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THE REPUBLIC OF LIBERIA

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Marine Advisory: 35/2025-Rev.1
(Supersedes Marine Advisory: 35/2025 dated 21 November 2025)

SUBJECT: Most Common MARPOL Annex VI Deficiencies during PSC Inspections

- Reference:**
- (a) [Appendix 18 of the Procedures for Port State Control, 2023, IMO Assembly Resolution A.1185\(33\)](#)
 - (b) [Paris MOU PSC INSTRUCTION 58/2025/16 GUIDELINES ON MARPOL ANNEX VI](#)
 - (c) [Marine Notice POL-009](#)

The following changes have been included:

- a. Added additional deficiencies under alternative arrangements (SOx) - EGCS

Dear Shipowners/Operators/Masters/Crew:

The purpose of this Marine Advisory is to draw the attention of shipowners, operators, inspectors, masters, and crew to the most common MARPOL Annex VI deficiencies raised during Port State Control (PSC) inspections of Liberian flagged vessels.

From the PSC reports, the Administration has compiled a list of most common MARPOL Annex VI deficiencies and has included in the table below Guidance to avoid these deficiencies:

Most Common Deficiency	Comments and Guidance
Technical files and if applicable, monitoring manual (MARPOL Annex VI/Reg. 13)	<p>Each diesel engine which is certified to NOx Tier I, II or III must be issued an Engine International Air Pollution Prevention (EIAPP) Certificate and a NOx Technical File approved by the vessel's RO on behalf of the Administration. The EIAPP and TF are to be maintained on board the vessel.</p> <p>The IMO ID number of fuel injection nozzles and other spare parts are to match those in the NOx technical file,</p> <p>If an engine uses the Direct Measurement and Monitoring method, this is to be documented in an Onboard Monitoring Manual, approved by the vessel's RO on behalf of the Administration.</p> <p>Refer to Liberia MN POL-009/Applicability, Section 7.0 and 12.2.13.</p>
Record book of engine parameters (MARPOL Annex VI/Reg. 13 and NOx Technical Code/6.2.2.7))	<p>A ship equipped with a marine diesel engine required to undergo an Engine Parameter Check method shall maintain on board:</p> <ol style="list-style-type: none">1. A Record Book of Engine Parameters;2. An engine parameter list of an engine's designated components and settings and/or the documentation of an engine's load-dependent

	<p>operating values approved by the Administration; and</p> <p>3. Technical documentation of engine component modification when such a modification is made to any of the engine's designated engine components.</p>
<p>Record book of engine parameters (NOx Technical Code/6.2.2.8)</p>	<p>A record of the component identification numbers of engine parts that affect NOx emissions shall be made in the "Record book of engine parameters" and ensure they match the official "NOx Technical File" and "EIAPP Certificate". Key components include fuel injectors, pumps, camshafts, charge air coolers, pistons, and turbochargers, all of which need to be logged with their original and replacement ID numbers when a change is made.</p>
<p>Approved method (MARPOL Annex VI/Reg. 13.7.1 to 13.7.5)</p>	<p>A marine diesel engine with a power output of more than 5,000 kW and a per cylinder displacement at or 90 L installed on a ship constructed on or after 1 January 1990 but prior to 1 January 2000 shall comply with the Tier I emission limits standards, provided that an approved method for the engine has been certified by an Administration of a Party and notification of such certification has been made to IMO. Section 2.2.1 of a vessel's IAPP Supplement is to be completed appropriate depending of the ship-specific application of this regulation.</p> <p>Refer to Liberia MN POL-009/12.2.6 to 12.2.8.</p>
<p>Exhaust Gas Recirculation (EGR) (MARPOL Annex VI/Reg. 13)</p>	<p>Ships equipped with EGR to comply with NOx levels shall:</p> <ol style="list-style-type: none"> 1. Meet the EGR bleed-off water discharge standards 2. Have on board a manual for EGR bleed-off discharge system and EGR Record Book approved by the RO on behalf of the Administration 3. Have on board certificates of type approval and operating and maintenance manuals of oil content meters (15 ppm alarm) <p>Refer to Liberia MN POL-009/12.2.9.</p>
<p>EGR or Selective Catalytic Reduction (SCR) (MARPOL Annex VI/Reg. 13)</p>	<p>Ships installed with EGR or SCR and unable to comply with relevant NOx Tier III levels prior to entering a NOx ECA shall immediately notify the relevant coastal State(s) and the Administration.</p> <p>Refer to Liberia MN POL-009/12.2.9 and 12.2.10.</p>
<p>Diesel engine air pollution control (MARPOL Annex VI/reg. 13.6)</p>	<p>The tier and on/off status of marine diesel engines installed on board a ship which are certified to both Tier II and Tier III or which are certified to Tier II only shall be recorded in the engineering log book or electronic record book approved by the Administration, suitable for that purpose at entry into and exit from an emission control area designated under regulation 13.6 of MARPOL Annex VI, or when the on/off status changes within such an area, together with the date, time and position of the ship.</p> <p>Refer to MN POL-009/12.2.5.</p>

<p>Fuel Sulphur Content and Fuel Oil change-over procedure and SOx Records (MARPOL Annex VI/Reg. 14)</p>	<p>The Sulphur content of any fuel oil carried for use on board a ship when operating outside a designated Sox ECA shall not exceed 0.50% m/m.</p> <p>The Sulphur content of any fuel oil used on board ships when operating within a designated Sox ECA shall not exceed 0.10% m/m. Current ECA's are North American, United States Caribbean Sea, the Baltic Sea, the North Sea, and the Mediterranean Sea, and on 01 March 2026, the Canadian Arctic and the Norwegian Sea.</p> <p>The maximum Sulphur content of marine fuels for use while at berth in EU ports is 0.10% m/m.</p> <p>Vessels using separate fuel oils when entering or leaving an ECA must carry a written procedure showing how the fuel oil change-over procedure will be done, allowing sufficient time for the fuel oil service system to be fully flushed of all fuel oils exceeding the applicable Sulphur content prior to entry into an ECA. The use of a "fuel oil change over calculator" is one way of ensuring the change-over is done in time. Refer to Liberia MN POL-009/12.3.8.</p> <p>The volume of low Sulphur fuel oils in each tank as well as the date, time, and position of the ship when any fuel-oil-change-over operation is completed prior to the entry into an ECA or commenced after exit from such an area, shall be recorded in the engineering log book or in a record book or log book in electronic format (electronic record book) approved by the Administration. (The Administration's Marine Sulphur Record Book may also be used for this purpose.)</p>
<p>Alternative arrangements (SOx) - EGCS (MARPOL Annex VI/Reg's. 4 and 14)</p>	<p>An exhaust gas cleaning system (EGCS) used as an equivalent or alternative arrangement to achieve the relevant Sulphur limit in Global Mode (0.5% equivalent) or ECA Mode (0.1% equivalent) must be approved by the Administration. Refer to POL-009/12.3.9 and 12.3.10.</p> <p>Ships operating with an EGCS shall have on board an EGCS technical manual, an onboard monitoring manual (OMM), SOx emissions compliance plan (SECMP) and EGCS record book approved by the vessel's RO on behalf of the Administration.</p> <p>All seafarers serving on board ships using EGCS should, prior to being assigned shipboard duties, be familiarized with their specific duties and procedures for the operation of EGCS in Global and ECA Modes. Refer to STCW regulation I/14.5.</p> <p>The EGCS must operate in the ECA Mode (0.1% equivalent) in an Emission Control Area (ECA) and the changeover recorded in the EGCS record book.</p> <p>The continuous emissions (exhaust gas) monitoring system (CEMS) and discharge water monitoring system must be fully operational during operation of the EGCS. A sensor failure doesn't necessarily qualify as malfunction as long as the EGCS performance can be verified by other parameters. In such case, records of interim indication for demonstrating compliance should be kept. Refer to Liberia MN POL-009/12.3.12.</p> <p>The analysers used for monitoring exhaust gas, inlet water, discharge water should be serviced, maintained, and calibrated in accordance with the OMM. The zero and span check of the exhaust gas analysers and</p>

	<p>calibration of washwater, discharge water and inlet water analysers should be carried out in accordance with the procedures in the OMM. Same must be recorded in the EGCS record book. Refer to section 8 of the Annex to MEPC Resolutions 259(68) and 340(77).</p> <p>The span gases for the SO₂ and CO₂ analyser should not be expired and consist of a mixture of SO₂ and/or CO₂ and nitrogen at a concentration of more than 80% of the full scale of the measuring range used. The span gas for the CO₂ should conform to the requirements of section 2 of appendix IV of the NOX Technical Code 2008. Refer to section 6 of the Annex to MEPC Resolutions 259(68) and 340(77).</p> <p>The exhaust gas sampling line must be installed or replaced in accordance with manufacturers' instructions and specifications and approved by the Administration. Temporary or unapproved modifications are not acceptable.</p> <p>The ship should switch to compliant fuel if the EGCS cannot be repaired within one hour. In case the ship doesn't have compliant fuel or sufficient amount of compliant fuel on board, a proposed course of action, in order to bunker compliant fuel or carry out repair works, should be communicated to relevant authorities including the Administration and relevant port State for their agreement. Refer to Liberia MN POL-009/12.3.11.</p>
<p>Incinerator, including operations and operating manual (MARPOL Annex VI/Reg. 16)</p>	<p>Shipboard incinerators are to be approved by the vessel's RO on behalf of the Administration and issued a Type Approval certificate. Refer to Liberia MN POL-009/12.3.8.</p> <p>Incinerators are to be provided with a manufacturer's operating manual which is to be retained on board the vessel and which specifies how to operate the incinerator within its applicable limits.</p>
<p>Bunker delivery notes (BDN) (MARPOL Annex VI/Reg. 18)</p>	<p>Details of fuel oil delivered to and used on board Liberian flag ships shall be recorded by means of a Bunker Delivery Note provided by the supplier, which may be in electronic format. Refer to Liberia MN POL-009/Section 14.0.</p> <p>The BDN is to include, among other things, Sulphur content (% m/m), flashpoint (°C) specified in accordance with acceptable standards, or a statement that the flashpoint has been measured at or above 70°C, and a declaration signed and certified by the fuel oil supplier's representative that the fuel oil supplied is in conformity with regulation 18.3 of MARPOL Annex VI and that the Sulphur content of the fuel oil supplied does not exceed the applicable regulatory limit or the purchaser's specified limited value.</p>

It is recommended that shipowners, operators, masters and crew inspect their vessels to ensure that these deficiencies are not present on board their vessels and if it is found that one or more exist, to resolve this as quickly as possible, using the noted references and other guidance.

If you have any questions or concerns, please contact the Regulations and Standards Department at RegsAndStandards@lisr.com.
