



## **PSC focus on NO<sub>x</sub> technical files and machinery components**

International requirements on greenhouse gas (GHG) emissions are currently high in focus of Port State Control (PSC). The EIAPP certification of engines and the maintenance of records have resulted in several PSC detentions. In a recent article, DNV discusses experiences and offers advice on key PSC topics. LESSGO

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# GHG regulations and focus for PSC

According to DNV, different PSC areas are currently scrutinizing the NOx Technical Files and the Record Book of Engine Parameters to ensure the records align with the on-board installations. This has resulted in several detainable deficiencies being issued during regular PSC inspections in recent months.

PSC Officers may also check available spare parts to verify if their IMO IDs match the Technical Files, says DNV. Any non-compliance might trigger a more detailed PSC inspection. In case of doubt, PSC Officers might also request partial disassembly of diesel generators for more thorough inspection.

The following examples of common deficiencies identified during inspections are provided:

PSC Code	Defective Item	Additional PSC comments
14601	Technical Files and, if applicable, monitoring manual	NOx Technical File for main engine and generators is not available onboard.
14602	Record Book of Engine Parameters	Record Book of Engine Parameters properly filled in, but information related to the replacement of injection pump cylinder no. 1 as per the NOx Technical File is missing.
14606	Diesel engine air pollution control	Charge air cooler of M/E is without the IMO ID number as required by the NOx Technical File.

The main grounds for past detentions were missing Technical Files or Record Books of Engine Parameters, and engine parts lacking the IMO identification number as per the Technical File onboard. During follow-up of detainable deficiencies, DNV experts noted that misunderstandings and missing instructions onboard were often the reasons for deficiencies, which could lead to vessel detention.

## Prepare for PSC inspections

Based on the above, DNV offers the following guidance:

- **NOx Technical Files and Engine International Air Pollution Prevention (EIAPP) certificates** must be available onboard in their original form. Please note that for documents issued digitally, PDF files represent the originals. When there is a change of shipowner, care should be taken to ensure that these documents are handed over. If NOx Technical Files are missing, the owner should contact the engine manufacturer to obtain new documents. Missing certificates may be reissued by DNV.
- **A Record Book, or electronic Record Book, of Engine Parameters** is used with the engine parameter check method to document all parameter changes, including component replacements, like-for-like replacements and engine settings, which may influence the engine's NOx emissions. These descriptions shall be supplemented with any other applicable data used for the assessment of the engine's NOx emissions. In principle, checking the record book is the first step for the surveyor in applying the parameter check method. This is to verify that engine parameters are within the allowable range specified in the engine's Technical File. The form and content of the record book is not defined. Some technical files contain templates. However, at a minimum, the date, component and old and new ID numbers should be entered, as well as changes or verifications of settings.
- In case of missing or incorrect **ID numbers**, the shipowner should initiate corrective measures. A reasonable period should be allowed for this. In case of incorrect ID

numbers, the shipowner should contact the engine manufacturer to check if approved amendments to the NOx Technical File allow the use of the components.

- An inspection of the **engine components and adjustable features** shall be conducted as necessary. The results of this inspection, along with the documentation review, will verify that the engine's adjustable features are within the allowable range specified in the Technical File. The surveyor may choose to check any or all of the identified components, settings or operating values.

## Recommendations

All shipowners and operators are advised to review the above items highlighted by DNV and make sure that updated Technical Files and Record Books are always available onboard. [IMO Res. A.1155\(33\)](#) - Procedures for Port State Control 2023 – Appendix 18 “Guidelines for Port State Control under MARPOL Annex VI” is specifically highlighted.

*We thank DNV for permitting us to share this information with our readers. The original version of this article, with more information about DNV's service offering, can be found on the [DNV website](#).*