

NOTE

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**Our reference:** Sag

Maritime Regulation and  
Manning/SN

## **STS operations**

### **STS operations are not a new concept**

"Ship To Ship" (STS) operations are not a new concept – STS operations have taken place for long. Earlier, these operations were mainly carried out by large oil tankers from the Persian Gulf which unloaded to smaller ships with a view to distributing the oil to ports at which the large tankers were not able to call. The increasing number of STS operations in Danish waters is primarily caused by exportation of Russian oil, since the water depth of the Danish straits is not sufficient for large tankers to pass the straits when fully loaded. If the following transportation is to take place by large tankers, they can for example be partially loaded in a Baltic port and subsequently be filled in an STS operation or be loaded entirely in such an operation.

The increased demand for liquefied gas is also expected to result in similar operations at sea.

STS operations are also extremely useful in connection with pollution prevention. If a tanker has grounded, has a collision or another accident and there is a risk of the cargo leaking, it is important that the oil cargo is transferred to another ship as quickly as possible. This would also be in the form of an STS operation.

### **STS operations in Danish waters**

Today, the majority of the STS operations in Danish waters take place off Frederikshavn and in the Kalundborg Fjord. Both areas have favourable conditions for these operations due to the water depth and because they are "sheltered" areas.

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MINISTRY OF BUSINESS AND GROWTH

## **The distribution of responsibility between the Danish authorities is ready**

The Danish Maritime Authority is responsible for monitoring STS operations. The Danish Maritime Accident Investigation Board is responsible for the investigation of any accidents.

The Ministry of Defence is responsible for combating any oil pollution at sea and in coastal areas. This work is carried out by the defence under the coordination of Defence Command Denmark, the Naval Staff. The Naval Staff is also responsible for any criminal prosecution in case of pollution. If oil sampling is to take place at sea in order to procure evidence of which ship has leaked oil, this task is carried out by the defence.

## **Legislation**

### **Order on the transfer of liquid cargoes between ships in Danish and Greenland territorial waters (STS operations)**

STS operations in Danish waters are regulated by order no. 570 of 5 June 2014 on the transfer of liquid cargoes between ships in Danish and Greenland territorial waters (STS operations). The order has been issued by the Danish Maritime Authority with its legal basis in the act on safety at sea. The order applies to ships, irrespective of flag, in Danish and Greenland territorial waters.

Oil transfers outside territorial waters are regulated by Notice B from the Danish Maritime Authority, chapter XXI, part VIII (which is a reproduction of MARPOL, Annex I, chapter 8).

Order no. 570 stipulates that:

- STS operations must be performed under the guidance and monitoring of an operator approved by the Danish Maritime Authority, and
- STS operations must be performed in accordance with the industry's own extensive guidelines, which are thus turned into current Danish law.

In addition to the industry's own guidelines, the following requirements also apply:

- Prior to the STS operation, a risk assessment must be made of whether it can be performed safely. In this connection, account must, inter alia, be taken of any limitations to the area chosen, the participating ships, the equipment to be used, the involved support vessels as well as the expected conditions of wind, weather and/or ice.
- STS operations must not be performed under conditions of ice where the concentration of ice exceeds 1/10.

- 1 of the ships must be at anchor.
- Tug boats must be used when the ships meet and are disconnected again.
- STS operations are permitted only in areas and under weather conditions that are suitable for the purpose. This must be evaluated on an ongoing basis just as the authorities must be informed if there is disagreement about the propriety of continuing the operation.
- There are special requirements for the control of the hoses used for STS operations.
- STS operations must not take place under conditions of ice.
- The Admiral Danish Fleet must be informed about the transfer at least 48 hours before the transfer takes place.

In addition, the legal basis has been introduced for the Danish Maritime Authority's control of STS operations and STS operators with a view to securing that the provisions of the order are complied with.

Violations of the provisions are punishable by fine or imprisonment for up to 1 year. It is also possible to punish legal persons, i.e. companies.

### **Approved operators**

The Danish Maritime Authority approves STS operators upon application. Approvals are granted only to persons who meet the qualification requirements stipulated in the order as well as to companies that have employed such persons and use a quality management system that secures that the operations are performed in accordance with the order. The STS operator must pay the costs incurred in connection with the approval.

### **Control of STS operations**

The Danish Maritime Authority controls the operations carried out through random checks. In the view of the Danish Maritime Authority, operations in Danish waters are performed completely appropriately by competent and professional players who are very attentive of the need for a high level of safety.

### **Regulations on STS operations – adopted by the IMO**

In 2009, the IMO adopted internationally binding and mandatory regulations on STS operations. These regulations have been incorporated into the MARPOL Convention, Annex I, chapter 8, regulations 40-42, and became effective on 1 January 2011, and apply to all STS operations performed after 1 April 2012. These regulations have been incorporated into Notice B from the Danish Maritime Authority, chapter XXI, part 8.

The provisions are very much similar to the Danish provisions on STS operations previously in force and stipulate that oil tankers above 150 GT that perform STS operations must do this in accordance with a plan approved by the flag State. The plan must comply with current industry standards or similarly.

Furthermore, a qualified person must be on board the ship who has the relevant competences for performing the STS operation.

Finally, the coast State is required to be notified no later than 48 hours in advance when an STS operation is performed in the territorial waters or in the exclusive economic zone (EEZ) of a member State. This means that all STS operations, including STS operations in the EEZ, must be handled very much like previously under the regulations in force for Danish territorial waters.

This means that, as of 1 April 2012, it has also been an obligation to report operations that take place in the exclusive economic zone (EEZ).

However, there is no legal basis for controlling STS operations outside territorial waters.

### **General considerations related to STS operations**

In the view of the Danish Maritime Authority, responsible players show an interest in STS operations being performed under organised and appropriate conditions. When a location for an STS operation is to be chosen, it follows from section 9 of the STS order that the operation can take place only in an area and under weather conditions suitable for the purpose and that the authorities attach great importance to the transfer of oil at sea taking place where it can be done completely appropriate in terms of safety and where it causes as little inconvenience as possible to other passing ships. General conditions of navigational safety such as a safe distance to established ship and ferry routes as well as the choice of areas that are protected from the weather are considered important criteria when it comes to STS operation safety.

### **Requirements for double hull**

The general regulations on double hulls also apply to ships taking part in STS operations.

All tankers with a deadweight tonnage above 500 carrying heavy oil must be double-hull tankers. In addition, single-hull ships are generally being phased out. The phasing out was initiated in 2003, and the last single-hull tankers will have been taken out of operation in 2010. Furthermore, the Russian Government has stated that only double-hull tankers are permitted to load in Primorsk.

## **Other structural requirements and oil spill plans**

Current international regulations contain a number of requirements for the construction of tankers that are intended to prevent oil spill over the ship's side. The requirements are supplemented by requirements emanating from the rules of the international classification societies.

According to current international regulations, all tankers above 150 tonnes must also carry a Shipboard Oil Pollution Emergency Plan. The plan must contain instructions about whom to contact in connection with oil pollution, what to do to reduce the oil pollution and procedures for co-operation with the national authorities.

## **Mandatory pilotage**

Oil tankers that reload oil cargoes in Danish territorial waters are covered by mandatory pilotage according to the pilotage act. Thus loaded oil tankers (with a deadweight of more than 1500 tonnes) are subject to mandatory pilotage in Danish territorial waters, cf. section 4(1). If the pilots become aware of defects and non-conformities, they are obliged to report this to the relevant authority, such as the Danish Maritime Authority. This has been impressed on the pilots after the loss of the oil tanker PRESTIGE off the Spanish coast in November 2002.

## **The industry's own guidelines: OCIMF & ICS' Ship to Ship Transfer Guide (for Petroleum, Chemicals and Liquefied Gases)**

As described above, the order on STS operations stipulates that they must also be performed in accordance with the industry's own guidelines, which are thus turned into Danish law.

The most recent version of the industry guidelines, "Ship to Ship Transfer Guide (for Petroleum, Chemicals and Liquefied Gases)", which has been issued by the Chemical Distribution Institute (CDI), the International Chamber of Shipping (ICS), the Oil Companies International Marine Forum (OCIMF) and the Society of International Gas Tanker and Terminal Operators (SIGTTO), was published on 29 November 2013.

The guide covers a wide number of practical conditions in connection with the performance of STS operations.

- The local conditions must be examined, including whether it is necessary to acquire permits.
- In connection with the choice of area, account must inter alia be taken of the wind, weather and navigational conditions, etc.
- The weather conditions must be favourable. This is a specific assessment. However, especially conditions related to wave heights are stressed since the impact of waves may be of importance to the load on moorings and fenders. STS operations must not take place in thunder storms.
- Before performing an operation, a risk analysis and an emergency preparedness drill must be made where the specific conditions are gone over.
- A wide number of safety provisions must be complied with, inter alia to eliminate the risk of an impact on the electrical systems, etc. of the system.
- A wide number of requirements for the communication between the ships must be complied with.
- Unless the crew is very experienced, the ships should be manoeuvred and moored only at daylight.
- There are requirements for the quality, location, etc. of the mooring.
- As regards the transfer, the transfer speed, capacity, emergency procedures, etc. should be planned. There must always be a person at the manifold in order to, inter alia, detect any leaks, just as there must be a person at the pump stop.
- Fenders and hoses must comply with industry and international standards, with special focus on age, storage, wear and tear, etc.
- Emergency plans must be drawn up and take account of the possible consequences of an accident. Equipment for containing an oil spill must, inter alia, be available on board both ships and ready for use.
- In addition, the guide contains a number of checklists to secure that all the procedures are gone through.

### **Who is responsible in connection with oil pollution by tankers during STS operations and who must pay?**

According to chapter 10 of the merchant shipping act, the owner of a ship carrying oil in bulk as cargo is objectively liable for pollution damage.

As regards ships carrying more than 2,000 tonnes of oil in bulk, the ship-owner's liability is covered by a mandatory insurance. Danish ships carrying more than 2,000 tonnes of oil in bulk must not be used without a certificate confirming that the insurance requirement is met.

Foreign ships carrying more than 2,000 tonnes of oil in bulk must not call at or depart from a Danish port or any other place of loading or unloading in Denmark or in the Danish continental shelf area without an insurance that covers the objective liability for pollution damage.

The owner of a Danish or foreign ship can limit his liability to certain maximum amounts depending on the size of the ship.

The shipowner's liability is supplemented by the international oil pollution compensation fund which, inter alia, covers the cleaning up in case of pollution incidents involving leakages of heavily biodegradable oil. If the damage exceeds the shipowner's liability, the fund goes in. The same applies if the ship is not insured. Denmark has acceded to the supplementary oil pollution compensation fund, which was adopted internationally in 2003. This means that Denmark can have damage up to a total of approx. DKK 6.5 billion covered in connection with one single incident.

### **The preparedness of the Naval Staff in connection with pollution prevention**

The Naval Staff is responsible for the Danish pollution prevention preparedness at sea.

The emergency preparedness is dimensioned according to the overall assessment of the risk of pollution of the marine environment in Danish waters and is, therefore, not especially dimensioned or located according to the STS operations.

An overall and updated description of the emergency preparedness is available from the webpage of the Naval Staff on the above-mentioned address (in Danish):

<http://forsvaret.dk/MST/Nationalt/Havmiljoe/Beredskabsplan/Pages/default.aspx>

### **Beach cleaning**

If the combatting of the oil pollution at sea is not fully successful, and the oil gets ashore, the municipality is responsible for the cleaning of the coast. If it is not possible to find the oil sinner, the Government (the Environmental Protection Agency) will refund the municipalities' documented expenses for the cleaning of the beaches if a number of detailed conditions are met, including that it was reported before the municipality starts cleaning the coast, cf. order no. 1630 of 13 December 2006 on refunds of the expenses for emergency preparedness, combating and clearance measures as well as removal of waste in connection with oil and chemical pollution (the order on beach cleaning).

### **Cooperation between the authorities on STS operations**

The Maritime Cooperation Body that has been established between the authorities with responsibilities in the maritime field, including the Ministry of Defence, the Environmental Protection Agency and the Danish Maritime Authority, have in 2006 considered the safety related to oil transfers at sea. On that occasion, the cooperation body agreed to follow developments.

With the renewed interest in STS operations in Danish waters in the early summer of 2013, the Maritime Cooperation Body therefore met on 3 July 2013 with a view to revising the authorities' emergency preparedness in connection with STS operations in Danish waters.

Since the regulation was laid down in 2007, oil spills had not been observed as a consequence of STS operations.<sup>1</sup>

The cooperation body remarked that already today the ships must establish the expected weather conditions prior to the performance of an STS operation and, on the basis of this, ensure that it can be performed safely.

The Danish Maritime Authority was in the process of revising the order on STS operations with a view to laying down similar regulations on the transfer of liquefied gas and chemicals. The intermediate gaining of experiences from STS operations and any subsequent comments would form part of this work.<sup>2</sup>

Thus, the conditions mentioned during the meeting did not make the members of the Cooperation Body change the conditions of STS operations.

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<sup>1</sup> A minor spill was included in the statistics, but it had been caused by the bunkering of oil in connection with an STS operation.  
<sup>2</sup> Currently, order no. 570 of 4 June 2014 on the transfer of liquid cargoes between ships in Danish and Greenland territorial waters.