

Title: Reducing NOx Emission in DP2 and DP3 Operations

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Abstract

DP capability and propulsion/thruster design for a DP2 vessel are based on maximum operational weather conditions and worst single failure. However, DP operations are often done in calm weather. Relevant requirements, e.g. Class requirements, states that the vessel must be fully redundant in such operations. This means that many thrusters and generators must be started during the DP operation. The power usage in calm weather will be so low that we are far below the ideal working conditions for the diesels and generators, and too low for the NOx catalyst to work.

This paper presents a thrust allocation method where the load is shared on the switchboards in order to bring generators above the catalyst limit without using extra thrust such as thruster biasing. The method leads to reduced emission of NOx.

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