

DNV Guide On Port State Control

Background, Objective, Target Group & Targets

Background

In order to phase out substandard ships, Port State Control (PSC) has been intensified world-wide in the nineties to ensure compliance with applicable requirements for safety, pollution prevention and manning conditions on board. Substandard or non-compliant ships are detained and can not leave the port until reported serious/detainable deficiencies have been rectified. This of course implies possible delay and financial losses to ship operators.

DNV has developed this guide to further enhance compliance with requirements for safety and pollution prevention on board. Compliance can be achieved by effective implementation of an acceptable safety management system including preventive maintenance. DNV Guide on PSC provides an additional tool to focus on **preventive maintenance** on board.

Objective

The objective of DNV Guide on PSC is to help achieve compliance with requirements for safety and pollution prevention through **preventive maintenance** on board. Thus, enhance preparedness for Port State Control inspections, Flag State inspections and class surveys.

Target Group

DNV Guide on PSC is aimed at all personnel both on board and at the Company involved in ship management, operation, maintenance, inspection and control.

The user will find photographs for items normally need extra attention between surveys and during the operation of the ship, based on experience and statistics. Each photograph has a text on "What to look for" and has one or more "hot spot" that can give additional text.

Targets

In addition to increased focus on preventive maintenance of items that result in the most common and critical deficiencies, DNV Guide on PSC shall help the user to become familiar with:

- the **definitions** used in connection with Port State Control
- the **legal basis** for Port State Control
- the importance of the **preventive maintenance**
- the importance of **class attendance**
- the importance of having all **required documentation** available prior to port arrival
- the **inspection types** of Port State Control
- Port State Control & **Cargo Operations**
- Port State Control & **Manning**
- Port State Control & **Safety Management**

Definitions Used In Connection With Port State Control

Clear grounds: Evidence that the ship, its crew or its safety management system does not comply with the requirements of the relevant conventions. Such evidence needs not necessarily be a deficiency, but may be an incident, and accident or and indication of substantial non-compliance/detainable deficiencies.

Deficiency: Non-compliance, discrepancy or deviation from the requirements of the relevant instruments/conventions.

Detainable Deficiency: A deficiency that presents an immediate threat to the ship, its personnel or the environment, which renders the ship unsafe to proceed to sea.

Detention: Intervention action taken by the port State in case of detainable deficiencies or substantial non-compliance to ensure that the ship does not sail until detainable deficiencies have been rectified.

Expanded inspection: An inspection conducted according to non-mandatory guidelines only once during 12 months period for certain types of ships (tankers, bulkers and passenger ships) and certain categories of age and size.

Inspection: A visit on board a ship to check both the validity of relevant certificates and other documents, and the overall condition of the ship, its equipment, and its crew.

More detailed inspection: An inspection conducted when there are clear grounds for believing that the condition of the ship, its equipment, or its crew does not comply with the requirements of the relevant conventions. The inspection may focus on one area or be across various areas.

Port State Control Officer (PSCO): A person duly authorised by a Port State authority to carry out port State control inspections, and responsible exclusively to that authority

Recognised organisation: An organisation which meets the relevant conditions set forth by resolution A.739(18), and has been delegated by the flag State Administration to provide the necessary statutory services and certification to the ships entitled to fly its flag.

Serious Deficiency: A deficiency that may present an immediate threat to the ship, its personnel or the environment, and that could be qualified as a detainable deficiency.

Stoppage of an operation: Formal prohibition against a ship to continue an operation due to identified deficiency that, singly or together, render the continuation of such operation hazardous.

Substandard ship: A ship whose hull, machinery, equipment, or operational safety is substantially below the standards required by the relevant convention or whose crew is not in conformance with the safe manning document.

Valid certificate: A certificate that has been issued directly by a Flag Administration or on its behalf by a recognised organisation and contains accurate and effective dates; meets the provisions of the relevant convention; and with which the particulars of the ship, its crew and its equipment correspond.

Legal Basis for Port State Control

Conventions, protocols, codes & resolutions:

Port State Control inspections (PSC) is exercised on the legal basis specified in applicable regulations specified in the following International instruments:

- SOLAS
 - LOAD LINE
 - MARPOL
 - STCW
 - COLLREG
 - TONNAGE
 - ISM
 - ILO 147
 - BCH CODE
 - IGC CODE
 - IBC CODE
 - IMO Res. A.787(19)

Regulation 19 specify the control procedure in SOLAS

Article 21 “ “ “ “ “ Load Lines 66 Convention.

“ 5 “ inspection procedures of ships

“ X and Regulation I/4 specify the control procedures of STCW

Furthermore, IMO resolution A.787(19), adopted on 23 November 1995, describes in more details "Procedures for Port State Control".

To exercise control of the provisions of the Codes is covered by SOLAS. An overview of mandatory certificates and mandatory documentation are listed later in this document.

Importance of Preventive Maintenance

Due to the operation of the ship and exposure to environmental conditions, such as air, humidity, heat and seawater, the ship and its equipment deteriorate. Further, as the time passes by, certain documentation, services and equipment become invalid, out-dated or non-compliant.

This makes maintenance necessary in order to maintain compliance with the applicable requirements on safety and pollution prevention. Operators carry out maintenance either as corrective maintenance or preventive maintenance.

Corrective maintenance means taking corrective actions **after** deficiencies have occurred. Corrective maintenance is an **unacceptable** approach as it implies that at times deficiencies can be found on board compromising the safety of the ship, its personnel and the environment. When serious deficiencies are found during class surveys, Flag State inspections or Port State inspection, the ship may be detained until rectification.

Preventive maintenance means taking preventive actions **before** deficiencies occur. This means continuous compliance, no deficiencies on board and therefore no ground for detention.

Every Company, master and/or responsible officers should remind themselves of the provisions of SOLAS Regulation I/11 “Maintenance of condition after survey”, which states that;

The condition of the ship and its equipment shall be maintained to confirm with the provisions of the present regulations to ensure that the ship in all respects will remain fit to proceed to sea without danger to the ship or persons on board.

This means that the ship shall in all respect be kept to the same standard as it was when inspected and the applicable certificate(s) issued.

Necessary maintenance of the ship to keep its standards are necessary, otherwise the requirements of SOLAS Reg. I/11 is not complied with.

Lack of maintenance may result in deterioration of the ship’s standards to a degree that it is considered by the PSCO “*not in all respect fit to proceed to sea*”. This may be considered clear grounds for **the PSCO on the basis of the provisions of SOLAS Regulation I/11, for more detailed inspections or detention.**

Otherwise *clear grounds* means also that the PSCO has found that the ship, its equipment, or its crew does not corresponds substantially with the provisions of the relevant conventions. Also when the master or crewmembers are not familiar with essential shipboard procedures relating to the safety of the ship or prevention of pollution, this may be considered as clear grounds.

Even though the condition is that the ship’s standards shall correspond to the applicable provisions of Conventions after survey, normal wear and tear resulting in deterioration of the overall standards pending on ships age, should be kept in mind when inspections are carried out.

However, the master and/or responsible officer(s) should always maintain the ship's condition to a highest possible maintenance level to be prepared for possible inspections also by PSCO. They should consider whether any inspection items could be a problem for the ship concerned, and if that is the case take necessary steps to improve the condition so that the standards correspond to the particular provisions of applicable Conventions.

Importance of Class Attendance In Connection with PSC Detention

In cases of detention, it is important to request class surveyor to attend on board as soon as possible because of:

- The operator/owner has an **obligation to notify the class society immediately** in case of deficiencies or discrepancies that significantly affect certificates issued by the society.
- The class surveyor shall communicate and co-operate with the PSCO in order to **expedite the release of the ship**. This may include clarification on applicability, interpretation, temporary rectification and alternative solutions.
- The class surveyor can offer an acceptable mechanism (Conditions of Class) for following up outstanding deficiencies that can not be rectified before leaving ports.

List of Documentation & Requirement According to Ship Type

1	International Tonnage Certificate (1969) (Int. Tonnage Conv. 1969)	ITC
2	Passengers Ship Safety Certificate (SOLAS 74/Ch. I/7)	PSSC
3	Cargo Ship Safety Construction Certificate (SOLAS 74/CH. I/10)	SAFCON
4	Cargo Ship Safety Equipment Certificate (SOLAS 74/Ch. I/8)	CSSEC
5	Cargo Ship Safety Radio Radiotelegraphy Certificate (SOLAS 74/CH. IV)	
6	Cargo Ship Safety Radio telephony Certificate “	SRC
7	Cargo Ship Safety Certificate (Comb. Cert. SOLAS Ch. I/8-9-10)	CSSC-HSSC
8	Exemption Certificate)(SOLAS 74/Ch.I/4)	EXMC
9	Document of Compliance)(SOLAS 74 R II-2/54)	DOC/IMD G
10	Trading Certificate or Trading Permit (National Req. Pending Flag)	TC/TP
11	International Certificate of Fitness for the Carriage of Liquefied Gases in Bulk; Certificate of Fitness for the Carriage of Liquefied Gases in Bulk (SOLAS Ch. VII, IGC-Code)	ICLFLG B
12	International Certificate of Fitness for the Carriage of Dangerous Chemical in bulk; Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk or the ships P & A Manual(SOLAS 7/ MARPOL 73/78 – Annex II/IBC-Code)	ICFCBCH
13	International Oil Prevention Certificate(MARPOL 73/78 Annex II/5)	IOPP
14	International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in bulk(MARPOL 73/78 Annex II/11)	IOPP- NOX
15	International Load Line Certificate (1966); International Load Line Exemption Certificate(Int. LL Conv. Article 16)	ILLC
16	Oil Record Book part I(MARPOL Annex I/20)	ORB –I
17	Oil Record Book part II (MARPOL 73/78 Annex I/20)	ORB-II
18	Oil Record Book Chemicals (MARPOL 73/78 Annex II/9)	ORBCH
19	Cargo Record Book(MARPOL Annex II/9)	CRB
20	Cargo Gear Record Book(ILO Conv. 134 Article 4.3e)	CGRB
21	Minimum Safe Manning Document; Certificates of Competency (SOLAS74 Ch.V/13)	MSMD
22	Medical certificates, Cf. ILO Conv. No 73 concerning Medical Examination of seafarers	MEDC
23	Approved Stability information (SOLAS 74 Ch. II-1/22)	ASTABI
24	Approved Shipboard Oil Pollution Emergency Plan(MARPOL Annex I/26)	SOPEP
25	Safety Management Certificate (1 July 1998) pending ship type(SOLAS Ch. IX/4 – ISM – Code)	ISMC
26	Classification Certificate of the hull, electrical and machinery installations issued by the classification society if the ship is classed (SOLAS 74 Ch. I/7 and I/10)	CSHMIC
27	Survey Report Filed(in case of bulk carriers or oil tankers)	SRF
28	Report of previous Port State Control inspections	RPPSCI
29	For ro-ro passenger ships, information on A/Amax ratio	Ro/Ro Max-Rat
30	Valid Certificate for inflatable life-rafts and Free-Float release equip(SOLAS Ch.	.CILF/FFR

	III/19.8 and III/19.9)	
31	Valid Certificate for fixed fire-fighting equipment. (SOLAS Ch. I/7 and I/10)	CFFFEQ
32	Garbage Record Book (Mandatory as from 1 July 1998)) (MARPOL Annex V)	(GRB
33	Dangerous goods manifest or stowage plan (SOLAS VII/5(5)MARPOL Annex III/4)	DGMSP
34	Document of authorisation for the carriage of grain (SOLAS VI/9)	DAFCG
35	Certificate of insurance or other financial security in respect of civil liability For pollution damage(CLC 69, art VII)	CLC
36	Approved cargo securing manual(SOLAS VI/5.6 and VII/5.6)	ACSM

Certificate/ Document	Passenger Ship	Dry Cargo Ship	Oil Tankers	Bulk Carriers	Chemical Carriers	Liquefied Gas Carriers
ITC	X	X	X	X	X	X
PSSC	X					
SAFCON		X	X	X	X	X
CSSEC		X	X	X	X	X
SRC RAD		X	X	X	X	X
CSSC-HSSC	NM	NM	NM	NM	NM	NM
EXMC	X	X	X	X	X	X
DOC/IMDG		X				
TC/TP						
ICLFCLGB						X
ICFCBCH					X	
IOPP-NOX					X	
ILLC	X	X	X	X	X	X
ORB-I	X	X	X	X	X	X
ORB-II			X			
ORBCH					X	
CRB					X	
CGRB	X IF EQI	X	X	X IF EQI	X	X
MSMD	X	X	X	X	X	X
MEDC	X	X	X	X	X	X
ASTABI	X	X	X	X	X	X
SOPEP	X	X	X	X	X	X
ISMC	X		X	X	X	X
CSHMIC	X	X	X	X	X	X
SRF			X	X		
RPPSCI	X	X	X	X	X	X
Ro/Ro Max Rat	X					
CILF/FFR	X	X	X	X	X	X
CFFFEQ	X	X	X	X	X	X
GRB	X	X	X	X	X	X
IOPP	X	X	X	X	X	X
DGSMP	X	X				

DAFCG		X		X		
CLC	X	X	X	X	X	X
ACSM	X	X				

If the ship does not have the relevant valid documentation's (certificates), it would be a criteria for a detainable deficiency or clear grounds for more a detailed inspection.

In addition to the general control of above listed certificate and documents, examinations/inspections of the following will normally be given priority by PSCO:

Nautical publication	(SOLAS 74 R V/20)
Navigational equipment	(SOLAS 74 R V/12 and 19)
Emergency starting and running tests	(SOLAS 74 R II-2 - 4.3)
Lifesaving equipment. Rafts FF	(SOLAS 74 R III/20, 23, 26 and 29)
Emergency Generator (start/stop only)	(SOLAS 74 R II-1/42&43)
Hull corrosion and damages (Load Lines)	(SOLAS 74 R I/11)
Main engine & aux. engines	(SOLAS 74 R II/26, 27 &28)
Oily water separator 15 ppm alarm	(MARPOL Annex I/16(1))
Oil discharge monitor (ODM)	(MARPOL Annex I/16)
Charts corrected and proper scale	(SOLAS 74 R V/20)
Fire safety Control plan	(SOLAS 74 R II-2/20)
Ventilation inlets/outlets	(SOLAS 74 R II-2/16.9 & 48)
Emergency training and drills	(Log book rec. SOLAS 74 R III/18)
Emergency lighting/batteries	(SOLAS 74 R II/42 &43)
Deck- and hatches corrosion and damages	(LL 1966)
Steering gear – incl. auxiliary & emergency	(Bridge inspection only – SOLAS 74 R V/19)
Cleanliness in engine room	(SOLAS 74 R II-1/26 and ILO 134)
Cleanliness in accommodation	(ILO 92 & 133)

Inspection Types of Port State Control

Every ship should be prepared for survey and/or inspection by a Port State Control Officer (PSCO). The PSCO shall prior to any Port State Control inspection follow applicable procedure by introducing himself to the master and/or the responsible officers on board prior to the control. Every PSCO shall be duly qualified to conduct Port State Control inspections.

Port State Control Inspections may be conducted on the following basis:

- 1 initiative of the Port State Administration;
- 2 the request of, or on the basis of, information regarding a ship provided by another Administration
- 3 information regarding a ship provided by a member of the crew, a professional body, an association, a trade union or any other individual with an interest in the safety of the ship, its crew and passengers, or the protection of the marine environment.

PSC inspections may be on random, targeted or periodical basis. The following types of PSC inspections are used in PSC:

1. **Initial Inspection** (random)
2. **More detailed inspection** (escalated)
3. **Expanded inspection** (targeted/periodical)

1. Initial Inspection

The PSCO will normally examine the vessels relevant certificates and documents etc. and the overall condition of the ship.

The certificates and documents listed above should therefore be readily available and presented to the PSCO at his request.

2. More detailed inspection

An inspection conducted when there are **clear grounds** for believing that the condition of the ship, its equipment, or its crew does not comply with the requirements of the relevant conventions. The inspection may focus on one area or be across various areas.

The following may be considered to be clear grounds for more detailed inspections by a PSCO:

1. the absence of principle equipment or arrangements required by the conventions;
2. evidence from the review of the ship's certificates that a certificate or certificates are clearly invalid;

3. evidence that the ship's logs, manuals or other documentation are not on board, are not maintained, or are falsely maintained;
4. in the opinion of the PSCO's general impression and observation serious hull or structural deterioration or deficiencies exist that may place at risk the structural, watertight or weathertight integrity of the ship;
5. in the opinion of the PSCO's general impression or observation serious deficiencies exist in the safety, pollution prevention, or navigational equipment;
6. information or evidence that the master or crew is not familiar with essential shipboard operations relating to safety of ships or the prevention of pollution, or that such operations have not been carried out
7. indication that key crew members may not be able to communicate with each other or with other persons on board;
8. absence of an up-to-date muster list, fire control plan, and for passenger ships, a damage control plan;
9. the emission of false distress alerts not followed by proper cancellation procedures;
10. receipt of a report or complaint containing information that a ship appears to be substandard;
11. the ship has been reported by pilots or port authorities or others as having deficiencies which may prejudice safe navigation;
12. ships whose statutory certificates have been issued by an organisation which is not recognised under the term of Council Directive 94/57/EC of 22 November 1994 on common rules and standards for ship inspection and survey organisations and for the relevant activities of maritime Administration;
13. the ship has been involved in a collision on its way to the port;
14. the ship is in a category for which expanded inspection has been decided;
15. the ship has been suspended from their class for safety reasons in the preceding six months;
16. the ship has been accused of an alleged violation of the provisions on discharge of harmful substances or effluents
17. the ship's statutory certificates on the ship's construction and equipment, have been issued by an organisation which is not recognised by the Authority
18. the ship flying the flag of a State appearing in the three-year rolling average table of above average detentions in the annual report of MOU.

3. Expanded inspection

An inspection conducted according to non-mandatory guidelines only once during 12 months period for certain types of ships (tankers, bulkers and passenger ships) and certain categories of age and size.

Oil tankers, bulk carriers, gas and chemical carriers and passenger ships are subject to expanded inspections once during a period of 12 months. These inspections could be carried out in accordance with provisions stated below:

- Oil tankers, five years or less from the date of phasing out in accordance with MARPOL 73/78, Annex I Regulation 13 G, i. e.
- a crude oil tanker of 20.000 DWT and above or a product carrier of 30.000 DWT and above, not meeting the requirements of a new oil tanker as defined in Regulation 1 (26) of Annex I of MARPOL 73/78, will be subject to expanded inspection:
 - 20 years after its date of delivery as indicated on the Supplement, Form B, to the IOPP Certificate, or
 - 25 years after that date, if the ship's wing tanks or double bottom space not used for carriage of oil meet the requirements of Regulation 13 G (4) of the Annex, unless it has been reconstructed to comply with Regulation 13 F of the same Annex.
- an oil tanker as mentioned above meeting the requirements of a new oil tanker as defined in Regulation 1 (26) of Annex I to MARPOL 73/78 will be subject to expanded inspection:
 - 25 years after its date of delivery as indicated on the Supplement, Form B, to the IOPP Certificate, unless it complies with or has been reconstructed to comply with Regulation 13 F of the Annex.
- Bulk carrier, older than 12 years of age, as determined on the basis of the date of construction indicated in the ship's safety certificate. **Such expanded inspection will be conducted only ones during a period of 12 months by any of the competent authorities of the MOU.**
- Gas and chemical tankers older than 10 years of age, as determined on the basis of construction indicated in the ship's safety certificate
- In case of passenger ship operating on a regular schedule in or out of a port in an EU member state, the competent authority of the Member State shall carry out an expanded inspection of each ship. When a passenger ship operates such a schedule between ports in Member States, one of the States between which the ship is operating shall undertake the expanded inspection.

To the extent it is applicable, the following examinations may be considered as part of an expanded inspection.

However, when the examinations are carried out, the master and/or responsible officers should remind the PSCO that it may jeopardise the safe execution of certain on-board operations, e. g. cargo operation, if the tests having a direct effect thereon, and are required to be executed during such operations.

- a. execution of black-out and start of emergency generator;
- b. inspection of emergency lighting and back up sources including batteries;
- c. operation of emergency fire-pump with two firehouses connected to the main fire-line;
- d. operation of bilge pumps;
- e. closing of watertight doors;
- f. lowering of a seaside lifeboat to the water level and test the release mechanism;
- g. inspection of fire dampers to engine room, cargo holds and accommodation;

- h. test of remote emergency stop e. g. boiler, ventilation and fuel pumps;
- i. testing of steering gear including auxiliary steering gear;
- j. inspection and testing of emergency source of power to radio installations;
- k. inspection and, to the extent possible, test of engine-room separators;

Additional expanded inspections, which might be carried out for oil tankers:

- fixed-deck foam system;
- fire-fighting equipment in general;
- inspections of fire dampers to pump room;
- Control of pressure of inert gas and oxygen content thereof; check of survey report file to identify possible suspect areas requiring inspections.

Additional expanded inspections, which might be carried out for bulk carriers:

- corrosion of deck machinery foundations
- deformation and/or corrosion of hatch covers
- cracks and/or local corrosion in transverse bulkheads
- access to cargo holds
- check of Survey Report File to identify possible suspect areas requiring further inspections

Additional expanded inspections, which might be carried out on gas and chemical carriers:

- cargo tank monitoring and safety devices relating to temperature, pressure, gas detection, and ullage
- oxygen analysing and explosimeter devices, inc. their calibration
- availability of chemical detection equipment (bellows) with an appropriate number of suitable gas detection tubes for the specific cargoes being carried
- cabin escape sets giving suitable respiratory and eye protection, for every person
- onboard (if required by products listed on International Certificate of Fitness or Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk or Liquefied Gases in Bulk as Applicable)
- check that the product(s) being carried is listed in the International Certificate of Fitness or Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk or Liquefied Gases in Bulk as applicable
- the fixed fire fighting installations on deck whether they be foam or dry chemical or other as required by the product(s) carried

Additional expanded inspections, which might be carried out on passenger ships;

- testing of fire detection and alarm system

- testing of proper closing of fire doors
- testing of public address system
- fire drill where, as a minimum, all sets of fireman's outfits must be demonstrated and part of the catering staff shall take part
- demonstration that key crew members are acquainted with the damage control plan

As mentioned above a PSCO might always find "clear grounds" for carrying out more detailed inspections.

"**Clear grounds**" exist when the inspector finds evidence which in his professional judgement warrant a more detailed inspection of the ship, its equipment or its crew.

During an expanded inspection the PSCO might find evidence which in his judgement warrants a more detailed inspection – "**Clear grounds**".

Whenever there are clear grounds for believing that the condition of a ship or its equipment or crew does not substantially meet the relevant requirements of a Convention, a more detailed inspection shall be carried out, including further examination of compliance with on-board operational requirements.

Therefore the master and/or responsible officers should bear in mind that an expanded inspection could be continued by a more detailed inspection, concentrating on an area which in the opinion of the PSCO need further examination, and might comprise of the following priorities;

- navigational safety
- communication
- fire safety
- life-saving appliances etc

Port State Control & Cargo Operations

There are areas, where deficiencies do not warrant a detention of a ship, but might lead to suspension of cargo operation. Deficiencies such as failure of the proper operation of inert gas system, improper operation of cargo related gear or machinery, crude oil washing procedures might be considered as grounds for such suspensions.

Inert gas system

If an examination/inspection of the inert gas system is carried out, it may include examination of instrumentation fitted for continuous monitoring. Such monitoring includes indicating and permanently recording at all times when inert gas is being supplied, the pressure and the oxygen content of the gas in the inert gas supply main. Reference to the permanent recorder must indicate if the system had been operating before and during the cargo discharge in a satisfactory manner.

If conditions specified in the COW Operation and Equipment Manual are not being met, then the washing will be stopped until satisfactory conditions are restored.

A further precautionary measure is that the oxygen level in each tank to be washed, is to be determined at the tank. The metres must have been calibrated and will be inspected to ensure that they are in good working order. Readings from tanks already washed in port prior to inspection should be available for examination, and spot checks on readings might be instituted

Crude oil washing.

Normally the PSCO will ensure that all crude carriers either required to have crude oil washing system or where the owner or operator chooses to install a crude oil washing system in order to comply with Regulation 13 of Annex I of MARPOL 73/78. In addition, compliance will be ensured with the operational requirements set out in the revised Specifications of the Design Operation and Control of Crude Oil Washing Systems (IMO Res. A.446(XI), as amended by IMO Res. A.497(XII)) This is done in the ports where the cargo is unloaded.

Further, the inspection may cover the entire operation of crude oil washing or only certain aspects of it. It is; however, in the interest of all concerned that the ship's records with regard to the crude oil washing operations are maintained at all times so that a PSCO may verify those operations undertaken prior to the applicable inspection.

It will be determined from the ship's records that the pre-crude oil wash operation has been carried out and that all instruments functioned correctly.

If a tanker is engaged in multiple port discharge, the Oil Record Book (ORB) should indicate if tanks have been crude oil washed at previous discharge ports or at sea. It will

be determined that all tanks which will or may be used to contain ballast on the forthcoming voyage will be crude oil washed before the ship departs from the port. There is no obligation to wash any tank other than ballast tanks at a discharge port except that each of these other tanks must be washed at least in accordance with paragraph 6.1 of the revised Specifications (IMO Res. A.446(XI) as amended by Res. A.497(XII)). The Oil Record Book (ORB) will be examined to verify this has been complied with.

All crude oil washing must be completed before a ship leaves its final port of discharge.

If tanks are not being washed in one of the preferred orders given in the COW Operations and Equipment Manual, the PSCO will determine the reasons for this, and decide whether the order of tank washing are acceptable.

For each tank being washed it will be ensured that the operation is in accordance with the COW Operations and Equipment Manual and that;

- the deck mounted machines and the submerged machines are operating either by reference to indicators, the sound patterns or other approved methods
- the deck mounted machines, where applicable, are programmed as stated
- the duration of wash is as required, and
- the number of tank washing machines being used simultaneously does not exceed that specified.

All tanks that have been crude oil washed are to be stripped. It will be ascertained that the adequacy of stripping has been checked or will be checked before the ship leaves its final port of discharge.

Tanks that have been crude oil washed at sea should be recorded in the ORB. These tanks must be left empty between discharge ports for inspections at the next discharge port.

Tanks that are designated ballast tanks should be listed in the COW Operations and Equipment Manual. It is, however, left to the discretion of the master and/or responsible officer to decide which tanks may be used for ballast on the forthcoming voyage.

It should be determined from the ORB that additional ballast water has not been put into tanks, which have not been crude oil washed during previous voyages.

It will be verified that the departure ballast tanks are stripped as complete as possible.

The methods to avoid vapour emission where locally required should be provided in the COW Operations and Equipment Manual and they must be adhered to. The PSCO will ensure that this has been complied with

When departure ballast has to be shifted, the discharge into the sea must be in compliance with Regulation 9 of Annex I to MARPOL 73/78. The ORB will be examined to ensure compliance with this.

Port State Control & Manning

I. Number & Composition

The master and/or responsible officer(s) should be aware that if Port State Control inspections are carried out; the ship's manning will probably be examined in addition to the ship's certificate and documents, and will be given high priority. It is therefore important to know the guiding principles used by a PSCO in respect of manning control. Firstly this control will be to establish to verify that the ship manning is in conformity with the Flag State's safe manning document, based on:

- the Flag State's safe manning requirements. (If there is any doubt the Flag State will be consulted)
 - the international provisions which are laid down in SOLAS Reg. V/13, STCW 78 Convention as amended in 95 and IMO Resolution A.481(XII)
 - the provisions of ILO 147 which, inter alia, refer to the ILO Convention 53, Article 3 and 4
1. If the ship is manned in accordance with a safe manning document or equivalent document issued by the Flag State, the PSCO should accept that the ship is safely manned unless the document has clearly been issued without regard to principles in relevant instruments
 2. If the actual crew number or composition does not confirm to the manning document, the Port State control Authority should request the Flag State for advise as to whether or not the ship should be allowed to sail with the actual number of crew and composition. The request and response should be by expedient means and in writing. If the actual number of crew or composition is not brought in accordance with the safe manning document or the Flag State does not advise that the ship could sail, the ship may be considered for detention).
 3. If a ship does not carry a safe manning document or equivalent, the Port State Authority should request the Flag State to specify the number and composition of the crew and issue the required document as soon as possible. (In case the actual number and composition of the crew does not confirm to the specifications received from the Flag State Authority, the ship might be detained until the crew is brought in conformity with the Flag State specifications).

II. Qualifications, Certificates of Competence & Fitness for Watch-keeping

The Responsibilities of Companies are set forth in regulation I/14 of STCW 95 and section A-I/14 of the STCW-Code.

Accordingly the Flag State Administration holds the companies responsible for the assignment of seafarers for service in their ship to ensure that each seafarer holds an appropriate certificate and/or document of evidence in accordance with the provisions of the Convention.

The master of every ship should on this basis ensure that all persons employed or engaged in any capacity on board his ship holds the appropriate certificate and/or document of evidence.

However, without prejudice to other rights and obligations on control by PSCO concerning communication and information on board, control exercises by PSCO should be limited to the following;

- verification that all seafarers serving on board, who are required to be certified, hold an appropriate certificate and/or document of evidence as required or a valid dispensation, or provide documentary evidence that an application for an endorsement has been submitted to the Flag State Administration.
- verification that the numbers and certificates of the seafarers serving on board are in conformity with the applicable safe manning requirements of the Flag State Administration
- assessment of the ability of the seafarers on board the ship to maintain watch-keeping standards as specified by the Convention; and
- assess that all persons who are assigned duty as officer in charge of a watch or as rating forming part of a watch are provided with the minimum rest hours as prescribed by section A-VIII/1 of the STCW-Code (1995 amendments).

Further, companies should be aware that their responsibilities are not limited to the following;

- ensuring that seafarers assigned to any company ship hold an appropriate certificate and/or documentary evidence,
- manning requirements issued by Administrations are complied with
- have established procedures to ensure that records are kept and maintained for each licensed and documented seafarer on board ships,
- upon first assignment to ship, the employee must be provided reasonable opportunity to become familiar with all arrangements, installations, equipment, procedures and ship characteristics relevant to their routine and emergency duties,
- **provide written instructions to masters on policies and procedures to be followed by all new personnel. (The written instruction could be in the form of a checklist).**

III. Amendments

The Final Act of the 1995 Conference adopted amendments to the International Convention on Standards of Training, Certification and Watch-keeping for Seafarers 78. The adopted amendments entered into force 1 February 1997 upon acceptance in accordance with paragraph 2 of Resolution 1 attached to the Final Act to the Convention

IV. Document Preparation

To assist companies to be prepared for examination by a PSCO, the following certificates and/or documentary evidence are applicable for the various ship types and rank of the employee, and prior to arrival the master and/or responsible officer should verify that applicable documentation's are available for examination;

Cert. And /or Doc. Of evidence	Passenger ship Ro-Ro	Dry cargo ship	Oil tanker	Chemical carrier	Liq. Gas carrier
Master	X	X	X	X	X
Chief mate	X	X	X	X	X
Deck officer	X	X	X	X	X
Chief engineer off.	X	X	X	X	X
Engineer off.	X	X	X	X	X
Second engineer off.	X	X	X	X	X
Deck rating	XNB	XNB	XNB	XNB	XNB
Engine room rating	XNB	XNB	XNB	XNB	XNB
Radio personnel, non GMDS	X	X	X	X	X
Radio personnel. GMDS ship	X	X	X	X	X
Tanker personnel, with cargo responsible			X	X	X
Ro-Ro passenger ship personnel	X				
Basic safety training	X	X	X	X	X
Survival craft rescue boat proficiency	X PS	X PS	X PS	X PS	X PS
Fast rescue boat (FRB) proficiency	Ships fitted with FRB X	Ships fitted with FRB X			
Personnel designated to Advanced Fire Fighting	X	X	X	X	X
Personnel designated to provide Medical First Aid	X	X	X	X	X
Personnel in charge of Medical Care	X	X	X	X	X

NB. Document of evidence according to STCW 78 Conv. or certificate according to STCW 95 Conv. Regulation II/4 or III/4 as applicable, or under training to meet the standards of competence of section A-II/4 or A-III/4 as applicable.

PS. Only deck officers with certificate according to STCW 78 Conv or personnel with document of evidence or certificate for survival craft and rescue boat proficiency shall be placed in charge of a survival craft or rescue boat.

V. Special Training

The following special training for personnel on certain types of ships, and survival functions are applicable for the various ranks, functions, and responsibilities on board ships.

Crowed management section A - V/2, paragraph 1	CMT
Familiarisation training section A – V/2 paragraph 2	FAT
Safety training section A – V/2 paragraph 3	SFT
Passenger safety, cargo safety, hull integrity training section A – V/2 paragraph 4	PSCSIT
Crisis management section A – V/2 paragraph 5	CRSMT
Basic safety training section A – VI/1 paragraph 2	BSFT
Radio certification chapter IV	RC
Tanker familiarisation training	TFAT
Tanker expanded training	TEXT
Proficiency in survival craft and rescue boat	PSCRB
Proficiency in fast rescue boat	PFRB
Advanced fire fighting	AFF
Medical first aid	MFA
Medical care	MC
Shipboard familiarisation training	SFMT

All ships						Oil Tanker	Chemical Carrier	Liquefied Gas Carrier	Ro-Ro passenger ships				
Rank/ Functions/ Responsibility													
Master If responsible	RC		MC			TEXT	TEXT	TEXT	CMT	FAT	PSC-SIT	CRS-MT	
Chief mate If responsible	RC		MC	PFRB		TEXT	TEXT	TEXT	CMT	FAT	PSC-SIT	CRS-MT	SFT
Deck off. If responsible	RC		MC	PFRB		TFAT TEXT	TFAT TEXT	TFAT TEXT	CMT	FAT	SFT	PSC-SIT	RS-MT
Radio off If assign. If responsible	RC	AFF	MFA	BSFT	PFR B PSC- RB				CM	FAT	SFT	CRS-MT	
Deck rating If responsible	AFF	PSC-RB	PFRB	BSFT		No mandatory Training TFAT	No mandatory training TFAT	No mandatory training TFAT	SFT	CMT	CRS-MT	FT	PSC-SIT
Chief engineer officer If responsible	MC	PFRB				TEXT	TEXT	TEXT	CMT	FAT	PSC-SIT	CRS-MT	
Second engineer officer If responsible	MC	PFRB				TEXT	TEXT	TEXT	CMT	FT	PSC-SIT	CRS-MT	SFT
Engineer officer If responsible	MC	PFRB				TFAT TEXT	TFAT TEXT	TFAT TEXT	CM	FAT	PSC-SIT	CRS-MT	SFT
Pump- Man If responsible	BSFT	MFA	PSC-RB	PFRB		TEXT	TEXT						
Engine room rating If responsible	AFF	PFRB	PSC-RB	BSFT		TFAT TEXT	TFAT TEXT	TFAT TEXT	SFT	FT	CRS-MT	CMT	PSC-SIT
Other Persons Assigned Shipboard duties IF responsible	MFA	BSFT	PSC-RB	PFRB	SF-MT					FAT	SFT	CRS-MT	

NB

In addition to the special training for personnel on certain types of ships, training in emergency, occupational safety medical care and survival functions required by Chapter V and VI of the Convention, all persons on board shall receive ship specific familiarisation required by Regulation I/14.

VI. Further assessment by PSCO on manning provisions.

If any of the following have occurred;

- the ship has been involved in a collision, grounding or stranding, or
- there has been a discharge of substances from the ship when underway, at anchor or at berth which is illegal under any international Conventions, or
- the ship has been manoeuvred in an erratic or unsafe manner whereby routing measures adopted by IMO or safe navigation practices and procedures have not been followed, or
- the ship is otherwise being operated in such a manner to pose a danger to persons, property or the environment;

there can be clear grounds for believing that these occurrence are because the watch keeping standards and/or the minimum hours of rest required by the Convention are not being maintained or complied with. The PSCO will certainly carry out further examination in respect of records of hours of work and rest periods specified in STCW 95, if watch schedules have been posted and followed. If not it should have been recorded in the ship log-book.

The PSCO might find reasons to believe that any of the above occurrences are related to lack of competence, i.e. that members of the crew who are required to be competent do not possess the necessary skill as required by the STCW Convention. If that should be the case, the PSCO will probably carry out necessary assessment as indicated in the STCW Code section A – I/4.

NB

Failure related to any of the deficiencies related to items referred to under Manning Control above might result in detention. Companies, masters and/or responsible officers should therefore make all efforts to comply with the safe manning provisions, certification of seafarers and related requirements.

Port State Control & Safety Management

I. Assessment of the ISM Code Implementation

The International Safety Management (ISM) Code enters into force 1 July 1998. Both Paris MOU & Tokyo MOU have decided to carry out a concentrated inspection campaign on selected items to assess compliance. The selected question/items indicated below were used by PSCOs in the campaign, but are also relevant after the campaign. The master and/or responsible officers should be prepared to reply to the following questions:

- 1 Is the ISM Code applicable to the particular ship as of 1 July 1998?
- 2 Is the ISM certification available on board?
- 3 Are the certificates and other particulars in order?
- 4 Is the relevant Safety Management documentation (e.g. manuals) readily available on board? (Ref.: Section 1.4 of the ISM Code)
- 5 Is the relevant documentation on the Safety Management system (SMS) in a working language or language understood by the ship's personnel? (Ref.: Section 6.6 of the ISM Code)
- 6 Can senior officers identify the Company responsible for the operation of the ship and does this correspond with the entity on the ISM certificates? (Ref.: Section 3 of the ISM Code)
- 7 Can the senior officer identify the "designated person"? (Ref.: Section 4 of the ISM Code)
- 8 Are procedures in place for establishing and maintaining contact with shore management in an emergency? (Ref.: Section 8.3 of the ISM Code)
- 9 Are programmes for drills and exercises to prepare for emergency actions available on board? (Ref.: Section 8.2 of the ISM Code)
- 10 Can the master provide documented proof of his responsibilities and authority, which must include his overriding authority? (Ref.: Section 5 of the ISM Code)
- 11 Does the ship have a maintenance routine and records available? (Ref.: Section 10.2 of the ISM Code)

II Application & Certification of the ISM Code

- 1 SOLAS Chapter IX, regulation 2 Application. If the ISM Code is not applicable, the rest of the form needs not be completed nor sent in for evaluation.

Regulation 2 Application

- i. This chapter applies to ships, regardless of the date of construction, as follows:
- ii. passenger ships including high – speed craft, not later than 1 July 1998;

- iii. oil tankers, chemical tankers, gas carriers, bulk carriers and cargo high-speed craft of 500 gross tonnage and upwards, not later than 1 July 1998; and
- iv. other cargo ships and mobile offshore drilling units of 500 gross tonnage and upward, not later than 1 July 2002.
- v. This chapter does not apply to government-operated ships used for non-governmental purposes.

Bulk carriers:

- i. Unless it is clear from statutory certificates issued by or on behalf of the flag State Administration that a vessel is typed as “bulk carrier”, the definition given in SOLAS Reg. IX/1.6 should be applied for the purpose of port State control. This implies that only those ships being constructed with single deck, top-side tanks and hopper tanks in cargo spaces and intended primarily to carry dry cargo in bulk come within the scope of definition, whether or not they are actually carrying dry cargo in bulk, including ore carriers and combination carriers
 - ii. When in doubt about the application of the definition above, particular when one or more of the elements below apply, the PSCO will consult the flag State for clarification:
 - class certificates indication the classification of the ship as “bulk carrier”,
 - documentation showing that the vessel is subject to “Enhanced Survey” in accordance with SOLAS Reg. XI/2
 - the vessel being exempted under SOLAS Reg. II-2/53,1.2 from having a fixed gas fire extinguishing system in its cargo spaces.
- 2 Copy of document of Compliance (DOC) and original of Safety Management Certificate (SMC).

The interim certificate may be used inappropriate. The following guidance on interim certificate apply:

- Vessel may have a copy of an interim DOC and hold an interim SMC. The vessel shall not hold a certificate copy of an interim DOC and a full term SMC.

Interim DOC is issued to:

- i. Facilitate initial implementation of the Code, and
- ii. Implementation when a Company is newly established;
- iii. Or new ship types added to existing DOC

An interim DOC is valued for maximum 12 months.

An Interim SMC is issued for:

- i. New ship on delivery; and
- ii. When companies takes on the management of a ship new to the company.

An Interim SMC is valid for 6 months. In special cases the issuing body may extend the validity of the Interim SMC for further six months.

Before an Interim SMC is issued the following apply and will be checked by PSCOs:

- The DOC, or Interim DOC, shall be relevant to that type of ship.
- SMS provided by the Company which address the key elements of the Code. Written procedure and/or plans should be in place.
- Master and responsible officers should be familiar with the SMS and implementation plans.
- Instructions essential prior to sailing (Section 6.3 of the ISM Code) have been given.
- Plans for a Company audit of the system within 3 months should be in place.
- Relevant information given in a working language or languages understood by the ship's personnel

Section 6.3 of the ISM Code

The Company should have established procedures to ensure that new personnel and personnel transferred to new assignments related to safety and protection of the environment are given proper familiarisation with their duties. Instructions that are essential to be provided prior to sailing should be identified, documented and given.

- 3 Certificates should be issued by, or at the request of, the Flag State.
- 4 This does not mean that the documented SMS has to be in a particular language. It is for the Company to decide on the "working language" of the ship and provide pertinent and relevant information to the ship's personnel in a language understood by them

It is not a requirement for the SMS to be in a language understood by the PSCO. If in doubt as to the effectiveness, the PSCO may ask for drills to be conducted or witness the operation of machinery and systems.

- 5 SOLAS Chapter IX Reg. 1.2 and ISM Code 1.1.2;

Company means the owner of the ship or any organisation or person such as the manager, or the bare boat charterer, who has assumed the responsibility for the operation of the ship from the owner of the ship. The Company has agreed to take over all the duties and responsibilities imposed by the ISM Code.

- 6 The master must know his identity and be aware of the role of the Designated Person (DP). Other responsible officers should also be aware of the identity and role of DP. He does not have to be directly contactable. He may not even have any role to play in an emergency. The master should be able to explain the cause of

non-conformities that the DP will be seeing. The DP is the “manager” of the system ashore.

- 7 Reference to the contacts in the SOPEP could suffice if so stated in the SMS. PSCOs will not except to see a neat list posted in the radio room although many ships will have this type of list.
- 8 A programme of drills and exercises covering more than those required by SOLAS Chapter III – Reg. 18, should be in place. The crew response to potential emergencies should be practised in drills. These drills should cover all documented responses to critical and emergency situation. Records of all emergency drills and exercises on board should be maintained and available for verification.

ISM Code – Section 8 EMERGENCY PREPAREDNESS

- 8.1 The Company should establish procedures to identify, describe and respond to potential emergency shipboard situations.
- 8.2 The Company should establish programmes for drills and exercises to prepare for emergency actions
- 9 A planned maintenance system is not a requirement of the Code but it is difficult to confirm with section 10 without one. The system may just be based on class CSM/CSH and ME/GE running hours.
- 10 Detainable deficiencies may indicate a failure of the SMS. The PSCO will examine the relevant areas of the system to identify non-conformities.

General information

The following results from the checklist will normally be considered as major non-conformities* and would make the vessel liable for detention.

Question Result

ISM certificate not on board

- 2 Company on the DOC not the same as on SMC
- 3 Safety Management document not on board
- 4 Relevant documentation not in a working language or a language understood by the crew
- 6 – 7 Responsible officers unable to identify operator and designated person (ship/shore system breaks down with this)
- 8 No procedures to contact the Company in emergency situations
- 9 Drills have not been carried out according to program

- 10 Master's overriding authority no documented and master unaware of his authority
- 11 No evidence of maintenance being carried out

. **Major non-conformity** means an identifiable deviation that requires immediate actions as it poses a serious and immediate threat or risk to personnel, ship or to environment. In addition, the lack of effective and systematic implementation of a requirement of the ISM Code is also considered as a major non-conformity. A ship must correct all major non-conformities before departure.

The selected questions on the checklist do not cover all the parts of the ISM Code and will not be considered as a substitute for a full audit. Since the control is based on sampling, parts of the system will not be covered. If a PSCO finds evidence of non-conformities, that are not included in the checklist, he will act and take all necessary actions.

PSCO may communicate with other crew members than the responsible officers, included in the Company's SMS, for control according to the checklist.