

THE SEEMP

INTRODUCTION

The Ship Energy Efficiency Management Plan (SEEMP) was introduced to the wider shipping community via the IMO's MEPC.1/Circ.683 'Guidance for the development of a Ship Energy Efficiency Management Plan (SEEMP)' first published in August 2009. It recognized the need to assist the industry in managing the environmental performance of ships and that operational efficiencies will make an invaluable contribution to reducing global carbon emissions.

DNV's SEEMP development services have been built on the experience gained from the delivery of both SEEMPs to customers and more detailed energy efficiency projects by DNV world-wide and complementary work conducted by the entire DNV organization in the areas of fuel management, ship design, statutory and class services.

IMO – MEPC 62 July 2011

MEPC 62 finished in July 2011 with the adoption of new requirements on CO₂ including making the Ship Energy Efficiency Management Plan (SEEMP) mandatory for both new and existing ships irrespective of flag from 1 January 2013 at the first renewal or intermediate survey after this date-

The SEEMP provides an approach for monitoring ship and fleet efficiency performance over time, and encourages the ship owner, at each stage of the plan, to consider new technologies and practices when seeking to optimize ship performance. SEEMP will not be subject to approval by flag states or Recognized Organizations such is the case with class, but will be part of a new chapter 4 of MARPOL Annex 6 on Regulations and be required under the International Energy Efficiency Certificate (IEEC).

The IEEC requires under Regulation 22 that '... each ship shall keep on board a ship specific Ship Energy Efficiency Management Plan (SEEMP) ... (and) shall be developed taking into account guidelines adopted by the (IMO).'

IMO Guidance for development of a SEEMP recommends focus in 3 key areas

Planning – includes ship- and company-specific measures, human resource development and goal-setting whilst keeping in mind to minimize related onboard administration

- *The most crucial step of the SEEMP development and should reference company goals and processes, ship specific features in both technical and operational spheres, training, competence and timelines.*

Implementation – includes attention to establishment of an appropriate system that allows for each selected measure to be rolled-out according to plans.

- *Any 'system' can involve a mix of tools, processes and record keeping that when combined, will enable the implementation of specific energy efficient initiatives. A communication plan that identifies who is responsible for each step in the process will increase awareness and the likelihood of sustainable activity.*

Monitoring – describes the establishment of a system utilizing various tools, both existing and new, that can provide both a qualitative and quantitative basis for self-evaluation and subsequent review of performance.

- *Perhaps the hardest to activate in a consistent manner, the interaction of the right tools, systems and processes is crucial to track benefit realization and provide the basis to sustain improvements. Many organizations collect a lot of data from a wide range of sources, however not all manage this information to the point that they know how well they are performing or what they should do to sustain or improve.*

SUMMARY – DEVELOPING A SEEMP

As per the IMO Guidance Documents and IECC regulations, a SEEMP must be prepared for each ship. Whilst it can be based on a standard format and will contain some generic elements, it should be tailored to be relevant to ship type and operational profile.

Developing a SEEMP should be a systematic and structured process that draws on relevant information and experience from within the organization. As always, you should have a realistic picture of what it takes to develop a SEEMP before you start so that it not only meets the IMO requirements but in addition – and perhaps most importantly – will increase the chances of actually realizing a reduction in emissions and associated costs.

DNV EXPERIENCE WHERE IT COUNTS

- More than 40 Energy Management projects in recent years
 - Worked in most shipping segments including Tank, Bulk, Container, Cruise/RoPax, LNG/LPG, Chemical, RORO, Seismic and Offshore
 - Over 1000 ships
 - Worked in most geographical areas
 - DNV Petroleum Services with ca. 65% of world fuel testing market
 - Leading ISO certification including 9001 (management systems) and 14000 (environmental management systems)
 - DNV Benchmark recording operational performance across thousands of vessels world-wide
 - DNV SeaSkill certifying and delivering maritime training globally
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