Moerdijk MVEO-V Netherlands

Terminal Information Booklet



Chemicals Park Moerdijk

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1 INTRODUCTION

The latest edition of the international Safety Guide for Oil Tankers and Terminals and The Moerdijk Port Authority regulations are applicable, in conjunction with the Shell Chemicals Park Moerdijk Terminal Information Booklet.

Tankers and their equipment must meet in accordance with the IMO BCH/IBC code guidelines and comply with national and international regulations, IBC Code, TSG and ADN requirements. The criteria stated in this Terminal Information Booklet does not relief the Tanker and/or Terminal from their obligation to use best judgement when assessing suitability, or conditions for loading and discharging, alongside Shell Terminal Moerdijk.

The master is responsible for the operation of his tanker including the cargo handling operations. The master shall ensure that staff delegated to conduct cargo handling operations are certified, qualified and competent. At all times sufficient crew should be available onboard to keep an efficient and safe deck and cargo watch.

Content manager	Owner
DRC/N/S91F13	DRC/N/S91F1

Revision info	Latest revision	Datum	Reason
Chemicals	0	17-08-2025	Review of new lay out
Berthing	1	06/11/2025	Berthing Limitation Alongside text adjusting

Distribution List

- Port Authority
- Pilots (Head Office)
- Shipping Agent
- MTA
- Terminal Representatives / Shore Officers
- Agency

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2 FIRE AND EMERGENCY RESPONSE

2.1 EMERGENCY ACTIONS

ACTION SHIP	ACTION BERTH		
Emergency on your ship	Emergency on a ship		
Raise the alarm: Sound one or more blasts on the ships whistle, each blast of not less than 10 seconds duration supplemented by a continuous sounding of the general alarm system.	Raise the alarm		
Inform Terminal Representative	 Contact ship Inform all ships in the vicinity Contact Port Authorities via CIN 		
Cease all cargo/ballast operations and close all valves if discharging. If loading only close valve after terminal advise it is safe to do so, after stopping their pumps.	Cease all cargo operations and close all valves		
 In case of fire, fight fire and prevent from spreading 	If necessary, Standby to assist fire fighting		
Standby to disconnect hoses or loading arms	Standby to disconnect hoses or loading arms		
Bring engines to standby	Implement berth emergency plan		
Emergency on another ship	Emergency ashore		
Standby, and when instructed:	Raise alarm		
Cease all cargo/ballast operations and close all valves	Cease all cargo operations and close all valves		
Disconnect hoses or loading arms	In case of fire, fight fire and prevent it from spreading		
Bring engines and crew to standby, ready to unberth	If required, Standby to disconnect hoses or loading arms		
	Implement berth emergency plan		

2.2 EMERGENCY ALARMS

2.2.1 In case of fire on the terminal or other ship

- 1. Sound one or more blasts on the ships whistle, each blast of not less than 10 seconds duration supplemented by a continuous sounding of the general alarm system.
- 2. Contact the Central Site Emergency Control room telephone: +31 168 355 345
- 3. Standby to cease all cargo operations and then close all valves
- 4. Standby to disconnect hoses or arms
- 5. Standby to start engines

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2.2.2 In case of fire on the ship

- 1. Raise alarm
- 2. Inform terminal
- 3. Fight fire and prevent fire spreading
- 4. Standby to cease all cargo operations and then close all valves
- 5. Standby to disconnect hoses or arms
- 6. Standby to start engines

2.2.2.1 Emergency response in case of fire on a ship

In case of a fire emergency on a ship the Shell emergency Response personnel will concentrate the response on the Shell asset. The authorities, who will take over command in such a situation will decide what to do with the vessel and her crew.

2.2.3 Fire alarm on the terminal

Fire alarm: Siren with alternating frequency (sinus wave)

All safe signal: Continuous high pitch sound for 1 minute

Testing fire alarm: Monday at 12:00 hrs and Saturday 16:30 hrs - 16:45 hrs

2.3 EMERGENCY COMMUNICATIONS

At the Shell Chemicals Moerdijk berth, the primary method of communication will be via the UHF radio provided by the terminal to ships on their arrival alongside.

The terminal will provide the ship with a portable radio, set on the loading office frequency. The ship will sign a receipt which will be countersigned for receipt by the shore upon returning the set to the shore representative. In the 2nd case there is a 24/7 jetty operator present on the jetty. Also, during the ship-shore loading and discharging conference the Loading master will write down the mobile number of the ship mobile phone. However, in case of a non-communication occasion the loading and discharging needs to be stopped by the ship in a safe way.

Shell Moerdijk Loadingmaster: +31 168 355 189

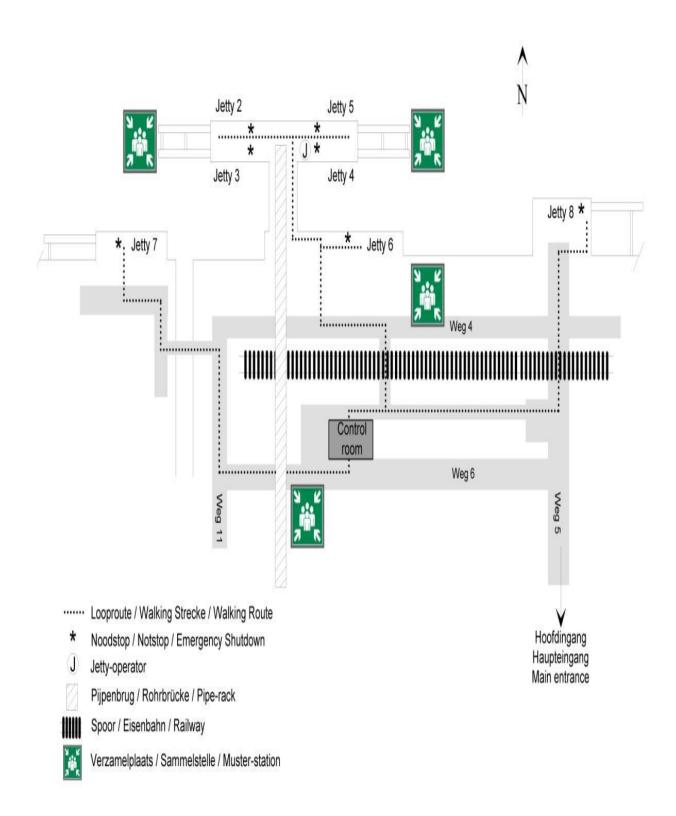
+31 639 067 361

Shell Moerdijk Control room: +31 168 355 280

2.3.1 International Shore Fire Connection

The terminal has 2 International Shore Fire Connections conform ISGOTT appendix E available on the T-jetty. If the fire alarm is raised the fire water grid on the terminal will be pressurized from minimum 8 bar up to 12 bar maximum.

2.3.2 Evacuation plan / Munster points



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2.3.3 Evacuation

In case of an evacuation and the main entrance of the jetty is blocked, a safe location can be created at the far end of our jetty heads, see muster signs. Boatman craft on site is available.

In case of vessel is required to be removed from our jetty then first clear communication should be established between ships master and Loading master to discuss this operation. The following items should be considered: tugboat -, boatman craft assistance, release of ropes.

In case of an emergency and an evacuation is required and access to the main entrance is not blocked the muster station near the Shell Moerdijk control room building should be considered. See also the evacuation plan in section 2.3.2 of this document of this document.

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3 SAFETY AND SECURITY

3.1 GENERAL

Responsibility for the safe conduct of operations whilst your ship is alongside our terminal rests jointly with you, as Master of the Vessel, and with the Terminal loading master.

We wish therefore, before operations start, to seek your full co-operation and understanding of the safety requirements set out in the Ship/Shore safety checklist, which are based on safe practices that are widely accepted by the oil and tanker industries.

We expect you, and all under your command, to adhere strictly to these requirements throughout your vessels stay alongside Shell Terminal and we, for our part, will ensure that our personnel do likewise, and co-operate fully with you in the mutual interest of safe and efficient operations.

Before commencing operations, and every 4 hours as stated repetitive items of the Ship/Shore safety checklist, a terminal representative together with a vessel representative, will make a routine inspection round on your vessel to ensure that all elements addressed within the scope of the Ship/Shore safety checklist are being managed in an acceptable manner. Where corrective action is needed, we will not agree to operations commencing or, should they have started, we will require them to be stopped.

If you consider that safety is being endangered by any action on the part of our staff or by any equipment under the control of the Shell Terminal, you should demand immediate cessation of operations.

THERE CAN BE NO COMPROMISE WITH SAFETY!

3.2 PERSONAL PROTECTIVE EQUIPMENT

The following minimum dress code shall be adhered to by ship's personnel while on duty alongside the Berth:

- Boiler suit / Coverall
- Safety helmet
- Safety goggles
- Safety shoes or boots with steel toe caps.
- Life jacket or buoyancy aid when working outside safety rails.

Personnel engaged in operations are actively encouraged to fully utilize PPE during cargo transfer, hose handling and mooring operations. This includes the wearing of safety goggles.

When handling cargoes with additional hazards, e.g., H2S, additional PPE are required i.e., H2S warning devices and escape mask.

People visiting ships moored alongside the T-jetty must wear a safety helmet while entering the T-jetty. In the white box at the parking facilities near the T-jetty and in the yellow boxes on the manifolds safety helmets are available. Guests must pick up (and wear) a safety helmet when entering the T-jetty area and leave the safety helmet in the white box after leaving the covered T-jetty area.

3.3 PORT AND TERMINAL SECURITY

This is to inform you that as from 01-07-2004 Shell Chemicals Park Moerdijk wishes to comply with the provisions of the International Ship & Port Facility Security Code.

You are therefore invited to complete the Declaration of Security provided, when the levels are equal then it is not necessary to sign this document.

When there is a difference in levels, the Port Facility Security Officer of the installation will review the document with you. You may wish to use your own DOS; we will accept this provided it is in every detail identical to the template, as mentioned as Appendix 1 in the Appendix to part B of the code.

Should you require any further security-related information, please feel free to contact our PFSO or Loading master.

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3.4 PERSONNEL AND VEHICULAR ACCESS

3.4.1 Access to Shell Chemicals Park Moerdijk

Prior to arrival ship's crew and expected visitors must be reported in writing (i.e., current crew list) to Site Security via e-mail MeldkamerMoerdijk@shell.com. People of which Terminal Security aren't notified are denied access to the Shell site. If external medical assistance (e.g., in case of a personal accident) is called in, please advise the Loading master so he can inform site security about their arrival.

Technicians and ship chandlers must report and identify themselves to site security at the gate.

3.4.2 For ships moored alongside Shell Chemicals Park Jetties

To control the persons allowed to board/disembark the vessel, as well as for general security reasons, identification is required for legitimation by all crewmembers. For this purpose, a <u>passport</u> or <u>seaman book</u> is required and should be shown at the gate. Furthermore, we request you to inform us about the representatives of firms and the visitors you wish to have on board, so they can be added to the crew list.

3.4.3 Entering the terminal from the ship

Access to the Shell Terminal is not allowed other than for staff involved in the cargo transfer. Therefore, visits to the shore by crewmembers must be arranged via the ship's Agent. The Agent will inform the Shell Installation security via e-mail MeldkamerMoerdijk@shell.com about the shore visit and arranged transport. Accordingly, Shell Security Department will allow access for arranged transport on the Installation to pick up or deliver crew at the jetty.

3.4.4 Entering the jetties from the shore

Before entering the jetties or loading areas one must report themselves to the control room. Entering jetties during mooring and unmooring is not allowed for safety reasons. Mooring and unmooring is an activity with increased risk where only the presence of specialized people is accepted. If desired or necessary one can wait in our harbor office canteen.

When mooring of the ship and placing of the gangway is completed, the jetty operator will, via the control room, release the jetty for access.

3.4.5 Walking at Shell Moerdijk premises outside the jetty is prohibited

When a crew member needs to go ashore, a taxi must be ordered via the ship's agent. You are not allowed to walk at the Shell Moerdijk premises outside the jetty and parking lot located next to the T jetty. The taxi must pick up the crew member up at the parking lot. This does not apply to inland barge masters reporting to the Loading master. Barge master or his delegate can walk to the MVEO-V waterfront office using the required PPE, taking all safety precautions into consideration.

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4 PRE-ARRIVAL COMMUNICATIONS

We send information digitally.

4.1 ETA ADVICE

The vessels agent will contact the Shell Loading master via telephone at least 60 minutes before the vessel arrives at the Pilot station to establish whether the berth will be available.

The 60-minute Notice also applies when vessels shift from berths within the Rotterdam/Moerdijk area.

This will enable the terminal to communicate status of the berth or any delay due to unforeseen circumstances and to issue final directives.

4.2 PRE-ARRIVAL EXCHANGE OF INFORMATION

Pre-arrival exchange of information will take place when vessels are scheduled for Shell Chemicals Park jetties.

An e-mail or digital way containing information concerning the arrival and berth will be sent to the vessel and the vessel's agent.

This e-mail also contains a questionnaire for the vessels Master to be filled out and returned to the terminal via the vessel's agent.

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5 ARRIVAL OF PORT

5.1 BERTH APPROACH



5.2 PILOTAGE

Seagoing vessels of >70 meters and/or carrying hazardous materials are obliged to have a pilot on board to sail into Moerdijk

https://www.portofrotterdam.com/sites/default/files/2025-01/port-information-guide.pdf

5.3 ANCHORAGE AND WAITING AREAS

http://www.portofrotterdam.com/en/Shipping/sea-shipping/port-information/Documents/port information guide.pdf

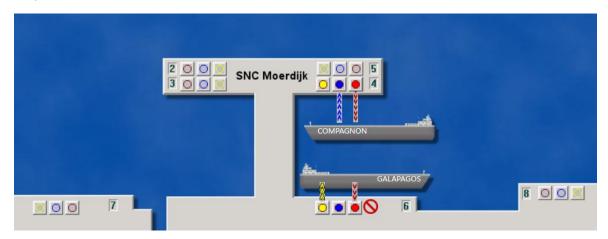
At the Shell Moerdijk Terminal it is not allowed to use anchors. Approach of the jetties has always to be done at safe speed; when safe speed cannot be maintained, tug assistance must be arranged (see 6.7). Whilst moored alongside, anchors should be properly secured by brake and guillotine but otherwise be available for immediate use.

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6 BERTHING AND MOORING

6.1 GENERAL DESCRIPTION OF BERTH

Shell Chemicals Moerdijk site has a T-jetty with 4 manifolds and at the foot of the T-jetty, manifold 6 and 7 which are only in use for inland barges. The T-jetty is located in the waters of the Hollands Diep at Location N 51 41 30.7, E 4 33 43.4



6.2 BERTH LIMITATIONS ALONGSIDE

Maximum length, draft, SD	WT, max displaceme	nt			
Manifold	Maximum length (M)	Maximum draft alongside in fresh water	Maximum approach draft in fresh water	Maximum SDWT per jetty	Max displacement per jetty
Man 2	145*	8.4	8	25.000	39.000
Man 3	120	8.4	8	20.000	26.000
Man 4	120	8.4	8	20.000	26.000
Man 5	150	8.4	8	25.000	39.000
Man 6 **	135	5.3	n/a	20.000	26.000
Man 7	135	5	n/a	nvt	nvt
Man 8	100	6.2	n/a	nvt	nvt
Lay-By berth (mooring poles)***	160	8	8	25.000	39.000

Manifold 7 is only for barges

Manifold 8 is only for barges

Maneuvering restrictions apply for berths 4, 6 and 8 due to Shell Moerdijk cooling water inlet

A designated lay-by berth with mooring poles is available exclusively for Shell seagoing vessels. Berthing is permitted only with prior approval from Jetty Planning or the Loading Master. Vessels must deploy their accommodation ladder on the inner side to facilitate safe embarkation and disembarkation. Any activities conducted at the Lay-By Berth require authorization from the Loading Master and must comply with the Terminal Information Book (TIB).

The maximum approach draft to Shell Moerdijk depends on the chart depth, water level and UKC policy requirement and is set to maximum 8m in Fresh Water.

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^{*}Maximum LOA may be exceeded to a maximum of 160mtr, waiver by MVEO-V management / MTA required

^{**}Manifold 6 is only for Barges and coastal ships with additional approval

^{***}Westelijke Insteekhaven – Lay-by Berth (Western Side)

Whilst alongside a berth, the minimum UKC by Shell Moerdijk Terminal is 1.5% of the molded breadth of the vessel, but not less than 0.5m. The maintained depth alongside T-jetties 2,3,4,5 is minimum 9m at NAP (actual water level is plus or minus water level at NAP).

The Port of Moerdijk area is accessible via de Oude Maas for seagoing vessels with a draft of 8.50 meters (incl. 5% UKC requirement by Port of Moerdijk), plus or minus NAP (Normaal Amsterdams Peil). NAP is the reference used for Dutch inland waterways. RWS (Rijks Water Staat) will endeavor to maintain a positive water level compared to NAP. The actual and predicted water level can be checked on: https://waterinfo.rws.nl/#!/kaart/

For reference check depth charts from Rijkswaterstaat Directie Zuid Holland. Max SDWT: SGS report OP02.30299. On arrival Port of Rotterdam checks draft of all vessels to guarantee safe access to all Ports including Dordrecht and Moerdijk.

6.3 MAXIMUM BEAM

The maximum beam is 32.00 meters as per Moerdijk Port authority.

6.4 AIRDRAFT

The maximum height of seagoing vessels sailing into Moerdijk is 45.00 meters at NAP water level.

6.5 TOTAL DISPLACEMENT T JETTY

Be aware that the total deadweight is considered for forces against jetty. For example: a ship with SDWT 25.000 berthed on manifold 2 with a bunker barge alongside with SWDT from 7000 is not allowed.

6.6 DRAUGHT TO & FROM MOERDIJK

Weather, tides and water depth | Port of Rotterdam

6.7 TUGS AND TOWAGE

The number of tugs may vary throughout the year, and the numbers mentioned below are averages.

Bollard pull 28 – 45 Tons: 13 Bollard pull 50 – 65 Tons: 15 Bollard pull 70 – 80 Tons: 5

Tugboat types: conventional, ASD-type and tractor tugs.

All the tugs are equipped with proper rubber fenders on the front and the stern.

The principal purpose of a harbor tug is helping to control ships during the transit of narrow channels, in turning basins and for careful controlling during the final stages of coming alongside a berth.

Safe use of harbor tugs is the responsibility of the ship's master, under a pilot's advice.

The terminal loading master is supposed to communicate with the pilot in case of any doubt of the use of a tugboat. Pilots can always be contacted via Dirkzwager or Boatman.

There is no minimum requirement on tugs set by the port authority of Moerdijk for the application of the port jurisdiction area.

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Shell Moerdijk minimum tugboat requirement					
No bow thruster Bow thruster					
LOA	All wind conditions	Wind up to 6 bft	Wind 6 bft or more		
Up to 120m	1	-	-		
120m, or more	2	-	1		

The terminal tug requirement may be increased per the individual Pilot judgment's/advice, with vessel maneuvering capability and weather conditions.

6.8 MAXIMUM APROACH SPEED

The max approach speed to berth on T-jetty is 0.1 m/sec = 0.02 NM/hr.

6.9 PROVISION OF MOORING CREWS

If the ship is in one of the following categories, use of the services of the boatmen or of the ship's crew to secure the lines is compulsory:

- ships longer than 75 meters
- tankers

In the Port of Moerdijk, particularly for the larger vessels, mooring boats are used to speed up the mooring process and can be used in case of emergency (i.e. malfunctioning bow thruster etc.)

These mooring boats are robust, powered by engines up to 200 hp and can sail at a speed of 10 knots. They are also equipped with direct radio communication with the pilot and fitted with watertight compartments. Ropes are secured with a special hydraulic clamp for extra safety. On the shore side boatmen are equipped with special winch cars, fitted with a hydraulic winch with a SWL of 1,2 Tons and spotlights for berthing at nighttime.

6.10 MOORING

6.10.1 Mooring along the T-jetty

Normally ships will berth according to the "bow out"-principle. Along jetty 4 portside mooring and along jetties 2, 3, 5 and 6 (see 5.2) starboard mooring. Deviating from this rule can occur because of other vessels and/or optimizing jetty equipment availability. It is recommended that the pilot contacts the Loading master by mobile phone +31 168 355 189 for assurance.

6.10.2 Rules for mooring in general

- Breast lines should be oriented as perpendicular as possible to the longitudinal Centre line of the vessel and as far aft and forward as possible.
- Spring lines should be oriented as parallel as possible to the longitudinal Centre line of the vessel.
- The vertical angle of the mooring lines should be kept to a minimum.
- Generally, mooring lines of the same size and type (material) should be used for all leads. If this
 is not possible due to the available equipment, all lines in the same service, i.e. breast lines,
 spring lines, headlines, etc. should be the same size and type. For example, all spring lines could
 be wire and all breast lines synthetic.
- Mooring lines should be arranged so that all lines in the same service are about the same length between the vessel's winch and the shore bollard. Line elasticity varies directly with line length and shorter lines will assume more load.

6.11 RESTRICTIONS

To prevent clogging of the central cooling water intake of Shell Chemicals Park Moerdijk only manifolds 2, 3, 4 and 5 can be used by seagoing vessels.

For the same reason it is forbidden for seagoing vessels to turn near the central cooling water intake which is situated between manifold 6 and 8. The cooling water intake is marked by 3 illuminated freestanding poles. Within which perimeter no ships are allowed.

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6.12 EMERGENCY TOWING OFF PENDANTS (ETOPS OR FIRE WIRES)

This item is still on the ISGOTT checklist. However, as OCIMF advises to discontinue this practice, this item is not being enforced by the Port of Rotterdam.

6.13 MINIMUM MOORING REQUIREMENTS

Seagoing:

Ships up to 10.000 Dwt: 2 Head- and Stern lines, 2 Spring lines Fore and Aft Ships up to 25.000 Dwt: 3 Head- and Stern lines, 2 Spring lines Fore and Aft Ships over 25.000 Dwt: 4 Head- and Stern lines, 2 Spring lines Fore and Aft

SDWT is mentioned because of the common notation.

Although SDWT is mentioned, be aware that the total deadweight is taken into account for forces against jetty.

SDWT plus lightweight = Displacement.

Barges:

All barges 1 Head- and Stern line, 1 Spring line Fore and Aft.

Link to Jetty drawings:

https://snr-bbs.nl/port-information-mooring-plans/

7 COMMUNICATIONS WHILE BERTHED

7.1 GENERAL

Responsibility for the safe conduct of operations whilst your ship is alongside our terminal rests jointly with you, as Master of the Vessel, and with the Terminal loading master.

We wish therefore, before operations start, to seek your full co-operation and understanding of the communication procedure.

Shell Terminal wants full co-operation with you in the mutual interest of safe and efficient operation.

- There must be a continue radio communication established during the entire stay of the vessel alongside Shell Terminal
- The officer engaged in cargo operations should always be in contact with the Terminal Loading Master
- A radio check should be conducted every hour
- A lack of communication results in cessation of the cargo operation
- The battery exchange should be arranged by the Loading master every 8 hours
- Communication language is English to enable contact between ship and control room we will
 issue a portable radio set to the ships officer. This will enable him to contact the control room to
 report/discuss the progress of operations, report unsafe situations and calamities.

7.2 SHIP/SHORE SAFETY CHECK LIST AND OPS, AGREEMENT

On arrival at the berth, the Terminal representative will present the ship with a copy of a folder containing the following documents:

- Ship/Shore Safety Check List
- Cargo Transfer Plans
- Port Security Requirements

7.3 COMMUNICATIONS DURING CARGO TRANSFER

The terminal will provide the ship with a portable radio, set on the loading office frequency. The ship will sign a receipt which will be countersigned for receipt by the shore upon returning the set to the shore representative. In the 2nd case there is a 24/7 jetty operator present on the jetty. Also, during the ship-shore loading and discharging conference the Loading master will write down the mobile number of the ship mobile phone. However, in case of a non-communication occasion the loading and discharging needs to be stopped by the ship in a safe way.

8 RESPONSIBILITIES

8.1 JURISDICTION

The Moerdijk Port is within the jurisdiction of the Port of Moerdijk. Therefore, the vessel could be subject to inspection by inspectors of the Transport and Environmental Safety Department or Port State Control. Because port operations take place around the clock, these inspections take place during day- and nighttime. Our experience has learned that on many occasions, especially during the night, documentation or certificates were not available. To ensure smooth operations, we advise to keep the following documentation and certificates (or certified copies of certificates) available at all times.

□□Shipboard marine pollution emergency plan
□ □Garbage record book
□□Oil record book part I and II
$\square\square$ Certificate of Fitness chemical/gas, including product list
□□Procedures and arrangements manual
□□Cargo record book
□ □Safety checklist
□□Stowage plan on arrival and departure
□□Material safety datasheet(s)
□□Bill of Lading
□ □ Shipping document for bulk liquid cargoes

8.1.1 Inspections from port state control

The Paris Memorandum of Understanding (MOU) on Port State Control aims at eliminating the operation of sub-standard ships through a harmonized system of Port State Control inspections on foreign ships in the Paris MOU ports. The organization consists of 25 participating member states and covers the waters of the European coast and the North Atlantic basin from Canada to Europe.

The Dutch Port State Control is carried out by the Transport and Water Management Inspectorate of the Netherlands. It deals with approximately 1,400 inspections each year. Inspections take place on board, ensuring that these ships meet international safety, security and environmental standards, and that crew members have adequate living and working.

8.2 CONDITIONS OF SHIP ACCEPTANCE

Ships are accepted at Shell Chemicals Moerdijk site on the understanding that operations will be conducted in accordance with all applicable legislation, together with practices contained in relevant Codes of Practice, in particular, the guidance contained within the latest edition of the International Safety Guide for Oil Tankers and Terminals (ISGOTT).

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8.3 RESPONSIBILITIES

Responsibility for the safe conduct of operations whilst your ship is alongside our terminal rests jointly with you, as Master of the Vessel, and with the Terminal loading master.

We wish therefore, before operations start, to seek your full co-operation and understanding of the safety requirements set out in the Ship/Shore safety checklist, which are based on safe practices that are widely accepted by the oil and tanker industries.

We expect you, and all under your command, to adhere strictly to these requirements throughout your vessels stay alongside Shell Terminal and we, for our part, will ensure that our personnel do likewise, and co-operate fully with you in the mutual interest of safe and efficient operations.

Before commencing operations, and every 4 hours as stated repetitive items of the Ship/Shore safety checklist, a terminal representative together with a vessel representative, will make a routine inspection round on your vessel to ensure that all elements addressed within the scope of the Ship/Shore safety checklist are being managed in an acceptable manner. Where corrective action is needed, we will not agree to operations commencing or, should they have started, we will require them to be stopped.

If you consider that safety is being endangered by any action on the part of our staff or by any equipment under the control of the Shell Terminal, you should demand immediate cessation of operations.

THERE CAN BE NO COMPROMISE WITH SAFETY!

8.4 RESPONSIBILITIES FOR LOADING

Shell Chemicals Europe Moerdijk owns the jetties and therefore is responsible for the operational handling of ships alongside the jetties. The captain/skipper of a ship remains legally responsible for the activities on board the vessel.

8.5 RESPONSIBILITIES FOR UNLOADING

The terminal will monitor Loading & discharging operations

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9 OPERATIONS ALONGSIDE

9.1 GENERAL

9.1.1 Personal attendance of jetty operator on the jetty

During your stay along our jetty a jetty operator will be permanently present on the jetty during active loading and discharging operations. He or She will also assist (dis)connecting hoses/loading arms and will start or stop operations in full cooperation with ship's cargo officer. The jetty operator is in continuous radio contact with our control room and will supervise the loading and discharging activities on our behalf and is your contact regarding all loading and discharging matters. The jetty operator will periodically visit your ship to discuss the progress of operations and carry out inspections (repetitive checks) on board your vessel and shore, to confirm the ship shore safety checklist. When unsafe situations or calamities occur, he or she will, in cooperation with the vessels crew, take care that loading/discharging operations are immediately and safely stopped.

9.1.2 Camera surveillance with remote control of cargo systems

During your stay along our jetty loading and discharging operations are under continuous camera surveillance from our staff in the control room. The cargo facilities themselves are remotely controlled from the same control room. One of our staff will periodically visit your ship to carry out inspections (repetitive checks) on board your vessel, and shore, to confirm the ship shore safety checklist. The jetty operator will also assist (dis)connecting hoses/loading arms and will start or stop operations in full cooperation with the ship's cargo officer.

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10 DIMENSIONS JETTIES & CONNECTIONS

For efficiency reasons we request the agent to transmit the dimensions of the shore connections to the ship which should be copied onto the ship's cargo connection before ships arrival at our terminal.

Product	liquid size	vapor size	Manifold/ berth nr.	barge and/ or vessel	Air draft W.L. to Manifold or railing, which is highest.
	ASA	ASA	NR		Meter
Butadiene	8" 300#	6"300#	2	B + V	11.00
Crude C4	8" 300#	6"300#	2	B + V	11.00
Ethylene	8" 300#	4"150#	2	B + V	10,00
P.O.	6" 150#	4"150#	2	B + V	11,00
Propylene	8" 300#	6"300#	2	B + V	11.00
Butadiene	8" 300#	8"300#	3	B + V	9,00
Ethylene	6" 300#	6"150#	3	B + V	7,00
LPG (butane)	8" 300#	8"300#	3	B + V	9,00
P.O.	6" 150#	6"150#	3	B + V	5,25
Propylene	8" 300#	8"300#	3	B + V	9,00
Benzeen	8" 150#	6"150#	4	B + V	7,00
C6 Raffinate	8" 150#	6"150#	4	B + V	7,00
DCPD	6" 150#	6"150#	4	B + V	5,25
DEG	6" 150#	n/a	4	B + V	7,00
ECR	6" 150#	6"150#	4	B + V	5,25
Ethyl Benzene	8" 150#	6"150#	4	B + V	8,00
Fuel /Hydrowax	6" 150#	n/a	4	B + V	5,25
HC Reformate	8" 150#	6"150#	4	B + V	7,00
IP feed	8" 150#	6"150#	4	B + V	7,00
LCCCO	6" 150#	n/a	4	B + V	5,25
MEG	8" 150#	n/a	4	B + V	7,00
MLO-Kgo	6" 150#	6"150#	4	B + V	5,25
MSPO water	6" 150#	6"150#	4	B + V	7,00
Pygas HC / tail	8" 150#	6"150#	4	B + V	7,00
Styreen monomer	8" 150#	6"150#	4	B + V	5,25
Veova	6" 150#	n/a	4	B + V	7,00
Versatic	6" 150#	n/a	4	B + V	7,00
Benzene	8" 150#	6"150#	5	B + V	7,00
C6 Raffinate	8" 150#	6"150#	5	B + V	7,00
DCPD	8" 150#	6"150#	5	B + V	7,00
DEG	6" 150#	n/a	5	B + V	7,00
Ethyl Benzene	6" 150#	6"150#	5	B + V	7,00
HC Reformate	8" 150#	6"150#	5	B + V	7,00
IP feed	8" 150#	6"150#	5	B + V	7,00
MEG	8" 150#	n/a	5	B + V	7,00
MLO-Kgo	8" 150#	6"150#	5	B + V	7,00
MSPO water	6" 150#	6"150#	5	B + V	7,00

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Product	liquid size	vapor size	Manifold/ berth nr.	barge and/ or vessel	Air draft W.L. to Manifold or railing, which is highest.
Pygas HC / tail	8" 150#	6"150#	5	B + V	7,00
Styreen monomer	8" 150#	6"150#	5	B + V	7,00
Veova	6" 150#	n/a	5	B + V	7,00
Versatic	6" 150#	n/a	5	B + V	7,00

10.1 CHECKS ON QUANTITIES TRANSFERRED

Hourly checks verified between operator and officer of the watch on board the vessel.

10.2 ENVIRONMENTAL CRITERIA FOR SUSPENDING OPERATIONS

Wind restrictions

- 1. At **30 knots**, (**15m/sec**, **7 bft**) MVEO-V Control Room (CR) windmeter reading check with ships windmeter. LM will get in contact with Master of the vessel.
- At 37 knots, (19 m/sec, 8 bft) longer than 5 minutes all cargo handling activities will be stopped, and the loading arms / ship manifolds will be made empty as much as possible. Also check gangway (safe Access) can be guaranteed. If necessary, contact the local MTA.
- 3. At **43 knots**, **(23m/sec**, **9 bft)** longer than 5 minutes disconnecting loading arms/hoses. Also check gangway (safe Access) can be guaranteed. If necessary, contact the local MTA.
- 4. The LM must initiate a conference between LM, Master and MTA about the departure of the vessel.

10.3 EMERGENCY SHUTDOWN

10.3.1 Emergency stop loading

The terminal will provide the ship with an emergency stop on the cargo deck. This should be positioned in a safe location, far from likely sources (i.e. hoses, loading arms, pumps etc.) of leakages or other incidents. It should be easily and safely accessible for the deck watch or cargo officer. It should only be pressed in case of emergency.

To deal with minor leakages operations are preferably stopped in cooperation with the terminal in a controlled manner. Thus, minimizing the risk of further escalation.

10.3.2 Emergency stop discharging

Discharging operations can be stopped by the vessel at any time by stopping pumps and closing ships valve. Shore must be informed. If an emergency stop is required by shore, ship will be informed verbally, cellphone or radio.

10.4 DRY CERTIFICATES'

We as terminal would point out that our liability for the product(s) delivered ends at ships railing so that we cannot be held liable if, after leaving our pipelines the quality of the product(s) delivered should prove to differ from that of the samples taken by us at the end of our pipelines as a result of any circumstances arisen or brought about in any way and any place what-so-ever on board the vessel.

SHELL CHEMICALS PARK-Moerdijk Loading master will not sign a clean tank certificate. If appropriate and necessary master will issue a letter of protest. Shell Chemicals Park Moerdijk Loading master will not sign a dry (empty) tank certificate. If appropriate and necessary master will issue a letter of protest.

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10.5 HANDLING OF SHIP'S STORE AND SPARE GEAR

Loading stores is prohibited for:

 Chemical tankers: during open washing of dangerous goods, except that discharging slops necessary for discharging washing water is allowed.

Ship stores can be ordered via your agent. Stores over land should be reported to the Port Facility Security Officer of the port facility via the agent.

Intended store supply of a ship to be communicated to our waterfront planning section a day before the expected arrival of the vessel. Information should include projected duration of the stores delivery.

10.6 CRAFT ALONGSIDE

The terminal will accommodate seagoing vessels to take bunkers/slops and stores alongside our jetties.

Conform the applicable Rotterdam harbor rules in the <u>Havenreglement Gevaarlijke Stoffen</u> Rotterdam and the requirements mentioned in ISGOTT chapter 1.4.6.1 & 24 and acknowledged by jetty planning, this is only possible under the following conditions:

- Intended /storing of a ship are communicated to our waterfront planning section a day before the expected arrival of the vessel. Information should include projected duration of bunkers/stores.
- Only GMAS registered and approved bunker barges are allowed
- Shell reserves the right to refuse bunkers/stores alongside their jetties that take more than 3 hours.
- Storing or bunkering of a ship takes place directly on arrival or after completion/suspension of cargo transfer.
- Permission is incorporated in our Loading and discharging arrangement.

The Loading master can deviate from the above rules i.e. agreement to be incorporated in the loading & discharging arrangement, that the ship takes bunkers or stores. But only when:

Transfer of liquids F1 package group III (Flashpoint above 23 degrees C) and if it is not class 6 (toxic) Cargo operations are limited to purging with nitrogen of gas free tested cargo tanks.

10.7 GARBAGE RECEPTION FACILITIES

Domestic garbage and other ships garbage may not be dumped in the Terminals waste containers but must be transported by a, by port authorities recognized, waste collecting firm.

10.8 POTABLE WATER

In general, you will order supplies of potable water before arrival via your agent. Your agent will arrange that the water barge arrives at the right time. If you are in port, you can order water supplies either directly or via your agent.

10.9 BUNKERS AND LUBRICATING OILS

The terminal will accommodate seagoing vessels to take bunkers/slops and stores alongside our jetties. Special attention is required to the dangers of H2S in bunker fuel conform ISGOTT chapter 1.4.6, 1.4.6.1 to 1.4.6.6.

Conform the applicable Rotterdam harbor rules in the <u>Havenreglement Gevaarlijke Stoffen</u> Rotterdam and the requirements mentioned in ISGOTT chapter 1.4.6.1 & 24 and acknowledged by jetty planning, this is only possible under the following conditions:

- Intended bunkering/storing of a ship are communicated to our waterfront planning section a day before the expected arrival of the vessel. Information should include projected duration of bunkers/stores.
- Only GMAS registered and approved bunker barges are allowed
- Shell reserves the right to refuse bunkers/stores alongside their jetties that take more than 3 hours.
- Bunkering of a ship takes place directly on arrival or after completion/suspension of cargo transfer.
- Bunkering of gas carriers is only allowed when loading arms are disconnected.
- · Permission is incorporated in our Loading and discharging arrangement.
- The master and skipper of the vessels involved have filled out and signed the bunker control checklist prior to bunkering. They should ascertain and agree in writing about:
 - Capacity, free space in m³ and filling degree of tanks to be filled.
 - Means of communication and procedure.
 - Frequency of dipping bunker tanks in minutes and person responsible.
 - Who keeps watch and acts on malfunctions.
 - Use of an emergency stop and procedure.

10.9.1 Exceptions to the discretion of the loading master

The Loading master can deviate from the above rules i.e. agreement to be incorporated in the loading & discharging arrangement, that the ship takes bunkers or stores. But only when:

Transfer of liquids F1 package group III (Flashpoint above 23 degrees C) and if it is not class 6 (toxic) Cargo operations are limited to purging with nitrogen of gas free tested cargo tanks.

10.9.2 Bunkering is prohibited during

Taking bunkers and provisions alongside our jetties is prohibited during:

Loading-discharging of products mentioned in the Gas Carrier Code. For Shell Chemicals Park: Propylene Oxide, Butadiene, Propylene, Ethylene, LPG C4, Crude C4 (check for other products the IGC code 1993 edition).

Transfer of low flashpoint cargo products.

Loading/discharging of a chapter 15 product from the IBC-code

10.10 SLOPS AND BALLAST RECEPTION FACILITIES

PORT RECEPTION FACILITIES FOR SHIP-GENERATED WASTE AND CARGO RESIDUES

In accordance with MARPOL 73/78 and EU-directive 200/59/EG, ports are obliged to ensure port reception facilities for the reception of residues of oil and noxious liquid substances and of garbage, adequate to meet the needs of ships using them, without delay to these ships.

Complying with these regulations the Port has designated a number of companies which are entitled to collect or receive and process (harmful) waste from ships.

Reception companies collect waste against set tariffs, which may be obtained from these companies via the shipping agent. Collecting waste may take place by means of barges. Ships are being discharged under "NUOC" (Not Under Operational Control SCE/SHELL CHEMICALS PARK). Ballast water is not part of the environment permit system S.N.C.

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LOADING & DISCHARGING AGREEMENT:

Per product a procedure for operations must be agreed. The loading master will come on board to agree and record the agreed procedure(s). 1 copy will be issued for reference to the vessel and 1 copy will be retained by the loading master. Any change of procedure, whether shore or ship based, must be recorded and agreed upon. When deviations, on the agreed procedure are observed, cargo operations should be suspended immediately until agreement is reached and recorded. Violation of this rule will be regarded as an unsafe act.

10.11 ADDITIONAL DANGEROUS PRODUCT INSTRUCTION

Per product to be loaded the vessel will receive from our shore representative a relevant and current Material Safety Data Sheet (MSDS) prior to loading. Please communicate the information incorporated in these MSDS to all crew.

If products handled constitute a risk that is extraordinary compared to generally handled cargoes, Shell will issue you an additional dangerous product instruction. Herein additional instructions are given for both ship and shore. These instructions are an integral part of the loading and discharging agreement.

10.12 STATIC ELECTRICITY

Static electricity presents fire and explosion hazards during the handling of petroleum, and several chemicals. Certain operations can give rise to accumulations of electric charge, which may be released suddenly in electrostatic discharges with sufficient energy to ignite flammable gas/air mixtures.

There is no risk of ignition unless a flammable mixture is present.

10.13 IF A FLAMMABLE MIXTURE IS PRESENT THEN

The flow of liquids is not allowed to exceed 1 m/sec until the level of the liquid is 30 cm above opening of the loading line, to avoid the dangerous splash filling. When the bottom structure is covered and after all splashing and surface turbulence has ceased, the rate can be increased to a maximum velocity of 7 m/s.

If the standard loading rate exceeds the velocity of 1 m/s, open more tanks, or limit initial liquid flow speed during start loading and at switching tanks. When loading with more than 4 ships tanks open, the cargo will not flow into all tanks simultaneously so the initial rate must not exceed the maximum of 4 tanks.

Reference table: diameter of transfer lines x number of tanks = max. Initial loading speed

Diameter	1	2	3	4
4"	30	60	85	120
6"	65	130	200	260
8"	120	240	350	460

10.14 EMPTYING LINES

Only Nitrogen is to be used when emptying lines.

Use of compressed air is strictly forbidden for safety reasons!!

10.15 SAMPLING POLICY

If applicable: Agent, Owner and/or customer are responsible for instructing the appointed surveyor on time for actual ETB at the loading site. Surveyors need to be nominated and released for our loading sites by nomination process. Loading operations won't be delayed due to waiting for surveyor.

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Sampling end of shoreline is not allowed at Shell Moerdijk

Product samples at the last installed flange cannot be taken at Moerdijk. There is no release for toxic cargo vapors to a safe location, causing non-compliance with local environmental legislation. Products are sold based on analysis reports of the product in the shore tank. At Moerdijk dedicated lines are used from shore tank to jetty loading arm.

Discharging tankers: sampling of incoming products is not allowed at Moerdijk

In case receivers of the cargo have any doubt on specifications or analysis results, additional sampling needs to be conducted outside Shell Moerdijk.

Loading tankers: sampling of outgoing products

Moerdijk has the obligation to minimalize vapor release to air for "substances of very high concern". Closed sampling of toxic and flammable cargo is a Shell Chemicals Terminal HSE and ADN requirement for inland barges. Closed Sampling for seagoing tankers is a Shell Chemicals Terminal HSE, International Bulk Chemical code and tanker safety guide requirement

- For products that impose a safety hazard such as toxic and flammable products (i.e. Butadiene, Propylene Oxide, Styrene Monomer, Benzene >0,1%) only Closed Sampling* is allowed, in combination with appropriate PPE
- Non-toxic products preferred sampling by closed system

*Closed Sampling for Moerdijk means a system that can take samples from a closed line system that circulates the product (for example DOPAK) or Gas Sampling Bombes.

10.16 INHIBITOR DOSING AT MOERDIJK

Inhibitor dosing is not allowed at Shell Moerdijk jetties

Inhibitor is dosed at the production location before it enters the shore tank. Adding additional inhibitor for voyages exceeding 4 weeks needs to be requested at nomination date to Shell Chemicals Europe BV local supply and commercial counterpart.

10.17 DEPARTURE / ORDERING PILOT & BOATMEN

As soon as cargo transfer is finished, we will notify ships agent to order the pilot (incl. tugs and boatmen). We use the following guidelines for departure:

After loading: end of cargo transfer + 2 hours

After discharging: end of cargo transfer + 1.5 hours

In this time, we will complete cargo calculations and cargo documents. If you choose to order the pilot yourself for an earlier moment, we can and will not guarantee that transport documents will be ready. Any delay within this period will be for your account.

These guidelines are experience based and are necessary to give all parties involved the opportunity to execute their activities safely and accurately. Deviation from these guidelines is only possible by mutual agreement between the loading master and the master/skipper of the vessel involved.

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11 SAFETY REQUIREMENTS

11.1 SMOKING

It is not allowed to smoke in the harbor area except in accommodations on board designated and clearly marked as such. With this letter we draw your special attention to the ship/shore safety checklist **B 36** (smoking requirements) and its explanatory guideline

We herewith clearly point out that violation of these smoking regulations, by any person on board, may result in suspension or stoppage of operations, for which delay we cannot be held responsible.

SMOKING IS ONLY ALLOWED IN DESIGNATED "SMOKING ROOMS"

A designated "smoking room":

- MUST have a two (2) door separation with the outside.
- MUST be stated in the ship/shore safety checklist.
- MUST be marked as such. Places designated as "smoking room" lose this qualification as soon as either the outside door or the smoking room door cannot be closed properly anymore.

See ISGOTT chapter 4.10 "SMOKING"

11.2 USE OF MATCHES AND LIGHTERS

Safety matches or fixed (car type) electrical cigarette lighters should be provided in approved smoking locations.

All matches used on board tankers should be of the safety type. The use of matches and cigarette lighters outside the accommodation should be prohibited, except in places where smoking is permitted. Matches should not be carried on the tank deck or in any other place where petroleum gas may be present.

The use of all mechanical lighters and portable lighters with electrical ignition sources should be prohibited on board tankers.

Disposable lighters present a significant risk as an uncontrolled ignition source. The unprotected nature of their spark producing mechanism allows them to be easily activated accidentally. The carriage of matches and lighters through terminals should be prohibited.

11.3 MANAGING SHIP-/SHORE INTERFACE

Shell Chemicals Park Moerdijk has a firm intent to manage the ship- shore interface to a high standard with respect to Health, Safety and Environment. To achieve this, we gather data about HSE performances of ships we charter and of our own HSE performance. This data will be analyzed and communicated back to our transport partners and our own Shell community. If the data is actionable, we ourselves will implement improvements and will propose opportunities for improvement to our shipping partners.

11.4 HSE LETTERS OF PROTEST

Through these letters we will inform you about breaches of accepted HSE standards observed on board your vessel. If these breaches jeopardize the safety of our installation or staff, we will suspend operations immediately until you have remedied matters to acceptable standards. We hold you accountable for any loss of lay time that may arise. Copies of these letters will be sent to the ship's agent and ship's owner. Periodically we will meet with your company to discuss our findings. This data will also be used in our supplier ranking.

11.5 TERMINAL EVALUATION BY SHIP

To acquire information about our own HSE performance we can, randomly, request you to fill out a so-called "HSE evaluation form for Terminal activities at Moerdijk. In this document you can rate the terminal's performance and facilities. We ask you to be frank and illuminate your score by relevant comments. Thanks in advance for your cooperation.

11.6 ACCESS TO SHIP & CLEANLINESS SHIPS DECK

To prevent personal incidents like falling and slipping, the ships deck must be clean and free of obstacles. Means to access the deck from the shore should be sturdy and immobilized and offer support to maintain balance (preferably a handrail along the stairs).

11.7 ENTERING ENCLOSED SPACES

Enclosed space entry, including cargo tank entry for cleanliness inspection, is prohibited at Shell Moerdijk as per site HSE regulations.

11.8 INSPECTION AND/OR DIVING ALONGSIDE JETTIES

Diving alongside Shell Moerdijk jetties is for safety reasons not allowed. In case of emergency always contact the loading master.

11.9 DRUG AND ALCOHOL POLICY

No alcohol or drugs while working or driving

You should...



- Always inform your Supervisor or the Person in Charge if you are taking medicine that may have an effect on your performance
- If in doubt, always check with your Supervisor or the Person in Charge who may seek medical advice
- Not use, keep, sell or distribute illegal drugs
- Intervene if you see a case of alcohol or drugs abuse

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11.10 PORTABLE ELECTRICAL EQUIPMENT, INCLUDING PHONES AND PAGERS

Use of electronic devices (such as cameras, telephones, pagers, laptop computers, transistor radios etc.) is strictly forbidden in the harbor area except in designated approved smoking rooms and galleys on board. These devices must be switched off within jetty, loading areas and plants.

Remark:

Shell approved persons may use an Ex-proof GSM cellular phone.

Because dock facilities are typically rated as a hazardous area and act as an entrance gate for ship personnel, pilots and government officials are allowed to take non-intrinsically safe ATEX equipment to and from a ship under the following conditions:

- Always turn device(s) OFF when entering the jetty.
- Secure devices are in a bag (e.g. a bag that protects the device from breaking in the event of a fall such as a backpack, a laptop case, a lunch box, etc.)

11.11 ENVIRONMENTAL PROTECTION

The rules and regulations in the port contribute to the safe, efficient and environmentally responsible handling of shipping traffic. The international rules of the IMO, such as the SOLAS convention and its amendments (e.g. the IMDG code and IBC) and national regulations, including the recommendations of the European Community, are in force in the port of Rotterdam. Furthermore, the Port Byelaws are the "house rules" of the port.

Based on the Rotterdam Port Byelaws, the Port Rules on dangerous substances contain additional, specific regulations for ships carrying dangerous cargoes in the port.

11.12 ELECTRICAL STORMS

All cargo transfer operations, including the ballasting of non-gas-free cargo tanks will be stopped in the event of an approaching electrical storm. All tank openings, vent outlets, cargo and manifold valves will be closed until such time as the storm has passed.

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12 APPLICABLE TERMINAL REGULATIONS

LIFE SAVING RULES (Moerdijk Jetty and facility)

These rules must always be followed at Shell-facilities and Jetties.

Obtain authorisation before entering a confined space

Each entry on board must be reported in advance to the terminal-loadingmaster

You should...

- · Confirm with the Supervisor or the Person in Charge of the work that it is safe to start work
- Confirm with the Attendant that you can enter a confined space Follow the requirements of the



- Approve and control access to a confined
- Have means of communication with people in the confined space

Protect yourself against a fall when working at height

You should...

- · Have authorisation to work at height outside a protective environment
- · Be aware of what fall protection equipment to use and how to use it
- · Check equipment before using it
- · Always tie off when at height outside of a protective environment



Do not walk under a suspended load

You should...

- · Never cross a barrier controlling an area with a suspended load without authorisation
- · Follow the instructions of the Flagman or the Person in Charge of the lift



A Person in Charge should...

- · Mark the unsafe area and put barriers in place
- Ensure that nobody walks under a suspended

Do not smoke outside designated smoking areas

You should...



- · Know where the designated smoking areas are
- · Intervene if you see someone smoking outside a designated



No alcohol or drugs while working or driving

You should...

- · Always inform your Supervisor or the Person in Charge if you are taking medicine that may have an effect on your performance
- If in doubt, always check with your Supervisor or the Person in Charge who may seek medical advice
- Not use, keep, sell or distribute illegal drugs
- Intervene if you see a case of alcohol or drugs abuse

While driving, do not use your phone and do not exceed speed limits (30 Km at Moerdijk Facility)

Drivers should...



- Not use a mobile phone or pager, send or read a text message, or use a hands-free mobile phone device
- · Stay at or below the maximum allowable speed for the road your are driving on as indicated by road signs or Journey Management instructions
- Stay at or below the maximum allowable speed limit for the vehicle you are driving
- · Adjust your speed to the prevailing conditions
- · Always use a 3-point seatbelt

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12.1 ULLAGING AND SAMPLING

During loading and for 30 minutes after the completion of loading (relaxation-time) no equipment for dipping or ullaging may be introduced into the tank.

Portable gauging devices mounted on deck standpipes such as UTI's and operations through correctly designed and installed sounding pipes - pipes which extend to the full depth of the tank - are allowed.

12.2 CLOSED OPERATIONS

The loading, discharging and/or ballasting of ship's cargo tanks must be conducted under closed conditions. The use of manual gauging/sampling of cargo tanks via sighting, ullage ports or similar openings is not permitted. Cargo tank inspection from deck level is only allowed when loading arm is not connected and tanks are clean, gas free and not inerted.

In case of exceptions e.g. Claim Procedure, then a MOC (process) is required.

12.3 INERT GAS

When loading products that are poisonous, flammable or require a low oxygen atmosphere above the product we will purge the cargo tanks with pure nitrogen. To prevent people entering these cargo tanks during and after purging, all possible entrances must be closed and secured. On all lids and hatches big enough to allow entrance to the cargo tank by people, nitrogen warning labels must be visibly attached. Vapors displaced from the ship during loading of these products are recovered or incinerated.

12.3.1 Nitrogen supply above flammable liquids during discharging

To prevent the buildup of an explosive atmosphere in the ship's tanks during the discharging of flammable products, we will replace, via the vapor return line, the discharged product by nitrogen. The pressure of the nitrogen supplied is standard set to 20 mbarg, can/will be increased on ship's request.

To prevent people entering these cargo tanks during and after purging, all possible entrances must be closed and secured. On all lids and hatches big enough to allow entrance to the cargo tank by people, nitrogen warning labels must be visibly attached.

12.4 STATE OF READINESS OF MAIN ENGINES

The main engines and other essential machinery of all ships alongside must be maintained in a state of readiness for vacating the berth at short notice.

12.5 MAINTENANCE AND REPAIR WORK ONBOARD

Major planned repair work is not permitted while the ship is alongside the Shell Moerdijk Berth. Emergency repairs, namely essential repairs needed to rectify malfunctioning equipment and prevent hazardous or unsafe conditions, will be permitted on a case-by-case basis following upon application to the Harbor Master and with the permission of the Terminal Representative.

12.6 HOT WORK ON BOARD

Hot work outside a designated space is not permitted on board ships alongside the Moerdijk Berth.

12.7 TANK CLEANING, PURGING AND GAS FREEING

During ships stay at the Shell Moerdijk jetties, all commercial cleaning operations are prohibited. Mandatory MARPOL ANNEX II Pre Wash may be allowed (see 12.7.1.2). If additional information is required before arrival, please contact your local agent or Shell Moerdijk directly.

12.7.1 PRE WASH

12.7.1.1 MARPOL Annex I

Not allowed

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12.7.1.2 MARPOL Annex II

An Annex II pre-wash may only be allowed if the pre-wash is mandatory, required by authorities and the product has been discharged at a Shell Moerdijk jetty. Operations will have to be in compliance with Terminal HSE requirements, ISGOTT and tanker P&A manual.

A mandatory Pre Wash is only allowed if the O2 content in tank atmosphere is < 8%. This must be confirmed during the pre-cargo operations meeting by the master and/or cargo officer. Pre-wash is not allowed in a non-inert atmosphere. Throughout the operation the tank atmosphere must be safe to carry out high pressure washing. The pre-wash operation may only be fully closed; portable butter wash machines are not allowed. At Shell Moerdijk prewash cargoes are discharged under positive N2 pressure via VR.

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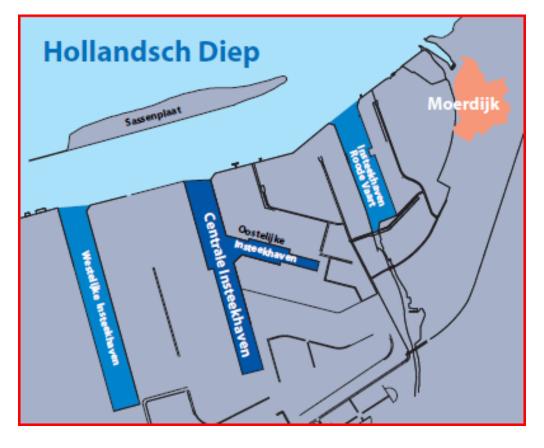
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13 APPENDIX A: CONTACT LIST

	telephone	opening hours
Jetty Planning	+31 104 416 285	Standard office hours.
Chemical.marine.jettyplanning@shell.com	+31 104 416 288	
Loading master Moerdijk	+31 168 355 189	24 hours
(for operational matters only)		
Harbor number:	M450	
Visiting address	Chemieweg 25, 4782SJ Moerdijk	
PFSO - W. Groenendijk	+31 168 355 387	Standard office hours
(Port Facility Security Officer)		
Deputy PFSO	+31 168 355 345	24 hours

14 APPENDIX B: PLAN OF PORT LAYOUT



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15 APPENDIX C: PLAN OF BERTH LAYOUT



16 APPENDIX D: MOORING PLANS

https://snr-bbs.nl/port-information-mooring-plans/