



# SHIP SAFETY BULLETIN

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**Subject:** MARINE DIESEL ENGINES in SMALL CANADIAN VESSELS

## Purpose

This bulletin outlines Transport Canada’s policy on compliance with the IMO Tier III nitrogen oxides emission standards set out in the *Vessel Pollution and Dangerous Chemicals Regulations* ([the Regulations](#)).

## Scope

This bulletin applies to Canadian vessels that:

- are up to 15 metres in length, with a combined nameplate diesel engine propulsion power of less than 750 kW;
- voyage solely within Canadian waters; and
- are subject to the IMO Tier III emission standards set out in subsection 110.3 (4) of the Regulations.

## Background

- In 2013, amendments to the *Vessel Pollution and Dangerous Chemicals Regulations* (the Regulations) under the *Canada Shipping Act, 2001* incorporated the emission standards for marine engines set out under Annex VI of the *International Convention for the Prevention of Pollution from Ships* (MARPOL).
- This adoption of the MARPOL standards included the establishment of the North American Emission Control Area (NA-ECA). For nitrogen oxides (NOx) emissions, the IMO TIER II standards were set as the global standards, while the more stringent IMO TIER III standards came into effect January 1, 2016 within the NA-ECA.

## Keywords:

1. Air Emissions
2. Nitrogen Oxides
3. Enforcement
4. Pollution Prevention

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- Currently, small marine engines need the emission control technology Selective Catalytic Reduction (SCR), to meet the IMO TIER III standards.
- Transport Canada completed an analysis on the ability to incorporate and operate SCR systems onboard small vessels (less than 24 metres) within the Canadian fleet. It was concluded that vessels up to 15 metres in length would have a high degree of difficulty accommodating and operating onboard SCR equipment.

### **Policy Measures**

Transport Canada will not require compliance with the IMO Tier III nitrogen oxides emission standards set out in subsection 110.3 (4) of the Regulations for marine engines installed on Canadian vessels that are equal to or under 15 metres in length<sup>1</sup> with a combined nameplate diesel engine propulsion power of less than 750 kW, whether for repowering or in new construction.

Rather, these marine diesel engines will have to comply with the IMO Tier II NO<sub>x</sub> emission standards set out in subsection 110.2 (3) of the Regulations, provided the engine satisfies the application requirements set out in subsection 110.2 (1) of the Regulations.

### **Policy Review**

This policy will be in place until Dec 31, 2022 when Transport Canada will conduct a review of the marine engine technology to determine if advancements enable small marine engines to meet the IMO Tier III emission standards without the use of SCR or with smaller emission control technology.

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<sup>1</sup> Length, *in* respect of a vessel, means the distance measured from the forward end of the foremost outside surface of the hull shell to the aft end of the aftermost outside surface of the hull shell.