

APPENDIX 18

GUIDELINES FOR PORT STATE CONTROL UNDER MARPOL ANNEX VI

Chapter 1 GENERAL

1.1 This document is intended to provide basic guidance on the conduct of port State control inspections for compliance with MARPOL Annex VI (hereinafter referred to as "the Annex") and afford consistency in the conduct of these inspections, the recognition of deficiencies and the application of control procedures.

Chapter 2 INSPECTIONS OF SHIPS REQUIRED TO CARRY THE IAPP CERTIFICATE AND/OR THE IEE CERTIFICATE

2.1 Initial inspections

2.1.1 The PSCO should ascertain the status of the ship as regards application of regulations 22 and 24 of the Annex, the ship's tonnage, the date of ship construction and the date of installation of equipment on board which are subject to the provisions of the Annex, in order to confirm which regulations of the Annex are applicable.

2.1.2 As a preliminary check, the IAPP Certificate's validity should be confirmed by verifying that the Certificate is properly completed and signed and that required surveys have been performed.

2.1.3 Through examining the Supplement to the IAPP Certificate, the PSCO may establish how the ship is equipped for the prevention of air pollution.

2.1.4 If the bunker delivery note or the representative sample as required by regulation VI/18 presented to the ship are not in compliance with the relevant requirements (the BDN is set out in appendix V of MARPOL Annex VI), the master or officer in charge of the bunker operation may have documented that through a notification to the ship's flag Administration with copies to the port authority under whose jurisdiction the ship did not receive the required documentation pursuant to the bunkering operation and to the bunker deliverer.

2.1.5 In addition, if the BDN shows compliant fuel, but the master has independent test results of the fuel oil sample taken by the ship during the bunkering which indicates non-compliance, the master may have documented that through a notification to the ship's flag Administration with copies to the competent authority of the relevant port of destination, the Administration under whose jurisdiction the bunker deliverer is located and to the bunker deliverer.

2.1.6 In all cases, a copy may be retained on board the ship, together with any available commercial documentation, for the subsequent scrutiny of port State control.

2.1.7 As a preliminary check, the IEE Certificate's validity should be confirmed by verifying that the Certificate is properly completed and signed.

2.2 Initial inspection on ships equipped with equivalent means of SO_x compliance

2.2.1 On ships equipped with equivalent means of compliance, the PSCO will look at:

- .1 evidence that the ship has received an appropriate approval for any installed equivalent means (approved, under trial or being commissioned);
- .2 evidence that the ship is using an equivalent means, as identified on the Supplement of the IAPP certificate, for fuel oil combustion units on board or that compliant fuel oil is used in equipment not so covered; and
- .3 BDNs on board¹ which indicate that the fuel oil is intended to be used in combination with an equivalent means of SO_x compliance or the ship is subject to a relevant exemption to conduct trials for SO_x emission reduction and control technology research.

2.2.2 Where an EGCS is not in compliance with the relevant requirements for other than transitory periods and isolated spikes in the recorded output, the master or officer in charge may have documented that through a notification to the ship's flag Administration with copies to the competent authority of the relevant port of destination, and presented those corrective actions taken in order to rectify the situation in accordance with the guidance given in the EGCS Technical Manual. If a malfunction occurs in the instrumentation for the monitoring of emission to air or the monitoring of washwater discharge to sea, the ship may have alternative documentation demonstrating compliance.²

2.3 Initial inspection within an ECA

2.3.1 When a ship is inspected in a port in an ECA designated for SO_x emission control, the PSCO should look at:

- .1 evidence of fuel oil delivered to and used on board with a sulphur content of not more than 0.10% m/m through the BDNs and appropriate onboard records including records of bunkering operations as set out in the Oil Record Book Part 1 (regulations VI/18.5 and VI/14.4); and
- .2 for those ships using separate fuel oils for compliance with regulation VI/14, evidence of a written procedure (in a working language or languages understood by the crew) and records of changeover to fuel oil with a sulphur content of not more than 0.10% m/m before entering the ECA such that compliant fuel was being used while sailing in the entire ECA as required in regulation VI/14.6.

¹ Resolution MEPC.305(73) on *Prohibition on the carriage of non-compliant fuel oil for combustion purposes for propulsion or operation on board a ship* is not applicable to fuel oil carried as cargo or for ships fitted with an approved equivalent means of compliance.

² MEPC.1/Circ.883/Rev.1 on *Guidance on indication of ongoing compliance in the case of the failure of a single monitoring instrument, and recommended actions to take if the exhaust gas cleaning system (EGCS) fails to meet the provisions of the EGCS Guidelines (resolution MEPC.340(77))*: ships should have documented notification of system non-compliance to relevant authorities as in paragraph 2.2.2.

2.3.2 When a ship to which regulation VI/13.5.1 applies for a particular NO_x Tier III emission control area is inspected in a port in that area, the PSCO should look at:

- .1 the records in respect of the tier and on/off status, together with any changes to that status while within that NO_x Tier III emission control area, which are to be logged as required by regulation VI/13.5.3 in respect of an installed marine diesel engine certified to both Tier II and Tier III or which is certified to Tier II only;¹ and
- .2 the status of an installed marine diesel engine which is certified to both Tier II and Tier III showing that that engine was operating in its Tier III condition on entry into that NO_x Tier III emission control area and that status was maintained at all times while that marine diesel engine was in operation within that area; or
- .3 the records related to the conditions associated with an exemption granted under regulation VI/13.5.4, checking they have been logged as required by that exemption and that the terms and duration of that exemption have been complied with as required.

2.4 Initial inspection outside an ECA or first port after transiting an ECA

2.4.1 When a ship is inspected in a port outside the ECA the PSCO will look to the same documentation and evidence as during inspections in ports inside the ECA. The PSCO should, in particular, look at:

- .1 evidence that the sulphur content of the fuel oil is in accordance with regulation VI/14.1² through the BDNs and appropriate onboard records including records of bunkering operations as set out in the Oil Record Book Part 1 (regulations VI/18.5 and VI/14.4); and
- .2 evidence of a written procedure (in a working language or languages understood by the crew) and records of changeover from fuel oil with a sulphur content of not more than 0.10% m/m after leaving the ECA such that compliant fuel was being used while sailing in the entire ECA.

2.4.2 When a ship to which regulation VI/13.5.1 applies for a particular NO_x Tier III emission control area is inspected in a port outside that area, the PSCO should look at the records required by 2.3.2.1 and 2.3.2.2 or 2.3.2.3 to ensure that the relevant requirements were complied with for the whole period of time the ship was operating in that area.

2.5 Outcome of initial inspection

2.5.1 If the certificates and documents are valid and appropriate and, after an inspection of the ship to check that the overall condition of the ship meets generally accepted international rules and standards, the PSCO's general impressions and observations on board confirm a good standard of maintenance, the inspection should be considered satisfactorily concluded.

¹ Unified interpretation of regulation 13.5.3 set out in MEPC.1/Circ.795/Rev.8.

² Resolution MEPC.305(73) on *Prohibition on the carriage of non-compliant fuel oil for combustion purposes for propulsion or operation on board a ship* is not applicable to fuel oil carried as cargo or for ships fitted with an approved equivalent means of compliance.

2.5.2 If, however, the PSCO's general impressions or observations on board give clear grounds (see paragraph 2.5.3) for believing that the condition of the ship or its equipment does not correspond substantially with the particulars of the certificates or the documents, the PSCO should proceed to a more detailed inspection.

2.5.3 "Clear grounds" to conduct a more detailed inspection include:

- .1 evidence that certificates required by the Annex are missing or clearly invalid;
- .2 evidence that documents required by the Annex are missing or clearly invalid;
- .3 the absence or malfunctioning of equipment or arrangements specified in the certificates or documents;
- .4 the presence of equipment or arrangements not specified in the certificates or documents;
- .5 evidence from the PSCO's general impressions or observations that serious deficiencies exist in the equipment or arrangements specified in the certificates or documents;
- .6 information or evidence that the master or crew are not familiar with essential shipboard operations relating to the prevention of air pollution, or that such operations have not been carried out;
- .7 evidence of inconsistency between information in the bunker delivery note and paragraph 2.3 of the Supplement to the IAPP certificate;
- .8 evidence that an equivalent means has not been used as required; or
- .9 evidence, for example by fuel calculators, that the quantity of bunkered compliant fuel oil is inconsistent with the ship's voyage plan; and
- .10 receipt of a report or complaint containing information that the ship appears to be non-compliant including but not limited to information from remote sensing surveillance of SO_x emissions or portable fuel oil sulphur content measurement devices indicating that a ship appears to use non-compliant fuel while in operation/under way;
- .11 evidence that the tier and/or on/off status of applicable installed marine diesel engines has not been maintained correctly or as required;
- .12 receipt of a report or complaint containing information that one or more of the installed marine diesel engines has not been operated in accordance with the provisions of the respective Technical File or the requirements relevant to a particular NO_x Tier III emission control area;
- .13 receipt of a report or complaint containing information that the conditions attached to an exemption granted under regulation VI/13.5.4 have not been complied with;

- .14 information or evidence that the master or crew are not familiar with essential shipboard operations relating to implementation of the SEEMP (with a plan of corrective actions included - for a ship rated as D for 3 consecutive years or rated as E) in accordance with regulation 28 of MARPOL Annex VI, or that such operations have not been carried out; and
- .15 evidence that the Overridable Shaft Power Limitation (ShaPoLi) / Overridable Engine Power Limitation (EPL) system has been overridden without proper notifications in accordance with the EEXI ShaPoLi / EPL Guidelines.

2.6 More detailed inspections

2.6.1 The PSCO should verify that:

- .1 there are effectively implemented maintenance procedures for the equipment containing ozone-depleting substances; and
- .2 there are no deliberate emissions of ozone-depleting substances.

2.6.2 In order to verify that each installed marine diesel engine with a power output of more than 130 kW is approved by the Administration in accordance with the NO_x Technical Code and maintained appropriately, the PSCO should pay particular attention to the following:

- .1 examine such marine diesel engines to be consistent with the EIAPP Certificate and its Supplement, Technical File and, if applicable, Record Book of Engine Parameters or Onboard Monitoring Manual and related data;
- .2 examine marine diesel engines specified in the Technical Files to verify that no unapproved modifications which may affect NO_x emission have been made to the marine diesel engines;
- .3 in the case of an installed marine diesel engine certified to Tier III, check that the required records, if applicable, in accordance with regulation VI/13.5.1 or in the Technical File, including those required by 2.3.6 of the NO_x Technical Code, have been maintained as necessary and that the marine diesel engine, including any NO_x control device and associated ancillary systems and equipment, including, where fitted, bypass arrangements, is maintained in accordance with the associated Technical File and is in good order;
- .4 if applicable, examine whether the conditions attached to an exemption granted under regulation VI/13.5.4 have been complied with as required;
- .5 examine marine diesel engines with a power output of more than 5,000 kW and a per cylinder displacement at or above 90 litres installed on a ship constructed on or after 1 January 1990 but prior to 1 January 2000 to verify that they are certified, if so required, in accordance with regulation VI/13.7;
- .6 in the case of ships constructed before 1 January 2000, verify that any marine diesel engine which has been subject to a major conversion, as defined in regulation VI/13, has been approved by the Administration; and
- .7 emergency marine diesel engines intended to be used solely in case of emergency are still in use for this purpose.

2.6.3 The PSCO should check and verify whether fuel oil complies with the provisions of regulation VI/14 taking into account appendix VI¹ of MARPOL Annex VI.

2.6.4 The PSCO should pay attention to the record required in regulation VI/14.6 in order to identify the sulphur content of fuel oil used by the ship depending on the area of trade, or that other equivalent approved means have been applied as required, the fuel oil consumed in and outside the ECA, and that there is enough fuel in compliance with regulation VI/14 to reach the next port destination.

2.6.5 Where EGCS is used, the PSCO should check that it has been installed and operated, together with its monitoring systems, in accordance with the associated approved documentation according to the survey procedures as established in the OMM.

2.6.6 If the ship is equipped with an EGCS as an equivalent means of SO_x compliance, the PSCO should verify that the system is properly functioning, is in operation, there are continuous-monitoring systems with tamper-proof data recording and processing devices,² if applicable, and the records demonstrate the necessary compliance when set against the limits given in the approved documentation and that apply to relevant fuel combustion units on board. Checking can include but is not limited to emissions ratio, pH, PAH, turbidity readings as limit values given in ETM-A or ETM-B and operation parameters as listed in the system documentation.

2.6.7 If the ship is a tanker, as defined in regulation VI/2.1.31, the PSCO should verify that the vapour collection system approved by the Administration, taking into account MSC/Circ.585, is installed, if required under regulation VI/15.

2.6.8 If the ship is a tanker carrying crude oil, the PSCO should verify that there is on board an approved VOC Management Plan.

2.6.9 The PSCO should verify that prohibited materials are not incinerated.

2.6.10 The PSCO should verify that shipboard incineration of sewage sludge or sludge oil in boilers or marine power plants is not undertaken while the ship is inside ports, harbours or estuaries (regulation VI/16.4).

2.6.11 The PSCO should verify that the shipboard incinerator, if required by regulation VI/16.6.1, is approved by the Administration. For these units, it should be verified that the incinerator is properly maintained, therefore the PSCO should examine whether:

- .1 the shipboard incinerator is consistent with the certificate of shipboard incinerator;
- .2 the operational manual, in order to operate the shipboard incinerator within the limits provided in appendix IV to the Annex, is provided; and
- .3 the combustion chamber flue gas outlet temperature is monitored at all times the unit is in operation (regulation VI/16.9).

¹ Amendments to MARPOL VI, appendix VI, *Verification procedures for a MARPOL Annex VI fuel oil sample*.

² Equivalent emission values for emission abatement methods are 4.3 and 21.7 SO₂ (ppm)/CO₂ (% v/v) for marine fuels with a sulphur content of 0.10 and 0.50 (% m/m) respectively.

2.6.12 The PSCO should verify whether the ship has been subject to a major conversion (regulation VI/2.2.17) or there have been changes to the ship in respect of aspects which are covered by the EEDI Technical File or EEXI Technical File.

2.6.13 On ships subject to chapter 4 of MARPOL Annex VI the PSCO should examine:

- .1 If the ShaPoLi system or the EPL system is used to comply with EEXI requirements, the PSCO may confirm whether the ShaPoLi / EPL system has been certified by Administration or RO and is installed and used in accordance with such certification.
- .2 The PSCO may inspect whether the Ship Energy Efficiency Management Plan (SEEMP) is duly implemented by the ship in accordance with regulation 28 of MARPOL Annex VI.
- .3 If the ship is rated as D for 3 consecutive years or rated as E, the PSCO may inspect whether the plan of corrective actions in accordance with the SEEMP is duly implemented by the ship.

2.6.14 If there are clear grounds as defined in paragraph 2.5.3, the PSCO may examine operational or reporting procedures by confirming that:

- .1 the master or crew are familiar with the procedures to prevent emissions of ozone-depleting substances;
- .2 the master or crew are familiar with the proper operation and maintenance of marine diesel engines, in accordance with their Technical Files or Approved Method file, as applicable, and with due regard for emission control areas for NO_x control;
- .3 the master or crew are familiar with fuel oil bunkering procedures in connection to the respective bunker delivery notes and onboard records including the Oil Record Book Part 1 (regulations VI/18.5 and VI/14.4) and retained samples as required by regulation VI/18;
- .4 the master or crew are familiar with the correct operation of an EGCS or other equivalent means on board together with any applicable monitoring and recording, and record-keeping requirements;
- .5 the master or crew are familiar and have undertaken the necessary fuel oil changeover procedures, or equivalent, associated with demonstrating compliance within an emission control area;
- .6 the master or crew are familiar with the garbage screening procedure to ensure that prohibited garbage is not incinerated;
- .7 the master or crew are familiar with the operation of the shipboard incinerator, as required by regulation VI/16.6, within the limits provided in appendix IV to the Annex, in accordance with its operational manual;

- .8 the master or crew are familiar with the regulation of emissions of VOCs, when the ship is in ports or terminals under the jurisdiction of a Party to the 1997 Protocol to MARPOL 73/78 in which emissions of VOCs are to be regulated, and are familiar with the proper operation of a vapour collection system approved by the Administration (in case the ship is a tanker as defined in regulation VI/2.1.31);
- .9 the master or crew are familiar with the application of the VOC Management Plan, if applicable;
- .10 the master or crew are familiar with the requirements related to the implementation of the SEEMP (the plan of corrective actions where applicable) in accordance with regulation 28 of MARPOL Annex VI; and
- .11 the overridden ShaPoLi/EPL system has been properly reactivated or replaced.

2.7 Detainable deficiencies

2.7.1 In exercising his or her functions, the PSCO should use professional judgement to determine whether to detain the ship until any noted deficiencies are corrected or to allow it to sail with certain deficiencies which do not pose an unreasonable threat of harm under the scope of the Annex provided they will be addressed in a timely manner. In doing this, the PSCO should be guided by the principle that the requirements contained in the Annex, with respect to the construction, equipment and operation of the ship, are essential for the protection of the marine environment, navigational safety or human health and that departure from these requirements could constitute an unreasonable threat of harm to the protection aspects mentioned and should be avoided.

2.7.2 In order to assist the PSCO in the use of these Guidelines, there follows a list of deficiencies which are considered, taking into account the provisions of regulation VI/3, to be of such a serious nature that they may warrant the detention of the ship involved:

- .1 absence of valid International Air Pollution Prevention Certificate (IAPP Certificate), Engine International Air Pollution Prevention Certificates (EIAPP Certificates) or Technical Files if applicable;
- .2 absence of International Energy Efficiency Certificate (IEE Certificate), the EEDI Technical File or EEXI Technical File; or the Ship Energy Efficiency Management Plan (SEEMP);
- .3 in relation to the absence of a valid Statement of Compliance¹ for:
 - .1 fuel Oil Consumption Reporting from 2019 and onwards of 1 June of each following year (regulation 27); and/or
 - .2 carbon Intensity Rating from 2023 and onwards of each following year (regulation 28),a pragmatic approach should be applied if a ship has changed the flag and/or the company and there is evidence the losing Administration has not acted in accordance with regulation/s or data was not provided by the previous company when the ship was transferred;

¹ New ships are not required to be furnished with Statements of Compliance until June of the following year.

- .4 a marine diesel engine with a power output of more than 130 kW which is installed on board a ship constructed on or after 1 January 2000, or a marine diesel engine having undergone a major conversion on or after 1 January 2000 which does not conform to its Technical File, or where the required records have not been maintained as necessary, or where it has not met the applicable requirements of the particular NO_x Tier III emission control area in which it is operating;
- .5 a marine diesel engine, with a power output of more than 5,000 kW and a per cylinder displacement at or above 90 litres, which is installed on board a ship constructed on or after 1 January 1990 but prior to 1 January 2000, and an approved method for that engine has been certified by an Administration and was commercially available, for which an approved method is not installed after the first renewal survey specified in regulation VI/13.7.2;
- .6 on ships not equipped with equivalent means of SO_x compliance, based on the methodology of sample analysis in accordance with appendix VI¹ of MARPOL Annex VI, the sulphur content of any fuel oil being used or carried for use on board exceeds the applicable limit required by regulation VI/14. If the master claims that it was not possible to bunker compliant fuel oil, the PSCO should take into account the provisions of regulation VI/18.2 (see the appendix);
- .7 on ships equipped with equivalent means of SO_x compliance:
 - .1 absence of an appropriate approval for the equivalent means, which applies to relevant fuel combustion units on board;
 - .2 EGCS systems installed on board fail to provide effective equivalence to the requirements of regulations VI/14 and 14.4; and
 - .3 with regard to combustion units not connected to an EGCS, the sulphur content of any fuel oil being used on these combustion units exceeds the limit stipulated in regulation VI/14, taking into account the provisions of regulation VI/18.2 (see the appendix).
- .8 non-compliance with the relevant requirements while operating within an emission control area for SO_x and particulate matter control;
- .9 an incinerator installed on board the ship on or after 1 January 2000 does not comply with requirements contained in appendix IV to the Annex, or the standard specifications for shipboard incinerators developed by the Organization (resolutions MEPC.76(40) as amended by MEPC.93(45), or resolution MEPC.244(66), as amended by resolution MEPC.368(79), as appropriate); and
- .10 the master or crew are not familiar with essential procedures regarding the operation of air pollution prevention equipment or reporting requirements as defined in paragraph 2.6.12 above.

¹ Amendments to MARPOL VI, appendix VI, Verification procedures for a MARPOL Annex VI fuel oil sample.

Chapter 3 INSPECTIONS OF SHIPS OF NON-PARTIES TO THE ANNEX AND OTHER SHIPS NOT REQUIRED TO CARRY THE IAPP CERTIFICATE OR THE IEE CERTIFICATE

3.1 Ships of non-Parties and ships not required to carry the IAPP Certificate.

3.1.1 As this category of ships is not provided with the IAPP Certificate, the PSCO should judge whether the condition of the ship and its equipment satisfies the requirements set out in chapter 3 of the Annex. In this respect, the PSCO should take into account that, in accordance with article 5(4) of MARPOL, no more favourable treatment is to be given to ships of non-Parties.

3.1.2 In all other respects the PSCO should be guided by the procedures for ships referred to in chapter 2 and should be satisfied that the ship and crew do not present a danger to those on board or an unreasonable threat of harm to the marine environment.

3.1.3 If the ship has a form of certification other than the IAPP Certificate, the PSCO may take such documentation into account in the evaluation of the ship.

3.2 Ships of non-Parties and ships not required to carry the IEE Certificate.

3.2.1 As ships of non-Parties are not provided with the IEE Certificate, the PSCO may examine equivalent documentation issued by that non-Party showing that the ship is of a design no less energy-efficient than that required by chapter 4 of the Annex. In addition, the ship should have on board an energy efficiency management plan equivalent to that required for the SEEMP. Such ships are not required to have documentation and procedures covering fuel oil consumption reporting and operational carbon intensity rating and hence will not have a Statement of Compliance – Fuel Oil Consumption Reporting and operational carbon intensity rating.

3.2.2 Ships of Parties which are not required to carry the IEE Certificate are not required to have a SEEMP or to have documentation and procedures covering fuel oil consumption reporting and operational carbon intensity rating and hence will not have a Statement of Compliance – Fuel Oil Consumption Reporting and operational carbon intensity rating.

Appendix

NON-AVAILABILITY OF COMPLIANT FUEL OIL CLAIMED

If non-availability of compliant fuel oil is claimed, the master/owner must present a record of actions taken to attempt to bunker compliant fuel oil and provide evidence:

- .1 of attempts to purchase compliant fuel oil in accordance with its voyage plan;
- .2 if the fuel oil was not made available where expected, that attempts were made to locate alternative sources for such fuel oil; and
- .3 that despite best efforts to obtain compliant fuel oil no such fuel oil was made available for purchase.

Best efforts to procure compliant fuel oil include, but are not limited to, investigating alternative sources of fuel oil prior to commencing the voyage or en route.

The ship should not be required to deviate from its intended voyage or to unduly delay the voyage in order to achieve compliance.

If the ship provides the information, as above, the port State should take into account all relevant circumstances and the evidence presented to determine the appropriate action to take, including not taking control measures.

The master/owner may provide evidence as below to support their claim (not exhaustive):

- .1 a copy (or description) of the ship's voyage plan, including the ship's port of origin and port of destination;
- .2 the time the ship first received notice it would be conducting a voyage involving transit/arrival in the port and the ship's location when it first received such notice;
- .3 a description of the actions taken to attempt to achieve compliance, including a description of all attempts that were made to locate alternative sources of compliant fuel oil, and a description of the reason why compliant fuel was not available (e.g. compliant fuel oil was not available at ports on the "intended voyage", fuel oil supply disruptions at port);
- .4 the cost of compliant fuel is not considered to be a valid basis for claiming non-availability of fuel;
- .5 names and addresses of the fuel oil suppliers contacted and the dates on which contact was made;
- .6 in cases of fuel oil supply disruption, the name of the port at which the ship was scheduled to receive compliant fuel oil and the name of the fuel supplier that is reporting the non-availability of compliant fuel oil;
- .7 the availability of compliant fuel oil at the next port of call and plans to obtain that fuel oil; and

- .8 if applicable, identification and description of any operational constraints that prevented use of compliant fuel oil, e.g. with respect to viscosity or other fuel oil parameters.

If, despite best efforts, it was not possible to procure compliant fuel oil, the master/owner must notify the port State control authorities in the port of arrival and the flag Administration (regulation VI/18.2.4).