

Document ref.: Content: NS-K05-DOK-069 NorSe

NorSea Stavanger Tananger Terminal information booklet

Date:

Edition:

## NorSea Stavanger Tananger Terminal Information Booklet

**Stavanger Norway** 



This Terminal Information Booklet has been produced to meet the Information need to users of the NorSea Stavanger Tananger Terminal.

The Booklet contains general port information, applicable regulations, safe work procedures and emergency response details, together with specific information governing the operations of ships at the Petroleum Berth.

The information in the Booklet should be used in conjunction with the industry recommended practices contained in the latest edition of the 'International Safety Guide for Oil Tankers & Terminals' (ISGOTT) and the ISPS regulations.



Date:

Edition: 2

Document ref.: NS-K05-DOK-069

Content:
NorSea Stavanger Tananger Terminal information booklet

### **Table of contents**

1.	C	ONTACT INFORMATION	Error! Bookmark not defined.
2.	C	onnection of land power system from quays at NorSea Stavanger	
3.	S	AFETY AND SECURITY, FIRE AND EMERGENCY RESPONSE	5
	1.1	Emergency Communications	
	1.2	General	
	1.3	Overview emergency equipment	6
	1.4	Personal Protective Equipment (PPE)	6
	1.5	Port and Terminal Security	
	1.6	Access Cards	7
	1.7	Vehicular Access	
	1.8	Issue of visitor access card	7
	1.10	Issue of permanent access	
	1.11	Work Permits	
	1.12	Smoking	
	1.13	Drugs	8
4.	P	RE-ARRIVAL COMMUNICATIONS	8
	1.14	ETA Advice	
	1.15	Port arrival notifications	8
	1.16	Visitor registration	
5.	В	ERTHING AND MOORING	
	1.17	General Description of Berth	9
	1.18	Tugs and Towage	9
	1.19	Quay side access	
	1.20	Recommendations for berthing operations	9
	1.21	Communication while berthed	
	1.22	Waste management	10
	1.23	Quay information	Error! Bookmark not defined.
6.	0	PERATIONS ALONGSIDE	
	1.24	General	
	1.25	Hose Connections	
	1.26	Cargo Transfer Rates	
	1.27	Checks on Quantities Transferred	
	1.28	Environmental Criteria for Suspending Operations	
	1.29	Emergency Shutdown	
	1.30	'Dry Certificates'	
	1.31	Handling of Ship's Stores and Spare Gear	
	1.32	Craft Alongside	19
	1.33	Potable Water	
	1.34	Bunkers	20
_	1.35	Consideration to our neighbors	
7.		ESPONSIBILITIES	
	1.36	Jurisdiction	
		Conditions of Ship Acceptance	21
	1.38	Responsibilities	
_	1.39	Responsibility for Loading	
8.		PPLICABLE TERMINAL REGULATIONS	
	1.40	Ullaging and Sampling	
	1.41	Closed Operations	
	1.42	Inert Gas	
	1.43	State of Readiness of Main Engines	
	1.44	Maintenance and Repair Work Onboard	
	1.45	Hot Work Onboard	
	1.46	Tank Cleaning, Purging and Gas Freeing	22
	1.47	Fnclosed space entry	0.0



Document ref.:	Content:	Date:	Edition:
NS-K05-DOK-069	NorSea Stavanger Tananger Terminal information booklet	X	2

1.48 Cargo tank high level alarms ......23

### 1. Contact information

Opening Hour	Contact Information	VHF	Telephone
24/7 NorSea Emergency		Channel 9	+47 51 85 32 22
24/7	NorSea Customer Centre	Channel 9	+47 40 00 65 55
24/7	Mooring assistance	Channel 9	+47 40 00 65 55 Mon-Fri 0730-1600 Outside opening hours, call 459 74 973
24/7	NorSea Security	Channel 9	+47 51 85 32 20
08:00 – 16:00 Mon – Fri	NorSea Customer Service	Not Applicable	+47 400 06 555 Dial 2 for Tananger

Visitor address: Risavika Havnering 14 Building 45, 4056 Sola

Postal address: P.O Box 5023, 4084 Stavanger



NS-K05-DOK-069

Content: NorSea Stavanger Tananger Terminal information booklet Date: Edition: 2

### Connection of land power system from guays at NorSea Stavanger – user manuals for vessels

Welcome as user of Norsea Stavanger Shore power system. Shore power is available on Quay 6 A/B, Quay 2A and Quay 3A.

Our system delivers 50 or 60hz and 440 or 690V. Max power output is 750Kva. The plants can be fully loaded simultaneously.

### 1. 2.1. Connection

- Before 1st connection send Ship name, IMO, Owner, E-mail and Mobile to Bestilling.Tananger@norseagroup.com
- Log in using the "ship name" using the control panel.
- Select the current voltage and frequency.
- The latest Connecting Procedure is found the drum
- When disconnecting the system, consumption is registered, and invoice sent directly to shipping company

### 2. 2.2. Contact details if problems or questions

Contact NorSea Stavanger duty phone:

Mobil: +47 400 06 555

E-mail:

Bestilling.Tananger@norseagroup.com

### 3. 2.3. Training and verification of vessel

All connecting vessels must be compatible with and have interfaces with. NEK / IEC 80005-3. The vessel is responsible for its own verification.

If any questions, you can ask for assistance from companies / consultants with knowledge of the standard and vessel installations.

NorSea Stavanger will not be responsible to any damages and / or costs related to improper use, power failure, or use of the facility without the vessel's systems being compatible and in accordance with the regulations. NEK IEC 80005-3



Content:
NorSea Stavanger Tananger Terminal information booklet

Date: Edition:

# 3. SAFETY AND SECURITY, FIRE AND EMERGENCY RESPONSE

### 1.1 Emergency Communications

The primary contact for all emergencies in the first instance will be via NorSea Security + 47 51 85 32 22.



### 1.2 General

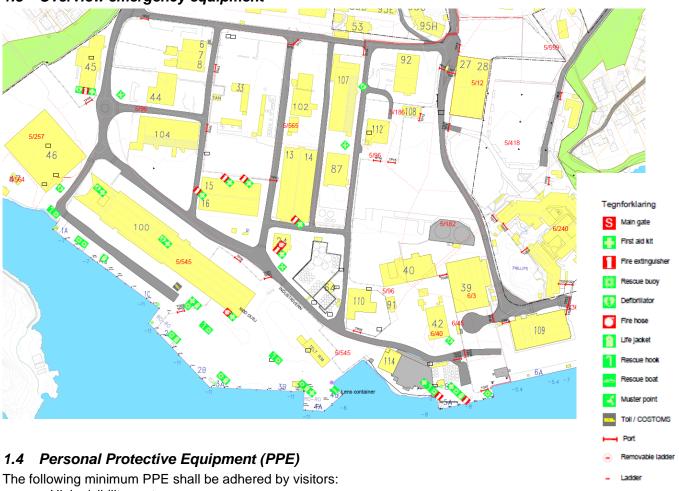
Responsibility for the safe conduct of operations whilst a ship is alongside the NorSea Stavanger Tananger Terminal, rests jointly with the Master of the ship and the responsible Terminal Representative. It is necessary that both the Master of the ship and the Terminal Representative cooperate and understand all the relevant health and safety requirements.

The Master shall adhere strictly to these requirements throughout the stay alongside the NorSea Stavanger Tananger Terminal. NorSea personnel will do likewise and co-operate fully with the ship in the mutual interest of safe and efficient operations.

If the Master considers safety is endangered by any action on the part of NorSea Stavanger engaged staff, or by any equipment under NorSea Stavanger Tananger Terminal control, the Master should demand immediate cessation of operations until the situation is rectified.







- High visibility vest
- Helmet/hard hat.
- Visitors to the NorSea Stavanger Tananger Terminal are required to follow the designated walkways, which is clearly marked.

Personnel in operation as cargo transfer, hose handling and mooring operations shall as a minimum wear:

- Helmet/hard hat
- Working clothes with high visibility
- Safety goggles
- Safety boots
- Gloves
- Life jacket or buoyancy aid when working outside safety rails.



Document ref.:

NS-K05-DOK-069

Content:

NorSea Stavanger Tananger Terminal information booklet

Date:

Edition:

### 1.5 Port and Terminal Security

Norsea Tananger's IMO number is NOSLA-0002. NorSea Port Facility is a security regulated port as set out in the ISPS code and associated Regulations. In accordance with this Code, the NorSea Facility is designated a 'restricted zone' and unauthorized access will be handled as an offence and prosecuted.

ISPS Security level is set to 1.

#### 1.6 Access Cards

Access to the ISPS facility requires a valid access card or visitor card. Crew and visitors must enter the facility through turnstiles.

#### 1.7 Vehicular Access

Passengers in vehicles must enter the facility through turnstiles. Only driver allowed inside the vehicle while passing through gate. Vehicles must have a valid ISPS driving permit visible inside windshield. A temporary ISPS driving permit can be obtained in gate security.

#### 1.8 Issue of visitor access card

Registration in gate security. Inspections are to be expected, and issuing requires valid ID. Only drivers licence or passport are valid ID. Visitor card to be returned upon exit.



#### 1.9 Crew

Crew registered on a vessel's crew list will not be issued a temporary security card. In this case, it is adequate to show ID. Vessels in regular traffic to NorSea Base, can request on-board "boat cards" for internal disposal.

#### 1.10 Issue of permanent access

Permanent access cards requires a valid security agreement with an ISPS port/facility in the Freight Security agreement (FSA) system. The cardholder must present valid ISPS training certificate/diploma. The CSO is responsible for registration of personnel requesting permanent access card. It is also possible to reuse access cards from another port in the FSA system.

Please read more on: <a href="http://www.norseagroup.com/hsseq/isps-code">http://www.norseagroup.com/hsseq/isps-code</a>





### 1.11 Work Permits

The following activities must be pre-approved by Norsea customer center via work permit portal:

- Diving operations alongside quay
- LNG bunkering
- Hot work

In case of an increased security level, special rules will apply.



Smoking is prohibited in the berth area and on board ships alongside the NorSea Terminal except in those spaces on board that are specifically designated by the Master and Terminal Representative as smoking areas.

Date:

X

Edition:

2

NorSea Terminal reserves the right, to prohibit smoking, at any time, in any place on board a ship and adjacent to the Petroleum Berth. Smoking is also prohibited in any place within the Terminal and berth areas, except designated areas as directed.

### 1.13 Drugs

1.12 Smoking

Access to NorSea Terminal will be denied any person suspected of being affected by alcohol or drugs. This will also lead to a report to agent/company.

All operations will be stopped on suspicion of drug influence.

Signs identifying the designated areas must be clearly placed.

### 4. PRE-ARRIVAL COMMUNICATIONS

#### 1.14 ETA Advice

Ships bound for the NorSea Terminal should provide ETA advice via their agents and the NorSea Terminal at least 24 hours prior to their arrival or immediately on leaving their last port/location.

This ETA advice should be confirmed at least 24 and 6 hours prior to arrival at the pilot station.

### 1.15 Port arrival notifications

NorSea AS is using SafeSeaNet for port arrival notifications. All vessels must insure that information is up to date and port facility must be set to either NorSea Dusavik or NorSea Tananger. Exempted vessels must send pre-arrival documentation to NorSea Customer Centre at Bestilling. Tananger@norseagroup.com and Norsea Security at NorseaSecurity@norseagroup.com

For access to, and information about SafeSeaNet, please visit the NCA website <a href="here">here</a>.

### 1.16 Visitor registration

All visitors to the vessel must be registered on the vessel's own page in the NorSea system. Access to the system is generated automatically upon arrival in the welcome email, or by contacting NorSea Customer Center.



Content:	Date:	Edition:
NorSea Stavanger Tananger Terminal information b	ooklet X	2

### 5. BERTHING AND MOORING

### 1.17 General Description of Berth

The NorSea Terminal is located 20 km East of Stavanger central city. The berth orientates at 0053532E 585570N. The berth is constructed on piles and fenders consist of dump truck tires. The quay front has a length of 75 meters.

### 1.18 Tugs and Towage

There is no minimum requirement on tugs set by the port authority of Tananger for the application of the port jurisdiction area. Although NorSea Terminal will require vessel above length 80 m to have a working bow thruster for mooring and under berthing operation.

The use of tugs as a mitigation factor for non-operational bow and stern thrusters/rudder is not considered an acceptable mitigation factor. The conditions may be such that the master/pilot or terminals assessment would require tug(s) in addition to above vessel required operational equipment.

### 1.19 Quay side access

All vessels moored at Norsea are required to use approved gangway with safety nets to ensure safe passage between vessels and shore. Access to / from the vessel are not allowed until an approved gangway are installed and secured.

Ref § 9 of the «Regulations on safety measures, etc. on passenger ships, cargo ships and barges"

### 1.20 Recommendations for berthing operations

Wind direction	Wind Speed	Recommendation from Norsea
0-360°	< 16 m/s	Berthing accepted
0-360°	> 16 m/s	No berthing operations

Above table are Norsea recommendations regarding berthing and wind conditions. Although on each occasion, the environmental conditions or ship specific issues may require lower wind criteria as evaluated by vessel master or terminal representative.

Area is generally not affected by fog but limited visibly may occur during heavy snowfall or sea mist in cold winter days. A general advice of <u>minimum visibility of 0.2 NM will apply</u> for berthing operations.

### 1.21 Communication while berthed

During the pre-transfer conference, the terminal representative and the ship cargo officer must agree on means of communication, preferably use portable VHF/UHF radio. A radio check must be conducted to ensure that all parties are on the same net with satisfactory connection. The radio must be kept by the ship's Duty Officer at all times.

Identification of the name of the ship should always be included in communications to avoid any misunderstanding. The shore identity is "NorSea" in addition to berth number, i.e. "Norsea kai 3".

The maintenance of good communications throughout cargo transfer operations is fundamental to ensuring the safety of the activity. All transfer pumps must be immediately stopped and ship and shore manifolds closed until the situation is investigated and joint agreement is reached on resuming operations.

During the pre-transfer conference, communication procedures will be agreed for conducting specific activities and will include agreed notice periods for conducting ship or shore stops.



ı			
1	Content:	Date:	Edition:
	NorSea Stavanger Tananger Terminal information booklet	X	2

### 1.22 Waste management

#### MARPOL Convention

The International Convention for the Prevention of Pollution from Ships (MARPOL) and the EU Directive MARPOL 73/78 regulate the discharge of waste into the marine environment and require sufficient reception facilities in ports.

### Chapter 20 of the Anti-Pollution Regulation -

Chapter 20 of the Anti-Pollution Regulation governs the delivery and receipt of waste and residual cargo from ships.

Chapter 20 of the Anti-Pollution Regulation ensures that ships deliver waste to land-based reception facilities, including the obligation to report waste delivery before arriving at port, and by requiring ports to establish fee systems for waste disposal, regardless of whether waste is delivered or not.

Our waste stations are placed as shown below.





ı				
1	Content:	Date:	Edition:	
	NorSea Stavanger Tananger Terminal information booklet	X	2	

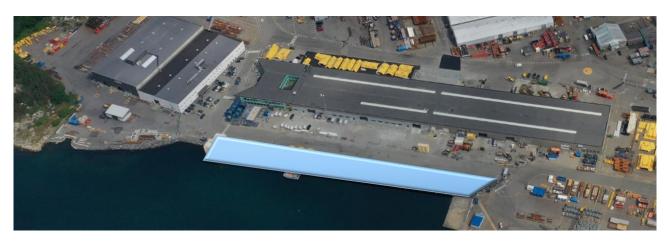
### 1.23 QUAY INFORMATION

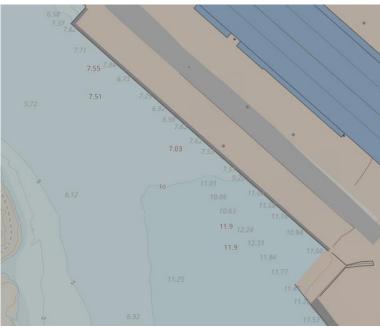


Specs	Kai 1	Kai 2	Kai 3	Kai 4	Kai 5	
Length	180	120	128	28	75	
Max draft	8 m	11	11	11	8	
Keel clearance (UKC)	0,5	0,5	0,5	0,5	0,5	
Services provided:	Kai 1	Kai 2	Kai 3	Kai 4	Kai 5	
Water	NorSea	NorSea	NorSea	NorSea	NorSea	
<b>Shore Power</b>		NorSea	NorSea		NorSea	
Gasoil					Bunker Oil	
Bentonite					Halliburton	
Barite					Halliburton	
Brine					Halliburton	
MEG					SWIRE	
WBM					Halliburton	
OBM					Halliburton	
Methanol					SWIRE	
LNG					Eksterne	
Base oil					Halliburton	
Slop					SAR	
Cement					Halliburton	



Content:	Date:	Edition:
NorSea Stavanger Tananger Terminal information booklet	Χ	2

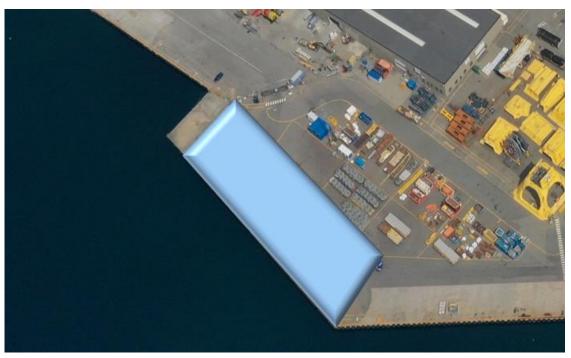


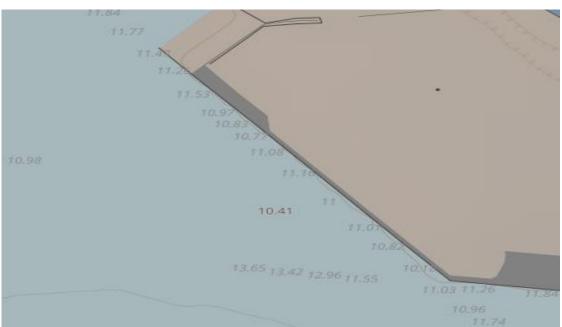


Tilgjengelig beredskapsutstyr	5stk livredingsleidere, 2stk livbøyer
Høyde kai	1A KT + 1.30m, 1B KT + 1,75m, 1C KT 1,8m
Retning kai (360 grader)	205°
Lastkapasitet dekke	Jevnt: 70 kN/m2 , Punkt: 1500 kN over 1x1m



Edition: Content:
NorSea Stavanger Tananger Terminal information booklet Date:





Tilgjengelig beredskapsutstyr	1stk livredingsleider, brannslukningsapparat
Høyde kai	RORO KT +0,4m, kai 2 KT + 1,65-1,75m
Retning kai (360 grader)	295°



Edition: Content:
NorSea Stavanger Tananger Terminal information booklet Date:

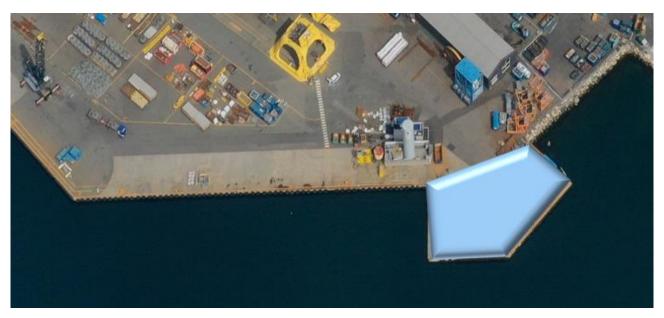




Tilgjengelig beredskapsutstyr	1stk livredingsleider, brannslukningsapparat
Høyde kai	RORO KT + 0,4M, Kai 3 KT + 1,65-1,75m
Retning kai (360 grader)	205°
Lastkapasitet dekke	Jevnt: 100 kN/m2 Punkt: 700 kN på 1x1m



Date: Edition: Content:
NorSea Stavanger Tananger Terminal information booklet





Tilgjengelig beredskapsutstyr	3stk livredingsleider, 2stk livbøyer, 1stk brannslukningsapparat
Høyde kai	KT + 1,75m

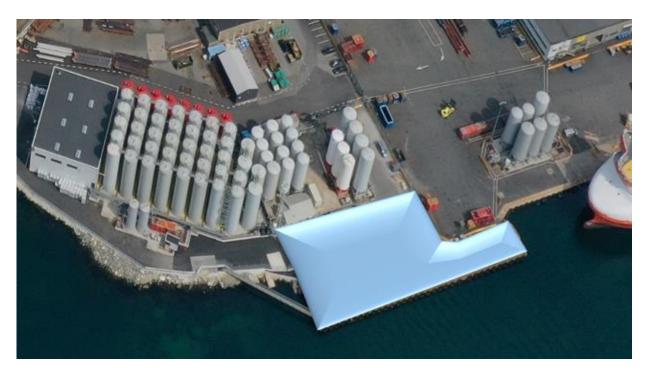


Document ref.: NS-K05-DOK-069 Edition: Content:
NorSea Stavanger Tananger Terminal information booklet Date:

Retning kai (360 grader) 205°



Date: Edition: Content:
NorSea Stavanger Tananger Terminal information booklet





Tilgjengelig beredskapsutstyr	3stk livredingsleider, 2stk livbøyer, 1stk brannslukningsapparat	
Høyde kai	KT + 1,75m	
Retning kai (360 grader)	205°	



Content:	Date:	Edition:	
NorSea Stavanger Tananger Terminal information booklet	X	2	

#### **OPERATIONS ALONGSIDE**

### 1.24 General

All operations at the NorSea Terminal will be carried out fully in accord with the recommendations contained in the latest edition of the International Safety Guide for Oil Tankers and Terminals (ISGOTT). Safety zones around bunkering operations are usually 20 meters from vessel, and all other activity shall be stopped, if not otherwise agreed.

#### 1.25 Hose Connections

On completion of mooring alongside the NorSea Terminal, the ship will be presented with hoses for discharge. It is the responsibility of the ship to ensure that the hoses are pressure tested to ISGOTT standard and appropriate for the intended use. Appropriate certificates should be presented to the shore officer prior to any cargo operation.

Ship's crew are responsible for ensuring that all hoses are manoeuvred and connected safely and rigged correctly on board the ship.

### 1.26 Cargo Transfer Rates

The maximum allowable cargo transfer rates will be established and agreed during the pre-transfer conference. Rates will also be established for starting transfer and will take into account the need for precautions when handling grades defined as static accumulators. If applicable, procedures for the final topping-off of shore tanks will also be established and agreed.

### 1.27 Checks on Quantities Transferred

Unless otherwise agreed during the pre-transfer conference, ships should provide the Terminal with information regarding the amount of cargo that has been discharged, by grade, on the hour, every hour. The terminal will provide the ship with comparable shore figures.

If the exchange of information reveals a sudden or significant difference between the terminal and the ship's figures on quantities transferred, operations will be stopped until a satisfactory explanation can be found.

### 1.28 Environmental Criteria for Suspending Operations

	Halt crane	Halt loading and	Disconnect Loading	Vessel depart Berth (if	
	operations	unloading operations	Hoses	safe to do so)	
Wind Speed	***	***	> 16m/s	> 23m/s	
Accumulation of gases in area	***	***	N/A	N/A	
Electrical Storm	***	***	Loading/discharging operations have to be suspended on the approach of electrical storms/lightning. All tank openings, tank-venting and manifold valves must be closed.		
Swell	***	***	If swell conditions create vessel movements, which concerns the safe mooring loading and discharge operations has to be suspended and hoses disconnected. Vessel departure should be considered.		



Document ref.:	Content:	Date:	Edition:
NS-K05-DOK-069	NorSea Stavanger Tananger Terminal information booklet	X	2

Irrespective of measured wind speed, if either the ship's Master or the Terminal representative considers that the prevailing conditions potentially threaten the safety of operations, transfer should be suspended and hoses disconnected.

	Limitations - Inoperative				
Boom Lenght (mtr)	Rotation Speed (o/min)	Notching	Lift Speed (mtr/min)	Allowed Wind Speed (mtr/sec)	Allowed Wind Speed (mtr/sec)
18	1,0	12	6,0	15,5	24,0
24	1,0	10	7,2	15,0	24,0
30	1,0	8	9,0	14,4	24,0
36	1,0	7	10,3	13,9	24,0
42	1,0	6	12,0	13,3	24,0
48	1,0	5	14,4	12,3	24,0
54	1,0	4	18,0	11,3	24,0
60	1,0	3	10,0	10,6	24,0
66	0,5	3	10,0	10,2	24,0
72	0,5	3	10,0	9,8	24,0
78	0,5	2	15,0	9,4	24,0
84	0,5	2	15,0	8,9	24,0

### 1.29 Emergency Shutdown

Arrangements at the NorSea Terminal includes remote means for stopping shore transfer pumps. In the event of an emergency, the Terminal shall be advised immediately by UHF radio and stating 'Emergency Stop'.

Transfer operations shall be halted immediately in event of any of the following, but not restricted to:

- Cargo spillage or suspected cargo spillage.
- Fire or explosion on the vessel or in the terminal.
- Failure of the ship/shore communication system.
- Vessel not securely moored, such as mooring lines not properly tended etc.
- Loss of electrical power at the terminal or on board the vessel
- Deck watch absent.

If the event of an emergency shutdown the import valves for the terminal tanks will close when the emergency switch has been trigged. The valves shutdown period are designed to give acceptable surge conditions however system on board the ship must be able to withstand these possible conditions.

### 1.30 'Dry Certificates'

Ships are advised that NorSea Terminal staff or their representatives will not sign any 'Dry Certificate' or other documentation attesting to the condition of ship's tanks on completion of discharge or prior loading.

In situations where there may be an conflict with vessel management system it is encouraged to note that terminal refused to sign such Dry Certificate, alternative issue a letter of protest which terminal representative my sign receipt only.

### 1.31 Handling of Ship's Stores and Spare Gear

Supplies or ship provisions may be transported on to the Berth of the terminal when it's not in violation with the safety regulations and permission given from the terminal representative.

The ship's crane may be used for lifting ships supplies and equipment when the terminal has given permission for such operation. However no lifting of any equipment that may ignite sparks such as drums, steel, pipes etc. may take place during any cargo operations.

### 1.32 Craft Alongside

No vessels or small craft are allowed alongside a ship moored at the NorSea Terminal while cargo operations are in progress.



Prior to the commencement of, or on completion of, all cargo and ballast operations, small craft may be permitted to come alongside for the purpose of transferring stores, when permission is given in advance by the Terminal

#### 1.33 Potable Water

NorSea Terminal have the ability to deliver fresh water at quay 1, 2 3, 4 and 5.

#### 1.34 Bunkers

No bunker barges are allowed alongside vessels during any cargo operations, sampling, ullaging or connecting/disconnecting.

Bunker qualities available: MGO. Bunker is available from 4" hose, and the maximum capacity is 160 m3 per hour.

### 1.35 Consideration to our neighbours

The NorSea Terminal is located to residential areas and every effort to reduce the environmental impact to our neighbours is appreciated. During your vessels stay at the terminal we strongly urge you to consider minimizing noise from you vessel as much as practicable possible this would include cargo pump, ventilation and funnel noise without jeopardizing vessel safe operation. Smoke and soot from vessels funnel should be minimized



7	Content:	Date:	Edition:
	NorSea Stavanger Tananger Terminal information booklet	X	2

### 6. RESPONSIBILITIES

#### 1.36 Jurisdiction

Norway is a signatory to the Memorandum for Port State Control and in addition to terminal inspections; masters can expect governmental inspections to be undertaken to confirm that ship meets all relevant national and international standards.

### 1.37 Conditions of Ship Acceptance

Ships are accepted at NorSea Terminal on the understanding that operations must 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).

All arrivals must be approved by NorSea AS and be booked through our Customer Centre (either by Web Portal or e-mail).

Ships found with deficiencies on arrival may be subject to refusal until the deficiencies have been rectified, terminal manager has the right to reject any ships from berthing at the terminal that is considered substandard.

### 1.38 Responsibilities

As stated in the Safety Letter, responsibility for the safe conduct of operations whiles the ship is at NorSea Terminal rests jointly with the Master of the ship and with the responsible Terminal Representative. Emphasis is on the fact that the completion of a safe and successful cargo transfer operation is dependent upon effective Co-operation, Co-ordination and Communication between all parties involved. All operations should be conducted in the spirit of this mutual agreement.

### 1.39 Responsibility for Loading

Ship's personnel are advised that responsibility for loading and unloading operations **on board the ship** rests solely and absolutely with the Master. It is the responsibility of the ship's personnel to operate valves, to control pumping rates and to ensure safe and secure connection of all transfer equipment to the ship's manifold.

Ship's personnel are advised that the responsibility for the discharge or escape of oil from a vessel rests with the ship.

In the event of a prosecution, being taken by the appropriate authorities, heavy penalties together with liability for dispersal costs and damages for pollution damage, is provided for by legislation.



Content:	Date:	Edition:
NorSea Stavanger Tananger Terminal information booklet	X	2

### 7. APPLICABLE TERMINAL REGULATIONS

### 1.40 Ullaging and Sampling

Wherever possible, the ullaging and sampling of ship's tanks should be achieved by the use of closed sampling equipment. Under no circumstances are shore personnel to open any tank or vapour lock without approval from the ship's officer on duty.

When it is not possible to undertake closed gauging and/or sampling operations, open gauging systems will need to be employed and the precautions detailed in ISGOTT must be adhered to.

Shore staff and surveyors will draw cargo tank ullages and samples immediately after mooring when safe access to the shore is provided. The Master is requested to have adequate personnel and appropriate closed sampling and ullaging equipment available as a priority to facilitate this operation.

### 1.41 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.

### 1.42 Inert Gas

If a ship is fitted with an inert gas system then this system must be fully operational (in accordance with Class requirements) and used at all times. In the event that a ship's inert gas system is not functioning, or not functioning as required, cargo operations must cease immediately and may not resume until the system is repaired or written permission is given from the ship's owners and the Terminal Representative.

### 1.43 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.

### 1.44 Maintenance and Repair Work Onboard

Major planned repair work is not permitted while the ship is alongside the NorSea Terminal. 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 approval by the Terminal Representative.

#### 1.45 Hot Work Onboard

**NO** task identified as hot work according to ISGOTT is permitted on board ships alongside NorSea Terminal without prior approval by NorSea AS.

### 1.46 Tank Cleaning, Purging and Gas Freeing

Tank cleaning, gas freeing or purging operations are not permitted on board any ships while alongside the Norsea Terminal.

### 1.47 Enclosed space entry

**No** entry into any enclosed space as per ISGOTT definition is allowed on the ship when alongside the NorSea Terminal.



### 1.48 Cargo tank high level alarms

Every vessel involved in cargo operations alongside the terminal should have operational cargo tank high level alarms fitted that are independent from the main gauging system. Alarm should be tested prior to operation and be operational both during loading and discharging operations.

Date:

X

Edition:

2