



General principles

Chapter 1

1.1 Control of operations

Ship to Ship Person in Overall Advisory Control and STS Superintendent

Throughout the STS industry, the titles Person in Overall Advisory Control (POAC) and STS Superintendent are the terms most frequently used to identify the individual(s) providing expert guidance to Masters of ships involved in STS operations. Other, less common, terms used include Mooring Master and Lightering Master. The actual title used during an STS operation depends on factors including cargo type, geographical location or titles used by the organisations involved.

Often the terms POAC and STS Superintendent are used interchangeably, although it is incorrect to do so. The term POAC is explicit to STS transfers of MARPOL Annex I (Oil) cargoes at sea. The qualifications and experience required of a POAC are defined in the *IMO Manual on Oil Pollution*, Section 1, Chapter 6, which states:

For transfers involving MARPOL Annex I (Oil) cargoes, the POAC should have at least the following qualifications or level of experience:

- An appropriate management level deck licence or certificate meeting international certification standards, with the *International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW)* and dangerous cargo endorsements up to date and appropriate for the ships engaged in the STS operation.
- Attendance at a recognised ship handling course.
- Experience in conducting mooring/unmooring operations in similar circumstances and with similar ships.
- Experience in oil tanker cargo loading and unloading.
- A thorough knowledge of the transfer area and surrounding areas.
- Knowledge of spill clean-up techniques, including familiarity with the equipment and resources available in contingency plans.
- Knowledge of STS operations plans.

While STS transfers in port are not covered by the *IMO Manual on Oil Pollution*, Section 1, Chapter 6, it is recommended that a POAC or STS Superintendent is appointed to provide expert guidance to the ships' Masters.

Table 1.1 recommends best practice for provision of expert guidance for the STS transfer operation.

Cargo	POAC/STS Superintendent	
	In Port	At Sea
MARPOL Annex I (Oil)	POAC/STS Superintendent	POAC
MARPOL Annex II (Chemicals)	STS Superintendent	STS Superintendent
LNG/LPG	STS Superintendent	STS Superintendent
The Master of either ship may be considered a POAC/STS Superintendent when meeting the guidance in this section		

Table 1.1: Provision of expert guidance in STS transfer operations

Throughout this Guide the term POAC/STS Superintendent is used for the person providing expert advice during STS operations.

For chemical and liquefied gas STS operations, where the more appropriate term of STS Superintendent should be used, there are no equivalent regulatory requirements for individuals providing expert guidance. However, this Guide recognises as best practice that such individuals are qualified to an equivalent level as the POAC, with comparable experience in the relevant cargo type.

Role of a POAC/STS Superintendent

Roles and responsibilities of a POAC/STS Superintendent vary depending on the cargo type, the complexity of the mooring operation and whether it is conducted at sea or in port limits. A port

authority may require that an approved/licensed pilot should advise the Master(s) on manoeuvring. The POAC/STS Superintendent will work in conjunction with the pilot, providing guidance on all other aspects of the operation.

The role of the POAC/STS Superintendent does not relieve the Master(s) of their responsibilities but is to maintain overall advisory control providing guidance to the Master(s) in delivering a safe STS operation.

The responsibilities of a POAC/STS Superintendent include, but are not limited to:

- Reviewing the location-specific risk assessment.
- Reviewing the Joint Plan of Operations (JPO) and associated risk assessments.
- Verifying that agreed STS operating procedures are followed and that the STS operation is conducted in compliance with applicable regulatory requirements.
- Confirming that required notifications are made to the appropriate authorities.
- Confirming that relevant checklists are completed.
- Overseeing the placement of primary and secondary fenders.
- Sighting and checking mooring equipment.
- Conducting a pre-operations discussion with the responsible persons of all ships, including Lightering Support Vessels (LSVs) and tugs.
- Confirming that personnel involved in the STS operation are properly briefed and understand their responsibilities.
- Discussing current and forecast environmental conditions and the need for their continuous monitoring throughout the operation(s).
- For at sea transfers, discussing passage planning and agreeing courses and speeds for manoeuvring and mooring operations.
- Confirming joint agreement of the mooring and unmooring plans.
- Reviewing and verifying that any site-specific risk mitigations are in place.
- Supervising ship approach and manoeuvring alongside.
- Confirming the safe connection of transfer hoses/arms and any associated Emergency Release Systems (ERS).
- Verifying that any Emergency Shutdown (ESD) system is connected and tested.
- Confirming that cargo transfer rates are being monitored, together with associated vapour management procedures.
- Verifying that the integrity of the mooring arrangement is continuously monitored.
- Ensuring that contingency plans are activated in the event of an emergency.
- Verifying that cargo transfer lines are drained and purged where required.
- Confirming safe disconnection of hoses/arms.
- Supervising the unmooring and separation of ships.
- If required, supervising the return of primary and secondary fenders and transfer equipment.
- The POAC/STS Superintendent should advise the Master when to suspend or terminate the STS operation.

To manage the workload on extended STS transfer operations, an assistant is recommended. This could be an STS Superintendent or an assistant with the same qualifications as the POAC. The primary POAC/STS Superintendent who has the overall advisory control should be confirmed to all parties involved in the STS cargo transfer operation.

1.2 Risk assessments

A risk assessment (see chapter 4) should be undertaken by the STS organiser or service provider when evaluating the suitability of a location for an STS operation. It is the responsibility of ships' Masters, undertaking STS operations, to review the risk assessments and determine if the hazards have been identified and the risks mitigated. Compatibility of ships, equipment reliability, experience of the crew and the forecast weather conditions must all be considered in the risk assessment.

1.3 Ship to Ship operations plan

Administration approved STS operations plans must be available on board all ships engaged in MARPOL Annex I STS operations and be available in the following locations:

- Bridge.
- Cargo Control Room (CCR).

The STS operations plan must comply with the standards described in MARPOL Annex I, be ship specific and contain the following information:

- A step by step description of the STS operation.
- Mooring and unmooring procedures and arrangements, including diagrams where necessary and procedures for tending moorings during the cargo transfer.
- Cargo and ballast transfer procedures, including those used while underway or at anchor.
- Procedures for handling and testing integrity of cargo hoses and the hose to manifold interface.
- The titles, locations and duties of all persons involved in the STS operation.
- Procedures for operating ESD and communication systems to allow rapid cessation of operations.
- Drip tray arrangement and procedures for emptying.
- Weather criteria.
- Procedures for reporting spillages of oil into the water.
- Contingency plan.

The Master must ensure that the STS operations plan is current and that all personnel follow the documented procedures. Records of STS operations must be retained on board for three (3) years.

1.4 Manning for Ship to Ship operations and the prevention of fatigue

A deck, cargo and bridge watch should be established, for the duration of the STS operation and maintained on each ship, whether underway or at anchor. Principles of bridge team management should be observed. Refer to *Bridge Procedures Guide*. When conducting STS operations in port, including double banking and buoy mooring operations, deck and cargo watchkeeping duties should be maintained by all ships involved.

STS operations place additional demands on ships' crews, as personnel are required for the cargo transfer operations and tending of moorings, in addition to keeping a safe navigational or anchor watch throughout the STS operation.

In the planning phase for an STS operation, in cooperation with the Masters of the ships, the duration and complexity of the operation should be estimated and an assessment made of the additional workloads associated with the planned STS operation. The plan should ensure that all personnel, including POAC/STS Superintendents, do not become fatigued. The minimum rest periods required by applicable legislation should be complied with, particularly when conducting multiple transfers. Additional deck officer(s) and/or an extra Chief Officer may be necessary, depending on a ship's trade and frequency of STS operations. Provision of an additional STS POAC/Superintendent, where