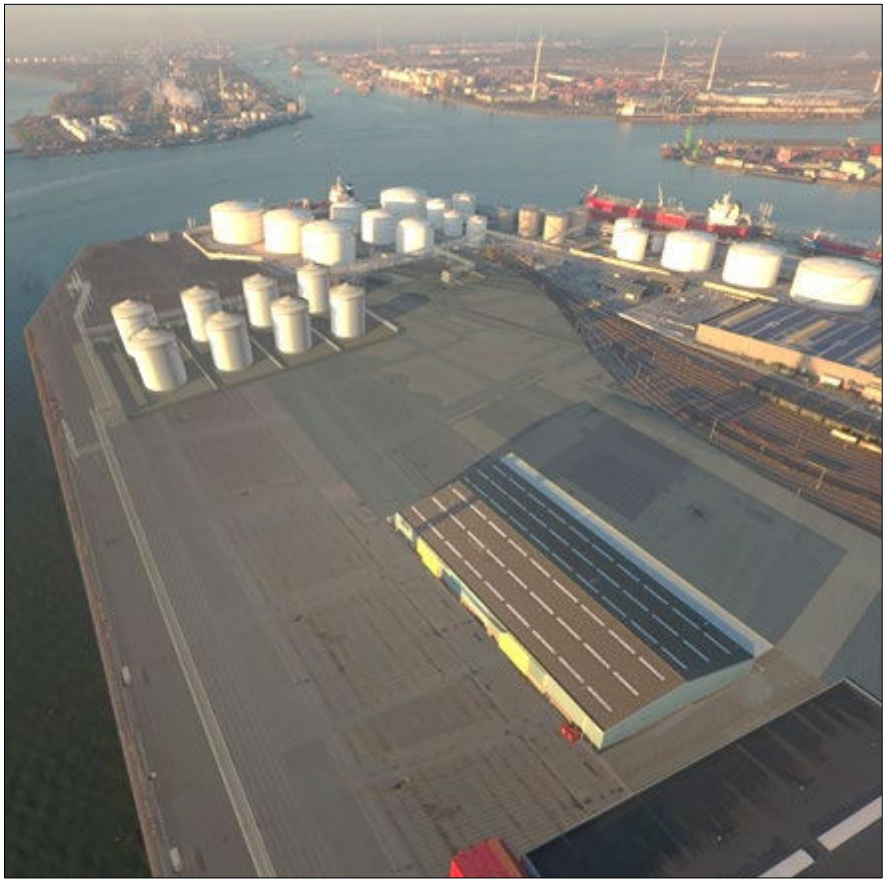
SEA-Tank 300 SEA-Tank Terminal Antwerp

TOTSEANERGY NV



TERMINAL HANDBOOK FOR INLAND BARGES

1.1 Main Office

SEA Tank Terminal NV
Skaldenstraat 1
9040 Desteldonk

Terminals

STTA NV – Sea-Tank 300 NV –
Totseanergy NV
Rostockweg 25
2030 Antwerpen

Official address

SEA-Tank 300 NV
Rostockweg 25
2030 Antwerpen

Totseanergy NV
Skaldenstraat 1
9040 Desteldonk

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FOREWORD

The information contained in this handbook is intended to familiarize vessel/barge owners, operators, charterers and barge captains with the general conditions, rules and regulations, facilities and availability of services at the SEA-Tank 300 NV, Totseanergy NV and STTA NV.

This information is presented without guarantee or warranty on the part of the Terminal as to its accuracy or completeness and does not replace nor supersede any local, national or international regulation. SEA-Tank 300 NV, Totseanergy NV and STTA NV don't assume nor accept any responsibility for the use of any information contained herein by any person.

In all circumstances, barge captains shall remain solely responsible for:

- The safe operation of their vessel;
- Compliance with all applicable international, national and local laws, rules and regulations;
- Adherence to the provisions of the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN);
- Adherence to the guidelines contained in the International Safety Guidelines for Inland Navigation Tank-barges and Terminals (ISGINTT) ;
- Adherence to this terminal handbook.

As captain you are hereby notified that your vessel may be boarded at any time by terminal personnel to ensure compliance with the requirements laid out in this handbook. Any noncompliance will result in the interruption of the on-going cargo operations and may affect future approval status of your vessel at this terminal and any consequent costs will be for the account of the barge owners / managers.

A. TERMINAL REGULATIONS

1. Location

SEA-Tank Terminal Antwerp NV is located in the “Zesde Havendok & Hansadok” on the right bank of the river “Scheldt”. Berth coordinates are

Oil-terminal: 51°16’20”N, 004°20’57”E

H_2SO_4-terminal: 51°15’59”N, 004° 22’05”E

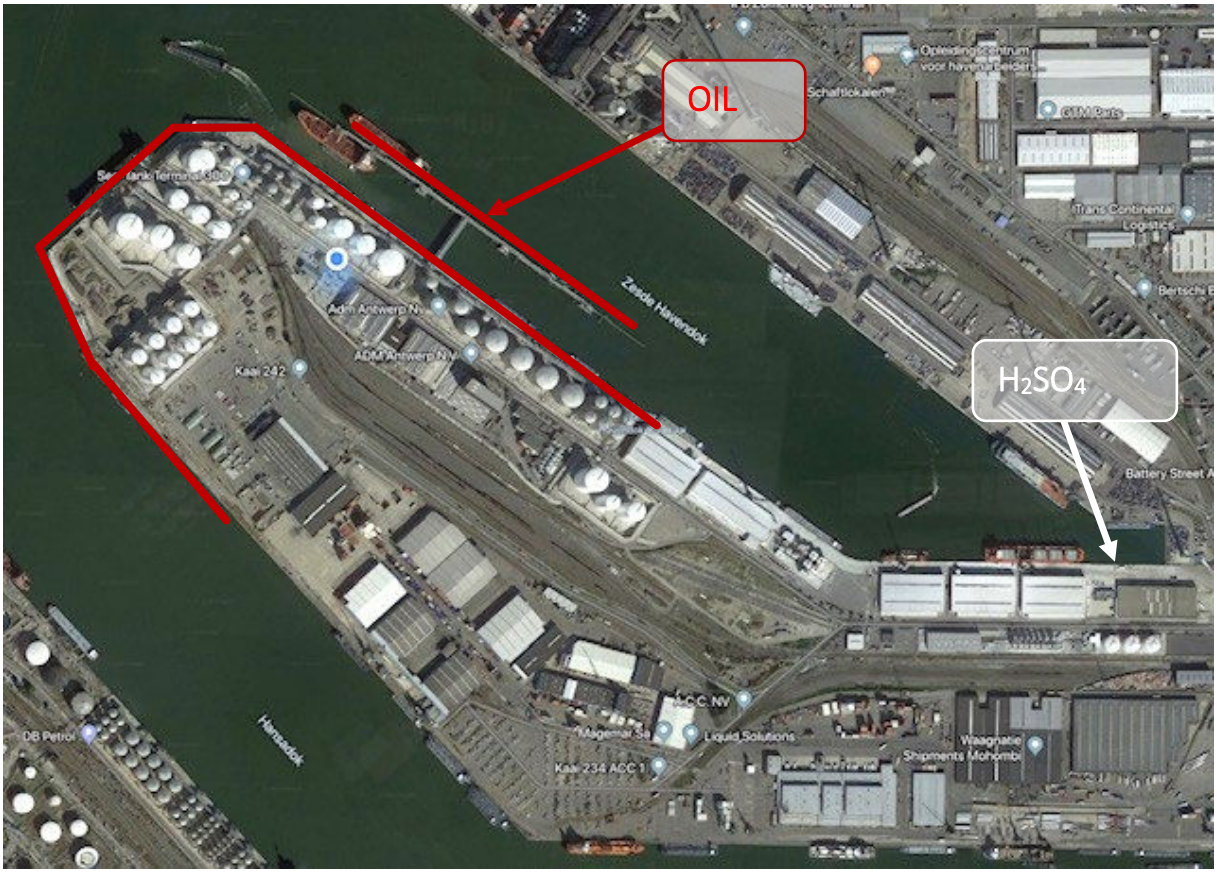


Figure 1

General layout of the Jetty installation enclosed (see PART D.).

The BA chart covering this area is BA128. There is no influence of current as the Terminal is located behind the locks.

The density of the dock water is 1004 kg/m³.

2. Pre arrival communications

Arrival announcement is done on-line via UAB for the oil-terminal (http://www.uab-online.eu).
For an announcement to be accepted the barge must be able to arrive at the terminal within 60 minutes of the announcement time. Terminal control room will contact the barge by mobile phone for berthing information.

Arrival announcement for the H_2SO_4-terminal is done by calling the CCR (see part F. Contacts and communications for the phone number).

3. Berthing

The angle of approach shall be as close to parallel to the jetty line as possible but in no case more than 10 degrees from parallel.

The maximum landing velocity on the fendering shall not exceed 12cm/s.

All costs related to damages to berth installations during berthing manoeuvres will be borne by vessel's owners.

4. Mooring

The Master is responsible for, and shall ensure that his vessel is properly moored alongside the berth at all times.

4.1 General mooring requirements

- The general mooring layout shall be symmetric to the centre of the ship;
- All mooring lines shall be kept tight at all times;
- On vessels fitted with automatic tensioning winches, the winches shall be set for
- manual operation and brakes securely applied;
- Line that are frayed, spliced or damaged shall not be used.

The safe mooring of a barge remains the master's responsibility. The bellow details the minimum requirements for each berth. In any circumstances the master can decide to set out additional lines to his own discretion and best judgement.

- For barges with a length of 125 meters or less:

  A minimum of 4 lines, including forward – 1 headlines and 1 springs, and aft – 1 stern

  lines and 1 springs.

- For barges over 125 meters in length:

  A minimum of 6 lines, including forward – 2 headlines and 1 spring, and aft – 2 stern

  lines and 1 spring.

Heaving lines are available to be used by barge crews to facilitate the transfer of mooring lines between the jetty and mooring dolphins. Barge crews are expected to rig the heaving lines back properly after each use.

4.2 Vessel movement after mooring

If vessels move away in any direction from the fendering system, all cargo transfer operations will be stopped until the situation has been satisfactorily rectified.

The Marine Loading Arms are fitted with alarms that detect excessive movement. These alarms will automatically shut down the shore cargo pump and close all valves.

4.3 Anchors

Except in emergency situations, the use of anchors while moored is not allowed. However anchors should remain available for use in emergency and should be unlashed with the anchor lock in position to prevent accidental release.

Port of Antwerp

Havenbedrijf Antwerpen
Zaha Hadidplein 1
2030 Antwerpen
België
Portofantwerp.com

Welcome to the Port of Antwerp

SAFETY MESSAGE FOR MASTER AND CREW

Mooring regulations

Your vessel is moored at a berth/jetty where many ships might pass.
Being moored alongside this berth may result in uncontrolled movements of your vessel.

To avoid such movements, which may result in personal accidents, and/or damage to your vessel and/or infrastructure, Masters are required to pay specia' attention to the following Port Regulations:

- Port Regulations 3.2.3: 'Masters are required to ensure that their vessel is berthed properly, taking into account the tide, the loading condition, the weather conditions and, where appropriate, passing ships.'

- Port Instructions 3.2.3: 'all vessels mooring at tide sensitive quays and at quays behind the locks, where passing vessels and violent winds may pose a hazard, are required **to secure sufficient mooring lines to the bollards or to put on the brake, so that the vessel remains properly moored and will not drift away**.'

The rules of good seamanship, such as a regular check of the mooring lines and to ensure equal force is applied to all lines at all times **are of great importance**.

Port Authority Officers will carry out regular checks on these regulations.
Violations of the Port Regulations may, among other things, lead to legal action.

The Harbour Master

Paul Wauters

Havenbedrijf Antwerpen NV van publiek recht
Zaha Hadidplein 1, 2030 Antwerpen, België
T +32 3 205 20 11

5. Cargo Operations

5.1 Pre operation key meeting

As soon as possible after berthing, you are expected to go to the terminal control room for the pre operations key meeting.

The “ADN checklist” and the “Loading and unloading agreement” will be completed.

All safety and operational matters need to be discussed and agreed upon during this meeting.

5.2 Loading arm connection and disconnection

Loading arm operation, connection and disconnection will be performed by terminal personnel only.

5.3 Cargo tank and sample hatch opening

Opening of sample hatches and ullage openings is not permitted except for the purpose of inspecting an empty cargo tank, after the tank has been relieved of pressure. When in column (17) of table C anti-explosion protection is required, the opening of hatch covers is only permitted if the tank in question has been gas-freed and the concentration of flammable gasses is less than 10% of the lower flammable limit.

5.4 Cargo tank sampling and ullaging

Sampling shall be carried out only by means of a minimum or a safer device as prescribed in column (13) of table C.

Opening of sample hatches and ullage openings of cargo tanks loaded with a substance for which marking with one or two blue cones is prescribed in column (19) of table C shall be permitted only when loading has been interrupted for not less than 30 minutes. Sampling receptacles including all accessories such as ropes, etc., shall consist of electrostatically conductive material and shall, during the sampling, be electrically connected to the vessel’s hull.

5.5 Line clearing and blowing to shore

Due to the nature of the cargoes being handled, line clearing and blowing to shore will be done using nitrogen only. The use of compressed air is not allowed. If the vessel is not equipped with nitrogen, the terminal can supply nitrogen for line clearing purpose only.

5.6 Effective deck watch

At all times during while alongside an effective deck watch must be maintained by a competent person. The deck watch must at all times be able to communicate with the control room using the provided portable radio.

5.7 Communication

Communication equipment

During the pre-operation meeting, the loading master will hand over one intrinsically safe portable radio with leather case. A jetty operator will replace the battery of the portable radio on regular basis. The supplied equipment will be collected before departure by a jetty operator. The portable radio is under your responsibility during your stay and you will be liable for any losses and/or damages (850,- EUR for portable radio).

5.8 Overfill protection (ADN cable)

All barges must be equipped with a working overfill protection system and be able to connect the shore overfill protection cable (the ADN cable). ADN cable must be tested and operational before any cargo operations can be initiated.

- Orange cable: Connection to the vessel overfill alarm system (loading)
- Black cable: connection to the terminal overfill alarm system (discharging)

Vessels loading cargo are to arrive with clean ballast and with cargo tanks suitable/ready to load nominated cargoes. There are no shore ballast/slop reception facilities at the Terminal.

5.9 ESS-DOCS

On completion of operations all paperwork will be done via ESS-DOCS. For more information see following link.

https://essdocs.com/sites/default/files/imce-files/CargoDocs-for-Barge-Masters-Userguide-Jan-2020-EN.pdf

6. STS Operations

STS operations are authorized at ST-300.

The terminal will inform the Port Authority about the operations. It is compulsory to fill up the ship to ship safety checklist (HKD 26) from the Port of Antwerp and the terminal checklist. A copy of those checklists needs to be provided to the terminal before start of operations.

It is the Masters' responsibility to ensure safe access between ships. If gangways cannot be utilized it may be necessary to use alternate means of access, such as mooring boats or launches. The terminal will not allow pilot ladders in between vessels. The terminal will only arrange launches for his own personnel and cargo surveyors if necessary. All others arrangements will be organized by the agent.

The terminal will provide shore radios for the communication between the vessels. During cargo transfer, key personnel on both ships must maintain a common means of communication. **English is the only authorized language during STS operations.**

The crew on each ship is responsible for connecting and disconnecting cargo and vapour return hoses. Oil transfer hoses must be connected before vapour return hoses to avoid the risk of electrical arcing. Always ask confirmation to the terminal before connecting the cargo hoses.

The shore loading arms have to be disconnected while the second vessel is mooring of un-mooring.

When ships are fitted with IGS, each vessel is and remains inerted in case of flammable cargo (FP<60°c) on board throughout its time alongside.

Environmental protection is of paramount importance. Therefore the slow speed checks for hose integrity and ship's cargo line integrity are vital.
Weather restrictions: See section 9.

7. Tank cleaning / gas freeing / purging / inert gas systems

Tank cleaning, gas freeing and purging are NOT permitted while alongside or double banking.

8. Wind/weather restrictions on operations.

During strong wind or poor visibility, berthing maneuvers will be allowed as long as allowed by Port of Antwerp.

For safety reasons, cargo transfer operations will be halted and loading arms blown when wind speed/intensity exceeds 50km/h (13.9m/s, 28kn or 7bft) or during the passage of electrical thunderstorms. Loading arms will not be connected.

When the wind speed/intensity will exceed 61km/h (17.2m/s, 34kn or 8bft), loading arms will be disconnected.

9. Gangway

The terminal is fitted with equipment for access and for emergency escape purposes at each berth suitable for barges:

- Berth 24, 25, 36 and 37 : 1 portable gangway and 2 dolphins with ladders
- Berths 23, 26, 34, and 38: 2 portable gangways.

Depending on the nature of the cargo being handled, the following minimum emergency escape routes will be provided:

Escape route	P1/P2 products	P3 Products
1 Gangway	NOT Acceptable	Acceptable
2 Gangways	Acceptable	Acceptable
2 dolphins with ladder	Acceptable	Acceptable
1 dolphin with ladder + 1 Gangway	Acceptable	Acceptable

Portable gangways shall be rigged as far as practically possible from the loading arm connection.

10. Garbage reception facilities

Notification and arrangements shall be made via agent. No garbage should be left on the dock. If any all costs for removal and disposal will be forwarded to the owner/operator

11. Unauthorized or intoxicated persons

The use, possession, distribution, sale or being under the influence of alcohol or a controlled substance is prohibited at the terminal.

Unauthorized, disorderly or intoxicated persons shall not be allowed on any terminal or on any vessel(s) alongside.

Should intoxicated persons be found on board, the terminal reserves its right to inform the competent authorities in order to establish the nature of the intoxication. Cargo operations could be interrupted until the situation has been satisfactorily rectified. All costs related to such delays will be borne by the vessel's owners/managers.

Visitors will only be allowed on board a vessel with the knowledge and approval of the terminal representative. Visitors transiting through the terminal or visiting a vessel at the terminal are required to comply with all terminal regulations contained within this booklet (see section 13).

12. Safety guidelines

12.1 Electrical equipment

Any electrical or electronic equipment used in hazardous area must be of an approved type having a minimal approval for ATEX Zone 1 / T4 or equivalent.

Appropriate labels and certificates will be readily available at all times for inspection. Any other electrical or electronic equipment of non-approved type will not be used while the vessel is alongside.

Radar equipment shall not be used while vessel is alongside.

Radio transmission on fixed VHF installations is permitted provided the unit is set to low power mode.

The use of satellite communication equipment is allowed.

12.2 State of readiness of the vessel

Vessels are requested to maintain their ability to unberth under their own power on short notice (less than 15 minutes) in the event of an emergency.

Any repairs or maintenance that may affect the ability of the vessel to manoeuvre are not allowed.

12.3 Enclosed space entry

Entry of any enclosed space (cofferdams, ballast tanks, double bottoms, void spaces, etc.) is not allowed.

12.4 Hot Work

No hot work is allowed at any time and in any location on board.

12.5 External doors, hatches, ports and accommodation ventilation

All external accommodation, engine casing, forecastle and main deck storeroom doors, ports, hatches and openings shall be kept closed while the vessel is alongside, except for routine opening for personnel passage.

Hatches and openings for enclosed spaces shall remain closed for the entire stay.

Air-conditioning system should be kept on recirculation mode to avoid ingress of cargo vapours into living and working spaces.

Ventilation systems must be capable of maintaining an overpressure of 0.1 kPa in the accommodation spaces.

12.6 Manning

Vessels shall be properly manned at all times in order to safely manage shipboard emergencies and to carry out emergency manoeuvres, including assisting in the disconnection of loading arms in the event of an emergency.

12.7 Smoking areas

Smoking and the carriage of matches or gas lighters is prohibited on the entire terminal.

Smoking on board is only permitted inside the accommodation spaces provided that all doors are maintained closed and the barge complies with ADN rules 9.3.1.52.3, 9.3.2.52.3 or 9.3.3.52.3 .

Gas lighters are strictly forbidden and measures should be in place to provide sufficient amount of safety matches (or acceptable alternative) in the dedicated smoking areas.

12.8 Mobile phones

Non intrinsically safe mobile phones shall not be used inside the terminal and shall be turned off before entering the terminal area at the gate.

Mobile phones may be used inside the accommodation spaces.

12.9 Painting and sandblasting

For pollution prevention purposes, spray painting, overboard hull painting and sandblasting operations are prohibited while alongside the terminal. Due to possible spark generation, wire brushing and mechanical rust chipping is not allowed.

12.10 Main engine testing

Main engines must not be tested as long as a marine loading arm is connected.

12.11 Vehicles

There is a strict speed limitation of maximum 20 km/h on the entire terminal.

The quay area is provided with clearly marked parking spots that must be used by all vehicles improperly parked vehicles will be removed at the vehicle owner’s expenses.

Parked vehicles must remain unlocked with the key in the ignition to allow fast removal in case of emergency.

13. Personal protection equipment.

Person working in the berth area or on board, including crewmembers involved in operations on deck, and contractors shall wear/use:

- Safety helmet;
- Safety glasses or goggles;
- Face shield or full face mask when handling acid;
- Anti-static and fire retardant clothes covering the whole body;
- Chemical/acid resistant suit covering the whole body when handling acid;
- Safety shoes;
- Safety gloves;
- H2S detectors.

Any other visitor not involved in cargo operations shall wear:

- Safety helmet;
- Safety glasses or goggles;
- Clothes covering the whole body;
- Safety shoes.

B. JETTY INFORMATION – OIL TERMINAL

Jetty 12: (Berth306D)

Seagoing vessels only.

Jetty 14: (Berth 306C)

Seagoing vessels only.

Jetty 21: (Berth 306E)

MLA: Fuel Oil 2 x 12" (21.1-21.2)

LOA up to 200 m

Draft up to 14.3 m

DWT Up to 50000 T

Mooring bollards SWL 150TON

Height Manifold above water Min. 1.0m Max. 14.0m

Loading rate: max 2000 m^3 / h

Jetty 22: (Berth 306F)

MLA: Fuel Oil 1 x 12" (22.1)

LOA up to 135 m

Draft up to 13.8 m

DWT Up to 15000 T

Mooring bollards SWL 120TON

Height Manifold above water Min. 1.0m Max. 14.0m

Loading rate: max 2000 m^3 / h

Jetty 23: (Berth 306A)

MLA: Gasoil 1 x 12" (23.1) Gasoline 1 x 12" Vapour 1 x 6" (23.2)

LOA up to 135 m

Draft up to 13.8 m

DWT Up to 15000 T

Mooring bollards SWL 120TON

Height Manifold above water Min. 1.0m Max. 14.0m

Loading rate: max 2000 m^3 / h

Jetty 24: (Berth 306B)

MLA: Gasoline 1 x 12" Vapour 1 x 6" (24.1) Gasoil 1 x 12" (24.2)

LOA up to 200 m

Draft up to 13.9 m

DWT Up to 50000 T

Mooring bollards SWL 150TON

Height Manifold above water Min. 1.0m Max. 14.0m

Loading rate: max 2000 m^3 / h

Jetty 30: (Berth 312)

MLA: Fuel Oil 1 x 10" (30.2) - Gasoil 1 x 10" (30.1)

LOA up to 110 m

Draft up to 13 m

Mooring bollards SWL 100TON

Height Manifold above water Min. 1.0m Max. 7.0m

Loading rate: max 1000 m^3 / h

Jetty 31: (Berth 310-312)

MLA: Fuel Oil 1 x 10" (31.1)

LOA up to 110 m

Draft up to 13 m

Mooring bollards SWL 100TON

Height Manifold above water Min. 1.0m Max. 7.0m

Loading rate: max 1000 m^3 / h

Jetty 32: (Berth 308-310)

MLA: Fuel Oil 1 x 10" (32.1)

LOA up to 145 m

Draft up to 13 m

Mooring bollards SWL 100TON

Height Manifold above water Min. 1.0m Max. 14.0m

Loading rate: max 1000 m^3 / h

Jetty 33: (Berth 308)

MLA: Fuel Oil 1 x 10" (33.1)

LOA up to 110 m

Draft up to 13 m

Mooring bollards SWL 100TON

Height Manifold above water Min. 1.0m Max. 7.0m

Loading rate: max 1000 m^3 / h

Jetty 34: (Berth 306)

MLA: Gasoil 2 x 10" (34.1 – 34.2)

LOA up to 110 m

Draft up to 13 m

Mooring bollards SWL 100TON

Height Manifold above water Min. 1.0m Max. 7.0m

Loading rate: max 1000 m^3 / h

Jetty 35: (Berth 304)

MLA: Gaso1ine 1 x 10" Vapour 1 x 6" (35.1) Gasoil 1 x 10" (35.2)

LOA up to 110 m

Draft up to 13 m

Mooring bollards SWL 100TON

Height Manifold above water Min. 1.0m Max. 7.0m

Loading rate: max 1000 m^3 / h

Jetty 36: (Berth 302)

MLA: Gaso1ine 1 x 10" Vapour 1 x 6" (36.1) FAME 1 x 10" (36.3)

LOA up to 110 m

Draft up to 13 m

DWT Up to 15000 T

Mooring bollards SWL 100TON

Height Manifold above water Min. 1.0m Max. 7.0m

Loading rate: max 1000 m^3 / h

Jetty 37: (Berth 300)

MLA: Gaso1ine 1 x 10" Vapour 1 x 6" (37.1) Butane (C4) 1 x 6" (37.3)

LOA up to 110 m

Draft up to 13 m

DWT Up to 150000 T

Mooring bollards SWL 100TON

Height Manifold Gasoline above water Min. 1.0m Max. 7.0m

Height Manifold Butane above water Min. 1.0m Max. 14.0m

Loading rate: max 1000 m^3 / h

Max 150 m^3 / h for C4

Jetty 38: (Berth 256)

MLA: Gaso1ine 1 x 12" Vapour 1 x 6" (38.1) FAME 1 x 10" (38.2)

LOA up to 200 m

Draft up to 13.3 m

DWT Up to 100000 T

Mooring bollards SWL 100TON

Height Manifold above water Min. 1.0m Max. 14.0m

Loading rate: max 1000 m^3 / h

Max 2000 m^3 / h for Gasoline

Jetty 39: (Berth 254-256)

MLA: Gaso1ine 1 x 16" Vapour 1 x 8" (39.1)

LOA up to 295 m (see remarks)

Draft up to 13.3 m

DWT Up to 100000 T

Mooring bollards SWL 100TON

Height Manifold above water Min. 3.0m Max. 20.0m

Loading rate: max 3000 m^3 / h

Jetty 40: (Berth 254)

MLA: Gasoline 1 x 10" (40.2) Vapour 1 x 6"-- Gasoil 1 x 10" (40.1)

LOA up to 110 m

Draft up to 13.3 m

Mooring bollards SWL 100TON

Height Manifold above water Min. 1.0m Max. 7.0m

Loading rate: max 1000 m^3 / h

Jetty 41: (Berth 250-248) - SB alongside

COMPULSORY MINIMUM MOORING ARRANGEMENT: 4-2-2 (for seagoing vessels)

MLA: Gasoline 1 x 12" Vapour 1 x 6" (41.1) Jet Fuel 1 x 12" Vapour 1 x 6" (41.2)

Gasoil 1 x 12" (41.3)

LOA up to 185 m

Draft up to 11.85 m (12m if 0.5m fenders present)

DWT Up to 50000 T

Mooring bollards SWL 100TON

Height Manifold above water Min. 1.0m Max. 14.0m

Loading rate: max 1500 m^3 / h

Jetty 42: (Berth 244/246) – SB alongside

MLA: Gasoline 1 x 10" Vapour 1 x 6" (42.1) Jet Fuel 1 x 10" Vapour 1 x 6" (42.2)

Gasoil 1 x 10" (42.3)

LOA up to 160 m

Draft up to 11.0 m

DWT Up to 25000 T

Mooring bollards SWL 200TON

Height Manifold above water Min. 1.0m Max. 7.0m

Loading rate: max 1000 m^3 / h

Jetty 43: (Berth 242/244) - SB alongside

MLA: Gasoline 1 x 16" Vapour 1 x 8" (42.1), Jet Fuel 1 x 16" Vapour 1 x 8" (42.2),

Gasoil 1 x 16" (42.3)

LOA up to 295 m (see remarks)

Draft up to 14.75 m

DWT Up to 150000 T

Mooring bollards SWL 200TON

Height Manifold above water Min. 3.5m Max. 20.4m

Loading rate: max 2000 m^3 / h

The terminal is expecting the ship to have her manifold ready for connection on arrival (with the appropriate spool piece already connected if necessary).

C. JETTY INFORMATION – H_2SO_4 BERTH

Berth 322

H_2SO_4 2 x 6" + Vapor 1 x 6"

LOA up to 220 m

Draft up to 13.0 m

Loading rate: max 500 m^3 / h

a safety-zone of 10m will be indicated around manifold and hoses. Within this safety-zone all PPE must be worn: chemical suit, chemical gloves, facial shield or gas mask

Berth 326

H_2SO_4 2 x 6" + Vapor 1 x 6"

LOA up to 145 m

Draft up to 7.0 m

Loading rate: max 500 m^3 / h

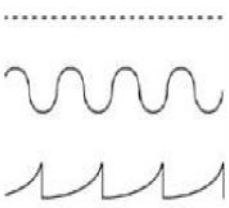
a safety-zone of 10m will be indicated around manifold and hoses. Within this safety-zone all PPE must be worn: chemical suit, chemical gloves, facial shield or gas mask

The Terminal is expecting the ship to have her manifold ready for connection on arrival.
(with the appropriate spool piece already connected if necessary).

D. EMERGENCY PROCEDURES

1. Emergency signal

The terminal is fitted with its own siren that will sound in the event of an emergency and uses the following signals.



ALL CLEAR

WARNING – details communicated via a radio message

TERMINAL EVACUATION

The emergency siren is tested every Friday at 16:30h (automatic activation) and every first Thursday of each month at 13:00h (manual activation) with the following sequence:

All clear – warning – evacuation – all clear

2. Terminal evacuation

If the evacuation alarm is sounded, the following steps are to be followed:

- Stop cargo operations with the appropriate ESD system and close all valves;
- Stop all ventilations and close all doors;
- Gather all crew and visitors inside the accommodation. Make sure everybody is accounted for;
- Wait for instructions from terminal via radio or mobile phone;
- Maintain radio silence and restrict communication to emergency related matters only.

Depending on the nature and location of the emergency you will be either be directed to one of the assembly points outside the terminal or one of the safe havens located at both ends of the jetty.

Should neither of these evacuation routes be available, evacuation will be organized by boat.

3. Fire emergency

3.1 Fire emergency equipment

Vessels: while alongside vessels shall have 2 fire hoses connected in the vicinity of the manifold. Additional protection against flash fire shall be provided by having two suitable portable fire extinguishers readily available on the manifold.

If the vessel is fitted with a fixed foam fire extinguishing system, foam monitors shall be focused in a raised and ready position. Main deck fire line must be ready for immediate use. If main and/or emergency fire pumps cannot be remotely started from the cargo control room, the fire line shall remain pressurized at all times.

Terminal: The terminal is protected by a fire water and foam system supplied from fire pumps located within the terminal, a spray water cooling system, remotely operated foam monitors, portable dry chemical fire extinguishers and a fire truck. Each jetty is also equipped with international Fire connections.

3.2 Procedure in the event of vessel fire

Should a fire be detected on board of the vessel, the following steps are to be followed:

- Stop cargo operations with the appropriate ESD system and close all valves;
- Sound the vessels fire alarm and if possible the fog horn;
- Advise the terminal control room by radio or mobile phone;
- Maintain radio silence and restrict communication to emergency related matters only;
- Start firefighting to prevent it from spreading;
- Bring main engine to stand-by and have personnel readily available to assist in disconnecting the loading arm;
- Once shore firefighting personnel arrives on scene, assist as requested.

3.3 Procedure in the event of terminal fire

Should a fire be detected on the terminal, the following steps are to be followed:

- Immediately advise the terminal control room by radio or mobile phone;
- Stop cargo operations with the appropriate ESD system and close all valves when safe to do so;
- Evaluate if the vessel should unberth from the jetty, put main engine on stand-by and have personnel readily available to assist in disconnecting the loading arm;
- Maintain radio silence and restrict communication to emergency related matters only;
- If necessary, protect the vessel by using the on board firefighting equipment;
- If instructed to do so, assist shore firefighting personnel.

4. Pollution incident

If a spill occurs on board, is detected on the jetty or on the surrounding waters, the following steps are to be followed:

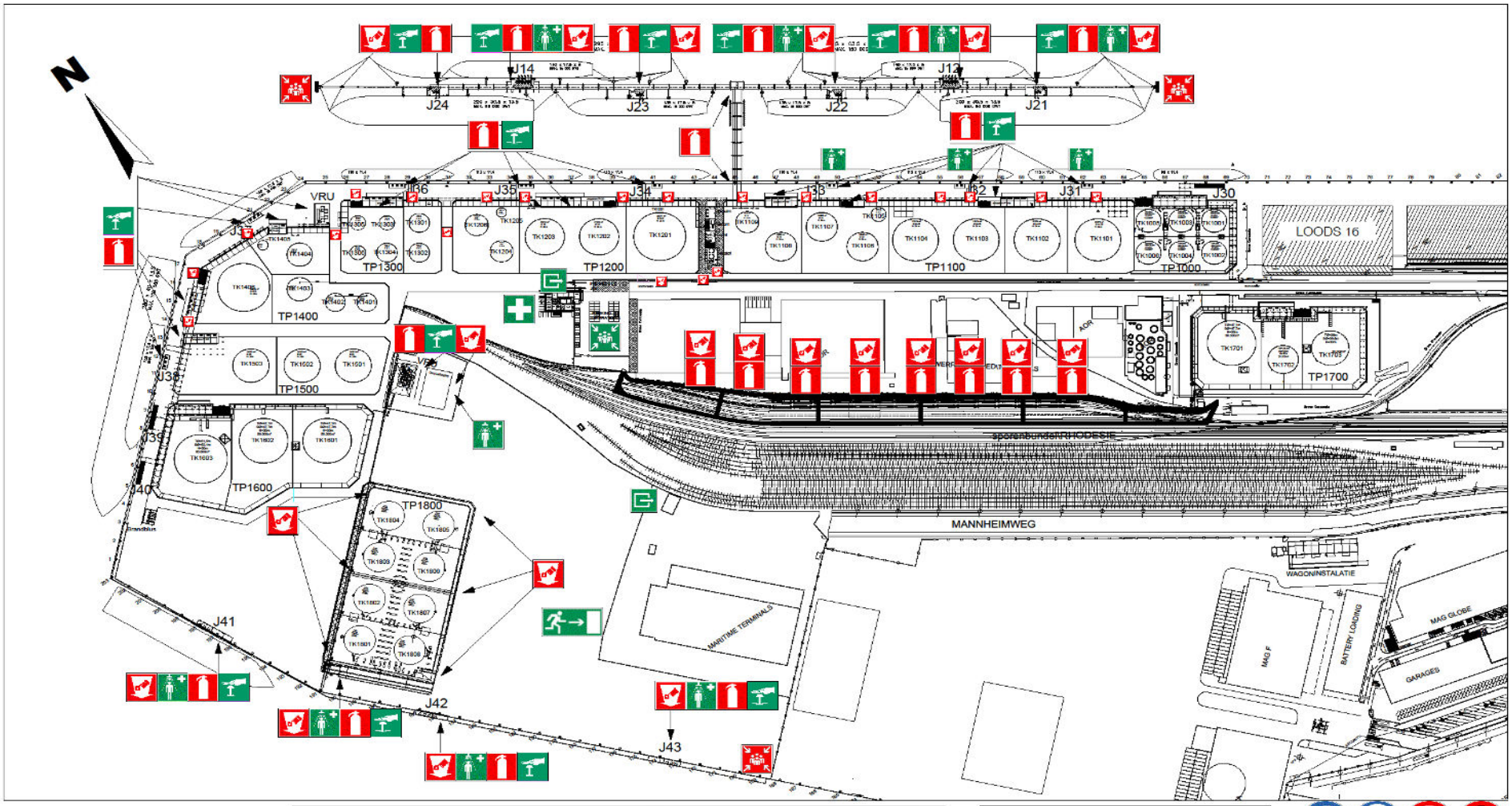
- Immediately advise the terminal control room by radio or mobile phone;
- Stop cargo operations with the appropriate ESD system and close all valves when safe to do so;
- Eliminate all possible sources of ignition;
- If the spill is limited to the cargo deck, start clean-up actions as soon as possible;
- NEVER use oil spill dispersant on the surrounding waters unless expressly instructed to do so by the ORSO.

5. Breakaway from jetty

In the event of your vessel breaking out of its moorings, every effort should be made to regain control over the vessel a soon as possible to minimize damages to the cargo connection, terminal facilities and other vessels including immediate call for harbour tug assistance on VHF Ch. 18.

Marine Loading Arm 37.3 (MLA 37.3) for discharging Butane is equipped with an Emergency Release Coupling (ERC).
If the barge moves outside the safe operating envelope of the MLA, a warning alarm will first be given to de Control Room Operator. On a second alarm, the arm disconnects itself at a pre-set breaking point.

Built-in valves before and after the coupler will shut-off and the coupler will disconnect itself at the breaking point. This way there will be only a minimum of product loss during accidental disconnection due to break away from jetty.



SEA-Tank 300 NV

TOTSEANERGY

Rostockweg - Kaai 242 tot 312

EINDE ALARM
All Safe

BRAND / GAS
Fire / Gas

EVACUATIE
Evacuation

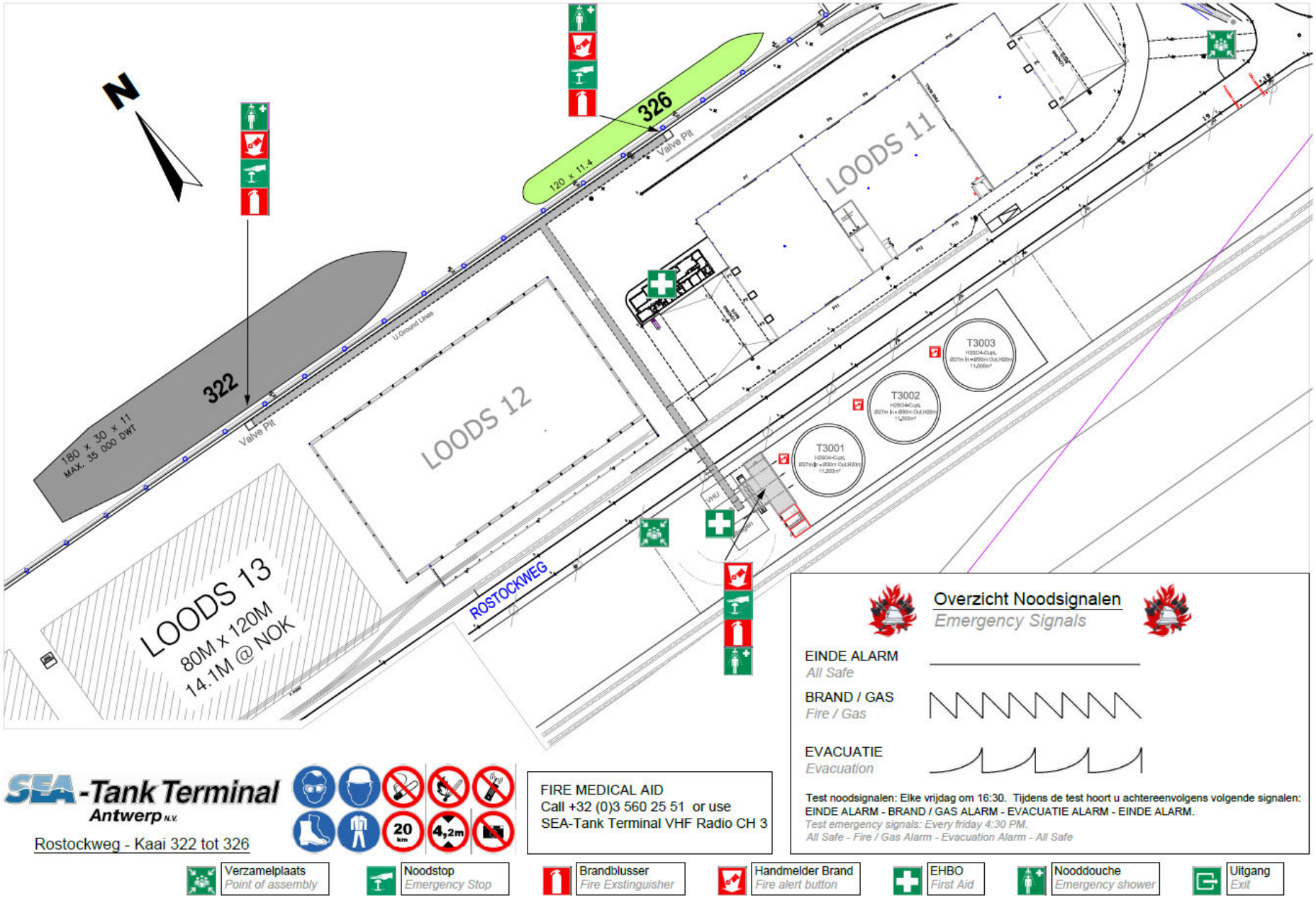
Overzicht Noodsignalen
Emergency Signals

Test noodsignalen: Elke vrijdag om 16:30.
Tijdens de test hoort u achtereenvolgens volgende signalen:
EINDE ALARM - BRAND / GAS ALARM - EVACUATIE ALARM - EINDE ALARM.
Test emergency signals: Every friday 4:30 PM.
All Safe - Fire / Gas Alarm - Evacuation Alarm - All Safe

Auto's met benzine motor verboden
No Gasoline powered cars allowed

FIRE MEDICAL AID
Call +32 (0)3 560 25 02 or use
SEA-Tank Terminal VHF Radio CH 100

Verzamelplaats *Point of assembly*
Veilige Locatie *Safe Haven*
Noodstop *Emergency Stop*
Brandblusser *Fire Exstinguisher*
Handmelder Brand *Fire alert button*
EHBO *First Aid*
Nooddouche *Emergency shower*
Uitgang *Exit*


N
326
120 x 11.4
Valve Pit
LOODS 11
322
180 x 30 x 11
MAX. 35 000 DWT
Valve Pit
U Ground Lines
LOODS 12
T3003
T3002
T3001
LOODS 13
80M x 120M
14.1M @ NOK
ROSTOCKWEG
Overzicht Noodsignalen
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SEA-Tank Terminal
Antwerp N.V.
Rostockweg - Kaai 322 tot 326
20 km
4,2m
FIRE MEDICAL AID
Call +32 (0)3 560 25 51 or use
SEA-Tank Terminal VHF Radio CH 3
Verzamelplaats
Point of assembly
Noodstop
Emergency Stop
Brandblusser
Fire Exstinguisher
Handmelder Brand
Fire alert button
EHBO
First Aid
Nooddouche
Emergency shower
Uitgang
Exit

E. PROCEDURES FOR HAZARDOUS CARGOES.

1. Benzene

In the event that airborne concentrations of benzene are likely to exceed accepted exposure limits (PEL of 1 ppm and STEL of 5 ppm) within any area, the area should be designated a 'regulated' area. It is the responsibility of the vessel to establish and clearly mark regulated areas with warning signs and to limit access only to authorized personnel

Ullaging and sampling should be undertaken through vapour lock valves.

An approved respirator must be used at all times when exposure limits are likely to be exceeded, for example, when sampling cargo, connecting or disconnecting loading arm. Chemical resistant gloves and tight-fitting goggles or a face mask shall be worn during sampling, connecting or disconnecting a loading arm and when sampling a tank through a restricted sampling tube.

2. Gasoline and gasoline components

Ullaging and sampling should be undertaken through vapour lock valves.

An approved respirator must be used at all times when sampling cargo, connecting or disconnecting loading arm. Chemical resistant gloves and tight-fitting goggles or a face mask shall be worn during sampling, connecting or disconnecting a loading arm and when sampling a tank through a restricted sampling tube

3. Hydrogen sulphide

Hydrogen sulphide (H_2S) may be present in significant concentrations in crude oils and refined products such as naphtha, fuel oil, bitumen and gas oils and in the vapour spaces of tanks that have previously contained such cargoes. Vessels should be aware of the potential presence of H_2S and should adopt appropriate monitoring procedures. Any concentration to exposures above 10 ppm should not be permitted without proper respiratory protection in the form of a supplied-air respirator or self-contained breathing apparatus.

Information on the presence of H_2S must be exchanged during the pre-transfer conference. The vessel owner/operator or vessel PIC must inform the facility PIC if the previous cargo contained, or was suspected to contain, H_2S. Carrier staff must be provided with appropriate H_2S detecting equipment etc. as per their procedures.

4. Handling static accumulator cargoes

The precautions described in ISGOTT shall be adhered to when loading, ullaging or sampling cargoes defined as static accumulators in non-inerted tanks. This will include controls on initial flow rates and restrictions on the use of metallic dipping, ullaging or sampling equipment.

5. H_2SO_4

Loading, carrying at sea & discharging of sulfuric acid involves high risk and require sophisticated handling for safety, health and loss prevention reasons. They need careful consideration prior loading, tank coating compatibility, cross compatibility with other cargoes carried, environmental controls if required (inerting).

Product safety data sheets may be available from various sources. For safety preparation, until the specific product safety data sheet can be obtained, the Chemical Data Guide for Bulk Shipment by Water (U.S. DoT), should be used. Concerning the IBC/BCH code (respective 16.2/5.2) the master should request the specific product safety data sheet before commencement of loading. The safety data sheet posted must be in a language understood by ship's Officers and Crew (English).

Ensure that there is on board sufficient acid resistant hoses for the cargo transfer. Ensure that there is on board sufficient acid spray shields to cover flanges on manifold and hose connections according to IBC code 15.11.4 and BCH code 4.8.4.

IBC code compatibility chart strictly prohibits water in adjacent compartment to Sulfuric Acid as you are aware if both come in contact with each other will generate a violent reaction. It is therefore recommended that the during loading of Sulfuric Acid adjacent ballast tanks to be always stripped dry to the maximum efficiency of the deballasting equipment used.

Because of the high specific gravity of Sulfuric Acid, very high pump pressure may be experienced. In such cases care must be taken not to quickly open or close valves in the pump system as this causes pressure surges that may rupture lines or hoses.

F. CONTACTS AND COMMUNICATIONS

Position	Office	Cell Phone
Control Room	+32 3 560 2502 controlroom.st300@sea-tankterminal.com	Walkie-talkie
Control Room (H_2SO_4)	+32 3 560 2551	Walkie-talkie
Planning	+32 3 560 2508	-
HSE	+32 3 560 2520 (safety) +32 3 540 4816 (environment)	+32 487 539889 +32 474 932884
Terminal Manager	+32 3 560 2516	+32 495 226500
Operations Manager ST-300	+32 3 560 2519	+32 496 835777
Operations Manager STTA	+32 3 560 2554	+32 476 890399
General Manager	+32 9 255 0259	-
Chief Ops Manager	+32 3 540 4830	-