Inspections within the Med SOx ECA

Meindert Vink
REMPEC Consultant

Regional Workshop on the consistent implementation of IMO 2020 under MARPOL Annex VI and the 0.10% sulphur limit in the Med SOx ECA (Malta, 22-23 May 2024)

UN environment programme | Mediterranean Action Plan Barcelona Convention | REMPEC | IMO INTERNATIONAL MARITIME ORGANIZATION

Contents

- Port State Control – General aspects and procedures
- Port State control (PSC) for sulphur content compliance
- Initial inspection and clear grounds
- Fuel type used on board
- Fuel (non) availability and procedures
- Actions to be taken in case of non-compliance

Port State Control (PSC)

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). Etc.
- The ship is manned and operated in compliance with applicable international laws.

PSC Legal base

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.

Provisions within international conventions

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

- Regulation 10 on Port State Control
- Regulation 11 on Detection of violations and enforcement

PSC Procedures

PSC inspections are intended to be a backup to flag State implementation, a "second line of defence" against substandard shipping, and experience has shown that they can be extremely effective.

Many IMO conventions contain provisions for Governments to inspect foreign ships that visit their ports to ensure that they meet IMO standards contained in instruments to which the port State is a Party, taking into account the concept of no-more favourable treatment.

Resolution A. 1155(32) Adopted 15 Dec 2021 Procedures for PSC

Mediterranean MoU

- 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, Croatia, Cyprus, Egypt, Israel, Jordan, Lebanon, Malta, Morocco, Tunisia and Türkiye
- Inspections: Annually about 6000 inspections. Carry out concentrated inspections
- Exchange of information: Communicate and links with IMO, Paris MoU, Black Sea MoU, etc.

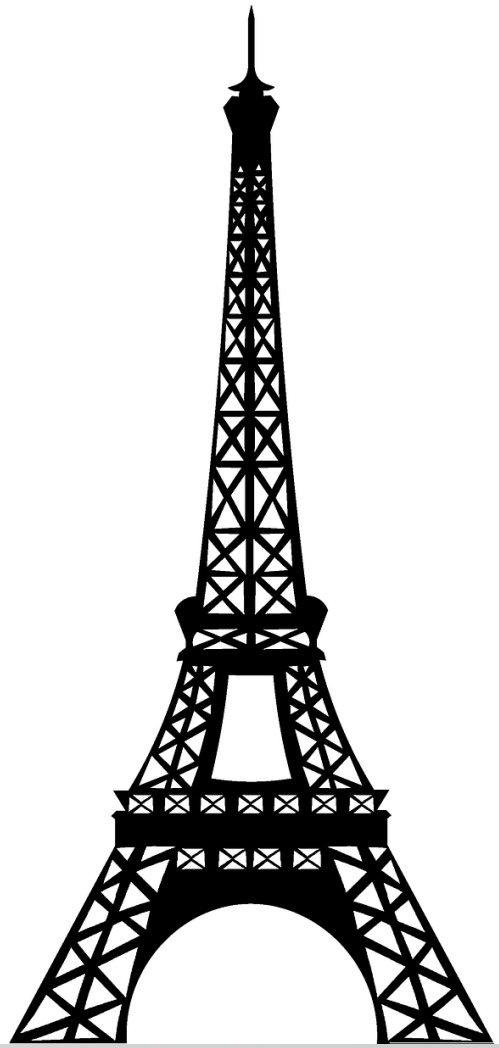
Paris MoU

Members in the Mediterranean

- Croatia, Cyprus, France, Greece, Italy, Malta, Montenegro, Slovenia and Spain.
- Total of 17000 inspections for all countries.

PSC general

- Basic principle is that the prime responsibility for compliance with the requirements laid down in the international maritime conventions lies with the shipowner/operator. Responsibility for ensuring such compliance remains with the flag State.



PSC 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 (Int Transport Federation) …., etc.
4. Based on system used by the relevant Memorandum of Understanding (MoU). For example a risk-based system to select ships (ship risk profile).

MARPOL Annex VI Port State Control

ANNEX 15

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

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

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

4 types of PSC Inspection

- Initial
- More detailed
- Expanded
- Concentrated inspection campaign

How does PSC select a ship for inspection

- Based on a calculation of the history of inspections and generic factors such as age, ship type, ship risk type etc
- Each aspect of the history and generic factors is weighed and the outcome is the priority indication
- Selection for high sulphur fuel by Sniffer results and information from Thetis
- Low risk ships must be inspected every third year, standard risk ships must be inspected every year, while high risk ships must be inspected every six months.

Initial Inspection general

It involves checking certificates and documents.

- 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.

In particular

- Evidence that the sulphur content of the fuel is in accordance with Reg 14
- Evidence of a written fuel change over procedure and records of it

Clear grounds to conduct a more detailed inspection

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 or evidence of high sulphur fuel
8. Report or complaint informing about ship being substandard

Possible detainable deficiencies

Absence of valid certificates or documents.

……

The sulphur content of any fuel used or found on board exceeds 0.50% m/m (or 0.10% used while in the Med SOx ECA).

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.).

……

Action taken

- Rectified →Used for a deficiency which has been rectified and verified by a PSCO
- To be rectified within 14 days →Used for a deficiency which is not serious enough to require urgent rectification or verification by a PSCO before departure.
- To be rectified before departure →Used for a deficiency which should be rectified before the ship sails but is not serious enough to warrant detention, or/and can reasonably be rectified before the ship sails.

Detention

- Detention → Used for a deficiency that is serious enough that it should be rectified before departure. The PSCO shall review the rectification before the ship may continue its voyage.
- Exemption if the ship is to proceed to the nearest ship repair yard for repair.
- The PSCO will exercise professional judgment in determining whether to detain the ship until the deficiencies are rectified or to allow it to sail with certain deficiencies
- A PSCO is not obligated to return to ship in every case. The Authority will verify that the deficiencies have been rectified before departure.

Reporting deficiencies

- If no deficiencies are found during the inspection, the PSCO will issue a 'clean' inspection report to the master of the ship.
- In case deficiencies have been identified, the inspection report will include deficiencies
- The report indicates any follow-up actions to be taken to rectify the recorded deficiencies and includes the relevant Convention reference.
- Next, the particulars of the ship and the inspection results will be recorded in the database.

Initial inspection inside Med SOx ECA

- Written changeover procedure & record of change over events before entering the Med SOx ECA (Reg14.6)
- Evidence of fuel delivered with sulphur percentage < 0,10 including records of bunkering operations
- 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 (Reg18.2.1.1) and Fuel Oil Non Availability Report (FONAR)
- If available analyses of commercial samples

Sampling of fuel on board

- Sample in use → MEPC.1/Circ.864/Rev.1

2019 guidelines for on board sampling for the verification of the sulphur content of the fuel used on board ships

- Sample on board → MEPC.1/Circ.889

2020 Guidelines for on board sampling of fuel oil intended to be used or carried for use on board a ship

Five fuel types

LNG – Liquid natural gas

LNG is stored in bullet tanks and because LNG consists of natural gas that is cooled down to -162 degrees Celsius, which makes it 1/600 of its natural volume, it is very important that a consistent temperature is kept. If not, the LNG can expand and create an explosion because of the pressure in the bullet tank.

Heavy Fuel Oil – with sulphur content >0,50%

By installing a marine scrubber, which cleans the exhaust gas and limits the Sulphur oxide emission, it is possible to continue using heavy fuel oil.

Five fuel types

Very-low Sulphur Fuel – with a max Sulphur emission of 0.50%

It comes with the disadvantages of potentially being sensitive when mixed with other fuels on board of a ship and the risk of instability.

Ultra-low Sulphur Fuel – with a max Sulphur emission of 0.10%

There exists uncertainty about the stability of the fuel, the need for special management because of the low viscosity levels and the uncertainty about the contamination and the compatibility.

Biofuels

These fuel types are mainly used in a blend with other fuel types to be able to lower the collective amount of Sulphur.

It can be highly problematic for marine use because of the high potential of microbial growth.

Questions ?