



# SHIP SAFETY BULLETIN

Bulletin No.: 01/2013  
RDIMS No.: 8244661  
Date: 2013-05-08  
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**Subject: New Regulations for Vessel Air Emissions:  
COMPLIANCE WITH ENERGY EFFICIENCY STANDARDS**

## Purpose

The purpose of this bulletin is to inform stakeholders of new regulations now in place to address air emissions from vessels over 400 gross tonnage operating in Canada. The *Regulations Amending the Vessel Pollution and Dangerous Chemicals Regulations* (the Amendments) were published in Part II of the *Canada Gazette* on May 8, 2013.

Please note this bulletin complements Ship Safety Bulletin 06/2013 and provides guidance on determining compliance with energy efficiency standards under the Amendments.

## Background

The Amendments implement standards for the North American Emission Control Area (NA-ECA), energy efficiency of vessels and a regime for Canadian vessels in the Great Lakes and St. Lawrence waters. For full text of the Amendments and the Regulatory Impact Analysis Statement, please see the [Canada Gazette, Part II](#).

Please note some requirements for air emissions are already in place under *Vessel Pollution and Dangerous Chemicals Regulations* (the Regulations). As the Amendments will be incorporated into the text of the Regulations, please consult the [Regulations](#).

The Regulations will be enforced in accordance with the [Policy on Compliance and Enforcement of the Canada Shipping Act, 2001](#)-TP13585.

### Keywords:

1. Air Emissions
2. Marine Fuels
3. Regulations
4. Pollution Prevention
5. Energy Efficiency

### Questions concerning this Bulletin should be addressed to:

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Environmental Protection  
613-991-3168

Transport Canada  
Marine Safety and Security  
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New energy efficiency standards were adopted by the International Maritime Organization (IMO) in July, 2011, comprise the Energy Efficiency Design Index for new vessels built after June 30, 2013, and the Ship Energy Efficiency Operating Plan for existing vessels. With the Amendments published, Canadian regulations to implement these international standards are now in place.

### **Overview of the Amendments**

The Amendments require all vessels to carry a Ship Energy Efficiency Management Plan or SEEMP. This can be a simple statement within a vessel's Safety Management System documents, or a more detailed document on its own.

The Amendments set requirements for new vessels built after June 30, 2013, that trade internationally to have calculated its Energy Efficiency Design Index (EEDI) and meet its required efficiency target set out in the July 2011 revisions to Annex VI to MARPOL. For a new vessel, its EEDI value must be calculated for its International Energy Efficiency Certificate to be issued.

Compliance is demonstrated by the International Energy Efficiency Certificate.

### **Ship Energy Efficiency Management Plan (SEEMP)**

All ships must carry a SEEMP either as its own document or as part of the vessel's safety management system documents. IMO has published the *2012 Guidelines for the Development of a Ship Energy Efficiency Management Plan (SEEMP)* MEPC.213(63). This provides options to improve energy efficiency and a recommended format for the SEEMP.

### **Energy Efficiency Design Index (EEDI)**

The Energy Efficiency Design Index applies only to new vessels and provides a standardized indicator of a new vessel's energy efficiency. By itself, the EEDI is analogous to mileage figures available for vehicles. However, the standards also provide that new vessels built after January 1, 2015, must be up to 10% more efficient than a baseline of vessels built between 1999 and 2009. This is further tightened after January 1, 2020, when new vessels would need to be up to 20% more efficient and by up to 30% after January 1, 2025. These targets vary by class of vessel and by size.

As well, a vessel that undergoes a major conversion will be subject to the standards that apply in the year of that conversion rather than the year the vessel is originally built.

For new Canadian vessels intended to voyage internationally, and new foreign vessels, the Amendments require compliance with EEDI requirements. This work would be expected to be undertaken by Class during the construction of the vessel.

IMO has published the following supporting documents:

- *2012 Guidelines on the method of calculation of the attained energy efficiency design index (EEDI) for new ships* MEPC.212(63)
- *Guidelines for calculation of reference lines for use with the energy efficiency design index (EEDI)* MEPC.215(63) and
- *2012 Guidelines on survey and certification of the energy efficiency design index (EEDI)* MEPC.214(63)

Please note the Amendments exempt from the EEDI requirements new Canadian vessels that voyage exclusively in Canadian jurisdiction or the Great Lakes and St Lawrence waters. A Transport Canada technical study found that applying the EEDI to new Canadian vessels would result in higher greenhouse gas emissions. Transport Canada intends to apply this standard to new Canadian vessels once technical issues are resolved which will require two to three years.

### **International Energy Efficiency Certificates**

All existing vessels are required by the Amendments to carry an International Energy Efficiency Certificate, which is issued based on an existing vessel having a SEEMP.

A new Canadian vessel that voyages only in Canada or the Great Lakes water would not be issued this certificate, as they are exempt from the EEDI requirements.

A new Canadian vessel voyaging internationally is required to have an EEDI calculated and subsequently would be issued this certificate.

### **IMO Guidance Documents**

The IMO guidance documents are available from Transport Canada on request or from the [IMO web site](#) under the Knowledge Centre, in English only.

### **Questions**

Questions should be directed to:

Environmental Protection (AMSEE)  
Operations and Environmental Programs  
Marine Safety and Security  
Transport Canada  
330 Sparks St, 10<sup>th</sup> floor,  
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