

# Swedish requirements and instructions for alternative certification of ships using third party NOx reduction technologies to reach Tier III

Version	Date	Description/amendment	Editor
01.00	2024-03-28	New requirements and instructions issued	Caroline Petrini

## NOx Technical Code (2008) (NTC 2008)

### General instructions

This guidance for alternative certification is valid for diesel engines when retrofitting Selective Catalytic Reduction (SCR) or when connecting several engines to the same unit. This procedure assumes that the engine has a Tier I or Tier II certification.

The STA shall be notified when a ship is using third party NOx reduction technologies to reach Tier III.

### Installation of SCR

The installation of SCR shall be in accordance with collective regulations (i.e a class notation).

### Verification and demonstration of compliance

Demonstration of compliance of IMO Tier III NOx requirements shall be verified through an on-board confirmation test in accordance with the simplified measurement method described in NTC 2008, 6.3.

The tests shall be performed in line with a test plan produced by the company performing the test. This plan shall at a minimum include:

- Procedures for demonstrating compliance with NOx limitations on board, including descriptions of emission analysers, test mode, sampling system, test object, etc.
- Engine load (NTC 2008, 6.3.3).
- Fuel consumption (NTC 2008, 6.3.1.4).
- Emissions in accordance with NTC 2008 6.3. The values from the EIAPP certificate that are used as input in the calculations shall be described.
- Sampling position and sampling probe.
- Measuring procedure; describing warm up, leakage check, zero and span check, engine stabilization etc.
- Which Test cycle that have been used, in accordance with ISO 8178 / NTC 2008.
- Data evaluation.

### Test report

Test report shall reflect the results from testing performed in accordance with the test plan. The report shall include detailed results analysis. Test report shall be attached to the Technical File.

RO shall take part of the test report including the results, which shall be confirmed by the RO by a note/stamp on the report.

Malfunctions shall be reported by RO to the STA.

### Issuance of IAPP Certificate

The following information shall be provided under section 2.6 in the IAPP certificate:

"System or Equipment": SCR maker(s) and SCR serial number(s)

"Equivalent used": Selective Catalytic Reduction system

"Approval reference": Reference to test report and reference to approved NOx Technical file(s) of engine(s).