



**MARINE ENVIRONMENTAL, SAFETY  
AND QUALITY ASSURANCE  
CRITERIA**

**FOR**

**SEAGOING VESSELS IN EXXONMOBIL  
AFFILIATE SERVICE**

**INTERNATIONAL MARINE TRANSPORTATION LIMITED**

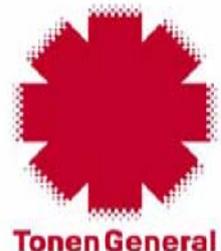
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**MARINE ENVIRONMENTAL, SAFETY AND QUALITY ASSURANCE CRITERIA  
FOR SEAGOING INDUSTRY VESSELS IN EXXONMOBIL AFFILIATE SERVICE**

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## INTRODUCTION

This document has been produced by International Marine Transportation Ltd. (IMT), SeaRiver Maritime (SRM) and Tonen General (TG), who jointly use a standard methodology to provide vetting services to all ExxonMobil Affiliates engaged in marine transportation using third party vessels. This document may be referred to in short as MESQAC and it applies to the seagoing vessels in the ExxonMobil Affiliate service.

The purpose of this document is to provide vessel operators with an understanding of the marine environmental, safety and quality assurance expectations of third party vessels to be considered for ExxonMobil affiliate service. Please note that, in this context, "service" means carrying ExxonMobil affiliate title cargo, chartered by ExxonMobil affiliates calling at ExxonMobil affiliate facilities, or carrying cargo or calling at facilities in which ExxonMobil affiliates have a joint venture interest. In addition, "operator" refers to the technical manager having day-to-day oversight of the technical management of the fleet vessels and their safety management systems.

Third party operated vessels not meeting the "**MUST**" criteria will not be considered for ExxonMobil affiliate service. If meeting certain of these criteria involves gas freeing or dry docking the vessel, or requires long lead times, a limited period for further consideration of the vessel may be granted upon receipt of written confirmation that actions will be taken at the earliest opportunity, and if documented mitigating procedures are in place. Vessels not meeting those environmental and safety expectations described as "**Strongly Preferred**" may be disadvantaged in the selection process versus other vessels meeting those requirements.

Vessels **MUST** be in full compliance with all applicable international conventions, laws, regulations and/or other requirements of the country of vessel registry, and of the countries, states, and/or port authorities of the ports and/or places, including facilities, to which the vessel may be ordered while in ExxonMobil affiliate service, and/or the applicable regulations or requirements of any terminals or facilities in such ports or places where the vessel will load or discharge. Vessels **MUST** have on board, all certificates, records or other documents required by the aforesaid conventions, laws, regulations and/or requirements.

The inspection programs contained in this booklet target those vessels likely to be considered for ExxonMobil affiliate service. **Vessel operators MUST familiarise themselves with the information regarding vessel inspections contained in this booklet. It is the responsibility of the vessel operator to ensure that their vessels meet or exceed MUST criteria and this will be verified through the use of a vessel inspection report.** Ideally this inspection report should be no more than six months old.

Questions or comments regarding this document should be addressed to the applicable vetting organisation (IMT/SRM/TG), for the attention of the Manager 3rd Party Tanker Quality Assurance Group, at the address given on the title page.

Additional Marine Environmental, Safety and Quality Assurance Criteria for vessels in ExxonMobil affiliate Term Charter service are set out in Appendix A to this publication, or are available, upon request, from the Term Charter Co-ordinator.

## **SUITABILITY TO CARRY EXXONMOBIL AFFILIATE CARGOES**

Operators of 3rd party vessels are reminded that vessels are not pre-approved for ExxonMobil affiliate service. All vessels are screened for the particular voyage, using the latest information available

## **TANKER MANAGEMENT SELF ASSESSMENT (TMSA)**

The management and operation of vessels within a culture of safety and environmental excellence has been formalised with the implementation of the International Safety Management (ISM) Code. OCIMF's TMSA program builds upon the ISM Code and is used as a tool to help vessel operators assess, measure and improve their safety management systems.

The TMSA program encourages vessel operators to assess their safety management systems against listed key performance indicators and provides recognised best practice guidance for each indicator.

Vessel operators are assessed on factors which include the effectiveness of their safety management system, fleet safety and environmental performance. When submitted to OCIMF, and when "International Marine Transportation" is selected from the report recipient list, ExxonMobil affiliate vetting organisations are able to review the operator's TMSA submission.

In order for a vessel to be considered for ExxonMobil affiliate service, the vessel's operator **MUST** have submitted a TMSA (with a "created date") within the past 12 months. The screening affiliate will evaluate the requirements for the specific type of business activity being considered. Vessels operated by a company which has not submitted a valid TMSA or has not achieved Stage 1 compliance may not be acceptable for ExxonMobil affiliate service. Further updated TMSA submissions should be submitted via **[www.ocimf-tmsa.com](http://www.ocimf-tmsa.com)** whenever an operator considers it has made material changes to its safety management system. At the minimum an operator should make a submission at intervals not exceeding 12 months. By doing this the operator is able to demonstrate that its management have undertaken a formal review of its safety management system.

It is expected that an operator's entire TMSA submission will have been reviewed and endorsed by senior company management as an accurate assessment of the operator's current safety management system.

ExxonMobil affiliate vetting organisations may periodically request to visit a vessel operator's offices with the primary aim of making an assessment as to the accuracy of an operator's most recent TMSA submission. These visits are referred to as **TMSA Review Meetings** and use standard audit techniques to verify the accuracy of the TMSA submission and gauge the processes and procedures put in place to achieve the expectations of the sampled element.

A structured and systematic approach is taken when conducting a TMSA review. To facilitate this, the IMT review team use a proprietary document and examine the operator's most recent TMSA submission. It is important to note that a TMSA Review Meeting is not an audit and no written report or documented non-conformances will be issued. Operators will, however, be provided with verbal feedback during and at the end of the review and should use this opportunity to seek verbal clarification and understanding of the ExxonMobil vetting affiliate interpretation of TMSA key performance indicators as required.

Following a TMSA Review Meeting an operator may be asked to re-assess its TMSA submission and re-submit the TMSA at the earliest opportunity. It is important that the operator undertakes this as soon as is reasonably possible.

For further details of the OCIMF TMSA program go to **[www.ocimf-tmsa.com](http://www.ocimf-tmsa.com)**.

For assistance with any TMSA issues concerning ExxonMobil affiliate vetting please email **[MSOwner@exxonmobil.com](mailto:MSOwner@exxonmobil.com)** or **[TMSA@exxonmobil.com](mailto:TMSA@exxonmobil.com)**.

### THIRD PARTY VESSEL INSPECTIONS

Evaluations of inspection reports of third party vessels are conducted in order to ascertain whether the vessels meet the applicable vetting organisation expectations. Industry, OCIMF SIRE and Chemical Distribution Institute (CDI), reports will be used.

A third party vessel inspection may only be arranged by the applicable vetting organisation if all of the following conditions are satisfied:

1. There is a reasonable probability that the vessel will be offered to and used by an ExxonMobil affiliate.
2. The last inspection is beyond its date of validity.  
Change of vessel ownership, operator, and/or classification society, may invalidate inspections carried out while the vessel was under the previous operator/classification society.
3. The vessel is covered by a valid **Alcohol and Drug** declaration (see sample appended to this document) and is in compliance with the terms of that declaration.
4. The vessel is available for inspection during discharge operations. Gas and chemical parcel carriers may be inspected at load ports.
5. There are no other inspections of the vessel scheduled at the same time.
6. A VPQ has been submitted to OCIMF / CDI.
7. Deficiencies identified in prior inspections have been addressed or corrected.

**Inspections are exclusively conducted on vessels being considered for use by ExxonMobil affiliates or Joint Venture activities.**

All inspections arranged by the applicable vetting organisation will be undertaken by accredited inspectors. Inspections are arranged through, and with the permission of, the vessel operator. It is necessary that the operator advise the vessel Master and the appropriate port agent. On boarding the vessel, inspectors are instructed to report to the Master, (or the OOW if the Master is not available). The inspectors will conduct their inspections in such a way as to minimise interference with the operation or management of the vessel. On completion of the inspection, and prior to departing the vessel, Inspectors will conduct a verbal close-out meeting to summarise findings with the Master or the Master's representative.

Vessel owners/operators should communicate with OCIMF / CDI explaining the cause and corrective actions to address observations identified in the inspection report. Failure to provide satisfactory evidence that observations have been addressed may result in the vessel being considered unsuitable for ExxonMobil affiliate service.

**Please note that following an inspection, the vessel operator **MUST** respond to OCIMF / CDI in respect of any observations identified in the report. The applicable vetting organisation cannot evaluate the inspection reports without the operator's response.**

Third Party Vessel inspections can be requested by contacting the Vessel Inspection Co-ordinator at the applicable vetting organisation via the email addresses:- International Marine Transportation Ltd.: [msinspect@exxonmobil.com](mailto:msinspect@exxonmobil.com); Seariver Maritime Inc. for US flag vessels; Tonen General for Japanese coastal vessels.

Joint Venture and Term Charter vessel inspections can be requested by contacting the Term Charter Inspection Co-ordinator via the email address: [msterm@exxonmobil.com](mailto:msterm@exxonmobil.com).

### **Inspection systems**

International Marine Transportation, Tonen General and Seariver Maritime support the use of the OCIMF SIRE Uniform Vessel Inspection Procedure and the CDI Inspection System. Operators **MUST** understand these industry vessel inspection formats and familiarise themselves with the associated procedures and advise their Masters accordingly. It is required that an up-to-date Vessel Particulars Questionnaire (VPQ) will be available in the SIRE/CDI systems.

### **Inspection results**

Failure to present the vessel for inspection in good condition, or presenting with poor appearance, will be regarded as evidence of a failure of vessel or shore management systems. In this case, the vessel may not be considered for use following completion of corrective action. The operator's eligibility for ExxonMobil affiliate or joint venture service may be adversely affected. Once a SIRE inspection has been carried out, the operator **MUST** respond to the observations raised in the SIRE Inspection Report.

### **Change of Owner and /or Technical Operator**

Data for all vessels including new vessels, vessels that are sold, assigned a new technical operator, or change classification society, is used in the vetting process.

**The primary source of vessel specific and operator data is IHS FairPlay . Such data is automatically downloaded by the applicable vetting organisation. Vessel Operators are strongly advised to promptly notify IHS Fairplay of any changes by contacting IHS Fairplay at the following email address: "[ships-data-feedback@lrfairplay.com](mailto:ships-data-feedback@lrfairplay.com)".**

## REPORTING INCIDENTS

As stipulated in the charter party agreements, vessels in ExxonMobil affiliate service may be subject to an investigation by a representative of the vetting organizations to ascertain the cause of any incidents. A vessel's Master / vessel operator is required to notify an incident to the Vessel Incident Coordinator if the vessel is involved in any incident, accident or casualty including, but not limited to: collision, grounding, pollution, oil spill on deck, fire, explosion, structural failure, allision (contact) with terminals / jetties / piers / SBM / SPM, failure or breakdown of vessel's equipment including, but not limited to, main and auxiliary engine / cargo handling machinery and navigational equipment, smoking, drug & alcohol violation, or any incident involving cargo loss / contamination or affecting performance of the vessel / voyage, such as port state detentions, seizure/ arrest, touching bottom, unscheduled movements and any delays due to deviation. As part of the flawless operation expectations, the applicable vetting organisations record all incidents. Before the vessel is considered for ExxonMobil affiliate service, it is a requirement that the vessel operator ensures that rigorous investigations are completed, repairs, where applicable, effected, root causes identified and that effective corrective / preventative actions are taken to avoid re-occurrence of similar incidents on board any of the vessels within its fleet.

In line with the TMSA guidelines, owners and operators are expected to maintain an internal incident and near-miss reporting and recording system, from which lessons can be learned, and necessary preventative actions can be taken. The existence and efficiency of a process of this type may affect the eligibility of the operator for various forms of ExxonMobil affiliate and Joint Venture business. Vetting Inspectors may ask to see the past records of any Incidents which may have occurred.

The incident notification **MUST** be sent, in line with the charter's issued notification procedures detailed within the charter party and/or voyage orders, to the Incident Coordinator at: **incident@exxonmobil.com**

Following an incident the vessel may be placed on **WORLDWIDE HOLD** (prevented from entering or continuing ExxonMobil affiliate service) until the incident investigation report has been reviewed by the applicable vetting organisation management.

It is strongly suggested that the operator ensures that the report has received senior management endorsement before it is sent to the applicable vetting organisation. The reasons for reviewing the investigation report of such an incident are: to identify the root cause(s) that could lead to re-occurrence of the incident on the same vessel or another vessel within the owner or operator's fleet; and, once the causes have been clearly identified, to confirm that corrective and preventative actions have been completed.

Incidents which occur whilst not on ExxonMobil affiliate voyages **MUST** be reported to IMT at **incident@exxonmobil.com**, as their successful closure is also part of the vetting approval process.

## **MARINE ENVIRONMENTAL, SAFETY AND QUALITY ASSURANCE CRITERIA**

### **SECTION A GENERAL INFORMATION**

- A.1 The ship operator **MUST** provide an **up-to-date** copy of the current version of OCIMF/CDI Vessel Particulars Questionnaire (VPQ) to the Inspector. Operators **MUST** lodge a copy of the VPQ with the SIRE programme at OCIMF and with the CDI programme as applicable. OCIMF now encourages Inspectors to download the vessel's VPQ prior to boarding the vessel; this not only gives the Inspector an insight into the vessel to be inspected but also saves a large amount of administration time on board the vessel.
- A.2 Operators are reminded of the importance of accuracy of data contained within the VPQ. Technical assessments (e.g. berth fit) that may affect the commercial decision will be based on this data.
- A.3 To ensure correct identification, the operator **MUST** verify that the IMO/LR number assigned to the vessel, and entered in the VPQ, corresponds exactly to the number in Lloyds' Register of Shipping.
- A.4 Requests for inspections will be rejected in cases where a VPQ has not been submitted to OCIMF / CDI
- A.5 Operator **MUST** warrant an understanding of the Marine Environmental, Safety and Quality Assurance Criteria (MESQAC) for seagoing vessels considered for ExxonMobil affiliate service.

Operator makes the above warranty by submitting a signed Blanket MESQAC Compliance Declaration (Sample as in Appendix C) to IMT. This should be sent as an email attachment to the following address  
msscreen@exxonmobil.com

## SECTION B CREW MANAGEMENT

(As per applicable STCW Code & USCG C.F.R.)

- B.1 All Masters **MUST** have sufficient and appropriate experience as Master or Chief Officer. For recently promoted Masters this should include:
- a) Recent manoeuvring experience as Chief Officer or as supernumerary on the same vessel or class of vessel having the same or similar handling characteristics, OR
  - b) Having attended an approved ship handling simulator course at an installation capable of simulating the manoeuvring characteristics of such class of vessel.
- [STCW Code – Section A1/12]
- B.2 All Officers in direct control of Navigation, Cargo and/or Bunker oil handling operations on board tankers for seagoing service **MUST** have conversational proficiency in English.
- All officers **MUST** possess valid certificates / licenses required for their rank and/or position on the vessel, and the intended trade. This **MUST** include Dangerous Cargo Endorsements as specified in STCW/BCH/IBC/IGC.
- B.3 The operator **MUST** ensure that Master and deck officers have undergone a recognized industry training course in Bridge Resource Management.  
[STCW Code - Reg. B-VIII/2 / C.F.R. 10.205]
- B.4 It is **Strongly Preferred** that those officers who have immediate responsibility for cargo transfer are in possession of the Certificates of Specialized Training, as applicable to the type of cargo being carried.  
[STCW Code – Reg. B-I/12 & B-I/12.40]
- B.5 In addition to compliance with their Safe Manning Certificate, vessels engaged in 24 hour continuous operations **MUST** meet the following minimum requirements:
- a) For vessels greater than 16 k DWT - minimum manning level **MUST** consist of at least one Master and three licensed deck officers, and for the engine department, regardless of vessel's being UMS, at least one Chief Engineer and two licensed assistant engineers.
  - b) For vessels less than 16 k DWT - Minimum manning level **MUST** consist of at least one Master and two licensed Deck Officers, and at least one Chief Engineer and one licensed assistant Engineer.

Other manning arrangements may be considered following a review on a case-by-case basis. This will include a review of crew competence/experience, conditions of service, leave rotation, equipment and procedures to address contingencies.

- B.6 Procedures **MUST** include provisions for monitoring, recording and controlling maximum hours worked and fatigue avoidance. (Refer IMO Publication “Guidelines on Fatigue”)
- B.7 The operator **MUST** warrant that it operates under an Alcohol and Drug Policy which meets or exceeds the standards set out in the ICS/OCIMF publication “Guidelines for the Control of Drugs and Alcohol On Board Ships” and current STCW / Flag State requirements. Such policy **MUST**, at a minimum, contain provisions for drug and alcohol testing that include unannounced testing and routine medical examinations for all officers; and provides for all officers to be so tested at least once a year through the combined program of unannounced testing and routine medical examinations.

The operator makes the above warranty by (a) agreeing to the ExxonMobil Drug and Alcohol charter party clause and (b) submitting a signed Blanket Declaration Note. Companies based in the USA with USA flag vessels that meet USCG regulations for A&D testing are acceptable.

- B.8 It is **Strongly Preferred** that vessel(s) are operated under ZERO ALCOHOL policy.
- B.9 The operator **MUST** have documented procedures for vessels operated under ZERO ALCOHOL policy that addresses the following:
- Campaigns to discourage the smuggling of drugs and / or alcohol onto the vessel.
  - Random unannounced checks for unauthorised possession and consumption of Alcohol or Drugs on board the vessel
  - Drug and Alcohol testing post incident and / or operational anomalies
  - Testing where individual is suspected of being under the influence of Alcohol or Drug
  - Disciplinary action where person(s) is found and / or suspected to be in breach of company’s Drug & Alcohol policy

In addition to the above, where vessels are not operated under a zero alcohol policy, the operator **MUST** have documented procedures that address the following:

- System for controlling the issue of alcohol
  - Defined authority responsible for controlling the issue of alcohol
  - Onboard and shore side system to monitor issue of alcohol
  - Method of verification for strict adherence to policy.
- B.10 It is **Strongly Preferred** that two officers on board are trained as accident/incident investigators.
- B.11 It is **Strongly Preferred** that the appointed safety officer has received training specific to this role.

**SECTION C CREW MATRIX REQUIREMENTS**

The safe operation of a vessel is a function of the competency (as per STCW Code) and experience of the officers responsible for the execution of the company's safety management system. Therefore, it is expected that vessels are manned with a complement that reflects an adequate amount of experience and familiarity with company processes and procedures.

The provision of the table(s) below is **Strongly Preferred**:

<b>Experience</b>	<b><u>Senior Deck Officers</u> Master + Chief Off. (Combined)</b>	<b><u>Junior Deck Officers</u> 2ndOff. + 3rd Off (Combined)</b>	
<b>Rank</b>	> Three (3) Years (Sea Time)  Of the three (3) years combined, Master should have minimum six (6) months & Chief Off. should have minimum six (6) months (Sea Time)	> One (1) Year (Sea Time)	
<b>Operator</b>	> Two (2) Calendar Years	> One (1) Calendar Year	
<b>This type of tanker</b>	> Six (6) Years (Sea Time)	N/A	
<b>All types of tanker</b>	N/A	> One and a half (1.5) Years (Sea Time)	
<b>Experience</b>	<b><u>Senior Engineers</u> Chief Engr. + 2nd Engr. (Combined)</b>	<b><u>Junior Engineers</u> 3<sup>rd</sup> Engr. + 4<sup>th</sup> Engr. (Combined)</b>	<b><u>Gas / Cargo Engineer</u> (LNG vessel only)</b>
<b>Rank</b>	> Three (3) Years (Sea Time).  Of the three (3) years combined, Chief Engineer should have minimum six (6) months and 2nd Engineer should have minimum six (6) months (Sea Time)	> One (1) Year (Sea Time)	> One (1) Year (Sea Time)
<b>Operator</b>	> Two (2) Calendar Years	> One (1) Calendar year	> Half (0.5) Calendar Year
<b>This type of tanker</b>	> Six (6) Years (Sea Time)	N/A	N/A
<b>All types of tanker</b>	N/A	> One & a half (1.5) Years (Sea time)	N/A

For vessel(s) **less than (<) 16k DWT**, where there is a reduction in the number of engineers on board the vessel:

<b>Experience</b>	<b><u>Senior Deck Officers</u> Master + Chief Off. (Combined)</b>	<b><u>Junior Deck Officers</u> 2ndOff. + 3rd Off (Combined)</b>
<b>Rank</b>	> Three (3) Years (Sea Time)  Of the three (3) years combined, Master should have minimum six (6) months & Chief Off. should have minimum six (6) months (Sea Time)	> One (1) Year (Sea Time)
<b>Operator</b>	> Two (2) Calendar Years	> One (1) Calendar Year
<b>This type of tanker</b>	> Six (6) Years (Sea Time)	N/A
<b>All types of tanker</b>	N/A	> One and a half (1.5) Years (Sea Time)
<hr/>		
<b>Experience</b>	<b>Chief Engineer + Junior / Licensed Assistant Engineer(s) (Combined)</b>	<b><u>Gas / Cargo Engineer (LNG vessel only)</u></b>
<b>Rank</b>	Three (3) Years (Sea Time).  Of the three (3) years combined, Chief Engineer should have minimum six (6) months (Sea Time)	> One (1) Year (Sea Time)
<b>Operator</b>	> Two (2) Calendar Years	> Half (0.5) Calendar Year
<b>This type of tanker</b>	> Six (6) Years (Sea Time)	N/A
<b>All types of tanker</b>	N/A	N/A

**SIRE ONLINE Crew Matrix**

Interactive Online Crew Matrix on the OCIMF SIRE website **MUST** be kept updated at all times by the Operator.

It is strongly advised that years are stated with a decimal point in order that the reader of the matrix can make correct assessment.

## SECTION D NAVIGATION

In addition to statutory requirements, each vessel **MUST** be equipped with at least the following equipment which **MUST** be maintained in good working order and condition. It is recognised that some governing Flag States may require ADDITIONAL equipment to that required in this section. Further, Flag States may require certain items of equipment to meet local operating standards or "Type Approval". Each vessel **MUST** comply with these additional equipment requirements.

- D.1 Vessels **MUST** have a means to provide warning if the vessel deviates off her intended course; e.g. GPS cross track error, autopilot alarm etc. An independent magnetic off course alarm is **Strongly Preferred**.  
[VPQ CH. 4.31.1.1]
- D.2 Vessels > 3000 GT for seagoing service **MUST** be provided with a Voyage Data Recorder system.  
It is **Strongly Preferred** that vessels < 3000 GT for seagoing service are provided with a Voyage Data Recorder system.  
Voyage Data Recorder systems **MUST** be of approved type and capable of storing navigational data, bridge audio, etc. so that the data stored can be retrieved and analysed.  
The vessel **MUST** have documented procedures for downloading data from VDR post incident / operational anomalies.
- D.3 It is **Strongly Preferred** that the vessel is fitted with a wind speed and direction indicator.  
[VPQ CH. 4.33.1]
- D.4 Vessels above 100 k DWT **MUST** be fitted with a Rate of Turn indicator in addition to the means of measuring vessel speed.  
[VPQ CH.4.18.1]
- D.5 The vessel **MUST** be fitted with a gyro compass. It is **Strongly Preferred** that vessels have two gyro compasses, or one gyro compass and one transmitting magnetic compass.  
[VPQ CH. 4.2.1]
- D.6 The vessel **MUST** have means of taking visual compass bearings.
- D.7 Radar:  
Vessels < 3 k DWT: **MUST** have at least one (1) radar fitted with a true north feature.  
Vessels > 3 k DWT **MUST** have at least two (2) radars, at least one of which has a true north feature.  
It is also **Strongly Preferred** that 3cm and 10cm (X & S band) capability is provided via the combined use of two radars that can be inter-switched.  
[VPQ CH. 4.4.1.1]
- D.8 One radar **MUST** be fitted with electronic tracking / plotting facilities unless a stand alone ARPA is fitted.  
[VPQ CH. 4.7.1]

- D.9 Vessel own speed input to ARPA **MUST** be speed through the water.
- D.10 The vessel **MUST** be fitted with a Depth Finder. The Depth Finder is **Strongly Preferred** to have capability of recording.  
[VPQ CH. 4.9.1]
- D.11 The vessel **MUST** be fitted with rudder angle indicators and propeller RPM or controllable pitch propeller pitch setting indicators.  
[VPQ CH. 4.13.1]
- D.12 It is **Strongly Preferred** that vessels are fitted with bridge wing repeaters for rudder angle, propeller RPM and pitch settings.  
[VPQ CH. 4.37 & 38]
- D.13 The vessel **MUST** be fitted with a course recorder.  
[VPQ CH. 4.30.1]
- D.14 The vessel **MUST** be fitted with GPS.  
[VPQ CH. 4.22.1]
- D.15 It is **Strongly Preferred** that the vessel is fitted with weather fax capability.  
[VPQ CH. 4.34.1]
- D.16 The vessel **MUST** be fitted with an approved Automatic Identification System (AIS). The AIS transmitter power **MUST** be set according to ISGOTT recommendations when alongside in port.
- D.17 The vessel **MUST** be fitted with Long Range Identification and Tracking (LRIT) if engaged on international voyages.
- D.18 It is **Strongly Preferred** that vessels shall be fitted with a Bridge Navigational Watch Alarm System (BNWAS).
- D.19 Any vessel with a beam > 25 meter **MUST** be fitted with bridge wing repeaters.
- D.20 Any vessel for seagoing service **MUST** be fitted with Satellite Communications.
- D.21 Manuals covering Navigation and Bridge Procedures **MUST** be maintained onboard and vessels **MUST** be navigated in a manner that ensures compliance with these procedures. To avoid error(s) by one individual during critical operational conditions (e.g. pilotage waters, heavy traffic, restricted visibility), these procedures **MUST** include appropriate bridge manning for all situations when the vessel is underway and at anchor.
- The following publications **MUST** be maintained on board:  
Flag State or National Coastguard Agency Guidance Notes pertaining to the Safety of Navigation, e.g. U.K. Maritime and Coastguard Agency Guidance Notes, Merchant & Marine Notices.
- D.22 Vessels **MUST** maintain an up-to-date record of events in an appropriate Deck Log Book.

- D.23 There **MUST** be an established system to ensure that the vessel is provided with all nautical publications and charts for the intended route. An effective system **MUST** be in place to maintain these publications and charts up to date.
- D.24 Vessels equipped with an ECDIS system **MUST** meet IMO approval requirement and have a back up system as prescribed by IMO. Any other Electronic Chart Navigation (ECN) systems that are not approved by IMO **MUST** have paper charts onboard as the PRIMARY system. In all circumstances, there **MUST** be an established system for chart corrections.
- D.25 On Vessels where paper charts are the PRIMARY System but fitted with an Electronic Chart and Display Information System (ECDIS), it is **Strongly Preferred** that all deck officers using the system have undergone a documented training program. Where vessels are equipped with an Electronic Chart and Display Information System (ECDIS) as the primary means of navigation, all deck officers using the system **MUST** have undergone a documented training program for the type of equipment fitted.  
[STCW Code - Reg. I/12 & Section A-II/1&2 / IMO Model course 1.27]
- D.26 Vessels **MUST** receive regular Notice to Mariners updates appropriate to their trading areas. The vessel **MUST** have updated / corrected and the most recent edition Charts of a suitable scale for the intended trade.
- D.27 There **MUST** be a fully documented passage plan, approved by the Master, covering all legs of the voyage, both at sea and in port, including when a pilot is aboard. Special attention should be given to the in-port passage plan, the interface of the pilot with the Bridge Management Team and in-port issues such as the effect of squat on under keel clearance. As a minimum the plan should include the following elements:
- 1) Appraisal: a review of all relevant information pertaining to the voyage leg should be carried out; all potential hazards and scenarios as appropriate should be risk assessed.
  - 2) Planning: a detailed written plan should be prepared, with items such as danger areas, tidal data, waypoints, etc. highlighted on the voyage charts.
  - 3) Execution: a process must exist to ensure the Bridge Team reviews the plan and that controls are in place to ensure it is safely executed.
  - 4) Monitoring: the Bridge Team should use all available means to monitor the passage including the actions of the pilot, and review against the plan.
- D.28 It is **Strongly Preferred** that the vessel post, on the bridge alongside other manoeuvring data, the results of a ZIG-ZAG test as per IMO MSC/Circ 1053 1.3.2.
- D.29 Vessels **MUST** be able to demonstrate that two independent means of obtaining navigational data are employed to verify vessel position.
- D.30 The vessel **MUST** maintain a record of deviations for magnetic compasses and a record of error for gyrocompasses to enable corrections of bearings / courses to "true" readings.

- D.31 The operation of all navigation equipment and steering gears **MUST** be verified prior to each port entry and departure. The main propulsion system **MUST** be tested ahead and astern.
- D.32 Comprehensive Under Keel Clearance and Air Draft calculation(s) considering all significant allowances **MUST** be documented for the controlling depth(s) on passage. The calculation(s) **MUST** be relevant for tidal effects and speed of transit over the controlling depth(s).
- D.33 Vessels at anchor **MUST** have a licensed officer on the bridge, so as to maintain an effective anchor watch, and an appropriately qualified engineering officer in the engine room if the vessel is not UMS, or available at all times during the period at anchor if the vessel is UMS.

## SECTION E SAFETY AND SECURITY MANAGEMENT

(As per applicable ISGOTT, Code of Safe Working Practices & ISPS Code)

- E.1 Operators **MUST** ensure that all crew members working in hazardous areas use personal protective equipment (PPE) appropriate to the operations being conducted and the risk involved.
- E.2 Accommodation ladders for pilot embarkation **MUST** comply with SOLAS Regulations and the IMO Recommendation on Arrangements for Embarking and Disembarking Pilots.
- E.3 All vessels **MUST** have means of embarkation and disembarkation in port such as gangways and accommodation ladders.
- E.4 Safe access **MUST** be provided for connection / disconnection of cargo transfer hoses / arms.
- E.5 All vessels **MUST** carry Emergency Procedures that cover, as a minimum, action to be taken in the event of collision, grounding, pollution, fire and explosion, and also gas releases from gas ships and toxic vapour releases from chemical carriers.
- E.6 All vessels **MUST** demonstrate documented procedures for safe entry into potentially dangerous or enclosed spaces, such as cargo pump rooms or cargo tanks, with, as a minimum, an "Entry Permit" system as described in ISGOTT.
- E.7 In addition to statutory requirements for double hull vessels, all vessels **MUST** have on board a documented system or procedure to sample for flammable atmospheres at frequent intervals in all ballast tanks, cofferdams, or other such spaces within the hazardous zones of the vessel where flammable vapours can accumulate. The frequency of testing will be dependent on the voyage length, vessel condition, type of cargo etc, but **MUST** be clearly stated within the vessel safety management system.  
If a fixed system with recorder is not fitted, the procedure **MUST** include sampling with portable equipment. Records of monitoring of these spaces **MUST** be maintained.
- [VPQ CH. 8.112]
- E.8 Equipment no longer active (e.g., obsolete or has been replaced) **MUST** be clearly and permanently marked and isolated, or removed if it presents a hazard or could adversely affect the safe operation of the vessel.
- E.9 A vessel having CO<sub>2</sub> as a fixed Fire Fighting Extinguishing system **MUST** have two separate releasing controls.
- E.10 A vessel **MUST** have an approved Ship-Specific Emergency Towing procedure. It is **Strongly Preferred** that such procedures are incorporated within the Safety Management System (SMS).
- E.11 The vessel **MUST** at all times, whether in port or at sea, maintain adequate security measures. When transiting through a piracy-infested area, a vessel

**MUST** use all available support and utilise Best Management Practices to enhance security / safety on board, a Risk Assessment **MUST** be performed and preventative / mitigating measures complied with.

E.12 While in port, a vessel **MUST** maintain sufficient head count on board to handle emergency situations. The vessel operator **MUST** include guidelines within Ship Management System (SMS) to ensure its compliance.  
[VPQ CH. 3.1]

E.13 A vessel carrying H<sub>2</sub>S cargo **MUST** have on board dedicated and certified personal devices for measuring H<sub>2</sub>S, sufficient for at least every crew member working on exposed deck / area.  
[SOLAS regulation II-1/3-9 & MSC.1/Circ. 1331]

E.14 All vessels **MUST** carry the following portable gas detection equipment:

- Two Explosimeters (at a minimum)
- Two Oxygen Analysers (at a minimum)
- Toxic Gas Detectors or Analysers suitable for the range of products being carried.
- On vessels operating with IGS, two instruments capable of measuring hydrocarbon content in an oxygen deficient atmosphere **MUST** be provided (at a minimum).

It is **Strongly Preferred** that personal multiple gas detecting alarm units are used by each person working in a potentially hazardous area.

[VPQ CH. 8.114]

E.15 Toxic gas detectors for measuring H<sub>2</sub>S **MUST** be certified specifically for use in air or in an inert gas atmosphere.

E.16 All vessels **MUST** have on board records of tests to show that all gas detection equipment (fixed and portable) is routinely maintained and calibrated.

E.17 Appropriate span/calibration gas, maintenance kits and batteries **MUST** be carried to enable the equipment performance to be checked and kept in a fully operational condition.

[VPQ CH. 8.80]

E.18 The vessel **MUST** have an automatic system of fire detection in the accommodation and galley areas.

E.19 It is **Strongly Preferred** that Anemometer display / monitoring repeater with a recorder (paper / digital) is available in the Cargo Control Room (CCR) and designed to be capable of setting a minimum of two desired alarms limits. This alarm should sound an audible and visual alarm in the Cargo Control Room (CCR) and on deck if the set limits are exceeded.

E.20 A vessel **MUST** ensure that sufficient time prior to departure is allocated to all officers, ratings and Contractors, as applicable, to familiarize themselves with, but not limited to:

- a) Personal Survival Techniques, Medical Care, Emergency, Fire and Safety Equipment as delineated in Chapter VI, Section A-VI/1, of Standards of Training, Certification and Watch keeping for Seafarers

(STCW-95).

- b) The ship's emergency Fire Fighting and Life Saving Equipment.
- c) Equipment which they may use or operate in safely carrying out their duties.
- d) Any watch keeping, safety, environmental protection and emergency procedures or arrangements that they need to know to be able to carry out their assigned duties properly.
- e) Their duties and responsibilities under the ship's Vessel Response Plan (VRP), Shipboard Oil Pollution Emergency Plans (SOPEP) and Ship Security Plan (SSP).
- f) The company's Drug and Alcohol Policy.

E.21 It is **Strongly Preferred** that every vessel prepare a Fire Pre-Plan to be used as a tool by emergency response personnel to access a ship's spaces in preparation for firefighting. The plan should be prepared for every space covering the entire ship and each space should be examined for:

- Space location
- Type of fire/fuel
- Boundaries
- Electrical power sources
- Ventilation
- Hazards contained within the space
- Fire protection
- Plan of attack
- Date Pre-plan Prepared.

Such plans should be checked and approved by Ship Management Team.

E.22 All portable ladders **MUST** have a unique identifying number clearly marked on the ladder. The company **MUST** have in place a procedure for regular inspection.

E.23 All derricks, cranes and chain blocks **MUST** be clearly marked with their safe working load (SWL), and where appropriate, the operating angle and identifying reference number.

[VPQ CH. 10.77]

E.24 All lifting slings, strops and wires **MUST** have mechanical eyes formed in them marked with the SWL, and have a unique identification number.

E.25 Portable lifting devices such as chain blocks, strops, slings and shackles etc. **MUST** be supplied with original test certificates. These **MUST** be subjected to a regular periodical inspection and **MUST** be inspected prior to each use.

## SECTION F POLLUTION PREVENTION

- F.1 The vessel operator **MUST** provide the applicable vetting organisation with office and after hours telephone numbers and details of their shore emergency response organisation in order to facilitate operator/charterer communications in the event of a vessel casualty or escape of cargo. This information should be communicated to **MSOwner@exxonmobil.com** and kept updated at all times.  
[VPQ CH. 1.22]
- F.2 Cargo transfer systems **MUST** be tested annually to the designed working pressure. The vessel **MUST** have on board records verifying annual pressure testing of the cargo system. Records of individual cargo valves maintenance and tests **MUST** be kept on board and available.
- F.3 Bunker transfer systems **MUST** be tested annually to the designed working pressure. The vessel **MUST** have on board records verifying annual pressure testing of the bunker system.  
[VPQ CH. 6.18]
- F.4 When ballast water is taken into a cargo tank under the provisions of MARPOL
1. The ballast water should be introduced to the cargo tank through pipelines and pumps dedicated to the use of segregated ballast.
  2. There **MUST** be at least two valves segregation between the segregated ballast system and the cargo tanks being used for ballast. At least one of these valves should incorporate a non-return feature.
  3. The ballast loading line should be designed for this purpose alone, and enter the cargo tank in question through the top of the tank. There **MUST** be a physical separation (e.g. spool piece or blind flange) in the pump room to separate the "Over the Top" ballast line from the standard ballast system.
  4. Ballast water discharge **MUST** be monitored through use of an ODME.
- F.5 Vessels **MUST** be fitted with a continuous deck edge fishplate that encloses the main deck area, from bow to stern, such that escape of cargo or bunker oil tank contents will be contained.
- F.6 It is **Strongly Preferred** on ships fitted with stern anchors, that the poop deck is fully protected with an appropriate fish plate or gutter bar and should have a means to prevent the escape of liquid through the hawse pipe. For vessels with continuous decks, a transverse fishplate **MUST** be fitted, aft of the last cargo tank, to prevent the flow of cargo around the poop / accommodation deck area. A means of draining or removing oil from the enclosed deck area / containment **MUST** be provided.  
[VPQ CH. 6.1 & 6.2]
- F.7 All Bunker manifolds, cargo manifolds, service and storage oil tank vents **MUST** have spill containment arrangements which are of permanent construction. It is

**Strongly Preferred** for the Hydraulic Machinery to also have containment of a permanent construction.

[VPQ CH. 6.4, 6.5, 6.6 & 6.7]

- F.8 All flanged connections requiring bolts **MUST** be fully bolted at all times.
- F.9 All open-ended cargo, bunker or ballast pipe work and unused manifolds **MUST** be blanked and fully bolted (or capped in the case of small diameter lines). Any blank flange fitted on the vessel **MUST** be of sufficient strength for the certified line pressure.
- F.10 Blank flanges **MUST** be fitted on all cargo related overboard discharge, unless impracticable, in which case double block valves are acceptable if they are fitted with a system to monitor the integrity of the space between the valves (as per F.9).  
[VPQ CH. 6.15]
- F.11 Scuppers **MUST** be effectively plugged during all cargo, ballast and bunker handling operations and at all other times when in port, except in the event to clear rain water. Where the ship is fitted with a scupper drain system this **MUST** be checked prior to arrival in port to ensure that the lines are clear and the valves operate correctly. Scupper drain system valves **MUST** be clearly identified and **MUST** be kept closed whilst the ship is in port. Scupper plugs of the mechanical types are **Strongly Preferred**. Wooden plugs with cement are acceptable provided they are properly maintained.  
[VPQ CH. 6.8]
- F.12 Pollution control equipment **MUST** be available in accordance with the Oil Pollution Preparedness, Response and Coordination (OPRC) Convention 1990. As a minimum, the following equipment **MUST** be available.
- a) sorbents
  - b) non-sparking hand scoops, shovels, and buckets
  - c) containers suitable for holding recovered waste
  - d) emulsifiers for deck cleaning
  - e) protective clothing
  - f) two (2) non-sparking portable pumps with hoses in good operating condition. Unless otherwise stated in the manufacturers instructions, all portable pumps **MUST** be earthed when in use. For vessels fitted with fixed dump valves, portable pumps are not required.  
[VPQ CH. 6.10]
- F.13 Vessels **MUST** be fitted with at least two valves on each cargo sea chest. A system to monitor the integrity of the space between the valves for product leakage and sea valve integrity **MUST** be fitted, unless the sea chest is isolated from the cargo system by a spool piece or blank. (OCIMF publication "Prevention of Oil Spillages through Cargo Pump Room Sea Valves" may be used as a guide).  
[VPQ CH. 6.11 & 6.13]
- F.14 Where installed, the Cargo Sea Chest valves **MUST** be kept closed and sealed at all times when not in use. All portable spool pieces between the cargo pumps and sea valves, if fitted, **MUST** be removed and the pipeline ends blanked, during normal cargo operations when the connection to the sea valves are not required.

F.15 Operators **MUST** have in place an Environmental Policy covering pollution from the following sources, as appropriate:

- Oil, associated products/chemicals, LNG & LPG
- Noxious Liquid Substances
- Sewage
- Dangerous Goods
- Garbage
- Ballast water (including the transfer of micro-organisms)
- Cargo Vapour and Engine Exhaust Emissions
- Halons and CFCs
- Noise
- Anti-Fouling Paints

Guidelines issued by the International Chamber of Shipping "Shipping and the Environment - a Code of Practice" should be used as a reference.

F.16 Vessels provided with connections between Cargo and/or Ballast and/or Inert Gas Systems **MUST** be equipped with portable spool pieces, which **MUST** be disassembled and kept stowed in a conspicuous position.

F.17 The Oily Water Separator (OWS) and Oil Discharge Monitoring Equipment (ODME) **MUST** be regularly tested and verified fully operational, prior to each use. The OWS and ODME **MUST** be calibrated on an annual basis. The OWS and ODME piping systems **MUST** be tamper proof and in accordance with MARPOL Regulations and the approved system drawings.

F.18 It is **Strongly Preferred** that the switch for the electric power supply for the Engine Room Oily water separator be located on the Bridge. This is to prevent the Oily water separator being inadvertently started within Port and MARPOL Special areas, or without the permission of the Bridge Watch-keeping Officer.

F.19 It is **Strongly Preferred** that all flexible hydraulic hoses exposed on deck are replaced every 5 years. Company **MUST** have in place a procedure for inspection, testing and replacement of all such flexible hoses

F.20 It is **Strongly Preferred** that vessels are constructed with double skin Bunker Tanks, Lube Oil Tanks and other spaces containing pollutants.

F.21 It is **Strongly Preferred** that ballast tanks have protective coatings and vessel comply with performance standards referred to in MSC Regulations 215 (82).

F.22 It is **Strongly Preferred** that vessels are provided with adequate means for quick sampling and visual inspection of the segregated ballast waters prior to discharge.

F.23 It is **Strongly Preferred** that vessels have a Ship Energy Efficiency Management Plan.

F.24 Vessels **MUST** have a Garbage Management Plan on board, defining procedures for Garbage Storage, Segregation and / or disposal methods.

## SECTION G STRUCTURAL CONDITION

G.1 Owners/operators of all vessels of 15 years of age or more, **MUST** provide their most recent Special Survey documentation for review by IMT, Seariver or Tonen General.

For U.S. Jones Act ships, documentation should be submitted to Seariver.

For those vessels to be considered for ExxonMobil affiliate service the following documents are required:

- 1) Certificate of completion of a full Enhanced Special Survey, including dry-dock, as required under the survey provisions of the 95 MARPOL Regulations.
- 2) A copy of the onboard documentation file for the, 3rd, 4th, or 5th (whichever is the most recent) Enhanced Special Survey, including:
  - i) The Survey Planning Document
  - ii) The Executive Hull Summary (Condition Evaluation Report) for completion of applicable Enhanced Special Survey.
  - iii) Hull Structural Survey Reports and any subsequent hull surveys.
  - iv) Ultrasonic Thickness Measurement Report.
- 3) Latest Class Survey Status Report.

Gas and chemical ships are not subject to an Enhanced Special Survey, however they are still required to undertake a Special Survey. As a consequence the applicable vetting organisation still requires to review as much documentation that is applicable to the survey in question. This should include, but not be limited to:

Hull Structural Survey Reports.

Ultrasonic Thickness Measurement Reports.

Latest Class Survey Status Reports.

All communication with IMT related to this process should be directed for the attention of ESS Co-ordinator by email to: **MSess@exxonmobil.com**

[VPQ CH. 1.38]

G.2 A vessel older than 15 years **MUST** provide a CAP (Condition Assessment Programme) Certificate with regard to Hull, Machinery and Cargo System with a 1 or 2 rating issued by a Classification Society which is a member of IACS and different from the vessel's own Classification Society. The CAP certificate **MUST** be renewed every 5 years.

If the vessel is older than 20 years, the CAP Certificate **MUST** be renewed every 30 months.

[VPQ CH. 1.44]

G.3 Aluminium anodes **MUST NOT** be used in **CARGO** tanks. If used in **BALLAST** tanks, they **MUST** meet the following criteria:

1. Anodes **MUST** not be placed higher than 1.8m or higher than a position that may cause an impact energy greater than 20kgm in the event of a fall.
2. Anodes **MUST** be shielded from objects falling from directly overhead (specially designed box shields).

3. Anode alloys **MUST** contain no more than 0.02% magnesium or 0.1% silicone or **MUST** meet U.S. Coast Guard Requirements if applicable.

(Code of Federal Regulations - 35.01-25(b) (4).[VPQ CH. 7.3]

- G.4 For vessels engaged in the carriage of chemicals or clean products, tanks **MUST** either be stainless steel or be fully coated with a coating suitable for the range of products intended to be carried. A record of cargo tank coating condition **MUST** be maintained on board showing the status of the coating condition in each tank. Cargo tanks that are used for carrying aviation grade kerosene **MUST** be free of copper, zinc, cadmium and their alloys.

## SECTION H CARGO AND BALLAST SYSTEMS

- H.1 The vessel **MUST** have on board cargo operation and handling procedures in addition to documentation showing maximum loading rates, venting capacities and maximum permissible pressure and vacuum each tank can withstand.
- H.2 A detailed and documented cargo-handling plan written in the language of the Officer's and Crew **MUST** be prepared and available for every cargo or ballast operation undertaken.
- H.3 Material Safety Data Sheets (MSDS) for all products being handled **MUST** be displayed. Where applicable, a copy of the USCG Data Guide should be aboard.
- H.4 Vessels for seagoing service **MUST** be capable of handling at least 3 grades. Cargo pumps **MUST** have emergency stops located on deck or in the Cargo Control Room. It is **Strongly Preferred** that emergency stops are also located in the Cargo Control Room, at the manifold, and just outside the pump room entrance (if vessel is fitted with a cargo pump room). Ref: OCIMF: An Information Paper on Pump room Safety (September 1993).  
[VPQ CH. 8.15]
- H.5 If the cargo pumps are centrifugal and located in a pump room, their bearings and casings **MUST** be fitted with high temperature alarms or trips. It is **Strongly Preferred** that all pump drive shaft bulkhead glands are fitted with alarms or trips. **BOTH** alarms and trips are **Strongly Preferred**. It is also **Strongly Preferred** that rotary positive displacement pumps are fitted with this equipment for high flash point cargoes, and **MUST** be so fitted for cargoes with flash points below 60degC.
- H.6 The vessel **MUST** have appropriate logbook(s) on board containing an up-to-date record of events.
- H.7 Vessels with inherent intact stability are **Strongly Preferred**. Where the vessel does not possess inherent intact stability, the operator **MUST** determine whether there are any possible conditions of cargo and/or ballast operations where IMO stability criteria are not satisfied. Vessels that have large undivided tanks in which liquid free surface may affect vessel stability, (such as double hull, double sides, and OBOs, without a continuous longitudinal bulkhead in the cargo tanks, and/or with "U" shaped ballast tanks), **MUST** have operating instructions that:
1. Indicate the number of tanks which may be slack and still satisfy IMO stability criteria under all possible conditions of liquid (cargo and/or ballast) transfer
  2. Are understandable to the officer-in-charge of transfer operations
  3. Require no extensive mathematical calculations by the officer-in-charge
  4. Illustrate corrective actions to be taken by the officer-in-charge in case of departure from planned values, and in case of emergency situations, such as negative stability causing an angle of loll

5. Are prominently displayed in the approved trim and stability booklet, at the cargo/ballast transfer control station, and in any computer software by which stability calculations are performed.
- H.8 Provision of a cargo computer, or equivalent, is **Strongly Preferred**, to enable stability calculations to be made, prior to and at any stage of the cargo operation and to calculate hull stresses. If fitted, the operator **MUST** ensure that this computer program has been independently verified. It is **Strongly Preferred** that this computer program be Class approved as an IACS URL5 Type 2 or Type 3 stability computer.  
[VPQ CH. 8.16 & 8.17]
- H.9 Vessels **MUST** be fitted with bilge alarms in pump rooms, including ballast pump rooms.
- H.10 Vessels carrying low flash cargo **MUST** be fitted with a fixed system capable of continuously monitoring for flammable atmosphere in cargo pump rooms.  
[VPQ CH. 8.112]
- H.11 This system **MUST** be fitted with an alarm to indicate the presence of significant concentrations of flammable vapour. It is **Strongly Preferred** that sensors / sampling points for monitoring flammable atmospheres are distributed throughout pump rooms. Ref: OCIMF Information Paper on Pump room Safety.  
[VPQ CH. 8.113]
- H.12 It is **Strongly Preferred** that pressure gauges with valves or cocks be fitted outboard of cargo manifold valves. This requirement may be waived upon application and justification for chemical carriers and multi-product carriers, which have an excessive number of manifolds, and where acceptable alternate arrangements are in place.
- H.13. The vessel **MUST** have on board appropriate documentation for the vessel's portable hoses showing that:
1. All hoses are inspected prior to each use to ensure they are free of kinks or any other material defects
  2. All hoses are pressure tested annually to 1.25 times the design working pressure (in the USA hoses **MUST** be tested to 1.5 times the maximum working pressure)
  3. All hoses are retired in accordance with manufacturer's instructions
  4. Flange markings match certificates for ease of identification.
- H.14 Cargo tank venting **MUST** be through approved systems that expel vapours clear of the tank deck area in accordance with ISGOTT. The vessel **MUST** have secondary means of providing protection against tank over/under pressurisation. This can be provided by full flow independent P/V valves and/or pressure monitoring system fitted to each tank. Full flow P/V valves **MUST** be so fitted that they cannot be isolated from the tanks they protect and **MUST** be capable of flowing sufficient volume of gas to prevent damage at the tank's maximum loading/discharge rates. Where fixed cargo tanks pressure monitoring equipment are fitted, the display unit **MUST** be installed in the cargo control room with alarm settings. This alarm should sound an audible and visual alarm in the CCR if the set limits are exceeded.

[VPQ CH. 8.67]

H.15 All vessels **MUST** be able to undertake cargo operations under controlled venting, closed gauging and sampling techniques; that is, vessels will have facilities to enable venting of tank atmospheres and ullage monitoring without need to open hatches/ullage ports.

[VPQ CH. 8.51]

H.16 A vapour recovery system is required at certain terminals. If fitted on board, it **MUST** be Class approved. Manifolds **MUST** comply with the OCIMF "Recommendations for Oil Tanker Manifolds and Associated Equipment" and vessel personnel conducting cargo operations **MUST** be familiar with the safety implications of its use.

[VPQ CH. 8.65]

H.17 Tank level measuring devices **MUST** be available for all cargo tanks, slop tanks and bunker tanks. Automatic tank gauges are **Strongly Preferred**. Where fitted, these **MUST** have remote readings in the Cargo Control Room. It is **Strongly Preferred** that the tank level measuring device, including those fitted to Bunker Tanks, is supplemented by an independent high level alarm.

[VPQ CH. 8.51]

H.18 Vapour locks with sonic tapes are only acceptable as a substitute for automatic tank gauges provided that the vessel is equipped with a minimum of one sonic tape for each cargo tank which is loading or discharging. Pneumatic tank level gauging systems **MUST** be supplemented by such a vapour lock system. Vessels not fitted with vapour locks may not be accepted at all terminals. The vessel **MUST** have vapour locks for custodial measurement of low flash point and toxic cargoes.

[VPQ CH. 8.61.2]

H.19 When vapour locks are fitted, the vessel **MUST** have sonic tapes capable of measuring ullage, temperature, and interface (e.g. UTI) and a sampling device.

H.20 When vapour locks are fitted they **MUST** be independently calibrated and certified so that measurements taken through them can be used with the vessel's original ullage tables.

H.21 Use of portable measuring equipment, including sonic tapes and sampling devices, when loading products in non-inerted tanks, **MUST** be in accordance with the precautions to prevent electrostatic ignition recommended in ISGOTT. Except where tanks are fitted with perforated full depth sounding pipes - portable measuring and sampling devices **MUST** not be introduced into non-inerted tanks until 30 minutes after cargo flow to the tank stops. Vessels **MUST** be able to safely top off in full compliance with these requirements. If sounding pipes are fitted, they **MUST** be perforated, constructed so as to extend the full depth of the tank and be effectively bonded. Full depth sounding pipes **MUST** be fitted to the vapour lock if the vessel has no automatic tank gauging equipment, has no IG system and carries static accumulating cargoes.

H.22 Independent high level alarms **MUST** be fitted for all cargo tanks, slop tanks and bunker tanks. They **MUST** be utilised during all cargo and bunker transfer operations and suitably located to alert personnel conducting the operations.

[VPQ CH. 8.54]

- H.23 Vessel cargo and bunker manifolds and associated valves, reducers and spool pieces **MUST** be fabricated of steel. Flexible hose connections **MUST** be via bolted steel flanges, unless the connection system is supplied and designed for a specifically designated purpose. Grey cast iron and aluminium are **NOT** permitted. Ductile iron may be used if of appropriate strength, yield strength and elongation.
- H.24 It is **Strongly Preferred** that all vessels to be utilised in the carriage of more than one grade of cargo should be capable of maintaining a two valve or equivalent separation between grades at all times during the execution of the voyage including loading and discharging operations.  
[VPQ CH. 8.15]
- H.25 Vessels having conventional pump rooms **MUST** be equipped with at least two operational main cargo pumps.  
[VPQ CH. 8.18]
- H.26 The vessel **MUST** have onboard documented maintenance procedures and test records that relate to critical systems. Critical systems include the cargo pumps, piping, valves, inert gas system and cargo instrumentation. (See also TMSA Element 4)
- H.27 It is **Strongly Preferred** that vessels are fitted in their Cargo Control Room with a device capable of monitoring and recording the load / discharge manifold pressure.
- H.28 All the cargo equipment such as pressure gauges, vacuum gauges, thermometers etc. **MUST** be checked annually and certified.
- H.29 Vessels **MUST** have fixed cargo tanks pressure monitoring equipment fitted on board with display unit installed in the cargo control room and designed to have within manufacturers set alarms (High and low) including additional setting of a minimum two desired alarms limits. This alarm should sound an audible and visual alarm in the CCR if the set limits are exceeded.
- H.30 It is **Strongly Preferred** that vessels are fitted with IG tank pressure monitors on the bridge.

## SECTION J INERT GAS AND CRUDE OIL WASHING SYSTEMS

- J.1 An Inert Gas system, where fitted, **MUST** be used for the carriage of all Petroleum cargoes.
- J.2 An inert gas system, where fitted, **MUST** be maintained in full working order and have documented maintenance procedures, maintenance and test records. Maintenance records **MUST** include, scrubber tower, blowers, deck seal, P/V breakers, P/V valves, mast risers, oxygen analyzer, pumps, and inspection examination of the inert gas pipe sections for corrosion/leakage, fittings and instrumentation containing critical components.  
[VPQ CH. 9.1] [VIQ 9.4]
- J.3 The inert gas system **MUST** be operated as per a detailed manual approved by the vessel's classification society. It is **Strongly Preferred** that the IMO publication "Inert Gas" is carried on IGS fitted vessels. A log of IG operations **MUST** be maintained on board.  
[VPQ CH. 9.9]
- J.4 IG Alarms and trips **MUST** be tested prior to cargo discharge and tests properly recorded.
- J.5 A calibration check of the oxygen analyser **MUST** be carried out prior to putting IG system into use and record should be maintained.
- J.6 It is **Strongly Preferred** that a stand-by Oxygen analyser is fitted to serve as a back-up means in case of failure of the main O2 analyser.
- J.7 In regard to cargo tank pressure/vacuum protection, all vessels **MUST** comply with the provisions of SOLAS regardless of their building date.
- J.8 The IGS deck seal **MUST** be of the "Wet" type only. Deck Seals that are "Semi-dry" or "Dry" are not acceptable. Chemical carriers fitted with inert gas systems but no deck seals **MUST** comply with the enhanced requirements for block and bleed systems identified by the OCIMF paper "Inert Gas Systems: Block And Bleed Valve Arrangements For Chemical Carriers Carrying Chemicals And Petroleum Products", published January 2000.  
[VPQ CH. 9.10]
- J.9 The IGS lines **MUST** be inspected and drained at regular intervals, and recorded.
- J.10 The preceding item, procedure J.9, **MUST** be carried out immediately in the event of a tank over-fill.
- J.11 The Vessel **MUST** have clearly established procedures for crude oil washing. A class approved COW manual **MUST** be available on board.  
[VPQ CH. 9.21]
- J.12 All officers in charge of COW operations **MUST** have knowledge of the onboard COW procedures.

- J.13 Operators **MUST** establish a crude oil washing checklist to be followed by vessel staff when conducting operations. Being a higher risk operation this checklist **MUST** cover 'pre' and 'post' operation checks.
- J.14 It is **Strongly Preferred** that all officers in charge of COW operations should have undergone a training program for COW operations, prior to assignment of COW responsibilities.
- J.15 Current IMO publication of "Crude oil Washing System" **MUST** be available on board for reference.

## SECTION K MOORING

Vessels **MUST** comply with the OCIMF Mooring Equipment Guidelines.

K.1 The following table lists minimum mooring requirements by vessel size. Some terminals may require additional mooring lines to supplement those listed.

VESSEL SIZE k DWT	NUMBER OF MOORING Lines/WIRES	BREAKING STRENGTH M. TONNS	
Below 2	6	20	
2 – 3	6	25	
3 – 4	6	27	
4 – 5	6	29	
5 – 15	8	31	
15 – 20	10	39	
20 – 45	10	47	
45-75	10	53	
75-100	12	64	
100-140	12	65	
140-160	12	74	
160-250	12	77	
250-400	16	103	

### **IMPORTANT NOTE**

All mooring lines for vessels 45k DWT and above required by the above table **MUST** be fitted on self-stowing mooring winch drums (split type **Strongly Preferred**) and fitted with brakes having a holding capacity in accordance with the **OCIMF** Mooring Equipment Guidelines.

### **High-Modulus Synthetic Fibre Ropes:**

Mooring lines required by the above table may be "high-modulus synthetic fibre" ropes with equivalent breaking strength, however, if so fitted, the rope manufacturer's guidance and OCIMF publication "Guidelines on the Use of High-Modulus Synthetic Fibre Lines on Large Tankers" **MUST** be fully complied with.

If fitting high-modulus synthetic fibre ropes in place of wire ropes, Operators **MUST** be aware that some terminals may continue to insist upon wire ropes being utilised.

### **Moorings - General:**

- K.2 The use of mooring lines (wire, high-modulus or regular synthetic fibre ropes) of differing elasticity, running in the same direction (i.e. mixed mooring), is **not** acceptable.
- K.3 Synthetic mooring tails, if fitted to wire ropes, **MUST** be connected to the wire with Mandel, Boss or Tonsberg type shackles. Where tails are fitted to high-modulus synthetic fibre ropes the connection **MUST** be made in full compliance with the recommendations laid down by the manufacturer of the high-modulus synthetic fibre rope.
- K.4 When used, synthetic mooring tails **MUST** meet OCIMF guidelines. [VPQ CH. 10.1]
- K.5 Mooring wires and synthetic lines **MUST** be reeled on their drums in the direction which enhances brake holding power.
- K.6 Vessels > 100000 DWT **MUST** be fitted with two bow stoppers.
- K.7 Vessels outfitted for mooring at SPMs **MUST** be fitted with equipment in accordance with OCIMF guidelines. Refer to; OCIMF "Recommendations for Equipment Employed in the Bow Mooring of Conventional Tankers at Single Point Moorings" and OCIMF "Mooring Equipment Guidelines 3" - Appendix E.
- K.8 Vessels intended for MBM's (multiple buoy moorings) **MUST** have closed chocks and have an adequate number of chocks at the stern to facilitate mooring at the buoys. Vessels **MUST** be fitted with closed chocks only.
- K.9 All mooring ropes, wires, winches, brakes, tails and shackles **MUST** be in good condition.
- K.10 Operators **MUST** ensure that winch brake holding capacity at the rendering point is tested annually and that the proper setting is recorded. For example, a tag, stating the proper torque, attached to a screw brake and provision of a torque wrench for proper setting in service. (See OCIMF "Mooring Equipment Guidelines").
- K.11 Certificates listing the breaking strength of each wire and rope **MUST** be kept on board.
- K.12 Mooring winches, lines and fittings are critical systems and **MUST** have documented maintenance procedures and test records. Maintenance **MUST** include brake and linkage inspection & overhaul, along with winch brake rendering tests.
- K.13 Hose lifting equipment **MUST** be sized so as to adequately handle the anticipated range of equipment.

The following will serve as a guideline:

Up to 16 k DWT	= 1 to 5 ton SWL
16 k DWT to 60 k DWT	= 10 ton SWL
60 k DWT to 160 k DWT	= 15 ton SWL

Above 160 k DWT = 20 ton SWL

Ref: OCIMF "Recommendations for Oil Tanker Manifolds and Associated Equipment".

- K.14 Vessels **MUST** comply with the OCIMF "Recommendations for Ships Fittings for use with Tugs with particular reference to Escorting and other High Loading Operations.
- K.15 Operators Vessel safety management systems **MUST** identify risks associated with mooring operations and include appropriate safeguards against those identified risks, including but not limited to ensuring that Vessel personnel are well aware of snap-back zones whilst performing mooring operations. It is **Strongly Preferred** that these zones are clearly marked upon the deck.
- K.16 Vessels **MUST** have both the Forward anchors and Stern anchors if fitted in full operational condition.
- K.17 In line with the OCIMF publication "Recommendations for ships' fittings for use with tugs" section 4.2.1; a separate strong points and chocks specifically for tug escort and pull-back duties **MUST** be fitted on all tankers over 20,000 DWT.

Where "Emergency Towing Arrangements" (ETA) are fitted as required by SOLAS this will meet the above requirements provided they are suitable for this dual purpose, and use should not compromise the deployment or effectiveness of the emergency towing arrangements.

Ref : OCIMF - Recommendations for ships' fittings for use with tugs.

## SECTION L COMMUNICATIONS

- L.1 The vessel for seagoing service **MUST** be fitted with sufficient portable VHF/UHF intrinsically safe mobile units for use by key personnel involved with deck operations. These **MUST** have an adequate selection of channels available, in order to prevent interference between Vessels in congested ports. VHF radio telephones, required under SOLAS Reg. 6. 2.1.1, **MUST NOT** be used for this purpose.  
[VPQ CH. 11.5 & 11.8]
- L.2 Where the vessel has a cargo control room sited in the safe area, a VHF radio telephone **MUST** be fitted.  
[VPQ CH. 11.6]

## SECTION M ENGINE ROOM AND STEERING GEAR

- M.1 Vessels **MUST** be fitted with bilge alarms in the engine room. [VPQ CH. 12.30]
- M.2 One of the steering systems for vessel's on seagoing service **MUST** operate from the emergency power supply. It is also **Strongly Preferred** that all vessels comply with SOLAS Chapter II-1, Regulation 29, Para.16 and Para.20 even if their GRT is below the SOLAS minimum.
- M.3 Vessels > 16 k DWT **MUST** be fitted with a main and an auxiliary steering system including two independent steering motors and hydraulic pumps.
- M.4 Main Engine and Steering gear **MUST** be tested prior to arrival and departure from port. Emergency steering drills **MUST** be carried out periodically at least once in three months. Bridge and Engine Watchkeepers **MUST** be familiar with the change-over procedures from Main to Emergency Steering Gear and operation in Emergency mode.
- M.5 All Watch-keeping Engineers **MUST** be familiar with Local / Emergency manoeuvring procedures of the Main Engine. It is **Strongly Preferred** that Engineers are provided with a hands-on training on the Local / Emergency manoeuvring station.
- M.6 During Engine stand-by conditions and manoeuvring in narrow waters the Vessel **MUST** have sufficient reserve electrical power available from the running Electrical Generators, such that if one were to fail, it would not affect the manoeuvrability of the Vessel.
- M.7 The Vessel **MUST** have a clearly identified list of Critical Systems and Critical alarms which are critical to the operational safety and manoeuvrability of the vessel. Roles and responsibilities for these systems **MUST** be identified on board and ashore.
- M.8 There **MUST** be procedures in place to address failure, disarming or deactivation of any critical system, alarm, control or shutdown. These **MUST** clearly identify how to address short term defects and long term defects.
- M.9 The Vessel **MUST** establish and carry at the minimum spares level for critical systems and alarms.
- M.10 The Vessel **MUST** have the fuel quality tested by an independent laboratory prior to putting into use. It is **Strongly Preferred** that the Vessel subscribes to a fuel quality assessment program.
- M.11 The Vessel **MUST** subscribe to a regular Lube Oil analysis program by an Independent recognised body, where as a minimum the lube oil of at least the Main Engine and Diesel Generators is tested on a regular basis.

- M.12 It is **Strongly Preferred** that various flexible hoses in the Engine room are Identified and that they are included in the on board maintenance and inspection schedule.
- M.13 All Vessels **MUST** have a Planned Maintenance System in place with maintenance routines based on manufacturer's recommendation and vessel experience.
- M.14 The Vessel **MUST** follow a documented inventory system of spares for various on board machinery. There **MUST** be objective evidence that this is kept upto date.
- M.15 There **MUST** be evidence that various machinery / equipment under maintenance / repair has been satisfactorily tested on completion of repairs.
- M.16 The Company **MUST** identify instruments critical to the safe and efficient operation of the ship's machinery and these **MUST** be verified at regular intervals with calibration equipment or a certified Company ashore.
- M.17 The Emergency Generator **MUST** be tested on a reasonable load at least monthly.
- M.18 A bunker transfer procedure for daily bunker transfers **MUST** be in place. This **MUST** be read and understood by the Watch-keeping Engineers.
- M.19 A bunker plan **MUST** be prepared by the Vessel prior to commencement of bunkering operations. The individuals involved in the process should have a clear understanding of the procedures, their responsibilities and actions to be taken in an emergency. It is **Strongly Preferred** that a formal risk assessment is carried out or an existing one reviewed prior to bunkering operations.
- M.20 Bunker procedures **MUST** address potential dangers associated with toxic gas/H<sub>2</sub>S in the fuel.
- M.21 The Vessel **MUST** have clear written procedures for Boiler operations and maintenance, including Exhaust Gas Economiser. These **MUST** include instructions for Emergency operations specific to the vessel.
- M.22 The Vessel's safety management system **MUST** identify risks associated with working on Electrical equipment and include appropriate safeguards against those identified risks, including but not limited to providing instructions on precautions to be taken when working on high voltage and 'live' electrical equipment. The safety management system should address safeguards related to activities such as trouble-shooting on live switchboards and the use of electrical test panels, if applicable.
- M.23 All vessels **MUST** fully comply with the Marpol Annex VI provisions for the control of sulphur emissions in special SO<sub>x</sub> emission Control Areas (SECAs). When chartered for worldwide trade, the vessel **MUST** be capable of meeting relevant local and national marine fuel sulphur content regulations.
- M.24 Vessels which have been converted to comply with Sulphur Emission

regulations **MUST** have procedures in place for the use of Low Sulphur Marine Gas Oil in Boilers (Reference – Intertanko & OCIMF Guidance Paper on using LSGM in Marine Boilers).

## SECTION N GENERAL APPEARANCE AND CONDITION

- N.1 All vessel equipment and areas **MUST** be properly maintained, clean, painted, and in good fabric condition. All equipment **MUST** be in good working order.
- N.2 Hull Markings **MUST** be clearly indicated and correctly placed.
- N.3 Decks in working areas **MUST** have clearly identified non-slip surfaces.
- N.4 The general condition of service pipe work **MUST** be satisfactory and it **MUST** be free from corrosion and pitting and soft patches or other temporary repairs.
- N.5 All deck openings, including watertight doors and portholes **MUST** be in a satisfactory condition and capable of being properly secured.
- N.6 All fuel, ballast and other space vents and air pipes **MUST** be clearly marked to indicate the spaces they serve.
- N.7 All alleyways **MUST** be free of obstructions and their exits **MUST** be clearly marked.
- N.8 All public spaces, including smoke rooms, mess rooms, sanitary areas, food store-rooms, food handling spaces, refrigerated spaces, galleys and pantries **MUST** be clean, tidy and in a hygienically satisfactory condition.
- N.9 Personnel alarms in refrigerated spaces **MUST** be maintained in good order and it is **Strongly Preferred** that they are tested periodically and records of such tests are kept.

## SECTION P SHIP TO SHIP TRANSFER SUPPLEMENT

- P.1 All ship to ship transfers **MUST** be conducted per the ICS/OCIMF Ship to Ship Transfer Guide. In the case of liquefied gas transfer operations the companion guide Ship to Ship Transfer Guide (Liquefied Gases - latest edition) **MUST** be used. Additional criteria for specific locations are detailed below. [VPQ CH. 13.1]
- P.2 The Master and deck officers **MUST** have previous appropriate experience in lightering operations.
- P.3 Where vessels are expected to conduct STS operations, they **MUST** have a Ship to Ship Transfer Plan.
- P.4 **Personnel Transfer**
- All personnel transfers during STS operations **MUST** be undertaken after completion of a documented control system (e.g. permit to work) that reviews / addresses the risks associated with the operation and **MUST** be approved by a person in charge prior to the operation.
- P.5 **Lightering in the Gulf of Mexico (GOM)**
- Special criteria apply to STS Lightering in the Gulf of Mexico (GOM). The criteria may be obtained from the ExxonMobil affiliate GOM Lightering Coordinator at the following email address: **GOMlightering@exxonmobil.com**. The criteria **MUST** be complied with.

**SECTION Q ICE OPERATIONS - APPLICABLE TO VESSELS OPERATING IN SEVERE  
SUB-ZERO CONDITIONS.**

- Q.1 Vessels operating in severe sub-zero conditions **MUST** have a valid Ice Class notation.
- Q.2 The vessel's safety management system **MUST** identify risks associated with operations in sub-zero and/or ice conditions, and provide appropriate safeguards against those identified risks, including but not limited to, procedures for personnel training, navigation, operations and preparation of equipment for use in such conditions.
- Q.3 The vessel **MUST** have means to prevent the icing up of air pipes to settling and service tanks required for the operation of the main propulsion plant and essential auxiliaries.
- Q.4 The vessel **MUST** have means to keep at least one machinery space sea water inlet ice-free.
- Q.5 The vessel **MUST** have means provided for ice observation and detection.
- Q.6 One of the radars fitted **MUST** be of a type classed as being suitable for sub zero temperatures.
- Q.7 Systems **MUST** be in place for the routine receipt of navigational, meteorological and environmental data, including ice data and ice charts.
- Q.8 Personal Protective Equipment provided **MUST** be suitable for sub-zero conditions.

## SECTION R CHEMICAL CARRIER SUPPLEMENT

The following minimum safety criteria for Chemical Carriers are additional to criteria described in the previous sections.

- R.1 Material Safety data sheets (MSDS) **MUST** be available for all Chemical products on board.
- R.2 Vessels **MUST** have written procedures for cleaning and emission control of the cargo system.
- R.3 When a vessel is involved in the carriage of bulk liquid chemicals all cargoes carried **MUST** be listed on the ship's certificate of fitness or have obtained administration approval for carriage of non listed cargoes.
- R.4 When new chemicals are to be carried, a review of handling procedures **MUST** be carried out by a company safety officer and any change in procedures communicated to the vessel.
- R.5 Officers and crew **MUST** attend chemical handling training courses that include MARPOL Annex II awareness.
- R.6 Independent high level alarms **MUST** be fitted on all cargo tanks. [VPQ CH. 14.3]
- R.7 Appropriate personal protective equipment **MUST** be provided and utilised by all crew members.
- R.8 Showers and eye baths **MUST** be provided, easily accessible on deck, capable of operating in all ambient conditions likely to be encountered and available at all times.
- R.9 Vessels **MUST** carry Emergency Procedures that cover, as a minimum, action to be taken in the event of Chemical Spill and Pollution.
- R.10 It is **Strongly Preferred** that a current pipeline and/or mimic diagram of cargo, inert gas and venting systems are displayed in the cargo control-room.
- R.11 Pipeline drains and stub pieces **MUST** be capped prior to cargo operations.
- R.12 It is **Strongly Preferred** that procedures adopted on board include the cargo system being independently checked by two officers prior to transfer commencing.

## SECTION S GAS CARRIER SUPPLEMENT

The following criteria are to be applied to LPG, LNG and Chemical gas carriers and are additional to criteria described in the previous sections.

- S.1 Vessels **MUST** have, readily available, full details about the cargoes being carried including stowage plans and compatibility tables. Operators **MUST** inform the applicable vetting organisation if the vessel has Certificate of Fitness to carry cargoes other than liquefied gases.
- S.2 Gas carriers, particularly LNG carriers, **MUST** be aware of the phenomena of "rollover", and have procedures onboard outlining the hazards and appropriate precautions.
- S.3 Where not already required by vessel Flag Administration the officers and crew **MUST** have attended Gas safety / handling training courses.
- S.4 It is **Strongly Preferred** that an Emergency Shutdown (ESD) pendant cable for the shore operator be provided. This item is a **MUST** for LNG carriers.
- S.5 Cargo related pressure relief valves, alarms, trips, and emergency shutdown systems (ESD) **MUST** be used and maintained in accordance with the manufacturers' instructions and covered by a routine testing program with records maintained onboard. The following alarms/trips (if fitted) **MUST** be included:
1. Tank/Line High and Low Pressure (including pump/compressor trips).
  2. Tank/Line Relief Valves.
  3. Air Locks for CCR and Motor Rooms.
  4. Liquid collecting line or vent riser.
  5. Tank High and independent High/High level.
- S.6 All cargo ullage, temperature and pressure monitoring instrumentation and Cargo plant instrumentation **MUST** be routinely tested and calibrated in accordance with the manufacturers instructions, with records kept onboard.
- S.7 Cargo pipelines **MUST** be maintained in good working order with no leaks. Insulation where fitted **MUST** be intact. Provisions **MUST** be made to protect piping from excessive stresses due to temperature changes and /or movement of tanks and equipment to which the piping is attached. Expansion joints or bellows shall be kept to a minimum and where used shall be subject to Class approval.
- S.8 All liquid cargo pipelines **MUST** be free of expansion bellows. Alternative arrangements (e.g. where fitted to certain types of LNG carriers) will be reviewed on a case-by-case basis.
- S.9 It is **Strongly Preferred** that all liquid cargo pipelines are constructed with flanged connections and free from screwed (threaded) couplings.

- S.10 Cargo segregation **MUST** be achieved without risk of liquid to vapour crossover.
- S.11 Inert gas system piping **MUST** be completely independent and segregated from the cargo system.
- S.12 Liquid spill containment arrangements **MUST** be appropriate for the range of cargoes carried and suitable for low temperature cargoes, where applicable.
- S.13 There **MUST** be in place a system to routinely monitor and test, in accordance with the manufacturer's instructions, the effectiveness of all gas tight seals fitted between the compressor room and motor room where these are separated by a bulkhead or deck.
- S.14 Airlocks fitted to electrical motor rooms in the gas hazardous zone of the vessel **MUST** have a system for periodic testing of alarms, trips and interlocks as fitted to the vessel.
- S.15 All earth bonding and continuity straps **MUST** be in good condition

S.16 **ITEMS SPECIFIC TO LNG CARRIERS**

Where LNG carriers use cargo as fuel they **MUST** have procedures onboard to ensure compliance with the requirements of the IGC Code (Ch.16) and precautions outlined in the ICS Tanker Safety Guide (Section 4.9.3.)

Procedures should cover the whole system operation and the routine testing and maintenance on the main gas line integrity and the critical systems associated with the process including (but not limited to); gas detection, master gas valve isolation, ventilation interlocks, alarms etc.

Documented records of the tests and maintenance carried out on the system **MUST** be maintained onboard.

## SECTION T COMBINATION CARRIER SUPPLEMENT

The following criteria are to be applied to a vessel designed to carry oil and solid cargoes in bulk, and are additional to the criteria described in previous sections.

For the purposes of this section a combination carrier is defined as one of two main types either; an Oil/Bulk/Ore (OBO) or, an Oil/Ore (O/O) carrier.

It is not intended that other forms of combination carrier (e.g. a liquefied gas and products carrier) be covered by the following.

- T.1 The Master and Chief Officer **MUST** have a minimum two years each (equivalent) experience in OBO/O/O design vessels, including one year (equivalent) operating in "wet" service.
- T.2 Hatch cover seals **MUST** be gas tight. Hatch seals are critical equipment and records of replacement, maintenance and testing **MUST** be kept on board. It is **Strongly Preferred** that hatch seals should be checked and tested for tightness prior to each loading operation.
- T.3 Tunnels, if fitted, **MUST** be monitored for flammable vapours throughout the voyage and a log of atmosphere testing maintained.
- T.4 Operators **MUST** provide documented procedures for the changeover from dry to wet service, which **MUST** include the proving of lines, P/V valves and ancillary equipment.

## **APPENDIX A: ADDITIONAL CRITERIA FOR TERM CHARTERED TONNAGE.**

### **GENERAL INFORMATION**

The following requirements are additional to the criteria described in preceding sections and are a **MUST** for vessels wishing to be directly employed in ExxonMobil Affiliate Term Charter business. It should be noted that any deviation from the full requirements will be subject to review on a case-by-case basis and will be dependent on the size of vessel, type of vessel and products carried.

### **ADDITIONAL REQUIREMENTS**

#### **REPORTING REQUIREMENTS:**

All vessels employed under the terms and conditions of ExxonMobil affiliate Term Charter are required to submit within the first week of every month "Key Performance Indicators" (KPI's) for the previous month. These are to be sent direct to the Term Charter Co-ordinator by e-mail to: **msterm@exxonmobil.com**. The exact reporting requirements will be provided prior to the vessel being employed.

#### **THIRD PARTY VESSEL INSPECTIONS:**

All Term Chartered vessels shall be inspected by us prior to delivery or lifting of technical subjects. Thereafter, all Time Chartered vessels will be inspected at 6 (SIX) month intervals.

#### **REPORTING INCIDENTS:**

The vessel owner / operator **MUST** submit their shore emergency response organisation, personnel assignments and both office / after office hours telephone numbers.

#### **SECTION A. GENERAL INFORMATION:**

- No additional criteria.

#### **SECTION B. CREW MANAGEMENT :**

- Those officers who have immediate responsibility for cargo transfer **MUST** be in possession of the Certificates of Specialized Training as applicable to the type of cargo being carried.

STCW Code – Reg. B-I/12 & B-I/12.40

**SECTION C. CREW MATRIX REQUIREMENTS:**

- For Term chartered vessels it is **Strongly Preferred** that the experience of senior officers & engineers with the vessel operator to be:

Experience	<u>Senior Deck Officers</u> Master + Chief Off. (Combined)	<u>Senior Engineers</u> Chief Engr. + 2nd Engr. (Combined)
Operator	<p>&gt; Three (3) Calendar Years</p> <p>Of the three (3) years combined, Master should have minimum six (6) months &amp; Chief Off. should have minimum six (6) months (Sea Time)</p>	<p>&gt; Three (3) Calendar Years</p> <p>Of the three (3) years combined, Chief Engineer should have minimum six (6) months and 2nd Engineer should have minimum six (6) months (Sea Time)</p>

**SECTION D. NAVIGATION:**

- Vessels **MUST** be fitted with a Voyage Data Recorder.
  - For vessels >160kDWT, a dual axis Doppler Sonar Speed Log and a rate of turn indicator **MUST** be fitted
  - Vessels **MUST** be fitted with bridge wing repeaters for:
    - ✓ Rudder Angle
    - ✓ Propeller RPM
    - ✓ Pitch indication (where applicable)
  - Vessels **MUST** have weather fax capability.
  - The magnetic compass **MUST** be fitted with an off-course alarm facility.
  - Every vessel **MUST** have a steering system that complies with:
    - ✓ SOLAS 11/1 Regulation 29 Paragraph 16 or,
    - ✓ Paragraph 20, if built prior to 1st September 1984,
  - Vessels **MUST** be fitted with Satellite Communications.
  - Vessels **MUST** be fitted with a wind speed and direction indicator.
  - Vessels **MUST** have two gyro compasses or, one gyro compass and one transmitting magnetic compass.
- [VPQ CH. 4.2.1]
- The vessel **MUST** be fitted with a Depth Finder with capability of recording.
  - The vessel **MUST** be fitted with two GPS units.

- The vessel **MUST** be fitted with a Bridge Navigational Watch Alarm System (BNWAS).
- It is **Strongly Preferred** that the vessel is fitted with an IMO approved Electronic Chart Display and Information System (ECDIS).

#### **SECTION E. SAFETY AND SECURITY MANAGEMENT:**

- The Vessel **MUST** be fitted with an Anemometer display / monitoring repeater with a recorder (paper / digital) which is available in the Cargo Control Room and designed to be capable of setting a minimum of two desired alarms limits. This alarm should sound an audible and visual alarm in the CCR and on deck if the set limits are exceeded.

#### **SECTION F. POLLUTION PREVENTION:**

- Mechanical type scupper plugs **MUST** be fitted in the deck edge fishplate.
- Deck dump valves, with loop seals, into the slop tank(s), **MUST** be provided. For product ships where deck dump valves are not an option then at least 2 suitable sized non sparking spill pumps **MUST** be provided. The discharge to the slop tank **MUST** be hard piped, with suitable connections along the deck to accommodate spill location. Unless otherwise stated in the manufacturer's instructions, these portable pumps **MUST** be earthed at all times.
- All flexible hydraulic hoses exposed on deck **MUST** be replaced every 5 years. The company **MUST** have in place a procedure for inspection, testing and replacement of all such flexible hoses.
- It is **Strongly Preferred** that Vessels should have double skin Bunker Tanks, Lube Oil Tanks and other spaces containing pollutants.
- Vessels **MUST** be provided with adequate means for quick sampling and visual inspection of the segregated ballast waters prior to discharge.

#### **SECTION G. STRUCTURAL CONDITION:**

- Where Thermo Mechanical Controlled Process (TMCP) steel is employed it is **Strongly Preferred** that at least the bottom plating of all cargo tanks are protected by a hard coating.
- Aluminium anodes are **NOT** permitted in ballast tanks.
- For vessels built to classification rules other than the Common Structural Rules (CSR) for Double Hull oil tankers, the use of high strength steel should be limited to no more than 30% of the vessel's steel weight. If this is exceeded, a structural analysis **MUST** be carried out by a recognised Classification Society. The analysis

should incorporate a fatigue analysis that takes into account the anticipated trading pattern of the vessel.

- At every dry docking, all steel diminution that falls within the Classification Society definition of "substantial corrosion or renewal" **MUST** be repaired to the satisfaction of the attending Class Surveyor.
- On completion of each Enhanced Special Survey or Special Survey, documentation **MUST** be forwarded to the Term Charter Co-ordinator at the applicable vetting organisation for a structural evaluation review.

#### **SECTION H. CARGO AND BALLAST SYSTEMS:**

- The vessel **MUST** have MARPOL Segregated Ballast Tanks (SBT). If double hulled, the vessel **MUST** have a continuous longitudinal bulkhead in the cargo tanks in addition to the longitudinal bulkheads forming the cargo block.
- The vessel **MUST** be capable of handling at least 3 (THREE) grades of cargo whilst maintaining double valve segregation between grades.
- The vessel **MUST** be equipped with at least 3 (THREE) main cargo pumps. Cargo pump emergency stops **MUST** be fitted ;
  - ✓ In the Cargo Control Room
  - ✓ At the upper pumproom entrance
  - ✓ Near the manifold

Reciprocating pumps are **NOT** acceptable.

- Cargo manifolds, bunker connections and lifting equipment **MUST** meet OCIMF 'Recommendations for Oil Tanker Manifolds and Associated Equipment'. In addition, Vapour recovery connections **MUST** be provided fore and aft of the cargo manifold, port and starboard, and **MUST** also comply with the same OCIMF recommendations.
- Cargo valves on the manifold, seachest and pumproom bulkhead **MUST** be steel or approved ductile iron - Gate valves are preferred. The vessel **MUST** be fitted with a Cargo Control Room (CCR) with centralised cargo pump control, valve operation and remote tank level gauges and alarms.
- A **Class Approved** cargo computer **MUST** be fitted to calculate hull stresses. For double hull vessels, this computer **MUST** also calculate vessel stability and **MUST** provide a warning (alarm) of unstable or potentially unstable conditions.
- Tank level measuring devices and independent high level alarms **MUST** be installed in all cargo, slop and bunker tanks with remote readout and alarms in the CCR.
- Cargo tank vapour locks, properly calibrated, certified and capable of drawing liquid samples, **MUST** be fitted. The vessel's outfit **MUST** include at least 2 (TWO) portable electronic measuring tapes.
- High level alarms **MUST** be provided for bilges in all pumprooms and the engine room.
- Personal multiple gas detecting alarm units **MUST** be used by each person working in a potentially hazardous area.

- Pressure gauges **MUST** be fitted, port and starboard, in each manifold connection outboard of the manifold valve. This requirement may be waived upon application and justification for chemical carriers and multi-product carriers, which have a high number of manifolds, and where acceptable alternate arrangements are in place.
- Each gauge **MUST** be tested annually and a test record maintained onboard.
- For new build Term chartered vessel's slop tanks **MUST** be fitted with heating coils.
- For vessels that may carry aviation fuels, the cargo tanks, including heating coils/heat exchangers, **MUST** be free of copper, zinc, cadmium and their alloys.
- Atmosphere monitoring:
  - a) Vessels **MUST** have a fixed system to monitor for flammable atmospheres in the cargo pumproom(s), cofferdams and other spaces adjacent to the cargo block. (For example - ballast spaces on double side and/or double bottom vessels where explosive vapours may accumulate sensors **MUST** be fitted at the top and bottom of the pumproom).
  - b) In addition, if carrying cargoes that may contain H<sub>2</sub>S, the vessel **MUST** have a fixed system to monitor for H<sub>2</sub>S in the pumproom.
  - c) For vessels with ballast tanks in double side and/or double bottoms a method **MUST** be provided for inerting (where IGS is fitted) and purging with air in the event flammable gases are detected in their atmosphere.

#### **SECTION J. INERT GAS AND CRUDE OIL WASHING SYSTEM REQUIREMENTS**

- The vessel **MUST** be fitted with an IGS if it is to carryout COW.
- The vessel **MUST** have individual pressure/vacuum devices on each tank capable of venting at the maximum tank rate during loading or discharging.
- A stand-by Oxygen analyser **MUST** be fitted to serve as a back-up means in case of failure of the main O<sub>2</sub> analyser.
- Vessels **MUST** be fitted with IG tank pressure monitors on the bridge.
- All officers in charge of COW operations **MUST** have undergone a training program prior to assignment of COW responsibilities.

#### **SECTION K. MOORING:**

- The vessel **MUST** be fitted with closed chocks. *If required for the intended service* the vessel **MUST** be outfitted with equipment required for mooring at single point moorings. OCIMF guidelines may be used for determining these requirements, i.e. ;
  - ✓ Size and number of chocks.
  - ✓ Size, number and type of chain stoppers.

Other information is provided in the latest edition of the OCIMF Mooring Equipment Guidelines. Smith type brackets are NOT acceptable.

**SECTION L. COMMUNICATIONS:**

- No additional criteria.

**SECTION M. ENGINE ROOM AND STEERING GEAR:**

- It is **Strongly Preferred** that the Planned Maintenance System (PMS) is Class approved.

**SECTION N. GENERAL APPEARANCE:**

- No additional criteria.

**SECTION P. SHIP TO SHIP TRANSFER SUPPLEMENT:**

- Criteria to be determined by the trade.

**SECTION U. ENERGY EFFICIENCY AND FUEL MANAGEMENT:**

- Vessels **MUST** have systems and practices which will foster the pursuit of energy efficiency and greenhouse gas (GHG) reduction.

The objective is to have a proactive approach to energy efficiency and fuel management that includes improvement of a vessel and voyage efficiencies aimed at reducing greenhouse gas emitted by use of auditable, prioritised methodologies.

Systems will include identification of roles and responsibilities, with targets and methods for monitoring performance.

- Each vessel **MUST** develop a specific SEEMP (Ships Energy Efficiency Management Plan) that encourages improvements in Energy and Fuel efficiency practices, equipment, processes etc.  
This plan should list for each initiative the planning, the implementation with accountability, the monitoring method and the improvement goal.

The following initiatives may be used as guidance:

- Vessel Optimisation initiatives:
  - Weather Routing
  - Speed Optimization, Just in time arrival (Slowdown),
  - Trim Optimisation
- Propulsion Management Initiatives:
  - Improved Hull paint application
  - Hull and Propeller Maintenance

- Propulsion improvements
- Machinery Optimisation Initiatives:
  - Improved / Automated Engine Monitoring system,
  - Adjustment of Cylinder oil consumption,
  - Waste heat recovery / Steam heat loss survey
- Energy / Emissions Conservation Initiatives:
  - Review of electrical services on board,
  - VOC management Plan

All measures identified must be listed in the SEEMP with actions to be taken by the vessel or company. A method of measuring progress must be formulated to monitor the effectiveness and potential improvement.

- The above Plan **MUST** be reviewed at periodic intervals by Senior Management.
- In order to measure progress, a 'baseline' criterion is to be established. For compliance, management tools such as IMO recommended EEOI (Energy Efficiency Operational Index) MEPC Circ 684 may be adopted.
- To enable monitoring, real-time performance monitoring processes could be used by vessel and shore office, thus enabling implementation of prompt corrective action and comparison with similar vessels. This may provide benchmarking related to energy efficiency and process improvement.
- As part of the Companies' training program, personnel should be trained with regards to the content, aims and use of the Ship's Energy Efficiency Management Plan.

#### **CRITERIA FOR CHEMICAL, GAS AND COMBINATION CARRIERS:**

- Criteria to be determined by the trade.

## APPENDIX B: DRUG AND ALCOHOL DECLARATION

### Drug and Alcohol Policy

(sample)

### Blanket Declaration

To: International Marine Transportation Ltd/SeaRiver Maritime/Tonen General  
Marine Services Section  
Fax: +44 (0)1372 223854  
Tel : +44 (0)1372 222000

Re: Drug and Alcohol Policy

The undersigned warrants and represents that it has a policy on Drug and Alcohol Abuse ("Policy") applicable to all vessels which the undersigned now owns and/or operates and which, after the date of this certificate, the undersigned may own and/or operate. This Policy meets or exceeds the standards in the Oil Companies International Marine Forum Guidelines for the Control of Drugs and Alcohol Onboard Ship. Under the Policy, alcohol impairment shall be defined as a blood alcohol content of 40mg/100ml or greater; the appropriate seafarers to be tested shall be all vessel officers and ratings. The drug/alcohol testing and screening shall include unannounced testing in addition to routine medical examinations. An objective of the Policy should be that the frequency of unannounced testing be adequate to act as an effective abuse deterrent, and that all officers and ratings be tested at least once a year through a combined programme of unannounced testing and routine medical examinations.

The undersigned further warrants that the Policy will remain in effect unless you are otherwise specifically notified and that the undersigned shall exercise due diligence to ensure compliance with the Policy. It is understood that an actual impairment or any test finding of impairment shall not in and of itself mean the undersigned has failed to exercise due diligence.

**Company Name**

**Person signing on behalf of Company**

**Title or Authority held by person signing**

**APPENDIX C: MESQAC COMPLIANCE DECLARATION**

**Marine Environmental, Safety and Quality Assurance Criteria (MESQAC)  
for Seagoing vessels in ExxonMobil Affiliate Service**

(Sample)

**Blanket MESQAC Compliance Declaration**

To: International Marine Transportation Ltd / SeaRiver Maritime / Tonen General  
Marine Services Section

Re: MESQAC Compliance

This document is the undersigned vessel operator's (technical manager's) confirmation of its understanding and compliance with the Marine Environmental, Safety and Quality Assurance Criteria (MESQAC) for seagoing vessels offered for ExxonMobil affiliate service (in this context, "service" means Carrying ExxonMobil affiliate title cargo, chartered by ExxonMobil affiliates or calling at ExxonMobil affiliate facilities).

The undersigned vessel operator / technical manager warrants that it currently complies with and shall exercise due diligence to maintain compliance with such requirements while on ExxonMobil affiliate service.

The undersigned vessel operator / technical manager further warrants that all listed vessels\*, operated by the undersigned meet or exceed the requirements and standards in the MESQAC for seagoing vessels. If additional vessel(s) enter service the undersigned will submit an updated Blanket Declaration for that vessel(s).

The undersigned vessel operator / technical manager acknowledges that third party operated vessels that do not meet the "**MUST**" criteria will not be considered for ExxonMobil affiliate service, unless meeting certain of these criteria involves gas freeing or dry docking the vessel, or requires long lead times, in which case a limited period for further consideration of the vessel may be granted upon receipt of written confirmation that actions will be taken at the earliest opportunity, and an approved mitigating measure is in place. The undersigned further acknowledges that third party operated vessels not meeting those environmental and safety expectations described as "**strongly preferred**" may be disadvantaged in the selection process versus other vessels meeting those requirements.

**Company Name:**

**Person signing on behalf of Company:**

**Title or Authority held by person signing:**

**Date:**

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