



Office of
Deputy Commissioner
of Maritime Affairs

THE REPUBLIC OF LIBERIA
LIBERIA MARITIME AUTHORITY

Marine Notice

POL-011
Rev. 05/14

**TO: ALL SHIPOWNERS, OPERATORS, MASTERS AND OFFICERS OF
MERCHANT SHIPS, AND AUTHORIZED CLASSIFICATION SOCIETIES**

SUBJECT: Requirements for Ship To Ship Operations Plans

Reference: a) Maritime Regulation 2.37
b) IMO Resolution MEPC.186 (59)
c) MARPOL, Annex I Chapter 8
d) IMO's "Manual on Oil Pollution, Section I, Prevention" as amended
e) CDI/ICS/OCIMF/SIGTTO "Ship-to-Ship Transfer Guide for Petroleum,
Chemicals and Liquefied Gases"

Supersedes: Marine Notice POL-011, dated 06/12

PURPOSE:

This Notice provides guidance to vessel owners, operators and managers in the development of Ship to Ship (STS) Operations Plans to meet the requirements of Chapter 8 to Annex I of MARPOL, including plan approval.

This Notice also includes guidance for the development of STS Operations Plans for the transfer of chemicals (MARPOL Annex II) and liquefied gases based on the latest version of CDI/ICS/OCIMF/SIGTTO "Ship-to-Ship Transfer Guide for Petroleum, Chemicals and Liquefied Gases", reference (e). Although STS Operations Plans for chemicals and liquefied gases are not required to be approved, the Administration is prepared to approve on a voluntary basis. STS Operations Plans for chemicals and liquefied gases may be incorporated into the MARPOL Annex I STS Plan or developed as a separate STS Plan, depending on the ship type.

BACKGROUND:

Chapter 8 to Annex I of MARPOL requires oil tankers of 150 gross tonnage and above engaged in transfer of oil cargo between oil tankers at sea (STS operations) implement a STS Operations Plan on board the vessel, which is approved by the Administration. The purpose of the Plan is to provide guidance for the prevention of oil pollution during the transfer of oil cargo between oil tankers at sea. CDI/ICS/OCIMF/SIGTTO recently published the "Ship-to-Ship Transfer Guide for Petroleum, Chemicals and Liquefied gases to include chemicals and builds on the previous guidelines for transfer operations involving liquefied gases.

APPLICABILITY:

The requirement applies to all oil tankers of 150 GT and above engaged in transfer of oil cargo between oil tankers at sea.

The requirement for a STS Operations Plan does not apply to:

- bunkering operations;
- oil transfer operations associated with fixed or floating platforms, including drilling rigs; FPSOs used for the offshore production and storage of oil; and FSUs used for the offshore storage of produced oil;
- STS operations necessary for the purpose of securing the safety of a ship or saving life at sea, or for combating specific pollution incidents in order to minimize the damage from pollution; and
- STS operations where either of the ships involved is a warship, naval auxiliary or other ship owned or operated by a State and used, for the time being, only on government non-commercial service.

1.0 REQUIREMENTS

- 1.1 All applicable oil tankers engaged in transfer of oil cargo between oil tankers at sea, shall carry on board and implement a STS Operations Plan approved by the Administration, prescribing how to conduct STS operations. The STS Operations Plan shall be prepared in accordance with MARPOL Annex I/ 41.2, taking into account guidelines contained in IMO's "Manual on Oil Pollution" as amended, and the CDI/ICS/OCIMF/SIGTTO "Ship-to-Ship Transfer Guide for Petroleum, Chemicals and Liquefied Gases", references (d), and (e), respectively.

Although not required, owners and operators may wish to consider a STS Operations Plan for the transfer of chemical and liquefied gases between tankers at sea and may voluntarily request approval by the Administration.

- 1.2 The STS Operations Plan may be incorporated into an existing Safety Management System (SMS) required by Chapter IX of SOLAS, as amended, if that requirement is applicable to the oil tanker in question. Any oil tanker subject to chapter IX and engaged in STS operations shall comply with its approved STS Operations Plan.
- 1.3 The STS Operations Plan shall be submitted to the Administration for review and approval in accordance with Section 3 of this Notice. Certain Recognized Organizations (RO) have also been authorized by the Administration to review and approve STS Operations Plans on its behalf.
- 1.4 STS operations shall be conducted in accordance with the approved STS Operations Plan.
- 1.5 Records of oil cargo transfer operations required to be recorded in the Cargo Oil Record Book and any records required by the STS Operations Plan shall be retained on board for three years.
- 1.6 An approved STS Operations Plan is required prior to obtaining an IOPP Certificate issued by a RO on behalf of the Administration.

2.0 STS OPERATIONS PLAN PREPARATION

- 2.1 **PREPARATION:** The STS Operations Plan should be prepared taking into account the guidelines in, references (c), (d), and (e).
- 2.2 A model format for a STS Operations plan for petroleum is provided in Appendix I. The model format includes chemicals and liquefied gases, if applicable.
- 2.3 The Plan shall be written and available in English and a working language understood by the master and officers, if the working language is not English.
- 2.4 Each Plan must identify the ship to which it applies, using the ship's name, IMO number and deadweight.

3.0 REVIEW AND APPROVAL

- 3.1 All STS Operation Plans required under Chapter 8 to Annex I of MARPOL must be approved by the Administration or an authorized RO listed in the Registry's website:
([Recognized Organizations](#))
- 3.2 The Administration is also accepting for review and for approval STS Operations Plans for the transfer of chemical and liquefied gases.
- 3.3 The Plan that is submitted for approval to the Administration shall be in English.
- 3.4 Where the STS Operations plan is incorporated into the existing SMS, the relevant sections of the SMS incorporating the STS Operations plan should be sent to the Administration for review and approval, as previously indicated.
- 3.5 A hard copy of the STS Operations Plan should be sent to:
The Office of the Deputy Commissioner of Maritime Affairs, Republic of Liberia,
Liberian International Ship & Corporate Registry, LLC,
Attn: Plan Review
8619 Westwood Center Dr., Suite 300 Vienna, Virginia 22182, USA,

A soft copy of the STS Operations Plan may be sent to safety@liscr.com
- 3.6 To facilitate the review and plan approval process, it is recommended to complete the checklist in Appendix II to this notice which will be used by the Administration for plan approval and attach it to the submitted plan. The checklist identifies the applicable sections of the STS Operations Plan for petroleum. It also includes sections on chemicals and liquefied gases, if applicable, taking into account references (c), (d), and (e).

Questions regarding this instruction, MARPOL requirements, and fees for STS Operations Plan review and approval should be referred to E-mail: safety@liscr.com or you may call +1-703-790-3434.

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APPENDIX I

THE STS OPERATIONS PLAN FORMAT

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 - 1.5.1 General
 - 1.5.2 Manning for STS operations and prevention of fatigue
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- 10.1 Contingency planning and emergency response procedures
- 10.2 Emergency signal
- 10.3 Emergency situations: maneuvering, gas accumulation, accidental cargo release
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- Appendix 5 STS checklist for procedures to undertake before unmooring
- Appendix 6 Ship interest contacts
- Appendix 7 Coastal States contacts
- Appendix 8 Records of STS operations

APPENDIX II

References:

1. Manual on Oil Pollution, Section I, Prevention, as amended (IMO)
2. CDI/ICS/OCIMF/SIGTTO “Ship-to-Ship Transfer Guide, Petroleum, Chemicals and Liquefied Gases’
3. International Safety Guide for Oil Tankers and Terminals (ICS/OCIMF/IAPH)
4. Tanker Safety Guide (Chemicals) (ICS)
5. Tanker Safety Guide (Liquefied Gas) (ICS)
6. Liquefied Gas Handling Principles (SIGTTO)
7. International Safety Guide for Inland Navigation tank-barges and Terminals (ISGINTT) (CCNR, OCIMF)
8. Peril at Sea and salvage: A Guide for Masters (ICS/OCIMF)
9. Mooring Equipment Guidelines (OCIMF)
10. International Regulations for Preventing Collisions at Sea (COLREGS) (IMO)
11. International Convention for the Prevention of Pollution from Ships (MARPOL) (IMO)
12. Code of safe Working Practices for Merchant Seamen (COSWP) (MCA)
13. Maritime Labour Convention (MLC) (IMO)
14. Standard Marine Communication Phrases (IMO)
15. Recommendations for Oil Tanker Manifolds and Associated Equipment (OCIMF)
16. Guide to Helicopter / Ship Operations (ICS)
17. International Convention on Standards of Training, Certification and Watchkeeping and STCW Code (IMO)
18. Guidelines for the Handling, Storage, Inspection and Testing of Hoses in the Field (OCIMF)
19. Recommendations for Ships’ Fittings for Use with Tugs with particular Reference to Escorting and Other High Load Operations (OCIMF)
20. Manifold Recommendations for Liquefied Gas carriers (SIGTTO, OCIMF)
21. Ship to Ship Service Provider Management (OCIMF)
22. The Use of Large Tankers in Seasonal First Year Ice and Severe Sub-Zero Conditions (OCIMF)
23. The Safe Transfer of Liquefied Gas in an Offshore Environment (STOLGOE) (OCIMF)
24. ISO 17357 High Pressure Floating Pneumatic Rubber Fenders, 2002
25. ISO 10380 Corrugated Metal Hoses and Hose Assemblies, 2003
26. ISO 2928 Rubber Hoses and Hose assemblies for Liquefied Petroleum Gas (LPG) in the Liquid or Gaseous Phase and Natural Gas up to 25 bar (2.5MPa), 2003
27. EN 1765 – Rubber Hose Assemblies for Oil Suction and Discharge Services, 2004
28. EN 13766 Thermoplastic Multi-Layer (Non-vulcanized) Hoses and Hose assemblies for the Transfer of Liquid Petroleum Gas and Liquefied Natural Gas, 2010
29. EN 1474-2 Installation and Equipment for Liquefied Natural Gas – Design and Testing of Marine Transfer Systems, Part 2: Design and Testing of Transfer Hoses, 2008
30. EN 1474-3 Installation and Equipment for Liquefied Natural Gas – Design and Testing of Marine Transfer Systems, Part 3: Offshore Transfer Systems, 2008
31. EN 1762 Rubber Hoses and Hose Assemblies for Liquefied Petroleum Gas, LPG (Liquid or Gaseous Phase), and Natural Gas up to 25 bar (2.5 MPa), 2003
32. EN 13765 Thermoplastic Multi-layer (Non-vulcanized) Hoses and Hose Assemblies for

- the Transfer of Hydrocarbons, Solvents and Chemicals, 2010
33. EN ISO 8031:2009 Rubber and Plastic Hoses and Hose Assemblies – Determination of Electrical Resistance and Conductivity
 34. Shipping Industry Guidance on Pilot Transfer Arrangements (ICS, IMPA), 2012
 35. LNG Transfer Arms and manifold Draining, Purging and Disconnection Procedure (SIGTTO), 2012
 36. Bulk Liquid Chemical Handling Guide (BLCH) (CDI)
 37. International Ship and Port Facility Security (ISPS) Code and SOLAS Amendments 2002 (IMO)
 38. Guidelines on the Use of High-Modulus Synthetic Fibre Ropes as Mooring Lines on Large Tankers (OCIMF)
 39. Bridge Procedures Guide (ICS)
 40. MSC/Circ.585 “Standards for Vapour Emission Control Systems”
 - 41.** 46 CFR, part 39: Vapour Control Systems

APPENDIX III

Liberian International Ship and Corporate Registry

STS OPERATIONS PLAN REVIEW CHECKLIST

VESSEL NAME: _____ **DATE:** ____/____/____

REVIEWER: _____ **COMPANY:** _____

References:

1. New Chapter 8, Annex I (MARPOL 73/78)
2. Liberian Maritime Regulation 2.37

Guidelines:

1. IMO Resolution MEPC.186 (59)
2. IMO's "Manual on Oil Pollution, Section I, Prevention" as amended (MOP)
3. CDI/ICS/OCIMF/SIGTTO "Ship-to-Ship Transfer Guide for Petroleum, Chemicals and Liquefied Gases"
4. Marine Notice POL-011

STS Guide	MOP		Basic Information	Yes	No	Comments
			Cover Page?			
			Index of Sections (Table of Contents) Page?			
			Record of Changes Page?			
	6.2.4.2		Location of plans?			
		Chap. I	General Principles			
1.1	6.1	1.1	Preamble/Introduction?			
1.3 1.4	6.1	1.2	Is the scope, objectives and need for risk assessment addressed in the plan?			
		1.3	Main Particulars: <ul style="list-style-type: none">• Vessel name?• IMO number?• Deadweight?			
Glossary		1.4	Are definitions of key terms used in STS operations included?			
1.5	6.2.1	1.5	Control of Operations:			

1.5.1		1.5.1	General			
			Is the single individual providing co-ordination and advisory control of STS operations identified?			
			Are the responsibilities of STS service companies, where used, addressed?			
			Is the authority and responsibility of the Master addressed with a clear distinction between the responsibilities of the master of the vessel and the POAC?			For oil cargoes
App. B1.5/D1.5			Is the authority and responsibility of the Master addressed with a clear distinction between the responsibilities of the master of the vessel and the STS Superintendent? Appendix B1.5 for chemical tankers and Appendix D1.5 for LNG tankers			For chemical and LNG cargoes. Optional for oil cargoes.
			Is the need for the master and the STS Superintendent or POAC to discuss each component of the STS operation addressed?			
		1.5.2	Manning for STS Operations and Prevention of Fatigue			
	6.3		Is manning of the ship for cargo operations, tending of moorings and safe navigational or anchor watch, taking into account the work load and fatigue addressed?			
			Are excessive noise levels in the vicinity of rest areas taken into account to address fatigue?			
1.6		1.6	Is the authority and duties or responsibilities of the STS Superintendent, if one is used, addressed?			
1.7	6.2.1/6.5.3 /6.6.4	1.7	Are the qualifications, duties and authority of the Person in Overall Advisory Control (POAC) addressed, including hours of work and rest?			
1.8		1.8	Is training and familiarization of ship's personnel with all the elements of a STS operation taken into account?			
1.9	6.2.2.1.8	1.9	Is the need for a declaration of security (DOS), security communications, action in case of a breach in security, local regulations regarding exclusion zones, current security level imposed by the port, security on multiple vessels alongside a terminal, and the need of additional security assessment and risk analysis taken into account?			May be referenced to the SSP
		Chap. II	Conditions and Requirements			
2.1 App. E-1/L		2.1	Does the plan ensure that ship compatibility for STS operations is taken into account, including vessels of similar length and use of dumb barges, if applicable? Requirement to complete checklist-1 in Appendix E & L?			
2.2	6.2.3	2.2	Notification and Approval from Authorities			
2.2.1 App. A2.2		2.2.1	Are requirements for notification to and approvals from coastal state authorities explained (MARPOL Annex I, Regulation 42)?			For oil cargoes

2.2.2/ 2.2.3 App. B2.2		2.2.2	Are requirements for notifications to any Government authorities for chemical or liquefied gas cargoes addressed?			For chemical and liquefied gas cargoes
		2.2.3	Are USA procedures and Legislation for STS Operations (if applicable) referenced?			
2.3	6.2.2	2.3	Is the selection of the STS transfer area considered?			
2.4	6.2.2.1.46. 2.2.1.5 6.4.1.10	2.4	Is consideration given to the prevalent environmental conditions (visibility, wind and wave) for STS operations?			
2.4.1		2.4.1	If applicable, is consideration given to STS operations in cold weather and/or ice conditions?			
2.4.2		2.4.2	If applicable, is consideration given to precautions for STS operations in ice conditions?			
2.4.3		2.4.3	Is consideration given to the effects of cargo sloshing due to rolling and pitching movements?			
2.5		2.5	Is the quality and services of the STS service provider considered prior to STS operations?			
		Chap. III	Safety			
3.1	6.2.1.1	3.1	Does the plan ensure that the Master remains at all times responsible for the safety of the ship, its crew, cargo and equipment?			
3.2 App. K	6.3	3.2	Are there procedures for carrying out risk assessment for each proposed STS location and STS operation, and the means by which they are managed?			
3.3		3.3	Does the plan address the need to wear appropriate personal protective equipment for the cargoes being handled and the state of readiness of life saving appliances including self-contained breathing apparatus and life boats and life-rafts for emergency evacuation?			
3.4		3.4	Has consideration been given to the use of operational and safety checklists prior to and during the STS operation?			
3.5		3.5	Is the need for both vessels to have material safety data sheets (MSDS) for the products being transferred addressed?			
3.6	6.2.7.1	3.6	Are guidelines provided in case of gas accumulation on deck?			
3.7	6.7	3.7	The Plan describes the actions to take in case of infringement of safety?			
3.8	6.2.9.5 6.5.1 6.5.2 6.5.3	3.8	Are guidelines provided in case of cargo leakage on either vessel?			

3.9		3.9	Are there procedures for helicopter operations during transfer operations?			
3.10		3.10	Safety During Cargo Transfer:			
3.10.1		3.10.1	Smoking and use of naked lights addressed?			
3.10.2		3.10.2	Risks associated with earths on electrical switchboards identified?			
3.10.3		3.10.3	Are machinery operations with regard to main engines, emergency power, steering gear, boilers, fuel changeover considered?			
3.10.4		3.10.4	Is the need for electrical isolation between the two ships discussed with ways to eliminate these?			
3.10.5		3.10.5	Precautions against the use of radio and satellite communication equipment addressed?			
3.10.6		3.10.6	Radar usage discussed?			
3.10.7		3.10.7	Readiness of fire-fighting equipment discussed?			
3.10.8		3.10.8	Action to take if electrical storm is expected explained?			
3.10.9		3.10.9	Dangers associated with use of galley stoves addressed?			
3.10.10		3.10.10	Dangers associated with accommodation openings explained?			
3.10.11		3.10.11	Instructions for presence of unauthorized craft alongside?			
		Chap. IV	Communications			
4.1	6.2.5.1	4.1	Importance of general communications stated?			
4.2	6.2.5.1	4.2	Importance of a common language for communication stressed?			
4.3		4.3	Pre-arrival communications:			
4.3.1	6.2.5.2	4.3.1	Details of information required from the ship?			
4.3.2	6.2.5.2	4.3.2	Details of advice to be given to the ship by the organizers? Additionally Appendix A4.3.2 for oil tankers? Appendix B4.3 for chemical tankers?			
App A & B						
4.4	6.2.3.2 6.2.3.3	4.4	Nature of navigational warnings to be broadcast?			
4.5	6.4.2 6.2.5.3	4.5	Addresses communications during approach, mooring and unmooring?			
4.6	6.2.5.3	4.6	Discusses communications during cargo transfer operations?			
4.7	6.2.5.4 6.2.5.5	4.7	Includes procedures in place for communication failure?			
		Chap. V	Operational Preparations Before Maneuvering			

5.1		5.1	Does the plan address the need for a proper passage plan if the STS operation is to be conducted at sea?			
5.2	6.4.4 6.2.6.1	5.2	Is there a requirement to develop a joint plan of operation (JPO) between all parties involved?			
5.3 App E/2/3	6.4.1	5.3	Discusses the preparation of ships before maneuvering? Appendix E checklists 2 & 3 to be completed?			
5.4	6.2.9.3	5.4	If used, are the duties of lightering support vessels addressed?			
5.5		5.5	References various navigational signals to be used?			
		Chap. VI	Maneuvering and Mooring			
6.1		6.1	Basic berthing principles discussed?			
6.2	6.4	6.2	Maneuvering Alongside with Two Ships Under Power:			
6.2.1		6.2.1	General advice for controlling the two ships provided?			
6.2.2 App. H, I		6.2.2	Advice for maneuvering alongside provided, including assessment of approach velocities on the berthing energy absorption requirements of the fender system during reverse lightering (if applicable)?			
6.2.3		6.2.3	Maneuvering a combined two-ship system to anchor discussed?			
6.2.4		6.2.4	Procedures for underway transfer?			
6.3		6.3	Procedures for maneuvering with one ship at anchor?			
6.4		6.4	Is possibility of maneuvering for in port operations discussed?			For chemical cargoes. Optional for oil cargoes
6.5		6.5	Is maneuvering with one ship alongside a terminal (double banking) discussed?			
6.6	6.2.4.3.2	6.6	Mooring Operations			
6.6.1		6.6.1	Is the need for a mooring plan, including alignment of both ship's manifolds; and possibility of mooring analysis addressed (optional)?			
6.6.2		6.6.2	Are preparations for mooring operations at sea addressed?			
6.6.2.1		6.6.2.1	Is the efficiency of the ship to ship mooring system with respect to the following addressed?			
			Danger of excessive tension in mooring lines between the vessels			
	6.2.6.11		Mooring line lead angles			
			Awareness of weather thresholds			
			Cautions against long period waves			

			Directions of wave encounter to avoid			
			Elasticity of mooring arrangement			
			Chafing protection			
6.6.3 App. E/6/6A		6.6.3	Are mooring operations in port and preparations for same discussed? Requirement to complete checklist-6 & 6A in Appendix E?			
		Chap. VII	Procedures Alongside (Cargo Transfer Operation)			
7.1 App. E/4	6.4.7	7.1	Arrangements for completion of pre-transfer checks and procedures? Requirement to complete checklist-4 in Appendix E?			
7.2 App. D7.2	6.2.1.5 6.2.4.3.4 6.4.7	7.2	Identification of persons responsible for cargo operations? Appendix D7.2 for LNG tankers Additionally, is there a requirement to have a list of all titles, their locations and duties of persons involved in STS operations posted?			
7.3 App. B7.3/C7.3 /D7.3	6.2.4.3.3 6.2.4.3.10 6.4.7 6.4.8	7.3	Details for cargo transfer planned and agreed between the two ships? Additionally Appendix B7.3 for chemical tankers; Appendix C7.3 for LPG tankers and D7.3 for LNG tankers?			
7.4 App. B7.4/C7.4 /D7.4	6.5	7.4	Provides general guidance for cargo transfer? Appendix B7.4 for chemical tankers; Appendix C7.4 for LPG tankers and D7.4 for LNG tankers?			
STS 7.4.1 & US 46 CFR/Part 39.4000 App. G	ISGOTT 7.1.6.4/ 11.9.3	7.4.1	Does the plan provide general considerations to be taken into account during vapour balancing? Additionally Appendix G?			For oil and chemical cargoes
STS 7.4.1.1/ App. G & US 46 CFR/Part 39.4000	ISGOTT 7.1.6.4/ 11.9.3	7.4.1.1	Does the plan provide guidance on Vapour balancing before commencing cargo transfer? Additionally Appendix G?			For oil and chemical cargoes
STS	ISGOTT	7.4.1.2	Does the plan provide guidance on Vapour balancing during cargo transfer?			For oil and

7.4.1.2/ App. G & US 46 CFR/Part 39.4000	7.1.6.4/ 11.9.3		Additionally Appendix G?			chemical cargoes
STS 7.4.1.3		7.4.1.3	Is consideration given to caring for the vapour hose during balancing?			
7.5 App. B7.5/C7.5 /D7.5	6.6	7.5	Identifies what operations should be undertaken after the completion of cargo transfer? Additionally Appendix B7.5 for chemical tankers; C7.5 for LPG tankers and D7.5 for LNG tankers?			
7.6		7.6	Provides caution against bunkering and receiving stores during STS operations?			
STS Guide	MOP	Chap. VIII	Unmooring			
8.1 App. E/5	6.6	8.1	Are preparations for unmooring addressed? Requirement to complete checklist-5 in Appendix E?			
8.2		8.2	Addresses general caution and need for careful planning and execution?			
8.2.1		8.2.1	Draws procedures for unmooring after underway transfer?			
8.2.2		8.2.2	Draws procedures for unmooring while one ship is at anchor?			
8.2.3		8.2.3	Draws procedures for unmooring from a ship alongside a terminal?			
8.2.4		8.2.4	Draws procedures how to unmoor using quick release arrangements?			
		Chap. IX	Equipment			
9.1		9.1	Fenders:			
9.1.1	6.2.6.2 6.2.6.4 6.2.6.5	9.1.1	Describes types of fenders to be used and rigging of fenders for at sea transfers?			
9.1.2 App. H,I	6.2.6.3	9.1.2	Explains selection and number of fenders to be used for at sea transfers including reverse lightering taking into account berthing energy and calculation of required fender absorption capability (if applicable)?			
9.1.3	6.5.8	9.1.3	Requirements and maintenance of fenders explained?			
9.1.4		9.1.4	Describes types of fenders to be used and rigging of fenders for in port transfers?			
9.2		9.2	Cargo transfer hoses:			

9.2.1 App. C9.2/D9.2	6.2.6.6	9.2.1	Standards for the hoses to be used during transfer defined? Appendix C9.2 for LPG tankers and Appendix D9.2 for LNG tankers			
9.2.2		9.2.2	Size and length of transfer hoses defined?			
9.2.3 Appendix C9.2	6.2.6.7	9.2.3	Maximum pressure ratings and flow velocities through the hoses identified? Appendix C9.2 for LPG tankers?			
9.2.4		9.2.4	Procedures for care and handling of hoses explained?			
9.2.5 Appendix J	6.2.6.10	9.2.5	Procedures for hose connection explained?			
9.2.6	6.2.6.8 6.2.6.9	9.2.6	Procedures for inspection and testing of hoses explained?			
9.2.7	6.2.6.6	9.2.7	Marks to be found on hoses listed?			
9.3	6.2.6.11 to 6.2.6.15	9.3	Description of mooring equipment used in the STS operation?			
9.4		9.4	Personnel Transfers at sea operations: Is risk assessment conducted to determine the safest means of personnel transfer? Requirement to complete checklist in Appendix F?			
9.4.1		9.4.1	Addresses dangers of booms and/or derricks if applicable?			
9.4.1		9.4.2	Addresses factors to be considered when using cranes, baskets and workboat guidelines?			
9.5		9.5	Addresses personnel transfers in port operations			
9.6		9.6	Minimum requirements for lighting?			
9.7		9.7	Preparation and checks of ancillary equipment?			
9.8		9.8	Addresses dangers of excessive noise levels in the vicinity of equipment?			
	6.2.4.3.6	9.9	Description of drip trays and procedures for emptying them?			
		Chap.X	Emergencies			
10.1 App. C10.1/ D10.1	6.2.4.3.8 6.2.9	10.1	Is the need for contingency planning and emergency response procedures stressed and explained? Appendix C10.1 for LPG tankers and D10.1 for LNG tankers?			
7.2 10.1 App	6.2.9.2	10.2	Describes emergency organization and duties for the crew members? Additionally Appendix A10.1 for oil tankers? Is there a system of drills to deal with emergencies?			

A10.1						
10.2	6.2.5.5	10.3	Use of emergency signals in emergencies?			
10.3 10.4	6.2.5.4 6.7	10.4	Are contingency plans drawn which provide for a comprehensive response in all possible emergency situations which should include: emergencies during maneuvering; gas accumulation on deck; accidental cargo release?			
10.5	6.2.4.3.7 6.2.9.4	10.5	SOPEP made available and activated in case of an oil spill? Addresses procedures for reporting oil spill (may make reference to SOPEP)			For oil and gas cargoes
10.5	Optional	10.6	SMPEP made available and activated in case of an NLS spill? Addresses procedures for reporting NLS spills (may make reference to SMPEP)			For chemical cargoes
10.6	6.2.8	10.7	Arrangements to be made to maintain a state of readiness for an emergency?			
10.7	6.2.7.1	10.8	Describes situations when operations should cease?			
MARPOL		Chap. XI	Records			
Annex I, Reg.41.5	6.2.4.4	11.1	Identifies records relevant to STS operations and location for same?			Required for oil cargoes. Optional for chemical and liquefied cargoes.
Annex I, Reg.41.5	6.2.4.4	11.2	Provides a retention period of records (at least three (3) years)?			Required for oil cargoes. Optional for chemical and liquefied cargoes.
		Chap.X II	Ship-specific provisions			
		12.1	General arrangement plan?			
		12.2	Anchor handling & mooring arrangement plan?			
		12.3	Capacity plan?			
			Appendices			
App. E C/L- 1		App. 1	Is there a checklist for pre-fixture information between ship operator/charterer and organizer?			
App. E		App. 2	Is there a checklist addressing what to do before operations commence?			

C/L- 2						
App. E C/L- 3		App. 3	Is there a checklist addressing what to do before run-in and mooring?			
App. E C/L-4		App. 4	Is there a checklist addressing what to do before cargo transfer operations?			
App. E C/L-5		App. 5	Is there a checklist addressing the procedures to undertake before unmooring?			
		App. 6	Ship interest contacts?			
		App. 7	Coastal States contacts? (MSC-MEPC.6/Circ.X)			
		App. 8	Record of STS operations?			