



Improving Energy Efficiency: SEEMP

The Ship Energy Efficiency Management Plan (SEEMP) made mandatory by the International Maritime Organization (IMO) is a tool for shipowners and operators to use in outlining a program that continuously improves the energy efficiency of their vessels.

Starting as early as 1 January 2013, all shipowners and operators must identify and develop ship-specific energy efficiency measures for their vessels. This ship-specific plan can serve as an element when developing a broader Company Energy Efficiency Management Plan (CEEMP), which incorporates all measures of efficiency company-wide, both onshore and offshore.

The SEEMP can be thought of as a catalog of best practices that can be implemented on a particular vessel to improve its energy efficiency. Each ship-specific plan is to be monitored, updated and

improved upon frequently throughout the life of the vessel.

Recognizing that no two organizations are the same and that vessels operate under a wide-range of environmental and economic conditions, ABS provides shipowners and operators with a thorough understanding of the guidance offered by many industry organizations for developing an SEEMP. ABS can identify options to assist shipowners and operators in their efforts to incorporate the organizations' guidance that best suits their specific needs.

Drafting an energy efficiency plan follows a four-step process:

- Planning & Energy Efficiency Assessment
- Implementation
- Monitoring the Implemented Measures
- Self-evaluation and Improvement



INSIDE:

Learn about ABS Nautical Systems' Energy & Environmental and Trim Optimization software solutions that assist owners and operators to demonstrate SEEMP compliance.

Developing Energy Efficiency Management Plans

ABS can support the development and implementation of the SEEMP and CEEMP by preparing the initial assessment and facilitating workshops to help operators select appropriate energy efficiency measures, as well as provide assistance in setting efficiency goals. As part of this process, ABS can assist operators in evaluating the technology options available to them and select a course of action best suited for their fleets.

During the workshops, ABS assists operators with:

- Setting a desired course of action
- Identifying best practices
- Investigating technology solution options
- Establishing goals, measurements and timelines
- Identifying responsible parties
- Developing specification requirements for system solutions

While implementation and plan monitoring is managed primarily by ship operators, ABS can work in close collaboration to provide guidance. ABS staff can constructively participate in the decisions made during the workshop, provide counsel on measurement techniques, and where appropriate, provide updates on available technology solutions that can impact implementation. ABS also can review the final SEEMP document and offer a Statement of Voluntary Compliance to demonstrate that it meets IMO Guidelines.

Once the plans are in place, ABS can provide operators with independent audit reviews of the results. At any time, ABS can review the data collection process, assist with measurement calculations and provide additional recommendations for improvements based on new technologies.



Realize the Benefits

- Demonstrate compliance with IMO's mandate for SEEMP
- Promote energy conservation on board vessels
- Improve performance while helping the environment
- Achieve cost savings helping to make vessels more competitive



ABS Nautical Systems Solutions to Support SEEMP

ABS Nautical Systems has released two new solutions to provide the tools necessary to assist owners and operators to demonstrate compliance with IMO's mandate for SEEMP.

The new Energy & Environmental module within the NS5 Enterprise platform, allows for the collection, analysis and reporting of a vessel's performance, efficiency, emissions and discharges. The software's shipboard component offers easy-to-use data entry forms that can be populated manually or automatically, while generating the required reports to demonstrate SEEMP compliance.

The onshore component offers sophisticated functionality with flexible dashboards that provide owners with the information necessary to execute better vessel and fleet operations. This new software module is fully integrated into the NS5 Enterprise suite or it can be used as a standalone tool.

Energy & Environmental Software

- Customized dashboards
- Reports with drag and drop industry standard energy and environmental key performance indicators (KPIs)

- Monitor emissions with built-in CO₂ and SO_x calculators
- Full voyage management capabilities at ship and fleet levels
- Fully integrated into NS5 Enterprise or use as a standalone tool

Also available, in partnership with Herbert-ABS Software Solutions LLC is a trim optimization tool based on trim and draft as a way to help with the fuel efficiency of a vessel. The applied method is to conduct model tests in calm water covering relevant speeds and drafts for the operational profile of each vessel class. This tool was developed to optimize within applicable regulatory bounds and assist the crew in finding the best trim for any combination of draft and speed.

Trim Optimization Tool

- Integrated ship performance curves
- Push button optimization advice
- User-defined optimization parameters
- Auto ballast tool
- Auto cargo distribution
- State-of-the-art algorithms

Fleet Management Categories

Maintenance Management

- Maintenance Manager
- Drydock
- Hull Inspection
- Hull Maintenance
- Drawings Management

Supply Chain Management

- Purchasing & Inventory
- Interface Manager

Workforce Management

- Crew Manager
- Crew Payroll

Safety Management

- HSQE Manager
- Document Management
- Vetting
- Voyage Management

Environmental Management

- Energy & Environmental
- Trim Optimization

Standard Interfaces

- Invoicing
- eProcurement
- Accrual
- Commitments
- Budgeting
- Inventory Logistics Imports & Exports
- Barcode Scanning

Consulting Services

- Project Management
- Process Mapping & Business Improvement
- System Implementations
- System Integration
- System Audits
- Embedded Staff

Data Services

- Data Entry
- Interface with ABS Eagle Survey Status
- IMPA Catalog Subscription
- Data Conversions & Data Loads
- Database Creation & Development
- Data Cleansing

Training Services

- End-user Training
- System Administration Training
- Management Training
- Boot Camp Style Training
- Train-the-Trainer Programs
- Customized Training Programs

Information Management Services

- Custom Development Projects
- Dashboards & Business Intelligence Solutions
- Remote Hosting & System Administration



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