

## **Guidance on type of inspections**

### **1. INTRODUCTION**

#### **1.1. General**

This document is intended to provide guidance during an initial, more detailed and expanded inspection.

#### **1.2. Goals and purpose**

The goal of this guidance is to provide Port State Control Officers (PSCO) with procedures how to carry out an initial, more detailed or expanded inspection.

#### **1.3. Application**

This guidance is applicable for all ships.

On the following ships it is required carrying out an expanded inspection:

- 1.3.1 Risk Ship Type (Oil Tanker, Bulk Carrier, Passenger Ship, Gas Carrier, Chemical Tanker which are more than 12 years old)
- 1.3.2 High Risk Ship

#### **1.4. Relevant documentation**

Paris MoU manual (latest revision)<sup>1</sup>  
PSCC Instructions

#### **1.5. Definitions and abbreviations**

The PSCC Instruction containing “Definitions and Abbreviations” serves as general document and is to be used in conjunction with this Paris MoU document.

##### **1.5.1 Definitions**

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|----------------------|---|
| Expanded inspection: | An inspection, which covers at least the items listed in Annex 1. An expanded inspection may include a more detailed inspection whenever there are clear grounds.   |
| Initial inspection:  | An inspection to check compliance with the relevant Conventions and regulations and the PSCO is satisfied with the overall condition of the ship, including the hygiene of the ship, including engine room and accommodation. |

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<sup>1</sup> Reference should also be made to appropriate national / regional legislation.

## **2. INSPECTION OF SHIP**

### **2.1 Initial Inspection**

Initial inspection means a visit on board a ship by a PSCO, in order to check compliance with the relevant Conventions and regulation and verifies, where appropriate, whether outstanding deficiencies found during the previous inspections carried out have been rectified and satisfies himself of the overall condition of the ship.

### **2.2 Clear grounds**

In the absence of valid certificates or documents or after the establishment of clear grounds, the PSCO will:

1. conduct a more detailed inspection in the area(s) where clear grounds were established;
2. carry out a more detailed inspection in other areas at random; and
3. include further checking of compliance with on board operational requirements by carrying out operational controls see PSCCInstruction Guidance on procedures for operational controls.

According to Annex 9, Section 6 of the Memorandum the following are examples for clear grounds for a more detailed inspection:

- .1 ships with overriding or unexpected factors as listed in Annex 8;
- .2 during examination of the certificates and documents referred to in Annex 10 of the Memorandum, inaccuracies have been revealed or the documents have not been properly kept, updated, or they have been falsely maintained;
- .3 indications that the relevant crew members are unable to communicate appropriately with each other, or with other persons on board, or that the ship is unable to communicate with the shore-based authorities either in a common language or in the language of those authorities;
- .4 a certificate has been fraudulently obtained or the holder of a certificate is not the person to whom that certificate was originally issued;
- .5 the ship has a master, officer or rating holding a certificate issued by a country which has not ratified the STCW Convention;
- .6 evidence of cargo and other operations not being conducted safely or in accordance with the IMO guidelines;
- .7 failure of the master of an oil tanker to produce the record of the oil discharge monitoring and control system for the last ballast voyage;
- .8 absence of an up-to-date muster list, or crew members not aware of their duties in the event of fire or an order to abandon the ship;
- .9 the emission of false distress alerts not followed by proper cancellation procedures;
- .10 the absence of principal equipment or arrangements required by the conventions;
- .11 evidence from the Port State Control Officer's general impressions and observations that serious hull or structural deterioration or deficiencies exist that may place at risk the structural, watertight or weather tight integrity of the ship;

- .12 information or evidence that the master or crew is not familiar with essential shipboard operations relating to the safety of ships or the prevention of pollution, or that such operations have not been carried out;
- .13 the absence of a table of shipboard working arrangements or records of hours of work or rest of seafarers;
- .14 the ship has changed flag for the purpose of avoiding compliance with the MLC or the ship flies the flag of a State that has not ratified the MLC, 2006;
- .15 there is a complaint alleging that specific working and living conditions on the ship do not conform to the requirements of the MLC, 2006 or following investigation of an on shore complaint;
- .16 the working and living conditions on the ship do not conform to the requirements of the MLC.

## 2.3 More Detailed Inspection

In the exercise of a more detailed inspection the PSCO will take into account:  
the provisions of this instruction;  
the provisions of the International Maritime Dangerous Goods Code;  
the provisions of the PSCCInstructions for PSCO's and Annex 2 of the Memorandum, as appropriate.

Guidance on areas not covered by specific PSCCInstructions:

### 2.3.1 Structure

The PSCO's impression of hull maintenance and the general state on deck, the condition of such items as ladder ways, guard-rails, pipe coverings and areas of corrosion or pitting will influence the PSCO's decision as to whether it is necessary to make the fullest possible examination of the structure with the ship afloat. Significant areas of damage or corrosion, or pitting of plating and associated stiffening in decks and hull affecting seaworthiness or strength to take local loads, may justify detention. It may be necessary for the underwater portion of the ship to be checked. In reaching a decision, the PSCO will have regard to the seaworthiness and not the age of the ship, making an allowance for fair wear and tear over the minimum acceptable scantlings. Damage not affecting seaworthiness will not constitute grounds for judging that a ship should be detained, nor will damage that has been temporarily but effectively repaired for a voyage to a port for permanent repairs. However, in this assessment of the effect of damage, the PSCO will have regard to the location of crew accommodation and whether the damage substantially affects its habitability.

The PSCO will pay particular attention to the structural integrity and seaworthiness of bulk carriers and oil tankers (IMO Resolution A.744(18) as amended).

The PSCO's assessment of the safety of the structure of those ships will be based on the Survey Report File carried on board. This file should contain reports of structural surveys, condition evaluation reports (translated into English and endorsed by the flag State Administration), thickness measurement reports and a survey planning document.

If the Survey Report File necessitates a more detailed inspection of the structure of the ship or if no such report is carried, special attention will be given by the PSCO, as appropriate, to hull structure, piping systems in way of cargo tanks or holds, pump-rooms, cofferdams, pipe tunnels, void spaces within the cargo area, and ballast tanks.

For bulk carriers, PSCO's will inspect holds' main structure for any obviously unauthorized repairs. Where applicable, for bulk carriers the PSCO will verify that the bulk carrier booklet has been endorsed, that any restrictions imposed on the carriage of solid bulk cargoes have been recorded in the booklet, that the bulk carrier loading triangle is permanently marked and that water level alarms in cargo holds are fitted.

### 2.3.2 Machinery spaces

The PSCO will assess the condition of the machinery and of the electrical installations such that they are capable of providing sufficient continuous power for propulsion and for auxiliary services.

During inspection of the machinery spaces, the PSCO will form an impression of the standard of maintenance. Frayed or disconnected quick-closing valve wires, disconnected or inoperative extended control rods or machinery trip mechanisms, missing valve hand wheels, evidence of chronic steam, water and oil leaks, dirty tank tops and bilges or extensive corrosion of machinery foundations are pointers to an unsatisfactory organization of the systems' maintenance.

A large number of temporary repairs, including pipe clips or cement boxes, will indicate reluctance to make permanent repairs.

While it is not possible to determine the condition of the machinery without performance trials, general deficiencies, such as leaking pump glands, dirty water gauge glasses, inoperable pressure gauges, rusted relief valves, inoperative or disconnected safety or control devices, evidence of repeated operation of diesel engine scavenge belt or crankcase relief valves, malfunctioning or inoperative automatic equipment and alarm systems, and leaking boiler casings or uptakes, would warrant inspection of the engine room log book and investigation into the record of machinery failures and accidents and a request for running tests of machinery.

If one electrical generator is out of commission, the PSCO will investigate whether power is available to maintain essential and emergency services and should conduct tests.

If evidence of neglect becomes evident, the PSCO will extend the scope of an investigation to include, for example, tests on the main and auxiliary steering gear arrangements, overspeed trips, circuit breakers, etc.

It must be stressed that while detection of one or more of the above deficiencies would afford guidance to a substandard condition, the actual combination is a matter for professional judgement in each case.

### 2.3.3 Conditions of assignment of load lines

It may be that the PSCO has concluded that a hull inspection is unnecessary but, if dissatisfied on the basis of observations on deck, with items such as defective hatch closing arrangements, corroded air pipes and vent coamings, the PSCO will examine closely the conditions of assignment of load lines, paying particular attention to closing appliances, means of freeing water from the deck and arrangements concerned with the protection of the crew.

#### 2.3.4 Life-saving appliances

The effectiveness of life-saving appliances depends heavily on good maintenance by the crew and their use in regular drills. The lapse of time since the last survey for a Safety Equipment Certificate can be a significant factor in the degree of deterioration of equipment if it has not been subject to regular inspection by the crew. Apart from failure to carry equipment required by a convention or obvious defects such as holed lifeboats, the PSCO will look for signs of disuse of, or obstructions to, survival craft launching equipment which may include paint accumulation, seizing of pivot points, absence of greasing, condition of blocks and falls and improper lashing or stowing of deck cargo.

Should such signs be evident, the PSCO will be justified in making a detailed inspection of all life-saving appliances. Such an examination might include the lowering of survival craft, a check on the servicing of life rafts and any fitted marine evacuation system a check of means of recovery of survivors, the number and condition of life jackets and lifebuoys and ensuring that the pyrotechnics are still within their period of validity. It would not normally be as detailed as that for a renewal of the Safety Equipment Certificate and would concentrate on essentials for safe abandonment of the ship, but in an extreme case could progress to a full Safety Equipment Certificate inspection.

The provision and functioning of effective overside lighting, means of alerting the crew and passengers and provision of illuminated routes to assembly points and embarkation positions will be given importance in the inspection.

#### 2.3.5 Fire safety

The poor condition of fire and wash deck lines and hydrants and the possible absence of fire hoses and extinguishers in accommodation spaces might be a guide to a need for a close inspection of all fire safety equipment. In addition to compliance with convention requirements, the PSCO will look for evidence of a higher than normal fire risk; this might be brought about by a poor standard of cleanliness in the machinery space, which together with significant deficiencies of fixed or portable fire-extinguishing equipment could lead to a judgement of the ship being substandard.

The PSCO will examine the fire control plan on board in order to obtain a general picture of the fire safety measures provided in the ship and consider their compliance with convention requirements for the year of build. Queries on the method of structural protection will be addressed to the flag State Administration and the PSCO will generally confine the inspection to the effectiveness of the arrangements provided.

The spread of fire could be accelerated if fire doors are not readily operable. The PSCO will inspect for the operability and securing arrangements of those doors in the main zone bulkheads and stairway enclosures and in boundaries of high fire risk spaces, such as main machinery rooms and galleys, giving particular attention to those retained in the open position. Attention will also be given to main vertical zones which may have been compromised through new construction. An additional hazard in the event of fire is the spread of smoke through ventilation systems. Spot checks might be made on dampers and smoke flaps to ascertain the standard of operability. The PSCO will also ensure that ventilation fans can be stopped from the master controls and that means are available for closing main inlets and outlets of ventilation systems.

Attention will be given to the effectiveness of escape routes by ensuring that vital doors are not maintained locked and that alleyways and stairways are not obstructed.

#### 2.3.6 Regulations for preventing collisions at sea

A vital aspect of ensuring safety of life at sea is full compliance with the collision regulations. Based on observations on deck, the PSCO will consider the need for close inspection of lanterns and their screening and means of making sound and distress signals.

#### 2.3.7 Cargo Ship Safety Construction Certificate

The general condition of the ship may lead the PSCO to consider matters other than those concerned with safety equipment and assignment of load lines, but nevertheless associated with the safety of the vessel, such as the effectiveness of items associated with the Cargo Ship Safety Construction Certificate, which can include pumping arrangements, means for shutting off air and oil supplies in the event of fire, alarm systems and emergency power supplies.

#### 2.3.8 Cargo Ship Safety Radio Certificates

The validity of the Cargo Ship Safety Radio Certificates and associated Record of Equipment (Form R) may be accepted as proof of the provision and effectiveness of its associated equipment, but the PSCO will ensure that appropriate certificated personnel are carried for its operation and for listening periods.

Requirements for maintenance of radio equipment are contained in SOLAS. The radio log or radio records will be examined. Where considered necessary, operational checks may be carried out.

#### 2.3.9 Equipment in excess of convention or flag State requirements

Equipment on board which is expected to be relied on in situations affecting safety or pollution prevention must be in operating condition. If such equipment is inoperative and is in excess of the equipment required by an



appropriate convention and/or the flag State, it should be repaired, removed or, if removal is not practicable, clearly marked as inoperative and secured.

## 2.4 Expanded Inspection

An expanded inspection shall include a check of the overall condition, including human element where relevant, in the following risk areas:

1. Documentation
2. Structural condition
3. Water/Weathertight condition
4. Emergency systems
5. Radio communication
6. Cargo operations
7. Fire safety
8. Alarms
9. Living and working conditions
10. Navigation equipment
11. Life saving appliances
12. Dangerous Goods
13. Propulsion and auxiliary machinery
14. Pollution prevention

and subject to their practical feasibility or any constraints relating to the safety of persons, the ship or the port, verification of the specific items in these risk areas as listed in Annex 1 of this instruction must be part of an expanded inspection. The PSCO must use professional judgement to determine the appropriate depth of examination or testing of each specific item.

PSCOs must be aware that it may jeopardise the safe execution of certain on-board operations, e.g. cargo handling, if tests having a direct effect thereon are required to be carried out during such operations.

The inspection will take account of the human elements covered by ILO, ISM and STCW and include operational controls as appropriate.

Note: Specific items are not listed for all of the risk areas mentioned in Annex 1 of this instruction. For areas without specific items the PSCO must use professional judgement in deciding which items to inspect in order to check the overall condition in these areas.

## **Annex 1 Specific items to be inspected during an expanded inspection**

### **1. All Ship Types**

- Structural condition

- Condition of hull and deck
- Water/Weathertight condition
  - watertight/weathertight doors
  - ventilators, air pipes and casing
  - hatchways
- Emergency systems
  - Simulated black-out/start of emergency generator
  - Emergency lighting
  - Test of bilge pumping arrangements
  - Test of closing devices/ watertight doors
  - Test of steering gear incl. emergency steering gear
- Radio communication
  - Test of reserve source of energy
  - Test of main installation including facilities for reception of marine safety information
  - Test of GMDSS portable VHF sets
- Fire safety
  - Fire drill including a demonstration of the ability to use firemen's outfits and fire fighting equipment and appliances
  - Test of emergency fire pump (with 2 hoses)
  - Test of remote emergency stopping ventilation and associated dampers
  - Test of remote emergency stopping fuel pumps
  - Test of remote quick closing valves
  - Fire doors
  - Fixed fire extinguishing installations and associated alarms
- Alarms
  - Test of the fire alarm
- Living and working conditions
  - The seafarers' employment agreement,
  - The fulfilment of requirements for hours of work or hours of rest,
  - The standard of accommodation,
  - The food and catering facilities,
  - The facilities for on board medical care
  - The risk evaluation, programmes, training and instruction, accident report and protective equipments.
- Life saving appliances
  - Launching arrangements for survival and rescue craft (if evidence of disuse, craft to be lowered to the water)
- Pollution prevention
  - Test of oil filtering equipment

## **2. Bulk carrier/OBO (if carrying solid bulk cargo)**

In addition to the items listed under 1, the following items are to be considered as part of the expanded inspection for bulk carriers:



- Documentation
  - Verification that the following documents are on board, complete and endorsed by the flag state or recognised organisation:
    - The enhanced survey programme (ESP) including:
      - Reports of structural survey
      - Thickness measurement reports
      - Condition evaluation reports
  - Check whether the cargo carried is allowed by the DoC for Dangerous Goods
  - Approval for loading instruments
- Structural condition
  - Condition of bulkheads and coamings
  - Ballast tanks
    - At least one of the ballast tanks within the cargo area to be examined from tank manhole/deck access or entered if the inspector establishes clear grounds based on observation and the ESP records.

### **3. Gas carrier, chemical tanker**

In addition to the items listed under 1, the following items are to be considered as part of the expanded inspection for gas and chemical tankers:

- Documentation
  - Check whether the product carried is on the relevant Certificate of Fitness
- Cargo operations
  - Cargo tank monitoring and safety devices relating to temperature, pressure and ullage
  - Oxygen analysing and explosimeter devices, including their calibration. Availability of chemical detection equipments (bellows) with an appropriate number of suitable gas detection tubes for the cargo carried
  - Test of deck shower
- Fire safety
  - Test of fixed fire fighting installations on deck (as required by the product carried)
- Living and working condition
  - Cabin escape sets with respiratory and eye protection if required by the products listed in the relevant Certificate of Fitness

### **4. General cargo, Container ship, Refrigerated cargo carrier, Factory ship, Heavy load carrier, Offshore service ship, Special purpose ship, MODU, FPSO, Other types of ship**

In addition to the items listed under 1, the following items are to be considered as part of the expanded inspection for the ship types of the section heading:

- Watertight/Weathertight condition
  - Condition of hatch covers
  - Access to cargo holds/tanks
- Cargo operations
  - Loading equipment
  - Lashing arrangements

## **5. Oil tanker/OBO (if carrying liquid cargo)**

In addition to the items listed under 1, the following items are to be considered as part of the expanded inspection for oil tankers:

- Documentation
  - Verification that the following documents are on board, complete and endorsed by the flag state or recognised organisation:
    - The enhanced survey programme (ESP) including:
      - Reports of structural survey
      - Thickness measurement reports
      - Condition evaluation reports
  - Foam certificate for deck foam system
- Structural condition
  - Ballast tanks
    - At least one of the ballast tanks within the cargo area to be examined from tank manhole/deck access or entered if the inspector establishes clear grounds based on observation and the ESP records.
- Fire safety
  - Fixed deck foam system
  - Control of pressure of inert gas and oxygen content thereof

## **6. Passenger HSC, Passenger ship, Ro-Ro passenger ship**

In addition to the items listed under 1, the following items are to be considered as part of the expanded inspection for passenger ships:

- Documentation
  - Documented evidence of:
    - Crowd-management training
    - Familiarisation training
    - Safety training for personnel providing direct safety assistance to passengers in passenger spaces, and in particular to elderly and disabled persons in an emergency
    - Crisis management and human behaviour training

- Watertight/Weathertight condition
  - Bow and stern doors as applicable
  - Test of remote and local controls of watertight bulkhead doors
- Emergency systems
  - Crew familiarity with damage control plan
- Cargo operations
  - Lashing arrangements as applicable
- Fire safety
  - Test of remote and local controls for the closing of fire dampers
- Alarms
  - Test of public address system
  - Test of fire detection and alarm system
- Life saving appliances
  - Abandon ship drill (including lowering a rescue and a life boat to the water)

If deemed appropriate, the inspection may be continued while the ship is on passage to or from ports of member States with the consent of the master or the operator. PSCOs must not obstruct the operation of the ship or induce situations that, in the master's judgement, could endanger the safety of the passengers, the crew or the ship.

## **7. RO-RO CARGO SHIP**

In addition to the items listed under 1, the following items are to be considered as part of the expanded inspection for Ro-Ro cargo ships:

- Water/Weathertight condition
  - Bow and stern doors
- Cargo operations
  - Lashing arrangements