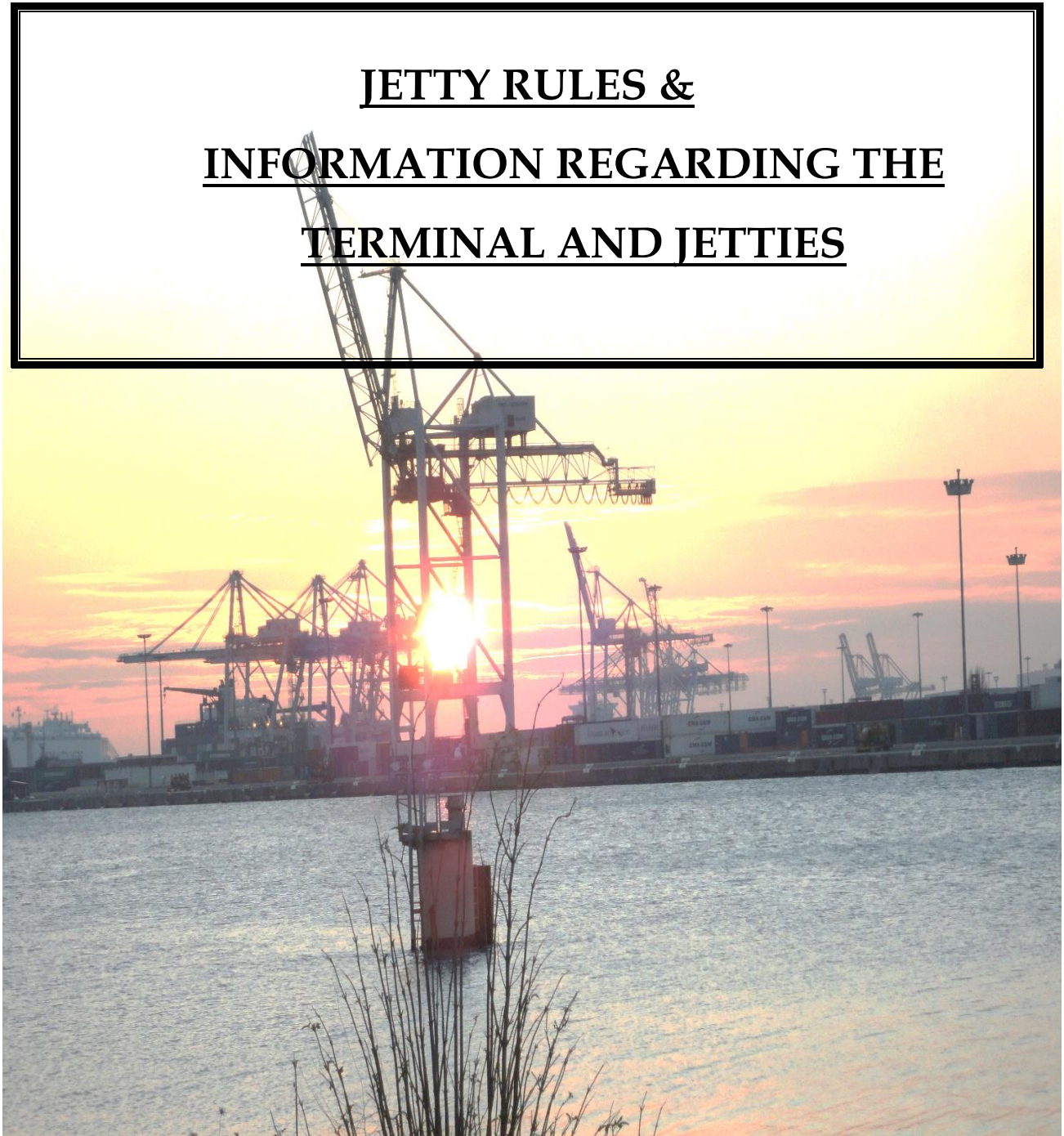


**Société Havraise de Manutention
de Produits Pétroliers (SHMPP)**

**JETTY RULES &
INFORMATION REGARDING THE
TERMINAL AND JETTIES**



Foreword

This booklet must imperatively be read by the crew on board the ship. It contains all the information necessary to ships for the proper performance of operations on SHMPP jetties. It absolutely does not replace local and international safety rules, or safety rules proper to the ship under the responsibility of the captain.

This information booklet for the terminal and jetties is placed on board of each ship stopping over at SHMPP. Taking this document into consideration, aboard, means that the entire crew must be informed of it and must comply with SHMPP instructions.

Security

All people who wish to enter jetty zones must first go to the safety gate or the control room, which are open 24/7.

Presentation of SHMPP

Founded in 1947, with its current depot created in 1971 and modernized since then, SHMPP has a storage capacity of 388,000 m³ for diesel fuel, fuel oils and sulfur. Centralized management helps conduct all operations by guaranteeing product and movement safety.

Open 24/7, reception and loading operations are conducted:

- By sea from three jetties, which may receive barges, coasters and tankers up to 100,000 tonnes in a constant-level basin.
- By pipe from Basse Seine refineries, by private pipelines, or by the TRAPIL national network.
- By road for fueling, product receptions and supply for use.
- By rail from a liquid sulfur wagon loading station

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Section 1: General information

1. Security information:

SHMPP applies ISPS Code rules. The ship's security level must be communicated to SHMPP through the shipping agent. Jetties are restricted access areas (R.A.A) and are therefore subject to rules applicable to R.A.A.

ISPS Code rules must be followed and applied. Access to jetties is filtered, filmed and controlled. Crew and equipment movements (for example deliveries) must be the subject of a detailed list (name, type of equipment, transporter, vehicle no., etc.) previously established and transmitted to the SHMPP through the shipping agent. People not involved in operations or not declared beforehand are not admitted to enter the jetty. Crew members wishing to go ashore must register with the jetty supervisor in order to leave the jetty but also to re-enter it.

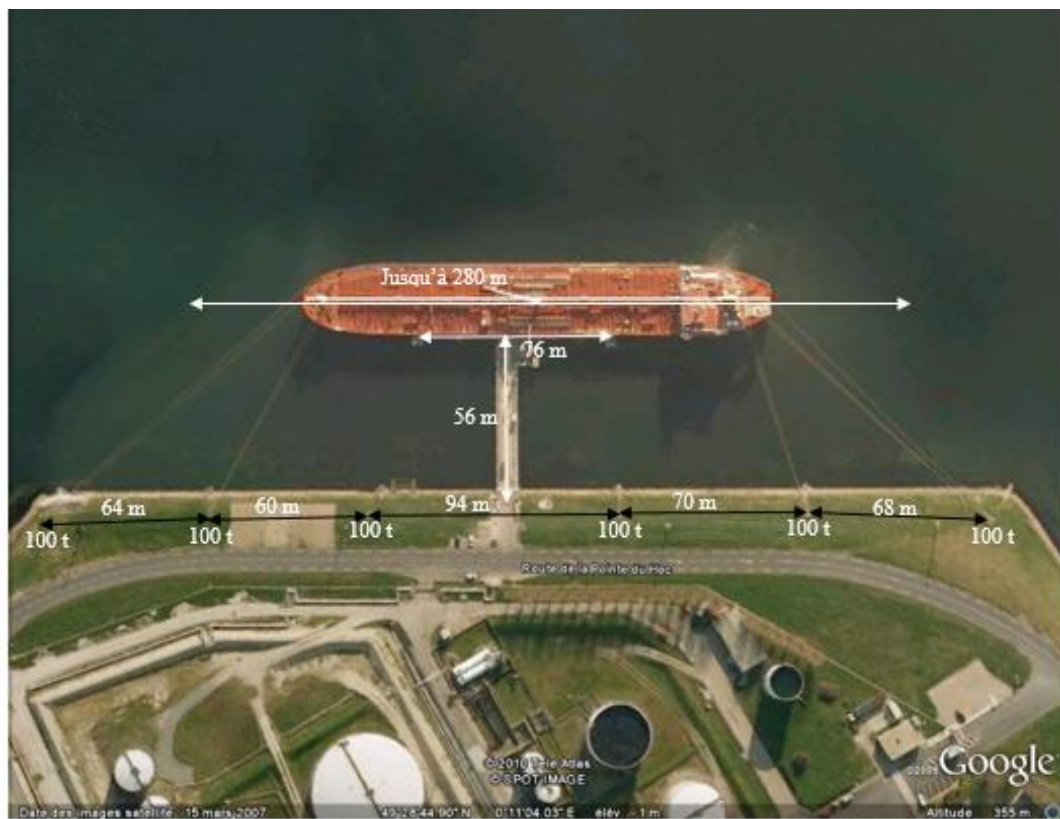
Dock 1



Dock 2



Dock 3



2. Communication:

During the operation, there are three participants: the ship, the supervisor and the terminal control room. The main contact for the ship is the jetty supervisor. They centralize and redistribute all information between the ship and the control room.

A walkie-talkie (WT) must systematically be placed on board by the end of docking. This WT is used to contact the jetty supervisor and the terminal control room. Harbor authorities may be contacted by VHF radio channel 88 or 83. During the operations, the jetty supervisor present in front of the ship and the manifold supervisor aboard will be in direct contact. The jetty supervisor may always contact the terminal control room by telephone or WT.

3. Tug-boats on standby:

The number and power of tug-boats necessary for the docking maneuver will be determined between Le Havre harbor authorities and the ship.

4. Emergency assistance from tug-boats:

The ship must be able to request immediate tug-boat assistance if another ship approaches or leaves the terminal or if that ship is along one of the jetties. There must be assistance if there is a danger for other ships or for crews.

In case of assistance, the ship captain shall be consulted beforehand. However, this consultation is not always possible in case of emergency,

Soliciting tug-boat assistance falls under the responsibility and at the expense of the ship in question.

5. Bunkering by barge:

Bunkers must preferably be prepared before the ship's arrival. Bunkering must be conducted preferably by barge, before operations. Bunkering is always conducted when the ship is disconnected.

Section 2: Mooring plans

1. Mooring information

Mooring quality and security fall under the ship's responsibility. However, the terminal reserves the right to intervene if safety requires it. For mooring at Dock 2, it will be necessary to take into consideration the mooring proximity of barges and ships at Dock 1 and vice versa

2. Docking:

The coasting pilot service is ensured by the Le Havre harbor pilot. Ship positioning is conducted with the pilot and the assistance of the NETMAN company.

3. Release from the mooring station:

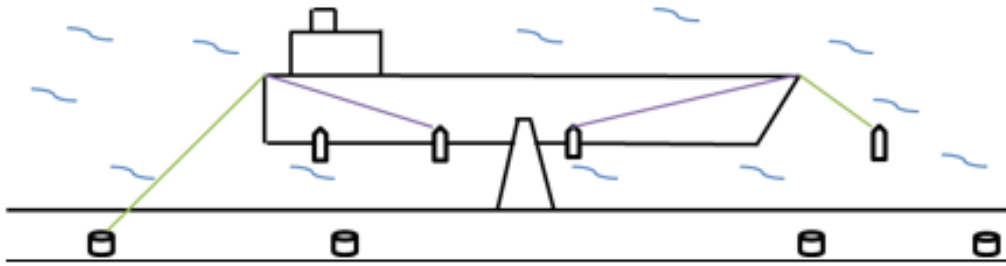
SHMPP reserves the right to ask a ship to leave the jetty for safety reasons, for any non-compliance with safety instructions, for any guidance from the harbor, or even to ensure the continuity of terminal operations (or for any other reasons).

4. Examples of minimum mooring

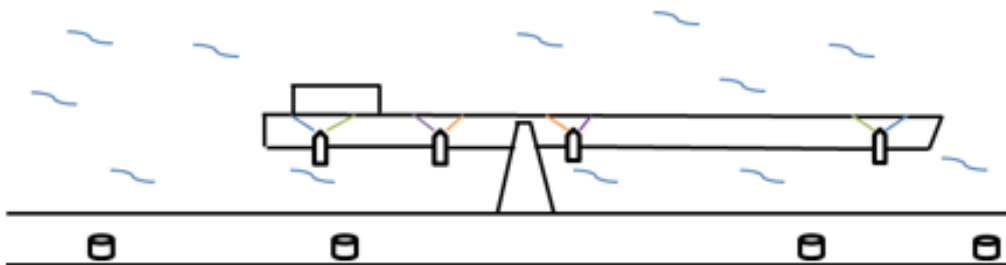
a. Dock 1



Navire de 5 000 T de port en lourd maximum



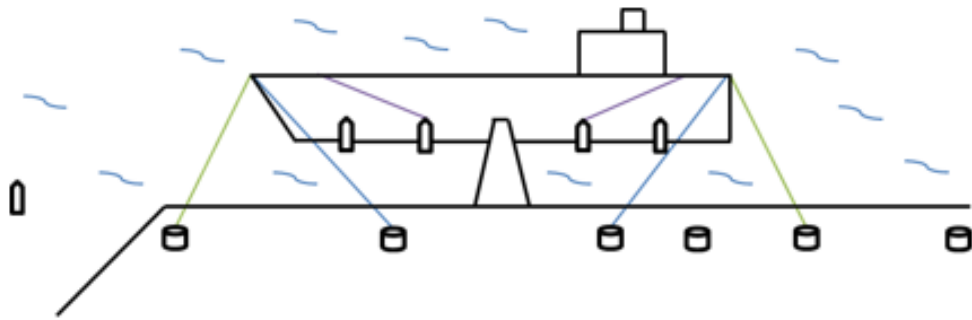
Barge jusqu'à 150 mètres de longueur



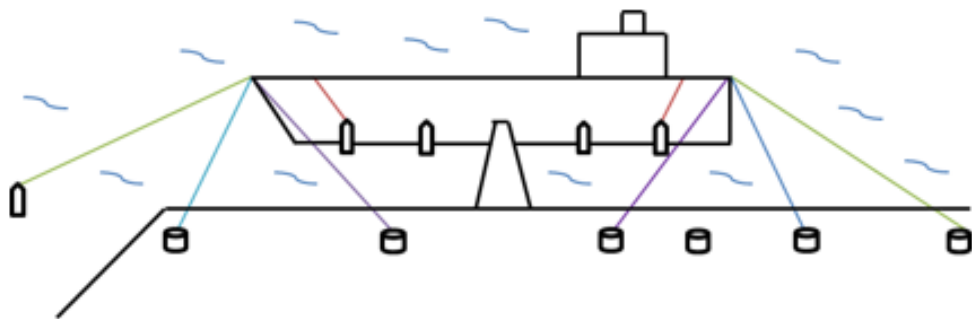
b. Dock 2



Navire jusqu'à 19 000 T de port en lourd

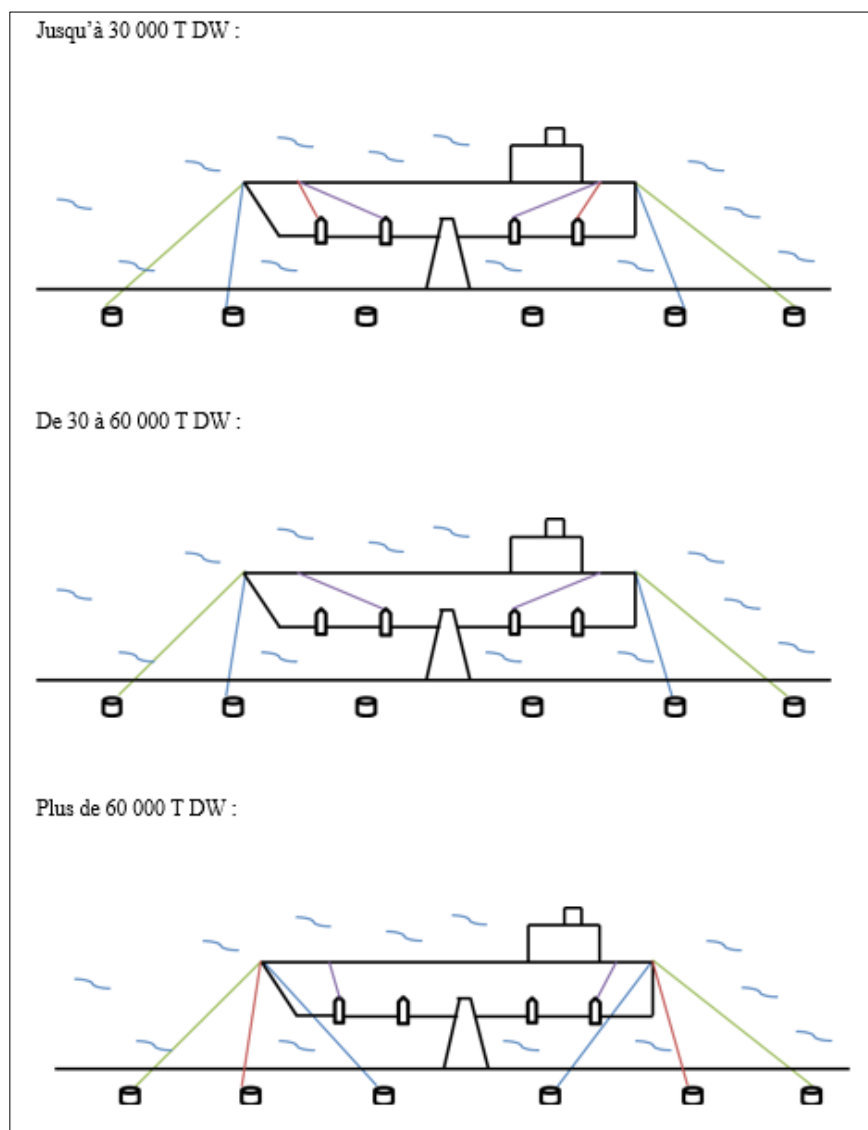


Navire de 19 à 25 000 T de port en lourd maximum



c. Dock 3





Ships must provide the full details of their mooring equipment and the minimum rupture value of cables/ropes and rope tails.

This information must be transmitted to the terminal before the ship docks in order to know the mooring equipment needs at the jetty.

For any information on jetties, please refer to the "Technical information: docking - jetty" table on page 14.

Section 3: Loading installations, operational rules and technical specifications

1. Loading arm, restrictions related to wind speed:

Dominant winds on the SHMPP site come from the West and the South-West.

If a storm warning with wind gusts over 110 km/h (60 knots) is announced (if possible, 2 hours beforehand):

- The operation is stopped,
- The arm is purged and disconnected,
- The arm is placed in resting position.

If during the loading/unloading operation, wind gusts over 80 km/h (45 knots) are observed, the operation must be stopped and the arm emptied, but it must remain connected until the gusts abate. It will also be requested for the ship to monitor mooring ropes.

If the amplitude of the ship's movement is over 0.5 m (strong swells), the operation shall be also stopped and the arm emptied.

2. Operations:

• *Organization*

Before starting operations, the ship and the terminal agree on the principle and the sequence of operations. This consultation must be done when establishing the operation sheet filled out jointly by the ship and the terminal. Non-compliance with one of the points on this list may lead to the stoppage of operations.

Loading or unloading operations shall be conducted with closed covers.

• *Types of operation*

On jetties, the following operations can be conducted:

- Ship unloading into a terminal tank
- Ship loading from a terminal tank
- Ship unloading into a Total refinery tank 4 km away
- Ship loading from a Total refinery tank 4 km away
- Deballasting to a specialized barge (subject to authorization from harbor authorities and from SHMPP).
- Bunkering

• *Lines*

See "Technical information: docking - jetty" page 14.

• *Loading/unloading condition*

See "Technical information: docking - jetty" page 14.

- *Sampling*

Sampling on board is generally conducted by an inspection company. The terminal conducts sampling at the foot of the loading/unloading arm.

	Dock 1		Dock 2		Dock 3		Comments
Docking basin: tidal range max. 60 cm	Canal Bossière		Canal Bossière		Henri Deschênes Basin		Constant-level basin
Arm	DIESEL	FUEL OIL	DIESEL	FUEL OIL	DIESEL	FUEL OIL	
Maximum output rate (m3/h)	550	550	1,200	1,100	1,500	1,500	
Average output rate (m3/h)	550	550	1,000	500	1,000	1,000	
Maximum pressure (bar)	7	7	7	7	8	8	
Maximum temperature (°C)	55	80	55	90	55	90	
Min./max. distance from the flange to the rail (m)	1	3	1	4	2	4.6	
Maximum lateral motion (m)	3	3	3	3	3	3	
Line diameter (in inches)	12	12	12	12	14	14	
Arm diameter (in inches)	8	8	10	10	12	12	
Connection diameter (in inches)	8	8	10	10	12	12	
Equipped with a vacuum breaker	No	No	No	No	No	No	
Type of connection	Screw couplings		Screw couplings		Screw couplings		
Load carrying capacity (Tonnes)	5,000		25,000		105,000		
Draft (m)	6.5		9.7		12.9		The exact draft must be requested from GPMH (Le Havre Harbor)
Manifold <-> water line distance (m)	9		11.3		16.5		
Jetty length (m)	39		40		56		
Number of dolphins	4		5		4		Dolphins are equipped with mooring bollards
Length between internal dolphin axes (m)	24		27		50		
Length between external dolphin axes (m)	95		57		76		
Number of moorings ashore	Three (40 T) and one (25 T)		Three (40 T) and one 60 T		Six (100 T)		
Maximum approach speed	0.25 m/s		0.16 m/s		0.2 m/s		
Maximum ship length (m)	150		170		280		
Jetty <-> dolphin distance (m)	2.1		2.6		2.1		

TECHNICAL INFORMATION: DOCKING - JETTY

Section 4: Information regarding docking, navigation and mooring

1. Safe mooring and working guide:

Ship captains are responsible for the following mooring practices:

- If an anchor is used for docking, it must be lifted until the end of the mooring.
- There must be high surveillance on the deck during the entire period the ship is along the jetty.
- Make sure ships are properly secured along the jetty with ropes and cables. Mooring cables or ropes must be made with the same material and must be in good condition. All mooring equipment must be in good condition (winches, towing bollards and fairleads).
- Make sure the ship's mooring ropes or cables are only affixed to structures made for that purpose.
- Make sure strict surveillance is maintained on the mooring system in order to prevent a release or line tension and therefore any movements of the ship. If moors have to be adjusted, the ship captain must be informed.
- Provide and equip fire hoses with enough length and force to secure the bow in sea and bollards, with towing eyes maintained just above the water level with enough slack retained on board to prevent rope failure. In fact, this may make towing impossible.
- Provide more power or steam on deck for all mooring winches during the presence of the ship along jetties.
- The terminal will require loading operations to cease and will require tug-boats to be summoned if the movement of the ship puts the loading arm or pipes in danger, or if an efficient deck surveillance system is not present. Any delays and expenses caused by a ship which has not applied the necessary precautions will be at the ship's expense.

Operation of the mooring winch:

The ship must be firmly held against the dolphin defenses. It is unnecessary and dangerous to shock lines, even taut, if the ship is not against the dolphin defenses.

After each mooring adjustment, it is important for winch brakes to be correctly reset and the hand brake to be locked-in.

It is essential for the ship's crew to understand the operational requirements for mooring winches on their ship. In the case of brakes with hydraulic tension equipment, appropriate tools must be available to check and adjust the torque on brakes.

Automatic checks of brakes are not authorized. Winches must not be left without speed with an engaged manual or hydraulic brake.

The following items have a direct impact on the retention capacity of loading winch brakes:

The amount of torque applied to the brake:

The brake is intended to maintain an indicated load when it is engaged at a given level. If the brake is tightened less than indicated, it will slip to a lower load.

Winch condition:

A significant reduction also occurs if brake linings are greasy, encrusted with salt or worn out. Regular inspections and maintenance are essential.

If the winch is left with equipment powered on or off:

The brake's holding capacity may be improved by leaving the winch in gear with the steam off. While it is not recommended under normal circumstance, it may be considered temporarily, as an emergency measure.

Section 5: Services

1. Shipping agents:

Agents may go on board the ship at its arrival and while it is docked.

It is recommended for the ship captain to have the phone number of the agent in charge of the ship.

2. Water:

Industrial water supply at 30 m³/h, max. 3 bar.

Note: Invoicing is done by m³ after meter reading and verification by the crew on board.

3. Bunkering:

See "Bunkering by barge" page 7

4. Greasing oil:

Deliveries must be done by barrels or by barge at each jetty following approval from the Operations manager.

The delivery vehicle must not obstruct the jetty entrance without approval from the logistics manager or the Operations manager. The gate must be closed after a vehicle.

5. Delivery of merchandise:

The merchandise must be delivered to all jetties by land vehicle or by barge.

Requests to use cranes must be made to the Operations manager and/or shift supervisor.

Authorization will only be granted for small quantities of merchandise or for voluminous objects which cannot be easily handled. Ship equipment must always be used.

If the approval is given, the jetty operator checks handling operations to ensure that SHMPP safety rules are complied with.

SHMPP does not have any responsibility for damages to or loss of the ship or for any other reasons. SHMPP shall hold the ship liable for any damage caused to SHMPP equipment during lifting operations. It is prohibited to lift in the (un)loading zone.

6. Containers:

Container rental for any sort of waste must be organized by the shipping agent of the ship in question.

7. Medical services:

All medical services are organized by shipping agents. If an ambulance is necessary in case of emergency, the ship must immediately contact the control room or an operator present on the jetty.

The closest hospital is Jacques Monod. It is located at 29 Avenue Pierre Mendès France, 76290 Montivilliers. To contact the hospital: 02 32 73 32 32.

8. Transportation:

No public transportation is available, a taxi must be contacted if necessary. Organization of taxi service is done by the ship's shipping agent.

9. Center for Seamen:

The hotel "Les gens de mer" is located at 44 Rue Voltaire, 76600 Le Havre. For additional information: 02 35 41 35 32. The facility is open daily.

10. Gangway:

Dock 1: The terminal's gangway must be used (5.83 meters long and 200 kilograms). Its implementation is done by the on-board crane or by an external crane upon request from the ship (fees are at the ship's expense).

Dock 2: The terminal's gangway must be used (18 meters long and 950 kilograms). Its implementation is done by the on-board crane or by an external crane upon request from the ship (fees are at the ship's expense).

Dock 3: The terminal's gangway must be used (21 meters long and 1.3 tonnes). Its implementation is done by the on-board crane or by an external crane upon request from the ship (fees are at the ship's expense).

11. Supervision:

Supervision is done from the jetty. Besides commercial operations, and in compliance with general operating conditions and at existing rates, ships may remain at the pier under simple surveillance/supervision after validation by SHMPP. This supervision requires the presence of a jetty operator. The jetty operator will use a waybill for hours of supervision. Hours of supervision start three hours after the ship's arrival if the arm has not been connected and three hours after the disconnection if the ship is not gone. These additional fees will be at the ship's expense. Any fraction of an hour greater than a quarter of an hour shall count as a full hour.

Section 6: Jetty regulations and emergency procedures

1. Information regarding the terminal and jetties:

Its restrictions must be known by all people who visit the restricted area.

2. Definitions:

Approved equipment: equipment designed, tested and approved by an authority such as an agency of the classification society.

Classification of liquids:

- *Class A: flash point below or equal to 23°C.*
- **Class B:** flash point above 23°C including up to 66°C.
- **Class C:** flash point above 66°C including up to 100°C.
- *LPG: liquefied petroleum gas consists of liquefied butane, propane, propylene and a mix of similar gases derived from liquefied petroleum, which is liquefied by pressure or by a combination of pressure and temperature.*

Machines: any bunkering barge, motor boat, merchandise boats, tug-boat or ships weighing 100 tonnes maximum.

Hot work: work involving flames or temperatures which are sufficiently high to cause an ignition or gaseous flames.

This includes, for example, any work which involves the use of welding, fire or welding equipment, equipment with open flames, power tools, anti-deflagration equipment, gravel and ballast sand equipment with internal combustion engines.

Jetty operator: person intended to remain on the jetty during loading/unloading, when a bunker is being loaded or unloaded, and for other jetty tasks.

Ship officer in charge: the captain or any other ship officer to whom the captain has delegated responsibility for any operation or task.

Restricted access areas (R.A.A): jetties, the terminal and river area close to the jetties are restricted areas.

Tanker: a ship intended to carry crude oil in bulk.

Operations manager: the person, or their representative, who supervises operational activities of jetty and terminal equipment.

Terminal representative: an SHMPP employee.

Ship: any boat or craft.

3. Access to the terminal and jetties:

Only authorized people will be admitted on jetties and in the terminal area. Persons seemingly under the influence of drugs or alcohol shall not be authorized on jetties. Rules of the ISPS Code, as well as rules of the Port of Le Havre, must be complied with. Rules of the ISPS Code must be complied with (see Section 1 – § 1)

4. Conditions to conduct during loading and unloading:

During loading or unloading operations, the crew must remain on board under the continuous supervision of the ship officer, who must be consulted in case of emergency.

During loading/unloading operations, or transfer from one compartment to another, the terminal's safety checklist shall be scrupulously complied with.

Any violation of these regulations shall lead to the suspension of operations or removal of the ship from the jetty.

5. Static electricity:

Static electricity is recognized as a source of combustion, and it is only by complying with instructions that the danger may be avoided. Splashing is not authorized.

All tanks in which products known for being static accumulators must be free of gas before starting to load.

If the ship is equipped with an inerting gas system, then tanks must be entirely inert before starting to load.

Requirements pertaining to static accumulators do not apply when tanks are maintained in inert condition and when closed loading is complied with.

When requirements must be applied, then precautions detailed in "ISGOTT" must be followed:

- The initial loading rate in each individual tank must not exceed one meter per second. The SHMPP ship/shore checklist gives flow rates for various line sizes.
- When the lower structure is covered and once splashing and turbulence has stopped, the loading rate may be increased to 7 meters per second maximum.
- A 30-minute waiting period must elapse before sampling or gauging of a tank, in order to enable the dissipation of static electricity, unless closed sampling/gauging equipment is used and the vapor lock extends to the bottom of the tank.

Products containing anti-static additives shall always be classified as static accumulators and the aforementioned precautions are applicable.

6. Repair work:

- General repair work: repair work, including cleaning the boiler and its hoses, scaling and scraping are prohibited on all ships docked at SHMPP.
- Radar, etc.: the repair of electrical equipment (radios, radars and outdoor electrical systems, etc.) must be conducted with authorization from the Operations manager, or their deputy.
- Engine or repair of the steering gear: The engine or steering gear absolutely cannot be immobilized when the ship is docked at the pier.
If equipment becomes non-operational and leads to the ship's immobilization, tug-boats on stand-by and pilots (at the ships' expense) will be immediately requisitioned. The number of tug-boats shall be decided by the Operations manager after consulting all parties in question. An authorization for emergency repairs may be given by the site director.

7. Spark prevention:

Opening and closing traps, connection and disconnection traps of the loading arm or any other operation on the deck involving metal instruments must prevent the generation of sparks. Immediate measures must be taken to eliminate sparks from exhaust pipes or from engine exhaust.

8. Portable electronic equipment:

All types of equipment must be approved for use in hazardous areas. Cellphones and pagers are not authorized in terminal areas and jetties without authorization from the Operations manager.

9. Smoking:

Smoking is strictly prohibited in terminal and jetty areas, except in smoking rooms. This includes tug-boats, barges and mooring boats around jetties or when ships are docked.

On ships, smoking is strictly prohibited, except in certain premises determined by the captain and approved by the terminal representative. These smoking areas shall be confined away from the merchandise tanks.

Smoking areas shall not have doors or windows which directly open onto the loading deck or on a deck which looks onto merchandise spaces or onto a shore connection.

Smoking restrictions, clearly indicating authorized locations and times, must be posted in visible locations on board. Even if smoking is authorized in certain places, it may be stopped at any time by the terminal representative if, in their judgment, there are circumstances to justify this ban.

Ships are asked to offer a non-smoking area in which matters pertaining to SHMPP may be dealt with. If ships are incapable of providing a non-smoking area, all matters involving SHMPP employees shall have to be conducted on land.

10. Matches and lighters:

Matches, lighters or any other device producing sparks shall not be carried by any person engaged in the handling of loading hoses, tanks, ballasts, free gas or any other task on the upper deck of tankers or in the jetty area.

Visitors, contractor representatives and workers must not have matches, lighters or any other device producing sparks when they are on the jetty area or aboard a ship.

Any means of ignition must be left at the jetty door.

11. Operation of auxiliaries:

In order not to immobilize the ship, boiler fires must only be extinguished when the Operations manager, along with the captain, have decided that maintaining boiler fires constitutes a danger.

12. Hot work:

Any work presenting a risk must imperatively be submitted for the terminal's and harbor authorities' authorization (hot work or with an open fire, work on a safety component of the ship, on maneuverability, underwater work, etc.). Work in a closed space, a non-insulated tank or tank isolated from the rest of the tanks, is prohibited.

In case of absolute necessity, a prior request must be made to the terminal. The procedure followed will be that of the terminal regarding the authorization to "enter a closed space or tank" (atmosphere check, etc.). The terminal and harbor authorities shall give the ultimate approval before intervention.

13. Kitchenette and other kitchen equipment:

Using hot plates or other kitchen equipment may be authorized only if regulations are applied and if there is no danger.

14. Fire prevention and fighting measures:

Devices to fight fires must be in good condition, regularly tested and available for immediate use. Once the ship is docked, the officer in charge must familiarize themselves with fire fighting services on land and with means of communication via the appropriate authorities. Before starting the transfer, the ship's fire fighting system must be ready. If possible, a pump must maintain the pressure on the main fire water manifold. However, in all cases, it must be on

standby. Fire hoses must be uncoiled and connected to the main manifold, and it is necessary to place at least two close to the manifold, one in front and the other in the back.

The spray water system must be equipped to protect the manifold and must be tested. Fixed monitors must be adjusted to protect the manifold before the operation starts. Portable dry-chemical extinguishers must be placed in a practical manner for use near the manifold or a pipe. In case of fire, the captain must immediately issue a signal by any means available, including:

- A prolonged whistle sound from the ship
- By ringing the ship's fire alarm
- Calling the control room from the ship's phone
- Alerting the jetty operator

Any fire or emergency signal will be reported by the jetty operator on the jetty alarm system. The SDIS "local fire brigade" will be called by the SHMPP shift supervisor.

15. Merchandise handling and traffic of tug-boats and other craft:

The merchandise and bunkers must only be handled with approval from the terminal representative and with approval from the captain, as long as the following rules are being observed:

- Once the storage or bunkering has been conducted, all tank trapdoors and gauging caps must be directed downward. Loading arms and hoses must not be connected or disconnected during the process.
- Handling merchandise and bunker fuels from a barge is strictly prohibited until merchandise or ballasting operations have ceased.
- Products from road transport must be unloaded on jetties and delivered to ships by forklifts.
- All steel drums, steel plates or any other heavy material likely to cause a spark must be unloaded on the protection blanket. The items above must not be dragged or rolled along the deck of any ship or near jetties.
- Gas cylinders must be carried by hand or transported on a cart with rubber tires. They must not be rolled along the ship's deck or jetties.

16. International Safety Guide for Oil Tankers & Terminals (ISGOTT) and general rules concerning the handling of liquefied gas aboard ships and jetties:

These safety guidelines are intended to replace regulations and consequently, they must be in compliance with said regulations.

17. Avoiding pollution by hydrocarbons:

Very heavy fines may be imposed on the captain and ship officers for any petroleum-related pollution.

18. Emergency procedures:

For any emergency ship boarding, the jetty operator must immediately be advised by the ship's crew who are handling merchandise operations.

The jetty operator immediately notifies the terminal representative, then they close the jetty valve during loading, or close the jetty valve immediately after having been alerted that ship's pumps have been stopped during unloading.

The ship captain, or their deputy, shall determine the procedure to be followed by the ship's crew and shall inform the jetty operator of the actions taken. The jetty operator shall activate the fire alarm and trigger the terminal's fire system.

They shall obtain additional support from the ship, if requested.

For an emergency on a jetty, the jetty operator shall follow the same procedure for valve closure. The ship's captain, or their deputy, shall be ready for any action required by the ship or the crew.

19. Loading close-out:

All ships (except barges, unless deemed capable) must close out loading. Information on loading close-out is available in ISGOTT.

20. Sampling:

The terminal operates a closed sampling policy on all clear products. Barges are exempt from these requirements unless they are equipped for closed sampling, without which sampling lines will be taken.

Sampling will only be authorized by vapor valve locks by using closed sampling equipment.

An exception is granted to ships transporting fuel oil (unless the H₂S content is high), once sampling has been authorized through manholes if necessary.

Precautions for static electricity must be followed.

21. Loading regulations under closed circuit:

All operations conducted by shore personnel shall be subject to French controls for hazardous substances and to health regulations. The ship's crew must follow identical procedures.

22. Waste:

According to merchant ship regulations, ships are required to give prior notice to GPMH via the shipping agent, specifying details on the waste to be unloaded.

Waste must not be thrown overboard. The jetty operator must be alerted immediately of any item gone overboard.

23. Authorization to come ashore:

Crew members are authorized to walk along the jetty. To leave the depot on foot, and to be able to return to the ship, they must however remain in the walking area designated by the yellow line on the ground. All crew members must have identification to present to the jetty operator.

24. Vehicle traffic:

All vehicle drivers must comply with no parking signs, and vehicles must be parked in designated areas.

All vehicles parked on jetty areas must be unlocked with keys left in the ignition.

Vehicles and their contents enter the terminal and jetty areas at their own risk. They may be moved, for operational or safety reasons, without having to alert the vehicle's owner.

Vehicles with automatic immobilization systems must be left with the PIN code immediately available.

25. Cathodic protection:

All cathodic protections of the hull by imposed current must be turned off or unregistered before the ship arrives and during the entire time it is at the pier.

26. Cleaning the tanks and releasing gas at docking:

A minimum level of tank cleaning and released gas will be allowed along the jetty if it is not required for other SHMPP operations. Tank cleaning operations must be limited to the last tanks.

The authorization to clean the tank must be obtained from the SHMPP Operations manager.

Any operation of this type must be conducted in strict compliance with ISGOTT and regulations and with information on jetties from the SHMPP terminal.

Tank cleaning activities on the jetty must be controlled due to the proximity with other ships.

27. Atmospheric pollution:

To minimize atmospheric pollution emissions, we ask you not to smoke or unplug boiler tubes when the ship is alongside the terminal.

An efficient operation of inerting gas installation on ships is essential in order to minimize gas emissions during draining, gauging and ballasting operations.

Ships must arrive at the roadstead with cargo tanks at a water gauge minimum of 150 mm, to reduce atmospheric pollution on SHMPP jetties, except for ships transporting high quantities of H₂S. Continuous ventilation of inerting gas into the atmosphere is prohibited.

Depressurizing the inerting gas must be done in a controlled manner, and tanks must be depressurized individually. Each tank is then isolated from the supply line and other tanks. This tank is then reopened to the supply line for "repressurization" from other tanks. This progressively reduces the pressure in each tank and minimizes emissions into the atmosphere.

Tank openings must be secured, and all line and deck valves as well as inerting gas system valves must be checked before restarting inerting gas equipment and loading operations.

These checks must also be conducted while the ship is along the jetty.

During unloading and ballasting operations, the inerting gas system must be operational in order to minimize ventilation needs into the atmosphere and reduce inerting gas pressure.

The prevention method for hydrocarbon vapor emissions into the atmosphere must be done:

- By using permanent ballast tanks, whenever they are sufficient to provide the minimum pressure.
- By confinement of vapor in an empty cargo tank and simultaneously, ballasting and unloading the cargo.

Alternative methods to satisfy SHMPP may be accepted, as long as an equivalent degree of environmental protection is guaranteed.

28. Hydrogen sulfide:

Precautions must be taken aboard a ship transporting cargo with a quantity of hydrogen sulfide (H₂S) exceeding 5 ppm (air) with respect to the occupational exposure limit.

A closed system for product measuring rods and temperature measurements will be used. In case of failure or non-availability of these installations, headspace and temperature will not be taken into account.

The closed vapor system will be used for oxygenated cargo tanks.

Cargo sampling is authorized if samples are taken by vapor lock or by automatic sampling equipment. If hydrogen sulfide is detected on the jetty, merchandise or ballasting operations are immediately stopped.

29. Atmospheric pollution of cargo tanks:

The following applies to ships arriving for loading, if they have previously transported a product or a material with a low occupational exposure limit. Examples are benzene, acrylonitrile, H₂S etc.

Once these ships arrive at the mooring station, all loading tanks will be used for loading with a vapor concentration less than or equal to the long-term exposure limit.

Ships which have unloaded at SHMPP and then are loading again and which have a vapor concentration higher than the long-term exposure limit must leave the jetty and reduce the vapor concentration to the required level. The TLV - Long-Term Exposure Limit for H₂S is 5 ppm in air.

The TLV - Time-Weighted Average is 5 ppm for 8 hours.

The TLV - Short-Term Exposure Limit is 10 ppm for 15 minutes.

30. Hull painting:

It is not permitted, unless it is required for statutory reasons (loading lines, draft marks, etc) Security measures will be determined individually by the Operations manager.

31. Ship inspection:

All ships may be inspected when they are along the jetty.

32. Shore gangway:

See "Gangway" page 18

33. Entry into cargo tanks:

Entry into cargo tanks is not authorized. In certain circumstances, entry into the ballast tank may be authorized by the Operations manager.

In any case, full compliance with "ISGOTT" is required. All merchandise operations shall cease. Any additional time shall be charged to the ship.

Appendix 1: Preliminary information upon ships' arrival

1. Ships over 6,500 tonnes DWT:

Shipping agents are asked to provide the following information before arrival:

- Inform the Le Havre harbor authorities of the ETA.
- Flag and call sign.
- Summer deadweight.
- The last 10 ports.
- Total length, distance from the bow to the manifold center, flatside length.
- Arrival draft fore and aft.
- Maximum air draft.
- Sailing draft maximum estimated
- Bill of lading and ships' loaded figure
- Fuel oil ships: Report the unloading temperature and the maximum loading temperature.
- All ships: Report the H₂S content by volume in the vapor space of loading tanks (loading ships must have an H₂S level under 5 ppm).
- Quantity / type of ballast / tank cleaners to put on the shore before loading?
- The last three cargoes.
- The size of connections on board
- Check compatibility with our connections

	Dock 1		Dock 2		Dock 3	
Arm diameter (in inches)	8	8	10	10	12	12

- Are cargo moorings and equipment operational and ready to use?
- If it is available, the shore gangway must be used.
- The ship gangway / accommodation ladder must be prepared.
- Is the ship equipped with an inert gas system?
 - Does the inert gas system operate with all inert cargo tanks with a maximum of 8% oxygen per volume?

- Reduce the pressure of the inerting gas to a water gauge minimum of 150 mm at arrival in the pilot station to reduce atmospheric pollution at the jetty. If an inerting gas system is present, it must be operational and tanks must be inert.

➤ **All ships:**

The terminal shall use tug-boats at the shipowners' expense in case of emergency, in case of potential damage on the pier while ships moor, during the time the ship is docked and during navigation operations whether the Master is available or not.

Please transmit full names, the company and the reason for the presence of any visitor while the ship is stationed, to the agent the day before their arrival before 4 PM.

➤ **Closed-out operations:**

The terminal fully ensures a loading/unloading operation. Ships must arrive at the pier with all port ullage closed and secured.

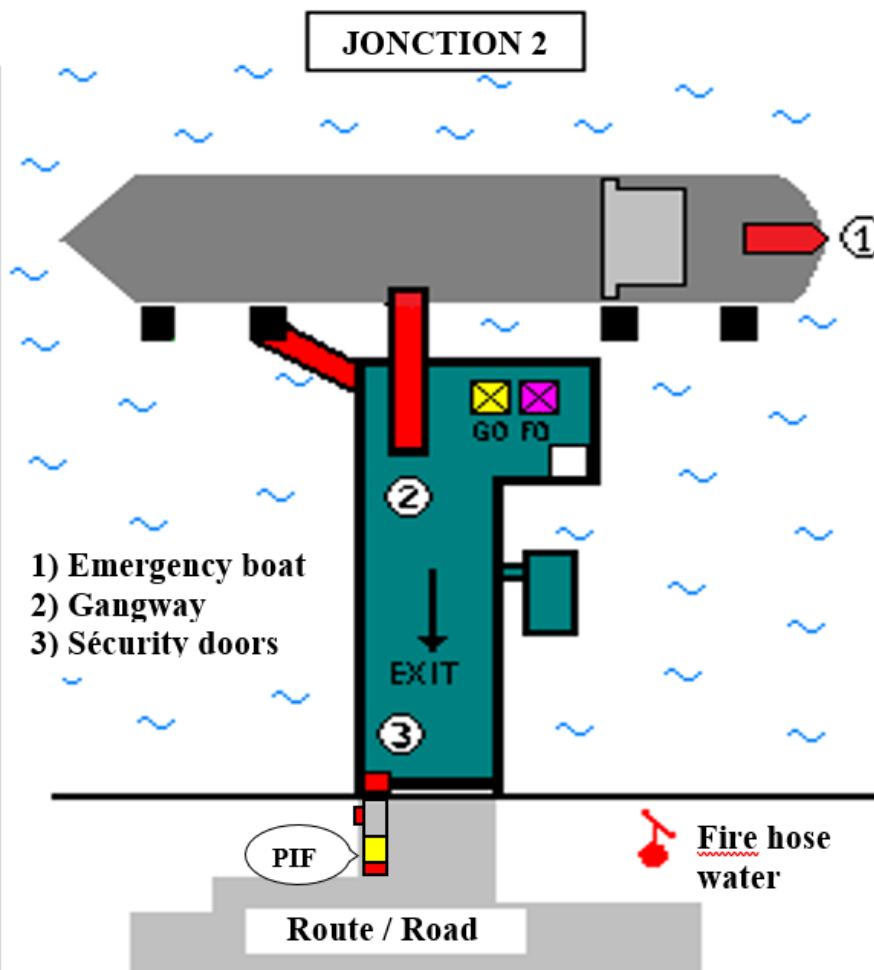
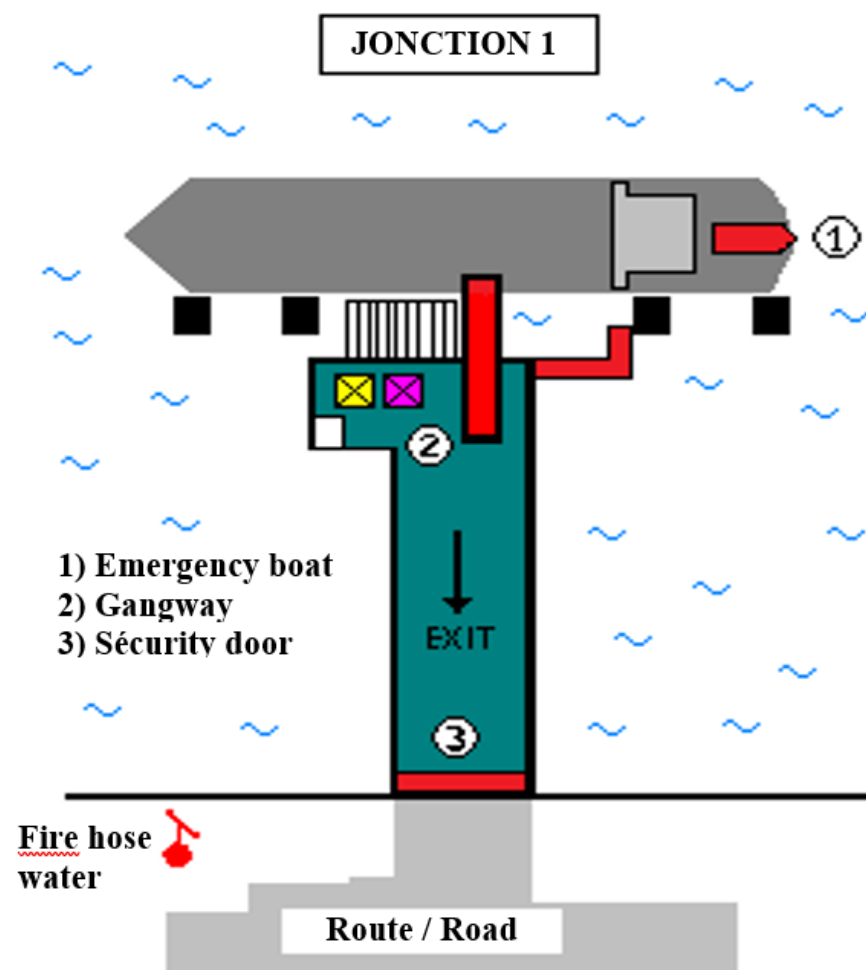
2. Ships under 6,500 tonnes DWT (coasters):

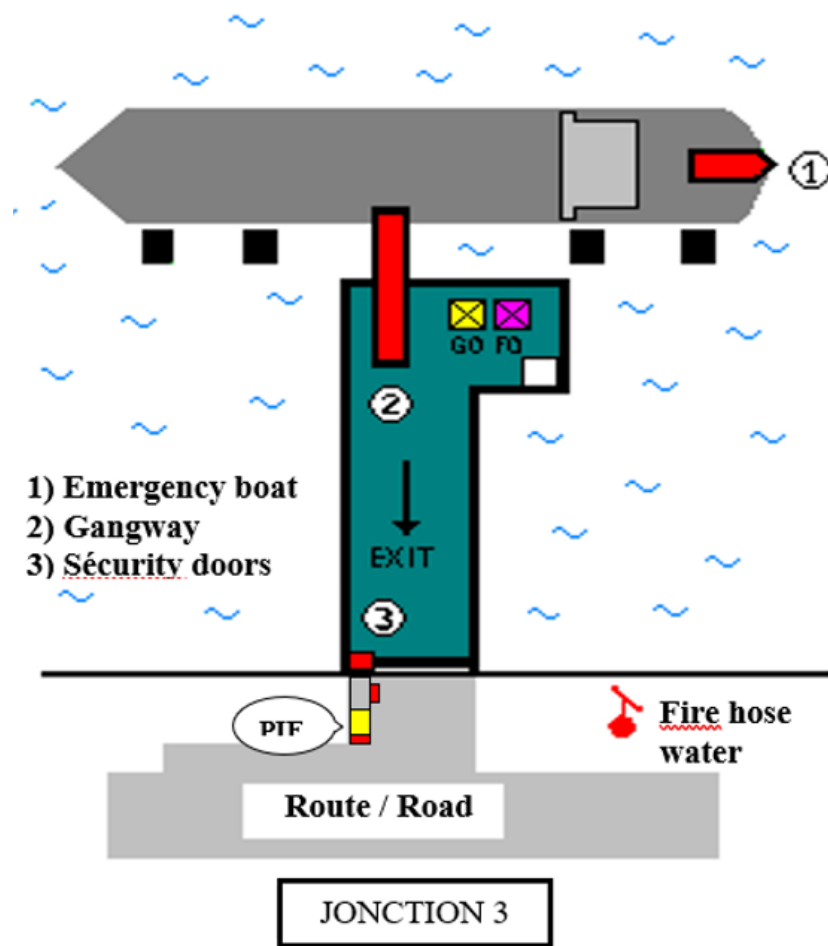
If a coaster is scheduled for the main jetty, then the aforementioned information for a ship under 6,500 tonnes DWT is applied.

Shipping agents are asked to provide the following information before their arrival:

- ETA at the Le Havre port.
- The last cargo.
- Are tanks clean and free from gas?
- Imports only:
 - Maximum arrival draft
 - Arrival displacement
- Exports only:
 - Maximum sailing draft
- Please transmit full names, the company and the reason for the presence of any visitor while the ship is stationed, to the agent the day before their arrival before 4 p.m.
- The terminal fully ensures a loading/unloading operation. Ships must arrive at the pier with all port ullage closed and secured.

Appendix 2: Jetty evacuation plans





Appendix 3: Risk analyses

Phase d'activité	Risques liés	Moyen de prévention	Terminal	Navire
Branchement/Débranchement	Arc électrique Ecrasement	Mise à la terre	X	
		Bras équilibré et contrôlé	X	
	Pression dans la conduite TK Pression dans le bras	Ne pas passer sous le bras en manœuvre	X	X
		Dépose bride par le bord		X
		Contrôle vacuité – vannes ou casse vide Port des EPI	X X	X
Chargement/déchargement	Bouchage	Surveillance particulière au démarrage	X	X
		Vidange ligne FO à la fin des opérations	X	X
		Contrôle de la pression et arrivée produit	X	X
	Fuite	Contrôle permanent des opérations	X	X
		Arrêt d'urgence	X	X
		Contrôle quantité sortie/entrée bac/Tk	X	X
		Test à l'air de l'étanchéité connexion	X	
	Suppression	Consignes de sécurité	X	
	Débordement	Soupapes sur lignes ou sur pompes	X	X
		Contrôle visuel de la pression	X	X
	Echauffement	Contrôle quantité sortie/entrée bac/Tk	X	X
		Consignes de sécurité	X	
	Différence de potentiel Rupture du bras	Contrôle de la température	X	X
		Mise à la terre	X	
		Entretien préventif Consignes de sécurité	X X	X X
Mise en place passerelle	Chute passerelle Blessures humaines	Contrôle passerelle et élingue	X	X
		Panneau « passage sous charge interdit »	X	
Grutages divers	Chute cargaison Blessures humaines Choc sur bras ou conduite	Contrôle passerelle et élingue	X	X
		Panneau « passage sous charge interdit »	X	X
			X	X
Echantillonnage	Projection Présence gaz	Equipement individuel de protection	X	X
		Détecteur de gaz + masque d'évacuation		X

Appendix 4: Hazardous situation



Comment réagir ? Qui prévenir ?

How react ? Who inform ?

FEU <i><u>Fire</u></i>	POLLUTION <i><u>Pollution</u></i>	AUTRES PROBLEMES... <i><u>Other problem</u></i>
Stopper les opérations Informer le terminal Prévenir ou faire prévenir les pompiers et les autorités portuaires Attaquer le feu	Stopper les opérations Informer le terminal Informer les autorités du Port Mettre en place les premiers moyens d'intervention	Stopper les opérations Informer le terminal Rechercher puis résoudre le problème Valider avec le terminal la réparation

Appendix 5: Communication



Salle de contrôle / Terminal office room :

02.35.25.80.31

Port du Havre / Harbour authorities :

02.32.74.70.71

VHF canal : 83

Caserne des pompiers / Fireman station :

18

Numéro de secours européen / European emergency number:

112