RAUMAN SATAMA
PORT OF RAUMA

SAFETY AND SECURITY GUIDELINES FOR TANKER QUAYS AND TANK STORAGE AREAS

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1. PREFACE

Scope of application

The Guidelines apply to activities carried out in the oil harbour and the chemical harbours of Rauma. In these Guidelines, the term port refers to the vessel quays, including the pertinent harbour basins, and the associated storage and tank areas. The scope of application of the Guidelines is presented in the attached maps (Appendices 1 and 2). The regulations regarding bunkering apply also to the other parts of the port.

Bases for Guidelines

The Guidelines are based on stipulations regarding dangerous goods carried in bulk and liquid fuels, and on the regulations set forth in the Port Regulations of Port of Rauma and the Town of Rauma.

Definition of "dangerous goods" and "vessel carrying dangerous goods"

For the purposes of these regulations, dangerous goods refer to:

- Flammable liquids with a flash point of + 60 C or lower.
- Gases that fall under the IMDG gas transport code.
- Chemicals when carried in bulk.
- Vessels that are not free from flammable, toxic, corrosive, or otherwise dangerous goods are also included in vessels carrying dangerous goods.

As concerns dangerous goods carried in some other form than in bulk, reference is made to the regulations set forth in Sections 2.4 and 5.1 of the Port Regulations.

Availability of Safety and Security Guidelines

The Safety and Security Guidelines are available from the port authorities. The master of the vessel, the shipping line (agent) and the consignee/shipper have an obligation to know these regulations and to ensure that they are known by and applied by the personnel.

2. TRAFFIC NOTIFICATION

Advance notification

In addition to the notification referred to in the Port Regulations, a vessel arriving to the port to load or unload flammable or dangerous goods or carrying a cargo containing such goods shall submit an advance notification, and upon arrival in the port, an arrival notification, using forms complying with the forms attached to these Guidelines.

The advance notification shall indicate:

- the name, nationality, net tonnage, as well as maximum length and displacement of the vessel
- the estimated time of arrival
- the consignee/consignor of the cargo
- amount and type of cargo

- previous cargo
- is there any dirty ballast when arriving to the port
- are gas tanks free from gas and clean
- the name and identification number of the goods as listed in the IMDG Code, the page number and the UN number
- information on any special precautionary measures necessary and on any special risks
- the agent of the vessel

The advance notification shall be submitted to the Harbour Office no later than 24 hours before the estimated time of arrival to the port area, unless the port authorities have allowed a shorter advance notification period based on the duration of the voyage or some other reason.

Arrival notification

The information referred to in the arrival notification shall be submitted by the master of the vessel immediately after the arrival of the vessel to the port.

The arrival notification signed by the master shall be delivered to the Harbour Office without delay by the master or the local agent of the vessel.

3. VESSELS IN PORT

Warning signals

Vessels carrying a dangerous cargo shall display the international signal flag B (red, minimum length 60 cm and minimum width 30 cm) hung from the mast or on some other clearly visible location and at night time shall show a red light visible from all directions.

Towage

When arriving to or leaving from the port, the vessel shall use tug assistance as specified by the Port Authority in consultation with the master. The hatches or valves of the vessel carrying dangerous cargo must not be opened during tug assistance.

Spark arrestor

Vessels arriving to the port shall be provided with effective spark arrestors on funnels and exhaust pipes.

Electrical equipment and fire safety

Only faultless electrical equipment with appropriate approval may be used.

The onboard fire protection equipment shall be in overall good condition.

Safety limits to be observed on chemical quay

Chemical quay II (KII) can accommodate vessels with a maximum length (LOA) of 150 m, a maximum width of 22 m, and a maximum displacement of 8.30 m.

Safety distance

The distance between a chemical tanker and other vessels shall be no less than 20 m.

Mooring

Vessels are not permitted to be moved and moored in the port without the consent of Port of Rauma.

A vessel which is not loading or unloading may not stay in the port without the specific consent of the port authorities.

Vessels carrying flammable liquids or flammable gases may only be moored with ropes or a wire mooring line with a rope strop, unless the bollards are equipped with quick release hooks.

When moored, a vessel carrying dangerous goods shall be provided with sufficiently strong lines aft and bow, placed on the outside of the vessel and lowered to the surface of the water. These lines shall be securely attached to the vessel's bollards in such a manner that they allow for a 40-metre towing length.

The vessel may only be moored on the outside of another vessel with the consent of the port authorities.

When in port, the vessel's main engine must be ready for operation at all times.

Watch keeping

When in port, the master of the vessel shall arrange watch keeping by a member of the crew or by a person who has the necessary qualifications or has been approved by the port authorities in advance.

The person keeping watch:

- shall have a good knowledge of the instructions provided in Section 3 (Arrival and berthing of vessel in port) and be familiar with the safety equipment provided on the quay.
- shall be available on the deck for supervision and adjustment of moorings and disembarkation.
- shall control that no oil is leaked from the vessel.
- shall control that persons about to board the vessel are authorised to do so and inform them about the smoking prohibition in place.
- shall assist the vessel's officers by controlling that the safety and security guidelines applied in the port and on the vessel are observed, and closely monitor activities in the vicinity of the vessel.
- inform the watch keeping officers of any events that can cause danger.

Access to vessel in port

In addition to the crew and the passengers, only the following persons are authorised to board the vessel

- qualified personnel of the owner of the vessel or the oil company as well as inspection authorities, the Port CEO, and representatives of the classification society and insurance company who are required to provide satisfactory proof of identity.
- the police, customs, firefighters, pilots, as well as port personnel with the master's consent

Intoxicated individuals are not allowed to board the vessel. Intoxicated crew members are allowed to board the vessel under the supervision of the vessel's officers.

Smoking

Smoking is prohibited on open decks, bridges, and similar areas regardless of the type of the cargo carried by the vessel.

The master can authorise smoking onboard the vessel in designated well-ventilated and enclosed areas on the condition that all doors and valves are kept closed on the cargo deck.

Smoking prohibition signs shall be posted on clearly visible locations on the vessel and near the gangway.

Open flame

The use of an open flame is prohibited onboard the vessel.

No welding work is permitted. The use of tools that produce sparks is not permitted.

The following exceptions apply to the prohibition of an open flame:

- an open flame is allowed in areas where smoking is permitted
- the ramping up of steam boilers following regulations is permitted

Repairs

Repair work may not be started (repair work includes the testing of radio transmitters and other electronic transmission equipment) without the permission of the port authorities with the exception of minor repairs, which only require the use of hand tools, on the condition that

- no open flame is produced
- the main engine of the vessel remains operable

Open flame in galley

The use of an open flame is not permitted in the galley or pantry of a vessel carrying dangerous cargo which is flammable. Food preparation and similar activities may only be carried out using hot cooking equipment that operates with electricity.

Tank hatches and sounding holes

Tank hatches shall be kept closed.

Air supply and venting of the cargo tank shall normally take place through the vessel's gas vent piping equipped with a security net. These are to be provided with reliable explosion protection with either capillary cartridges or davy's gauze. When using davy's gauze, the mesh size of the gauze may not exceed 0.5 mm at any point. The explosion protection device shall be secured to the sounding hatch hole with threads, meters, or some other reliable locking method.

Cleaning of tanks

The cleaning of tanks is not permitted in the port without the written permit of the port authorities. The permit sets down the valid terms and conditions to be complied with in the cleaning of tanks.

Loading, unloading, bunkering, and ballasting

The regulations concerning the loading and unloading of crude oil, fuels, or chemicals carried in bulk as well as bunkering and ballasting are presented in Section 6.

The loading and unloading of general cargo or supplies in the port is only permitted with the permission of the port authorities.

Action to prevent soil and water contamination

In Finland, it is prohibited to discharge noxious substances into land and water areas or to contaminate these areas with wastes.

The possibility is provided to discharge oily ballast and wastes in the port.

Safety arrangements on shore

The master and the officers of the vessel have the obligation to familiarise themselves with the safety arrangements in place on shore. They shall acquire the following information:

- location of firefighting equipment
- location of telephones and fire cabinets for use to alert the fire brigade
- location of quick disconnect switch for pumps

Photography

Photography is prohibited in the port.

The port authorities can grant permission for photography on a temporary basis provided the terms and conditions related to safety and security regulations are observed.

Inspection

The port authorities and the fire safety authority have the right to inspect the ship with respect to the Port Regulations and these Guidelines.

The ship's master has the obligation to comply with the orders given by the inspector and to facilitate their work by providing assistance as necessary.

4. PORT AREA

Regulations regarding storage areas of flammable liquids and dangerous goods

In storage areas of flammable liquids and dangerous goods as well as in unloading and loading quays associated with these areas, activities that deviate from normal procedures are only permitted with permission of Port of Rauma. Limited activities of a temporary nature may be permitted by the Port CEO, in consultation with the Fire Chief, if necessary.

Based on a written application and an operations plan, Port of Rauma can rent out, within the limits of its powers, from the referred storage area an area that is considered necessary for the storage and handling of flammable liquids and dangerous goods.

Before the start of storage operations in the storage area for flammable liquids, the storage operator shall obtain for its operation the approval of not only the Finnish Safety and Chemicals Agency Tukes and the competent chemical authorities, but also the fire safety authority of Rauma.

Industrial activities are not permitted in the storage area of flammable liquids without the permission of Port of Rauma and the appropriate authorities. Packaging in containers and minor mixing operations which do not involve a risk of fire or explosion caused by a chemical reaction are not considered to be industrial activities.

Wind droques shall be placed on appropriate locations in the port outside the actual storage area for flammable liquids to enable the determination of wind direction in case of a gas risk occurring in the storage area of flammable liquids.

Storage operator's responsibilities

The storage operator shall ensure that all equipment within or associated with the area they rent is in faultless condition. In case the operator observes any shortcomings or failings in the equipment of another lessee, they shall notify the owner and user of the equipment as well as the Harbour Office of this immediately upon observing the matter.

In addition to being responsible for the faultless operation of their own equipment, the storage operator is also responsible for ensuring that when used in connection with their operation, the equipment on vessels and transport vehicles will not cause any foreseeable damage.

Where the storage operator observes deficiencies in equipment used on vessels or transport vehicles, they shall refuse to supply goods to these until the deficiencies have been rectified.

The storage operator shall ensure the operability at all times of the firefighting equipment and other material specified in the permit decision and during the fire safety inspection in the storage area.

The storage operator shall ensure that the storage personnel have sufficient training for damage prevention as well as sufficient training for first-aid damage control should an accident occur.

The storage operator shall submit to the port authorities the name, address and both work and home telephone numbers of the responsible storage attendant. The information submitted regarding the responsible storage attendant shall also indicate their competence for the duties of the responsible storage area attendant.

Fenced areas shall be kept closed when there are no personnel involved in the operation of the storage present.

The storage operator has the obligation to organise the security of the area in a way acceptable to the Port of Rauma Ltd.

Access to port

Access to port is stipulated in Section 4 of the Port Regulations.

Smoking

Smoking is prohibited both in outdoor areas and inside buildings and vehicles.

The Port Authority may permit smoking in the port area in designated areas approved for it.

Open flame

An open flame is not permitted in the port area. Welding work is not permitted. The use of tools that produce sparks is not permitted.

The following exceptions apply as concerns the use of an open flame:

- An open flame is not permitted in designated smoking areas
- During repair and other work activities on the written permit granted by the operation supervisor

Electrical and communication equipment

The electrical safety regulations issued by the electricity company apply to electrical equipment.

The classification of potentially explosive atmospheres is carried out by the Finnish Safety and Chemicals Agency Tukes.

Communication equipment shall be Ex-protected.

Repairs

Repair and other work activities may not be started in a potentially explosive area and permission of the fire safety authority is required for work in such areas.

However, minor work activities that only require the use of hand tools are permitted provided no open flame is used.

Fire protection

In each storage area, the manager in charge has the obligation to ensure that the firefighting equipment for the area is operable.

An extinguishing water pipeline runs round the area. The extinguishing water pump station is located on the Martinkari side of the area. Foam extinguishing centres are provided on quay K2 and the oil quays. The operators have push-buttons in their areas for starting the pumps.

Runoffs and leaks

A collecting tank shall be provided on points where runoffs and leaks may occur, such as valves, discharge cocks, etc. and where there is no fixed containment basin.

Valves, discharge cocks and similar arrangements designed for sampling, water removal, etc. shall be kept locked or closed with a blind flange to prevent unauthorised use.

The drains in the containment basin of the quay are to be replaced by a type that can be closed, as has already been done in the oil quay; they are only opened for loading/unloading. Each user is always responsible for carrying out this opening/closing and also for ensuring that any spills into the containment basin are removed and appropriately disposed of. The system shall always be closed after completion of loading/unloading to allow stormwater to be discharged into sea.

Wastes

If any material classified as waste is produced when handling the goods, the storage operator has the obligation to provide containers of sufficient size for such waste and to organise the appropriate disposal or treatment of the waste.

Vehicle traffic

Vehicles shall only be placed and parked in specially designated and indicated areas.

Action to prevent soil and water contamination

In Finland, it is prohibited to discharge noxious substances or wastes into land and water areas.

5. REGULATIONS CONCERNING THE LOADING AND UNLOADING OF CRUDE OIL, FUELS, AND CHEMICALS CARRIED IN BULK AS WELL AS BUNKERING AND BALLASTING

Responsibility areas

The loading and unloading of vessels shall take place in cooperation between the storage manager and the ship's master.

The ship's master is responsible for unloading.

The ship's master is responsible for loading.

The storage manager is responsible for equipment and personnel on shore.

The condition and the surveys of the hydraulic crane are the responsibility of the Port Authority. The Port Authority is also responsible for the condition of the quay and the hose reels. Any failings and deficiencies in this equipment shall be reported to the Port Authority.

Loading and unloading

The following must be considered prior to the start of loading or unloading:

- The loading and unloading areas of gas and chemical tankers with bulk cargo shall be cordoned off and provided with clearly visible warning signs of dangerous goods before loading or unloading starts. The signs shall be posted along the cordons on shore and on the outside of the vessel toward the harbour basin.
- The vessel shall be grounded before any hoses or loading arms are connected.
- Only approved hoses that have been pressure tested less than 12 months ago may be used.

- When pumping starts, the onboard pumps or the pumps of the tank storage, respectively, shall be carefully inspected. All belt-driven pumps and machines must be effectively grounded to the ship's hull.
- The officers of the ship, as well as the rest of crew as needed, shall also be available on the deck or in the immediate vicinity. There must be a sufficient crew available to move the vessel.

During unloading, one member of the crew shall be present by the pump start-up point at all times.

Particular care shall be exercised during loading when the tanks are filling up. The person supervising the filling shall be in constant contact with the person controlling the valve to regulate the supply of the cargo into the tank in question.

If a hose or a loading arm is drained with air or similar, it shall be ensured that there is enough space in the tank in question.

The pumping pressure must not exceed the pressure indicated in the safety checklist. At the start of loading, care shall be exercised when raising the pumping pressure to full working pressure. Also, the leak-tightness of connections between the vessel and the oil pipelines on shore shall be verified at regular intervals. If a leaking hose or connection is detected, pumping shall be discontinued. If considered necessary during thunder storms, the unloading/loading of a flammable gas or liquid shall be stopped by the responsible officer, or the storage manager, or the port authorities.

In case loading or unloading is discontinued, the valves of the hoses and pipelines shall be closed both on the vessel and on shore.

The storage operator shall provide qualified personnel to monitor the pipeline during the transfer of the goods. The person monitoring the pipeline shall be in constant contact with the pump operator by a radiotelephone, unless they are able to immediately stop the pumps themselves in case a pipe leak or any other failure is detected.

When transferring a flammable liquid or a dangerous substance to or from the vessel, the storage operator shall observe the safety zone specified in the SFS standard 3355. The safety zone applies to both electrical equipment and vehicle traffic. The access of small boats into the safety zone must be prevented. The safety zone is measured from the outside of the vessel.

Where a cargo ship is forced to move past a vessel that is unloading or loading, the transfer of cargo shall be discontinued for a sufficiently long time prior to and after the cargo ship moving past the vessel.

The passing ship shall maintain a safe distance to the vessel carrying flammable liquids or dangerous goods.

Action in case of fire

In case a fire occurs on the vessel, on shore or on another vessel nearby, the following action shall be taken:

- short sound signals shall be given with the vessel's horn
- the rescue department, the police, and the port's traffic supervisors shall be alerted

- loading/unloading shall be stopped and all valves onboard the vessel and on shore shall be closed; an inspection shall be carried out to ensure that all tank hatches and sounding holes are closed
- in case a fire occurs onboard the vessel, extinguishing shall be started as well as preparations to move the vessel.

In case a fire occurs on shore or onboard another vessel, the fire extinguishing equipment shall be made ready for use to provide assistance, and preparations made to move the vessel.

Loading and unloading of railway wagons and vehicles

In addition to observing valid safety regulations for the loading and unloading of railway wagons and vehicles, when handling chemicals in bulk outside the fenced storage area, the loading/unloading area must be cordoned off. Clearly visible boards warning about a dangerous substance shall be posted on the perimeter of the cordoned area.

Komppi rail yard

Flammable liquids and dangerous goods may be present in the Komppi rail yard, outside the fenced area, on at most three tracks provided their control and security can be efficiently arranged.

Bunkering

Receiving vessel refers to the vessel that is being bunkered with a hose from shore or another vessel and bunker vehicle refers to a tank truck or tank wagon that supplies the bunker to the receiving vessel.

The vessel being bunkered shall prior to the start of bunkering appoint a watch keeper who can order bunkering to be immediately stopped, if required.

The vessel being bunkered and the bunker supplier or the driver of the bunker vehicle, respectively, have the obligation to take all necessary safety measures within their operating area to prevent oil spills in water or soil.

Before bunkering is started, the following points shall be considered:

- the vessel shall be grounded for bunkering in the port.
- all scuppers that can be affected by bunkering shall be closed.
- the vent pipes of tanks shall be equipped with an appropriate overfilling guard.
- the driver of the bunker vehicle shall be informed of the maximum pumping pressure at which oil is received and the amount of oil that each tank can hold.
- the hoses from the bunker vehicle shall be secured properly to the onboard coupling and suspended in accordance with good seamanship to prevent damage to them as a result of the movements of the hoses or the vessel.
- only approved hoses that have been pressure tested less than 12 months ago may be used.
- the opening of valves shall be carried out appropriately to ensure that the right tank is filled.
- communication shall be secured between the receiving vessel and the bunker vehicles.
- constant monitoring of the hose connection during bunkering shall be provided.

- a watch keeper who is fully familiar with the vessel and reliable in other respects shall be present during the entire bunkering operation. The watch keeper shall choose a position where they can order bunkering to be stopped immediately in case of overflow or some other incident. Communication shall be maintained between the receiving vessel and the bunkering vehicle at all times.
- oil level in the tanks shall be carefully monitored. Particular care shall be exercised when the tank is filling up.

Actions in case of oil spills

If an oil spill occurs, the following action shall be taken immediately:

- pumping must be stopped
- open valves must be closed on the receiving vessel and the bunker vehicle
- the port authorities and the rescue department brigade shall be alerted.

Taking of ballast

The master of the vessel is in charge of the taking of ballast in the vessel.

The taking of ballast shall be supervised by the chief mate or another appointed officer.

During the taking of ballast, the same precautions shall be carried out as during loading, as applicable, including supervision of scuppers, valve inspections, tank filling, the deck, the outside shell of the vessel and the surrounding water area. In severe thunderstorms, ballasting must be discontinued. During the taking of ballast, particular attention shall be paid to the risk caused by gas discharged from the gas-filled tanks.

The ballast pump shall be started and set in suction operation before the bottom valve is opened.

Only clean ballast may be discharged into water. Clean ballast refers to water that has been kept in isolated ballast tanks with no connection to any of the cargo tanks, or ballast that has been treated with a separator with such a capacity that the oil content of the discharged water is limited to 15 parts per million (the Baltic Sea Convention).

6. NOTIFICATION OF SUBSTANCES TO BE STORED IN PORT TANKS AND ANY CHANGES IN THEM

Notifications

The storage manager shall notify the rescue department and the Port Authority of stored substances as follows:

- name of substance
- IMDG code of substance, page number, UN number
- amount of substance

A written notification with the aforementioned information shall be submitted to the rescue department and the Port Authority in case any changes take place in the stored substances or if new substances are received.