

# Port State Control for MARPOL Annex VI Assembly Resolution A.1119(30) and MEPC.321(74)



National Workshop (virtual) on Ratification and Effective Implementation of  
MARPOL Annex VI for Lebanon  
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# What is Port State Control (PSC)?

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- It is an inspection of **foreign ships** in **national ports** by an **authorized inspector** of the Maritime Administration for verifying that:
  - The ship is in **compliance** with International Conventions (e.g. SOLAS, LL (Load Lines), MARPOL, STCW (Standards of Training, Certification and Watchkeeping). ....).
  - The ship is **manned and operated** in compliance with applicable international laws.
- **Objective:**
  - **Enforcement** of the shipping regulations.

# PSC legal basis and underlying authority

- Authority for carrying out PSC comes from:
  - **International** treaties and Conventions
  - **Bilateral / multilateral** agreements
  - **National** Laws
- In exercising port State control, Parties should **only apply** those provisions of the **conventions** which are **in force** and which **they have accepted**.



Can a PSC authority do anything they want to a foreign ship?

# Legal basis: UNCLOS on flag and port States enforcement

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## ***Article 217 - Enforcement by flag States***

States shall ensure that vessels flying their flag or of their registry **carry on board certificates** required ....., and do **periodically inspection**.

## ***Article 218 - Enforcement by port State***

When a vessel is voluntarily within a port or at an off-shore terminal of a State, **that State may undertake investigations** and, where the evidence so warrants, **institute proceedings** against that vessel.

# Legal basis: Provisions within international conventions

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- Many IMO conventions include provisions that give rights to undertake PSC including:
  - **MARPOL Convention:**
    - **Article 5** on Certificates and special rules on inspection of ships
    - **Articles 6** on Detection of violations and enforcement of the Convention
    - **MARPOL Annex VI regulations 10 and 11**
  - **SOLAS** (The International Convention for the Safety of Life at Sea)
  - **Etc.**

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# PSC Requirements and Procedures

# PSC Inspections

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- Initial Inspection
- Clear grounds
  - Evidence that the **ship, its equipment, or its crew** does not correspond substantially with the **requirements of the relevant conventions**;
  - or that the **master/crew members** are not familiar with essential shipboard procedures on ... the prevention of pollution
- Detailed inspection

**Planning** and **reporting** of the outcome are important elements of PSC

# Procedures - Port State Control

- IMO recognizes effectiveness of PSC.
- IMO recognizes the importance of harmonized implementation of regulations.
- Adopted in 2017, Resolution A.1119(30)
- Invites governments to implement procedures for PSC.

## CHAPTER 1 – GENERAL

- 1.1 Purpose
- 1.2 Application
- 1.3 Introduction
- 1.4 Provision for port State control
- 1.5 Ships of non-Parties
- 1.6 Ships below convention size
- 1.7 Definitions
- 1.8 Professional profile of PSCOs
- 1.9 Qualification and training requirements of PSCOs

## Procedures for PSC

## CHAPTER 2 – PORT STATE INSPECTIONS

- 2.1 General
- 2.2 Initial inspections
- 2.3 General procedural guidelines for PSCOs
- 2.4 Clear grounds
- 2.5 More detailed inspections

## CHAPTER 3 – CONTRAVENTION AND DETENTION

- 3.1 Identification of a substandard ship
- 3.2 Submission of information concerning deficiencies
- 3.3 Port State action in response to alleged substandard ships
- 3.4 Responsibilities of port State to take remedial action
- 3.5 Guidance for the detention of ships
- 3.6 Suspension of inspection
- 3.7 Procedures for rectification of deficiencies and release

## CHAPTER 4 – REPORTING REQUIREMENTS

- 4.1 Port State reporting
- 4.2 Flag State reporting
- 4.3 Reporting of allegations under MARPOL

## CHAPTER 5 – REVIEW PROCEDURES

- 5.1 Report of comments

# Appendices to the PSC Guidelines

- A large number of appendices
- Appendices are 100 pages of total 116 pages.

## Appendices

Appendix 1	Code of Good Practice for port State control officers conducting inspections within the framework of the regional Memoranda of Understanding and Agreement on Port State Control
Appendix 2	Guidelines for the detention of ships
Appendix 3	Guidelines for investigations and inspections carried out under Annex I of MARPOL
Appendix 4	Guidelines for investigations and inspections carried out under Annex II of MARPOL
Appendix 5	Guidelines for discharge requirements under Annexes I and II of MARPOL
Appendix 6	Guidelines for more detailed inspections of ship structural and equipment requirements
Appendix 7	Guidelines for control of operational requirements
Appendix 8	Guidelines for port State control officers on the ISM Code
Appendix 9	Guidelines for port State control related to LRIT
Appendix 10	Guidelines for port State control under the 1969 Tonnage Convention
Appendix 11	Guidelines for port State control officers on certification of seafarers, manning and hours of rest
Appendix 12	List of certificates and documents
Appendix 13	Report of inspection in accordance with IMO port State control procedures
Appendix 14	Report of deficiencies not fully rectified or only provisionally rectified
Appendix 15	Report of action taken to the notifying authority
Appendix 16	Format for the Report of contravention of MARPOL (article 6)
Appendix 17	Comments by flag State on detention report
Appendix 18	List of instruments relevant to port State control procedures

# Inspection of ships of non-Parties

- Ships of non-Parties or below convention size should be given **no more favourable treatment**.

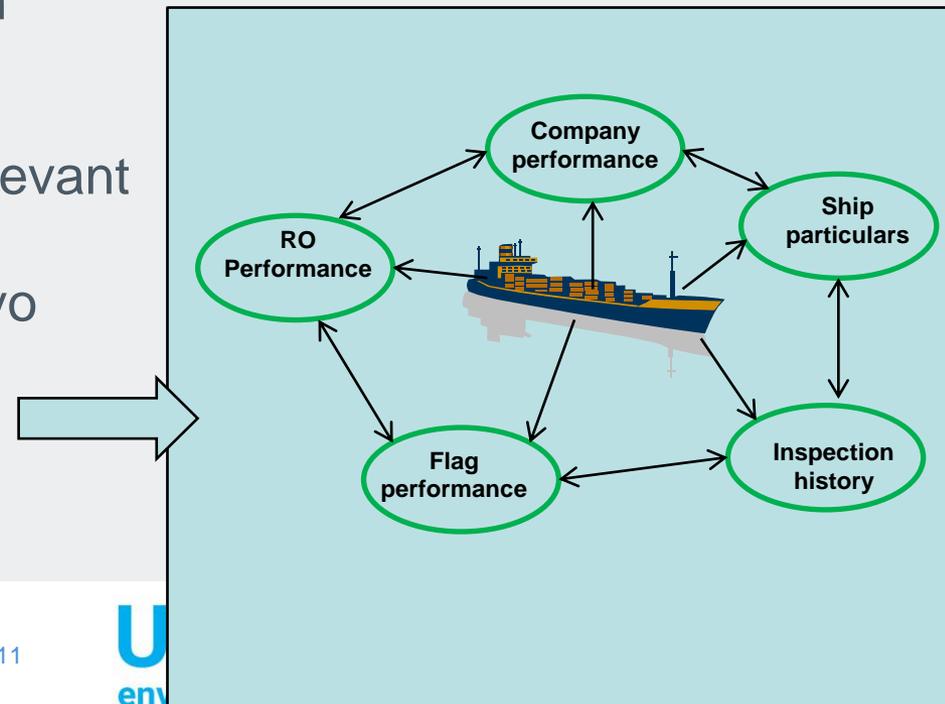


What does “**no more favourable treatment**” means?

# Port State Inspections

PSC may be undertaken on the basis of:

1. the initiative of the Party;
2. the request of, .... another Party;
3. information provided by a member of the crew, a professional body, an association ....., etc.
4. Based on system used by the relevant MOU: For example a **risk-based system of inspection** (e.g. Tokyo MOU):



# PSC Inspection: Pre-boarding preparation

- PSCO should be familiar with MARPOL Annex VI requirements and any related previously recorded PSC deficiencies.
- It is a good practice to collect information from IMO **GISIS website** and other sources available (MOU, Port State itself, HIS Fairplay, ...).

The screenshot shows the IMO Global Integrated Shipping Information System (GISIS) Secretariat Area homepage. The header includes the IMO logo and the text 'Global Integrated Shipping Information System'. Below the header, there is a search bar with the placeholder text 'Find module by keyword' and a 'Search' button. The main content area is titled 'Welcome to the Secretariat Area' and features a grid of modules. The 'Port State Control' module is circled in red. Other modules include 'Reporting Requirements Dashboard', 'Marine Casualties and Incidents', 'Ship and Company Particulars', 'Status of Treaties', 'Simulators', 'Risk Management', 'Organizational Planning', and 'Country Maritime Profile'. The footer includes the REMPEC logo and the IMO logo.

**IMO** INTERNATIONAL MARITIME ORGANIZATION  
Global Integrated Shipping Information System

Secretariat Area

Welcome to the Secretariat Area

Find module by keyword

**Reporting Requirements Dashboard**  
Status and completeness of information in GISIS received from IMO members.

**Marine Casualties and Incidents**  
Data on marine casualties and incidents, as defined by circulars MSC-MEPC.3/Circ.3.

**Port State Control**  
Information communicated under the provisions of SOLAS regulation I/19, article 11 of MARPOL, article 21 of Load Lines, article X(3) of STCW and the Procedures for port State control.

**Organizational Planning**  
Information on the status of planned and new outputs related to the High-level Action Plan.

**Country Maritime Profile**  
Information from Member States to enable targeted technical co-operation and resources.

**Ship and Company Particulars**  
Search the world fleet of ships by IMO Number and look up company particulars by IMO Company Number.

**Status of Treaties**  
Status of ratification of IMO conventions, including global tonnage figures.

**Simulators**  
Information on simulators available for use in maritime training.

**Risk Management**  
Information on the status of risk events related to the Secretariat's business plan.

**Development of Amendments**  
Development of amendments to the 1974 SOLAS Convention and related mandatory instruments.

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INTERNATIONAL MARITIME ORGANIZATION

environment

# Initial inspections

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- **General impression** (will depend on scope of inspection).
- Examine relevant **certificates and documents** and check their validity
- Assess the overall condition of the ship / equipment
- Communicate with and assess the crew.
- If PSCO observes **clear grounds** for believing that the ship, its equipment or its crew **do not substantially** meet the requirements, the PSCO should proceed to a more **detailed inspections**.

## Clear grounds (section 2.4.2)

2.4.2 "Clear grounds" to conduct a more detailed inspection include but are not limited to:



.1 the absence of principal equipment or arrangements required by the relevant conventions;



.2 evidence from a review of the ship's certificates that a certificate or certificates are clearly invalid;



.3 evidence that documentation required by the relevant conventions and listed in appendix 12 is not on board, is incomplete, is not maintained or is falsely maintained;

.4 evidence from the PSCO's general impressions and observations that serious hull or structural deterioration or deficiencies exist that may place at risk the structural, watertight or weathertight integrity of the ship;

.5 evidence from the PSCO's general impressions or observations that 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 the safety of ships or the prevention of pollution, or that such operations have not been carried out;

.7 indications that key crew members may not be able to communicate with each other or with other persons on board;

.8 the emission of false distress alerts not followed by proper cancellation procedures; and

.9 receipt of a report or complaint containing information that a ship appears to be substandard.

# Procedures for rectification of deficiencies and release

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- In the case of deficiencies which are clearly hazardous to safety or to the environment, the PSCO should ensure that the hazard is removed before the ship is allowed to proceed to sea.
- Exception - If the ship is to proceed to the nearest ship repair yard for repair.

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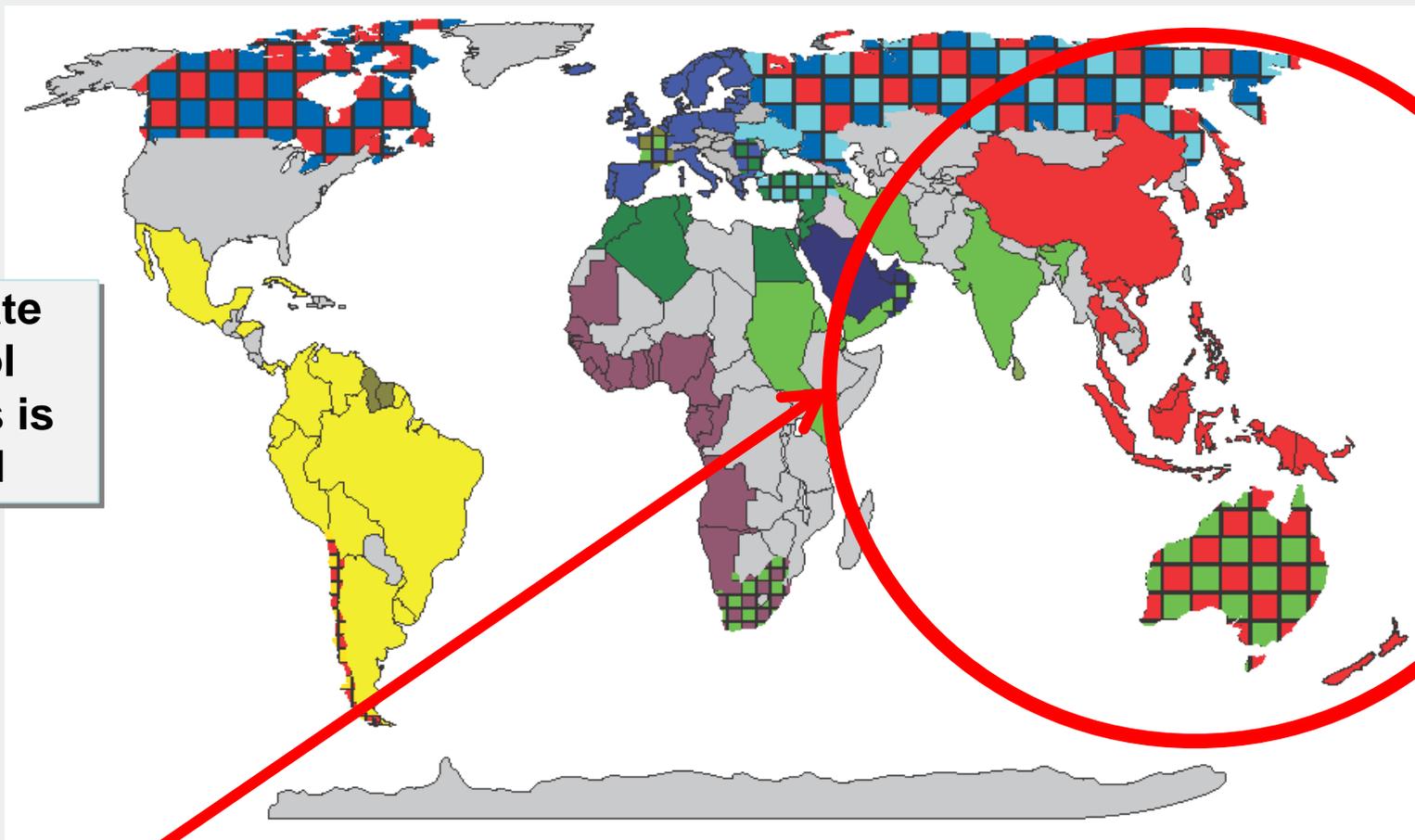
# MOU Regions for PSC

# PSC – Advantages of regional cooperation

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- Regional coordination of PSC activities.
- Establishment of regional PSC regimes promoted by A.682(17)
- Advantage of **Memorandum of Understanding (MoU)**:
  - More effective sharing of information
  - Extended control of ships whilst trading in the region
  - Harmonised system of inspection and surveys attained
  - Unfair competition between ports in the region avoided
  - Global cooperation through inter-regional cooperation
  - Deterrent effect for sub-standard ships

Port State  
Control  
Regimes is  
Global



**Tokyo MOU**  
**Paris MOU**  
**Abuja MOU**

**Riyadh MOU**  
**Black Sea MOU**  
**Caribbean MOU**

**Indian Ocean MOU**  
**Acuerdo Vina del Mar**  
**Mediterranean MOU**

# Mediterranean MOU

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- **Establishment:** The Mediterranean Region MoU signed in Malta on 11 July 1997.
- **Mission** is to eliminate the operation of sub-standard ships through a harmonized system of port State control.
- **Members:** Algeria, Cyprus, Egypt, Israel, Jordan, **Lebanon**, Malta, Morocco, Tunisia and Turkey
- **Inspections:** Annually about 6000 inspections. Carry out concentrated inspections
- **Exchange of information:** Communicate and links with IMO, Paris MOU, Black Sea MOU, etc.

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# PSC on MARPOL Annex VI

# Process

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- Initial inspection
- Clear grounds
- Detailed inspection
- Detainable deficiencies

MEPC 74/18/Add.1  
Annex 15, page 1

## **ANNEX 15**

**RESOLUTION MEPC.321(74)**  
**(adopted on 17 May 2019)**

**2019 GUIDELINES FOR PORT STATE CONTROL**  
**UNDER MARPOL ANNEX VI CHAPTER 3**

[https://wwwcdn.imo.org/localresources/en/OurWork/Environment/Documents/MEPC.321\(74\).pdf](https://wwwcdn.imo.org/localresources/en/OurWork/Environment/Documents/MEPC.321(74).pdf)

# Initial inspection

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- It involves checking certificates and documents.
- Starting point could be the IAPP and the IEE certificates plus their supplements.
- PSCO will make sure that:
  - All equipment listed on the supplements are available
  - They have required certificates
  - Operational aspects are documented in various record books.
  - Personnel are familiar with their proper operation.
- If any **clear ground**, detail inspection could be initiated.

# “Clear grounds” to conduct a more detailed inspection

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1. Certificates missing or invalid
2. Supporting documents missing or invalid
3. Absence or malfunction of equipment or arrangements specified in certificates or documents
4. Presence of equipment not specified in certificates or documents
5. Serious deficiencies in certificates, documents, equipment or arrangements
6. Non-familiarity of master or crew
7. Substandard quality of fuel
8. Report or complaint informing about ship being substandard

## Detailed inspection process

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- Depends on what areas or aspect need to be inspected.
- For example, for NOx compliance, the process will be different as compared to sulphur compliance.
- Generally, the requirements of the regulation must be met.
- Therefore, the PSCO will carry out further investigation to find out if the prevailing regulations are met.

# Possible detainable deficiencies for MARPOL Annex VI

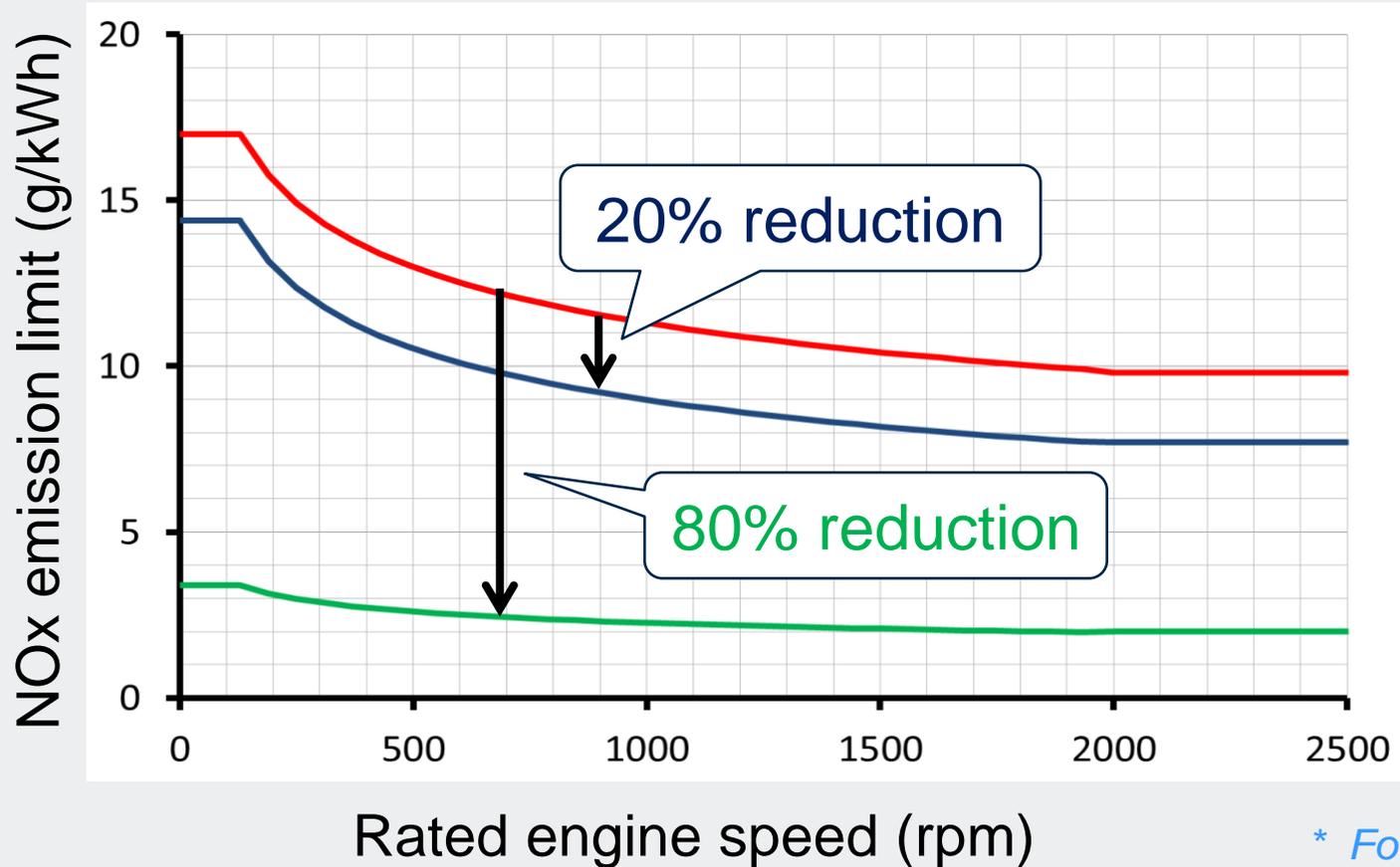
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- Absence of valid certificates or documents.
- A marine diesel engine on-board that does not comply with regulations.
- The sulphur content of any fuel used or found on board exceeds 0.5% m/m (or 0.1% while in ECA-SOx).
- The master or crew are not familiar with essential procedures of operation of air pollution prevention equipment (e.g. incinerators, fuel change over system, scrubber, etc.).
- .....
- .....

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## Port State Control for Nitrogen Oxides (NOx) (Regulation 13)

# Regulation 13 - NOx emission limits



**Tier I**  
 - Constructed on or after 1 Jan. 2000

**Tier II**  
 - Constructed on or after 1 Jan. 2011

**Tier III\***  
 - Constructed on or after 1 Jan. 2016  
 - Applied in ECAs  
 - Tier II applied outside of ECAs

*\* For a ship operating within North American ECA and US Caribbean Sea Area ECA*

All engines > 130 kW

## PSC: Initial inspection on NO<sub>x</sub>

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### **Ascertain the existence of the following documents:**

- IAPP certificate and its supplement with details of all applicable engines
- EIAPP certificate
- NO<sub>x</sub> Technical File
- Record Book of Engine Parameters
- Record Book for Tier II or III information on ECA-NO<sub>x</sub> changeovers of settings
- Approved Method file for post-1990: Pre-2000 ships.

**At the same time, ascertain that the crew are familiar with the above requirements**

# NO<sub>x</sub> : Detailed inspection

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- **Deeper examination of the EIAPP Certificates, NOx Technical Files , Record Book of Engine Parameters, maintenance records:**
  - Purpose is to confirm that they are accurate
  - If the engine is used with correct settings / part / etc.
  - If crew are familiar with how to operate the engine.
- **Questions to be clarified (examples):**
  - Has there been any major conversion?
  - Has emergency diesel engine used for non emergency?
  - Are there any additional engines on board?
  - Are main components such as injectors, turbochargers are conforming to NOx Technical File?
  - Has ECA-NOx switching recorded properly?
  - Etc.

# NO<sub>x</sub> detainable deficiencies - Examples

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1. Absence of valid EIAPP Certificates or NOx Technical Files;
2. Existence of engines on-board that have undergone major conversion but not certified.
3. Existence of a diesel engine with Approved Method on a ship constructed on or after 1 January 1990 but prior to 1 January 2000, that has no **Approved Method installed.**

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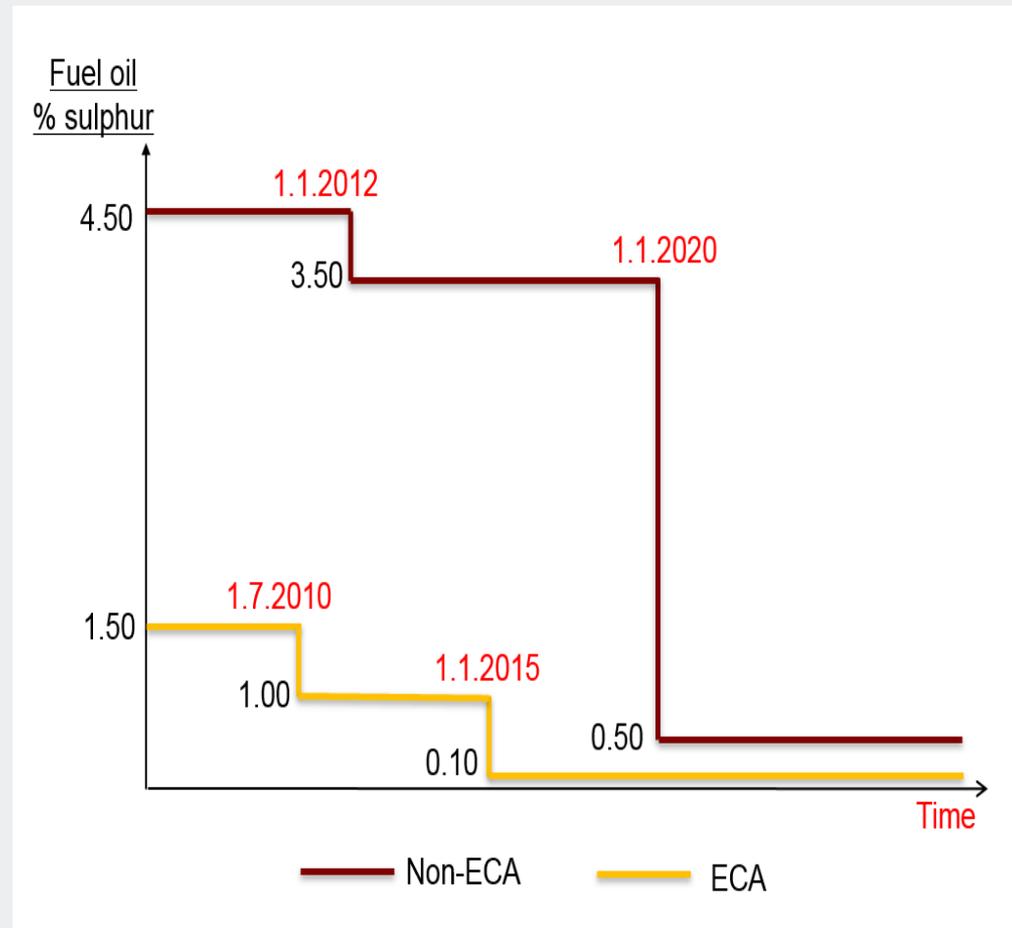
# PSC for SOx and sulphur compliance (Regulations 14 and 18)

# Regulatory limits on fuel sulphur

- Fuel sulphur limits are set for Global and ECA regions.

## Compliance options:

- LNG
- Use compliant fuel oil (e.g. two fuel system)
- SOx scrubbers



# PSC: Initial inspection of documents/certificates

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- Written changeover procedure & **record of change over events** (Reg 14.6):
- Documentation related to exhaust gas cleaning systems (scrubbers), if applicable.
- Bunker Delivery Note and bunker samples (Reg. 18)
- In case of non-availability of fuel oil: Record of actions (Reg 18.2.1.1)  
→ FONAR
- .....

# PSC initial inspection for sulphur: Examination of fuel samples

- Physical examination of fuel:
  - Take sample and usual visual examination such as colour, etc.
  - Use hand held testing devices such as XRF (X-ray fluorescence spectroscopy).

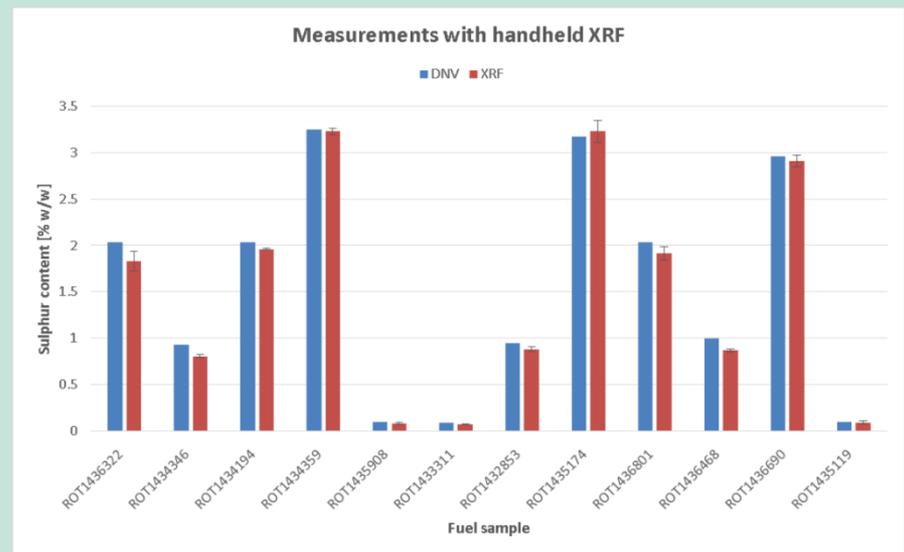


FIGURE 15  
COMPARISON OF DNV REFERENCE ANALYSIS FOR SULPHUR CONTENT WITH HANDHELD XRF MEASUREMENTS ON THE SAME 12 SAMPLES.

# PSC: More detailed inspections

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- Detailed check of documents:
  - Oil record book
  - Fuel changeover plan
  - FONAR, if applicable
  - BDNs etc.
  - Check with other flag
  - Check with fuel supplier
- **Sampling of fuel** and analysis for sulphur content

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# Port State Control for Energy Efficiency

## General checklist for Chapter 4 PSC

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- **For Initial inspection:** Check if the following exists and are valid:
  - IEE certificate
  - Ship Record of Construction (annex to IEE Certificate).
  - EEDI Technical File, its contents and validity
  - Existence of SEEMP on-board plus approved Data Collection Plan as part II of SEEMP.
  - “Statement of Compliance” for IMO Data Collection System for Fuel Oil Consumption (from 2019 onwards).
  - Also ascertain that ship master and crew are familiar with relevant documents and activities.
- **For detailed inspections:** Examine the contents of the above documents and also the ship related equipment/systems to ensure that documents are valid and existing equipment/systems are compatible with the documents.

## Some aspects of detailed inspections:

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- In-depth review of content of “Ship Record of Construction for Energy Efficiency” and related documented.
- Review of on-board fuel data collection process and disaggregate data and if complies with data collection plan
- General review of the ship to find out if any changes made that may be a “major conversion”.
- .....

# Ship record of construction for energy efficiency (1)

1. Particulars of ship
2. Propulsion system

## Supplement to the International Energy Efficiency Certificate (IEE Certificate)

### RECORD OF CONSTRUCTION RELATING TO ENERGY EFFICIENCY

Notes:

- 1 This Record shall be permanently attached to the IEE Certificate. The IEE Certificate shall be available on board the ship at all times.
- 2 The Record shall be at least in English, French or Spanish. If an official language of the issuing Party is also used, this shall prevail in case of a dispute or discrepancy.
- 3 Entries in boxes shall be made by inserting either: a cross (x) for the answers "yes" and "applicable"; or a dash (-) for the answers "no" and "not applicable", as appropriate.
- 4 Unless otherwise stated, regulations mentioned in this Record refer to regulations in Annex VI of the Convention, and resolutions or circulars refer to those adopted by the International Maritime Organization.

#### 1 Particulars of ship

- 1.1 Name of ship .....
- 1.2 IMO number .....
- 1.3 Date of building contract .....
- 1.4 Gross tonnage .....
- 1.5 Deadweight .....
- 1.6 Type of ship\* .....

#### 2 Propulsion system

- 2.1 Diesel propulsion .....
- 2.2 Diesel-electric propulsion .....
- 2.3 Turbine propulsion .....
- 2.4 Hybrid propulsion .....
- 2.5 Propulsion system other than any of the above .....

\* Insert ship type in accordance with definitions specified in regulation 2. Ships falling into more than one of the ship types defined in regulation 2 should be considered as being the ship type with the most stringent (the lowest) required EEDI. If ship does not fall into the ship types defined in regulation 2, insert "Ship other than any of the ship type defined in regulation 2".

# Ship record of construction for energy efficiency (2)

## 3. Attained EEDI

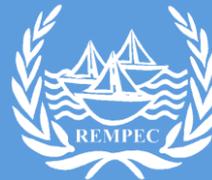
## 4. Required EEDI

## 5. SEEMP

## 6. EEDI Technical File

- 3 Attained Energy Efficiency Design Index (EEDI)**
- 3.1 The Attained EEDI in accordance with regulation 20.1 is calculated based on the information contained in the EEDI technical file which also shows the process of calculating the Attained EEDI. ....
- The Attained EEDI is: ..... grams-CO<sub>2</sub>/tonne-mile
- 3.2 The Attained EEDI is not calculated as:
- 3.2.1 the ship is exempt under regulation 20.1 as it is not a new ship as defined in regulation 2.23 .....
- 3.2.2 the type of propulsion system is exempt in accordance with regulation 19.3 .....
- 3.2.3 the requirement of regulation 20 is waived by the ship's Administration in accordance with regulation 19.4 .....
- 3.2.4 the type of ship is exempt in accordance with regulation 20.1 .....
- 4 Required EEDI**
- 4.1 Required EEDI is: ..... grams-CO<sub>2</sub>/tonne-mile
- 4.2 The required EEDI is not applicable as:
- 4.2.1 the ship is exempt under regulation 21.1 as it is not a new ship as defined in regulation 2.23 .....
- 4.2.2 the type of propulsion system is exempt in accordance with regulation 19.3 .....
- 4.2.3 the requirement of regulation 21 is waived by the ship's Administration in accordance with regulation 19.4 .....
- 4.2.4 the type of ship is exempt in accordance with regulation 21.1 .....
- 4.2.5 the ship's capacity is below the minimum capacity threshold in Table 1 of regulation 21.2 .....
- 5 Ship Energy Efficiency Management Plan**
- 5.1 The ship is provided with a Ship Energy Efficiency Management Plan (SEEMP) in compliance with regulation 22 .....
- 6 EEDI technical file**
- 6.1 The IEE Certificate is accompanied by the EEDI technical file in compliance with regulation 20.1 .....
- 6.2 The EEDI technical file identification/verification number .....
- 6.3 The EEDI technical file verification date .....

REMPEC, an IMO / UNEP Centre assisting the Mediterranean coastal States in ratifying, transposing, implementing and enforcing international maritime conventions related to the protection of the marine environment



Thank you

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