

Survey Performance Requirements for Annex VI Endorsement

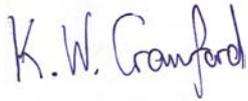
Periodic surveys



Pursuant to Maritime Rule 44.25(3), and having met the relevant obligations of Maritime Rule 44.25(5).
I, Kenneth Crawford, hereby impose the following requirements as to the performance of surveys (survey performance requirements):

Signed at Wellington

This 17th day of January 2023

A handwritten signature in blue ink that reads "K. W. Crawford". The signature is written in a cursive style with a large initial 'K'.

Kenneth Crawford

Deputy Chief Executive Technical Advice and Support

Maritime New Zealand

Acting under Delegated Authority

Survey performance requirements for Annex VI Endorsement (periodic surveys)

Effective from: 17 January 2023

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In this guide

1.	Basis in maritime and marine protection rules	2
2.	Application	4
3.	Part 199 survey requirements for periodic surveys	5
4.	Guidance when completing survey report	13
5.	Where to find more information	20

1. Basis in maritime and marine protection rules

Survey performance requirements (SPRs) complement maritime rules and marine protection rules that require a surveyor to exercise judgement. In the event of any conflict between an SPR and a maritime rule or marine protection rule, the rule prevails.

This SPR sets out the requirements for the periodic survey of:

- ships less than 400 gross tonnage (GT) engaged in international or domestic voyage, for compliance with the Marine Protection Rules Part 199 Prevention of Air Pollution from Ships (Part 199) in order to issue an Annex VI Endorsement, and
- ships 400 GT or more, engaged on a domestic voyage, specifying the certification ships must hold as evidence that they are compliant with Part 199, in order to issue an Annex VI Endorsement.

This SPR has its basis in the following rules.

Maritime Rules Part 44.25

Rule 44.25(3) states that “*the Director may impose requirements as to the performance of a survey*” and rule 44.25(4) states that “*when undertaking any survey, the surveyor must comply with any requirements imposed by the Director as to the performance of a survey*”.

Marine Protection Rules Part 199.385

Rule 199.385(1) states that “*the Director may set out as a requirement as to the performance of a survey under rule 44.25 (3) those factors that may be taken into account to demonstrate that an engine complies with rule 199.384*”.

Marine Protection Rules Part 199

Part 199 gives effect to the provisions of Annex VI of the International Convention for the Prevention of Pollution from Ships 1973 (MARPOL), as modified from time to time.

Requirement for Annex VI Endorsement

Ships less than 400 GT engaged in an international or domestic voyage must have their valid Certificate of Survey, New Zealand Barge Safety Certificate or Certificate of Fitness under Part 40G endorsed by a surveyor (this is an Annex VI Endorsement) verifying that the relevant requirements of Part 199 are complied with (Reference rules 199.55 and 199.341(1)(b)).

Ships 400 GT or more on a domestic voyage must have:

- an Annex VI Endorsement, **or**
- a valid International Air Pollution Prevention Certificate (IAPP certificate) **and** an International Energy Efficiency Certificate (IEE certificate), **or**
- a valid IAPP Exemption certificate (Reference rule 199.341(1)(a)).

1. Basis in maritime and marine protection rules (continued)

Surveys for compliance with Part 199

A surveyor who undertakes a survey in relation to an Annex VI Endorsement under Part 199 must conduct the survey in accordance with:

- rule 199.57 for international voyaging ships less than 400 GT, or
- rule 199.342 for domestic voyaging ships less than 400 GT, or 400 GT or more, as applicable.

Surveyors must apply relevant IMO guidelines and provide a survey report (Reference Part 199 Subpart G - Surveyors).

Ships less than 400 GT

For ships less than 400 GT, that were a New Zealand ship before 26 August 2022, the surveys to verify compliance with Part 199 must be conducted within the existing schedule of the surveys for each ship. This will start with the next periodic survey (intermediate or renewal) as per the ship's survey plan under rule 19.43 after:

- 1 January 2023 for international voyaging ships, or
- 1 April 2023 for domestic voyaging ships,
- but in no case later than 1 April 2025 (Reference Schedule 1.2.9).

From then on, surveys for compliance with Part 199 must be conducted at each periodic survey, and must be added to the ship's survey plan.

Ships 400 GT or more

For ships 400 GT or more, that were a New Zealand ship before 26 August 2022, the surveys to verify compliance with Part 199 must be conducted within the existing schedule of surveys for each ship. This will start at the next periodic survey (intermediate or renewal) for the International Oil Pollution Prevention (IOPP) certificate after 1 January 2023 (international voyaging ships), or 1 April 2023 (domestic voyaging ships) as per the ship's survey plan under rule 19.43, but in no case later than 1 April 2025 (Reference Schedule 1.2.9).

From then on, surveys for compliance with Part 199 must be conducted annually (Reference Regulation 5.1 of MARPOL Annex VI) and must be added to the ship's survey plan.

2. Application

These SPRs apply to periodic (intermediate and renewal) surveys of the ship and ship's equipment for compliance with Part 199 and an Annex VI Endorsement. Surveyors must comply with these SPRs when undertaking such a survey and producing the associated survey report.

Part 199 does not apply to warships and any other ships of the New Zealand Defence Force (Reference rule 199.1(3)), or to ships that only operate in inland waters, such as lakes or rivers (Reference rule 199.1(7)).

Part 199 applies to Jet boats that are regulated under the Part 40: Design, Construction and Equipment Rules that have a Certificate of Survey. Part 199 does not apply to jet boats regulated under Maritime Rules Part 82: Commercial Jet Boat Operations - River.

All commercial ships that Part 199 applies to, require certification to demonstrate compliance with Part 199 progressively from 26 August 2022. An Annex VI Endorsement or international certificates (as applicable) are required even if the ship has no equipment, systems, fittings, arrangements and material or processes that require survey under Part 199.

There are three SPRs relating to Part 199. This one for periodic surveys, one for initial surveys and one for ships 400 GT or more on domestic voyages.

There are three terms for different types of voyages used in this SPR. These determine which rules apply. The definition of New Zealand jurisdiction also has a bearing on which engine emission rules apply.

1. **International voyage** means a journey by water:
 - a) from a port in New Zealand to a port or offshore terminal outside of New Zealand or vice versa; or
 - b) for a New Zealand ship, a port or offshore terminal outside New Zealand to another port or offshore terminal outside New Zealand.
2. **Domestic voyage** means a voyage by a ship that is not an international voyage
3. For the purpose of 'beyond New Zealand's jurisdiction':
New Zealand jurisdiction means:
 - (a) the internal waters of New Zealand; and
 - (b) the territorial sea of New Zealand; and
 - (c) the exclusive economic zone of New Zealand; and
 - (d) those waters under or about any ship or offshore installation constructed, erected, placed or used in, on, or above the continental shelf of New Zealand but beyond the outer limits of the exclusive economic zone of New Zealand in connection with the exploration of the continental shelf or the exploitation of its natural resources.

3. Part 199 survey requirements for periodic surveys

A surveyor must ensure each ship surveyed for a periodic survey complies with the relevant requirements in Part 199. The survey shall ensure that the equipment, systems, fittings, arrangements and material or processes on the ship comply with the applicable requirements of Part 199.

Ships of less than 400 GT engaged in international or domestic voyage

The survey for Annex VI Endorsement must be conducted by a surveyor:

- holding a Certificate of Surveyor Recognition (CoSR) issued under rule 44.22, or
- with recognition category as a surveyor for MARPOL Annex VI (Part 199) for ships 400 GT or more engaged in domestic voyages (under rule 199.680), or
- employed by a Maritime NZ Recognised Organisation delegated for Part 199 (RO).

The person making (actually issuing) an Annex VI Endorsement is required to hold a CoSR issued under rule 44.22.

Note: The ship must comply with Part 199 and all other relevant rules before the Certificate of Survey, New Zealand Barge Safety Certificate or Certificate of Fitness can be issued along with the Annex VI Endorsement.

If the first survey for compliance with Part 199 is an intermediate survey, a standalone Annex VI Endorsement may be issued in the form available on the 'all surveyor resources and tools' page on the Maritime NZ website.

The Certificate of Survey, New Zealand Barge Safety Certificate or Certificate of Fitness must be issued with the Annex VI Endorsement (as incorporated into the template) when issuing a new certificate following the successful completion of a renewal survey.

Ships 400 GT or more engaged in domestic voyage

When conducting the periodic survey of a ship 400 GT or more, operating domestically, one of the following must apply:

1. Ships operating domestically **the operator has a choice**. They must have either:
 - a) a survey report from a suitably recognised surveyor confirming compliance with all applicable requirements of Part 199, or alternatively
 - b) a valid IAPP certificate and a IEE certificate¹.
2. Unmanned Non-self-propelled (UNSP) barges may instead have an IAPP Exemption certificate under Subpart F of Part 199. The IAPP Exemption certificate is a marine protection document and not an exemption issued under section 395 of the Maritime Transport Act.

¹ If an operator chooses this option, the Part 199 surveys start from the first periodic survey after 1 January 2023.

3. Part 199 survey requirements for periodic surveys (continued)

If 1(a) applies the surveyor (with CoSR) can then issue an Annex VI Endorsement on the Certificate of Survey, New Zealand Barge Safety Certificate or Certificate of Fitness.

The survey report confirming compliance in 1(a) must be issued by:

- a recognised surveyor with recognition category as surveyor for MARPOL Annex VI (Part 199) for ships 400 GT or more on domestic voyages (under rule 199.680), or
- an RO surveyor.

For more information about the qualifications and experience required for recognition under rule 199.680, please refer to the Surveyor – MARPOL Annex VI (Part 199) recognition categories in the Surveyor Recognition Framework.

If 1(b) or 2 apply, the IAPP certificate and IEE certificate, or IAPP Exemption certificate, must be issued by the Director or an RO with the appropriate delegation. With these certificates, the surveyor (with CoSR) can proceed on the basis that the ship complies with Part 199. The expiry date of the IAPP certificate or IAPP Exemption certificate needs to be notated on the Certificate of Survey, New Zealand Barge Safety Certificate or Certificate of Fitness, as applicable.

What to check for an Annex VI Endorsement on a ship less than 400 GT

A ship less than 400 GT must comply with all applicable requirements in Part 199 in order for a recognised surveyor to issue an Annex VI Endorsement. The following paragraphs outline the requirements that ships surveyed must comply with, and the applicable dates.

Engine certification and survey requirements for NO_x emission limits

Key information is provided here on the nitrogen oxides (NO_x) emission requirements due to the complexity of the requirements and as several requirements are set by the Director. More detail is in the [Guide for Marine Protection Rules Part 199](#) and the [New environmental rules for domestic commercial ships under 400 GT](#).

Part 199 requires many installed engines, over 130 kW output power, other than those solely used for emergency purposes, to be designed and operated under maximum limits of NO_x emissions. The specific tier of emission levels that an engine must comply with is generally based on date of engine installation or major conversion, or when it became a New Zealand ship. In the case of an engine replacement (non-identical engine or additional engine), it is the date that the engine was installed (Reference Regulation 13.2.2 of MARPOL Annex VI). If repowering with an identical engine, the replacement engine is not subject to the Part 199 engine rules unless the engine it replaced would have been subject to those rules². Specific documentation is required to prove an engine meets the requirements.

For an explanation of the emission tiers and how they apply, refer to the [Guide for Marine Protection Rules Part 199](#):

- Section 4: Nitrogen oxides emission limits for international voyaging ships, and
- Section 5: Nitrogen oxides emission limits for domestic voyaging commercial ships.

The survey takes place to ensure the installed engines comply with the NO_x emission limits. Any

² See the [New environmental rules for domestic commercial ships under 400 GT](#) booklet for more information.

modifications and/or adjustments since the engine certification was issued are to be considered in the survey.

3. Part 199 survey requirements for periodic surveys (continued)

In relation to an engine, the term 'installed' means an engine, for propulsion or other use, that is fitted on a ship, with components such as fuel, cooling systems, and exhaust systems that are integrated to the ship structure (not self-contained). This includes any engines that are permanently affixed to the ship to supplement or augment the installed power capacity of the ship, and engines that are permanently affixed to the ship for purposes other than propulsion. Portable engines are included in this definition if the engine or its fueling, cooling or exhaust system is permanently affixed to the ship.

International voyaging ships less than 400 GT

The rules on NO_x apply to engines over 130 kW output power installed on international voyaging ships that were constructed on or after 1 January 2000, or engines that have had a major conversion on or after 1 January 2000.

Each engine the rules apply to must have a **Technical file with an Engine International Air Pollution Prevention (EIAPP) certificate**. The **Technical File** can be either for the specific, individual engine *or* the parent engine of an engine family or group if the engine is a 'member engine' of that family or group.

The Technical File must be approved by Maritime NZ or an RO, and the EIAPP issued by Maritime NZ or an RO.

If an engine installed on a NZ flagged ship, has a Technical File and EIAPP that have been approved by, and issued by or on behalf of an overseas maritime administration, the Technical File will need to be reapproved and the EIAPP reissued by Maritime NZ (or by an RO, on behalf of Maritime NZ).

The survey of the engine on board must include checks to ensure that the engine as installed remains in its approved condition. The engine's component, settings and operating values must remain within the specifications in the Technical file.

Domestic voyaging ships less than 400 GT

The rules on NO_x apply to engines over 130 kW output power installed on domestic voyaging ships that:

- were or are installed on an existing³ domestic voyaging vessel on or after 19 May 2005 (or on or after 1 January 2000 if the vessel voyages outside of NZ jurisdiction), or
- the engine had a major conversion after 19 May 2005 (or on or after 1 January 2000 if the vessel voyages outside of NZ jurisdiction) (note that a major conversion includes the installation of a new engine), or
- became a New Zealand ship on or after 1 January 2023 regardless of the ship's date of construction or the date the engine was installed (Reference rule 199.381(3)(c) and 199.387(2).

³ An 'existing' New Zealand ship is a one that was a New Zealand ship on 31 December 2022.

3. Part 199 survey requirements for periodic surveys (continued)

When to include the NO_x engine emission requirements in surveys of domestic voyaging ships that were New Zealand ships before 1 January 2023

For ships that were New Zealand ships before 1 January 2023, the engines must be surveyed as follows:

- For an **existing engine** – one that was installed before 1 January 2023, the engine must be surveyed at the ship's first intermediate or renewal survey **on or after 1 January 2029**, but in no case later than 30 June 2032.
 - If a vessel voyages into waters outside of NZ jurisdiction (without visiting overseas ports), compliance will need to be shown for those engines at the vessel's next intermediate or renewal survey **after 1 April 2023**.
- For a **new engine** – one that was installed, or had a major modification **on or after 1 January 2023**, the engine must be surveyed at the ship's next survey **after 1 April 2023**.

For the periodic survey, each engine the rules apply to must have the correct evidence of compliance:

- Option 1: **a Technical File with an EIAPP certificate**, or
- Option 2: **a manufacturer's declaration/certificate of conformity** to a standard listed in Transport Instrument MPTI-199-1.

Option 1 – A Technical File and EIAPP Certificate

The Technical File can be either for the specific, individual engine **or** for the parent engine of an engine family or group if the engine is a 'member engine' of that family or group.

The Technical File must be approved by Maritime NZ or an RO, and the EIAPP issued by Maritime NZ or an RO.

If an engine is installed on a NZ flagged ship, has a Technical File and EIAPP that have been approved by, and issued by or on behalf of an overseas maritime administration, the Technical File will need to be reapproved and the EIAPP reissued by Maritime NZ (or by an RO on behalf of Maritime NZ).

The survey of an engine under Option 1 (above) must include checks that the engine has been installed and engine maintenance has been conducted in line with the manufacturer's manual and the components, settings and operating values remain within the specifications in the Technical File, to reasonably assume that NO_x emissions are not likely to have increased above the Annex VI limits due to changes made during or after installation or poor engine maintenance.

3. Part 199 survey requirements for periodic surveys (continued)

Option 2 – A manufacturer’s declaration/certificate of conformity to an acceptable standard

Option 2 is **only** available for the specific types of engine listed below, on ships that do not leave waters under New Zealand’s jurisdiction⁴.

Spark-Ignition Engines

For spark-ignition (petrol) engines a manufacturer’s declaration/certificate of conformity to one of the following standards:

- Directive 2013/53/EU of the European Parliament and of the Council on recreational craft and personal watercraft or
- USA EPA Air Pollution Controls 40 CFR Part 1045 – Control of emissions from spark-ignition propulsion marine engines and ships or
- Australian Product Emissions Standards Rules 2017.

These spark-ignition standards all meet or better the NO_x emissions limits of Tier II.

For the survey of ships engaged in domestic voyage for an Annex VI Endorsement, rule 199.385 allows the Director to set out as a requirement for the performance of a survey under rule 44.25(3) those factors that may be taken into account to demonstrate that an engine complies with rule 199.384. The Director’s requirements for spark-ignition engines are set out below.

Ships that were a NZ ship before 1 January 2023, with spark-ignition engines that were installed prior to 1 January 2011 (that would need to meet the Tier I standard) are not required to hold documentation for those engines.

If a ship that became a NZ ship on or after 1 January 2023, has a spark-ignition engine that was installed prior to 1 January 2011 the following evidence that was required to be assessed and accepted at the initial survey should be checked at each periodic survey:

- evidence that the engine meets an appropriate emissions standard for spark-ignition engines acceptable to the Director, which meets or exceeds the equivalent Tier I NO_x emissions limits; or
- evidence of the actual NO_x emissions of the engine, which meet or exceed the Tier 1 NO_x emissions limits.

If there are any concerns, contact Maritime NZ’s surveyor support by emailing surveyors@maritimenz.govt.nz.

⁴ See definitions on page 3

3. Part 199 survey requirements for periodic surveys (continued)

Stationary/auxiliary engines not used for propulsion

For stationary/auxiliary engines not used for propulsion (e.g. engines used for power generation or to power machinery such as cranes or winches), a manufacturer's declaration/certificate of conformity to one of the following standards:

For Tier II:

- USA EPA non-road diesel engine emission standards Tier 2 (or higher); or
- Euro non-road emissions standards Stage II or higher – Directive 97/68EC of the European Parliament and of the Council on the approximation of the laws of the Member States relating to measures against the emission of gaseous and particulate pollutants from internal combustion engines to be installed in non-road mobile machinery.

For Tier I:

- USA EPA Nonroad Compression-Ignition Engines: Exhaust Emission Standards Tier 1 (or higher); or
- European non-road emissions standards Stage I – Directive 97/68EC of the European Parliament and of the Council on the approximation of the laws of the Member States relating to measures against the emission of gaseous and particulate pollutants from internal combustion engines to be installed in non-road mobile machinery.

The survey of an engine under Option 2 (above) must include checks that the engine has been installed and engine maintenance has been conducted in line with the manufacturer's manual, to reasonably assume that NO_x emissions are not likely to have increased above the Annex VI limits due to changes made during or after installation or poor engine maintenance.

Discretion that can be applied when surveying more than one engine from an Engine Group or Engine Family with an EIAPP and Technical File

Surveyors may apply the following discretions (as per section 2.3.10 NTC):

1. Only one cylinder and/or one engine is required to be surveyed if there is more than one engine installed on the ship from an engine group/family and the other cylinders and/or engines are expected to perform in the same manner as the surveyed engine and/or cylinder.
2. As an alternative to examination of fitted components, examination can be made of the spare parts carried on board provided they are representative of the components fitted.

3. Part 199 survey requirements for periodic surveys (continued)

Prohibited ozone depleting substances (ODS) for ships engaged in international or domestic voyages

Installations⁵ with ODS, other than Hydrochlorofluorocarbons (HCFC) are prohibited on ships constructed on or after 19 May 2005. Installations with HCFC are prohibited on ships constructed on or after 1 January 2020.

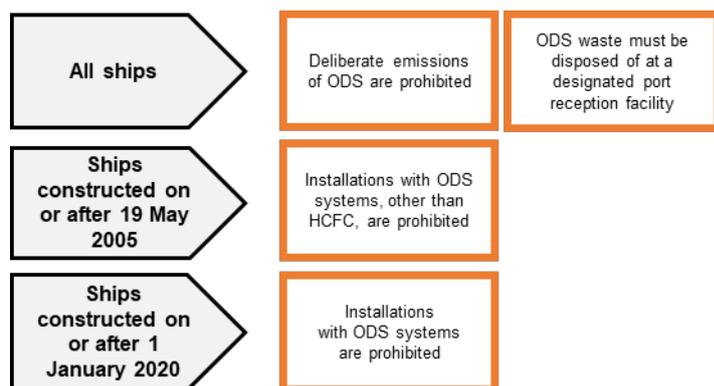


Figure 1: Applicability of the ODS requirements on ships less than 400 GT

Sulphur oxides (SO_x) and fuel requirements for ships engaged in international or domestic voyages

Part 199 has the following fuel requirements:

- all ships must use low sulphur fuels or be approved to use acceptable equivalent means to manage sulphur emissions, and
- all fuels used for combustion purposes must meet specific fuel quality standards in regulation 18 of Annex VI.

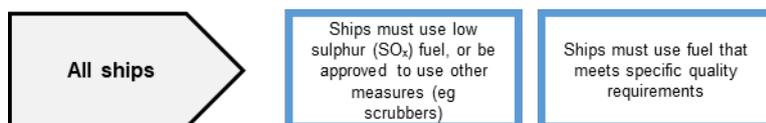


Figure 2: Applicability of the fuel requirements to ships less than 400 GT

⁵ For the purpose of rules related to ODS, an 'installation' refers to any systems, equipment (including portable fire extinguishing units), insulation or other material installed on a ship. This does not include permanently sealed equipment where there are no refrigerant charging connections or potentially removable components that contain ODS.

3. Part 199 survey requirements for periodic surveys (continued)

Shipboard incineration for ships involved in international or domestic voyages

There are requirements which apply to all ships that have a shipboard incinerator. Ships constructed or incinerators installed on or after 1 January 2000 must also hold the applicable IMO Type Approval certificate for any incinerators.

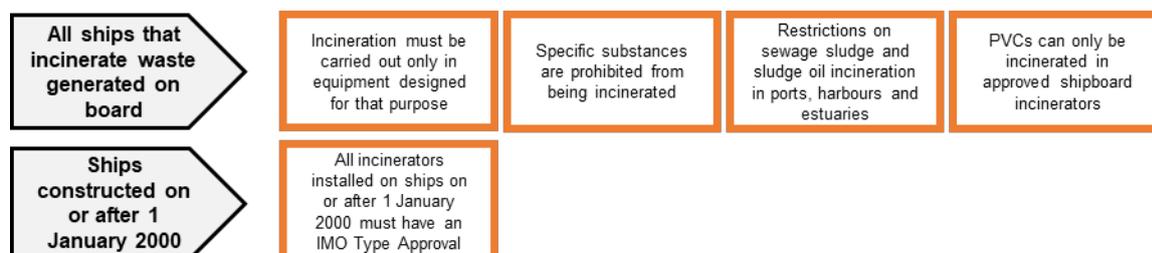


Figure 3: Applicability of the shipboard incinerator requirements on ships less than 400 GT

Details to be recorded during survey

There are details that must be recorded during the survey and provided on the survey report. You can find the survey report for Part 199 ships <400 GT under the 'all surveyor resources and tools' page on the Maritime NZ website:

www.maritimenz.govt.nz/surveyor

When conducting a periodic survey of a ship 400GT or more the survey report, completed by a suitably recognised surveyor confirming compliance with all applicable requirements of Part 199, will be in the form of the Part 199 survey report for ships 400GT or more. This is also available under the 'all surveyor resources and tools' page on the Maritime NZ website.

The requirements in these SPRs complement the standards and requirements specified in the rules. The SPRs do not replace or reduce any responsibility the surveyor has under the rules.

4. Guidance when completing survey report

Ships less than 400 GT

Elements to check at a periodic survey of ships less than 400 GT engaged in a domestic or international voyage for compliance with Part 199.

Nitrogen Oxides (NO_x)

NO _x requirements items for survey	Element verification
All engines installed on internationally voyaging ships required to meet NO _x emission levels Compression Ignition engines used for propulsion on domestic voyaging ships ⁶ required to meet NO _x emission levels	
Option 1: Technical file and EIAPP certificate	
<p>1 Each compression-ignition engine installed over 130 kW must have a Technical File with an EIAPP certificate.</p> <p>The EIAPP must be issued by Maritime NZ or an RO. The Technical File must be approved by Maritime NZ or an RO.</p> <p><i>Not applicable to engines used solely for emergency purposes, or solely to power any device or equipment intended to be used solely for emergencies on the ship on which it is installed.</i></p>	<ul style="list-style-type: none">• Is the original Technical File held on board for each applicable engine and does it match the engine as installed?• Does each applicable engine have a valid EIAPP certificate (original on board)?• Does the serial number and engine type on the engine match the serial number and engine type on the EIAPP certificate?• Is the engine in 'as approved' condition, installed as per manufacturer's instructions and compliant with duty, rating and restrictions?
<p>2 Onboard NO_x verification procedure shows each applicable engine to be compliant (as per section 2.3 of the NO_x Technical Code).</p>	<p>Confirm the engine's compliance using the onboard NO_x verification procedure stated in the Technical File:</p> <ul style="list-style-type: none">• Does the Engine Parameter Check method verify that the engine's component, setting and operating values remain within the limits specified in the engine's Technical File?, or• Does the Simplified measurement method confirm the engine's compliance? Note: a suitably qualified third party will be required to perform these measurements and tests. <p>Has a functional check of the engine demonstrated that it is in operational condition?</p>

⁶ For ships that were New Zealand ships before 1 January 2023, an engine installed before 1 January 2023 must be surveyed at the ship's first intermediate or renewal survey on or after 1 January 2029, but in no case later than 30 June 2032. If the ship voyages into waters outside of NZ jurisdiction, then the engine must be surveyed at the first intermediate or renewal survey on or after 1 April 2023.

4. Guidance when completing checklist ships less than 400 GT (continued)

NO _x requirements items for survey	Element verification
<p>3 Record book of engine parameters has been maintained (if applicable).</p>	<p>Has the inspection of the Record book of engine parameters and an actual inspection of engine components and adjustable features confirmed that:</p> <ul style="list-style-type: none"> all changes have been recorded including like for like replacements, and adjustments to the engine's components and settings are within the approved range specified in the engine's Technical File?
<p>4 Emission limits meet the applicable NO_x Tier, dependant on the date of engine installation or major conversion, domestic or international voyaging, and whether they operate in an Emission Control Area (ECA).</p>	<p>Does the engine meet the Annex VI Tier I, II or III emission levels as required?</p>

Next items acceptable as alternative to Option 1 for some engine types on **domestic voyaging ships** that solely voyage within New Zealand's jurisdiction⁷ required to meet NO_x emission levels

Option 2: A manufacturer's declaration or certificate of conformity to an acceptable standard

- | | |
|--|--|
| <p>1a Each non-propulsion stationary/auxiliary engine (over 130 kW) installed on or after 1 January 2011 must meet one of the following standards:</p> <ul style="list-style-type: none"> USA EPA non-road diesel engine emission standards Tier 2 (or higher) Euro non-road emissions standards Stage II (or higher) – Directive 97/68EC of the European Parliament and of the Council on the approximation of the laws of the Member States relating to measures against the emission of gaseous and particulate pollutants from internal combustion engines to be installed in non-road mobile machinery. | <ul style="list-style-type: none"> Is there a manufacturer's declaration or certificate of conformity to the applicable standard held for each applicable engine? Does the documentation match the installed engine? Has the engine been installed and/or any maintenance carried out as per manufacturer's manual? Has a functional check of the engine demonstrated that it is in operational condition? |
|--|--|

⁷ New Zealand ships that go beyond New Zealand's jurisdiction can only use Option 1 evidence.

4. Guidance when completing survey report ships <400 GT (continued)

NO _x requirements items for survey	Element verification
<p>1b Each non-propulsion stationary/auxiliary engine (over 130 kW) installed on or before 31 December 2010 must meet one of the following standards:</p> <ul style="list-style-type: none"> • USA EPA Nonroad Compression-Ignition Engines: Exhaust Emission Standards Tier 1 (or higher) • European non-road emissions standards Stage I (or higher) – Directive 97/68EC of the European Parliament and of the Council on the approximation of the laws of the Member States relating to measures against the emission of gaseous and particulate pollutants from internal combustion engines to be installed in non-road mobile machinery. 	<ul style="list-style-type: none"> • Is there a manufacturer's declaration or certificate of conformity to the applicable standard held for each applicable engine? • Does the documentation match the installed engine? • Has the engine been installed and/or any maintenance carried out as per manufacturer's manual? • Has a functional check of the engine demonstrated that it is in operational condition?
<p>2a Each spark-ignition engine (over 130 kW) installed on or after 1 January 2011 must meet one of the following standards:</p> <ul style="list-style-type: none"> • Directive 2013/53/EU of the European Parliament and of the Council on recreational craft and personal watercraft • USA EPA Air Pollution Controls 40 CFR Part 1045 – Control of emissions from spark-ignition propulsion marine engines and vessels • Australian Product Emissions Standards Rules 2017. 	<ul style="list-style-type: none"> • Is there a manufacturer's declaration or certificate of conformity to the applicable standard held for each applicable engine? • Does the documentation match the installed engine? • Has the engine been installed and/or any maintenance carried out as per the manufacturer's manual? • Has a functional check of the engine demonstrated that it is in operational condition?
<p>2b On a ship, that was a NZ ship before 1 January 2023:</p> <ul style="list-style-type: none"> • spark-ignition engines over 130 kW installed on or before 31 December 2010 are not required to hold evidence that the engine meets the NO_x emission Tier. 	<ul style="list-style-type: none"> • Has the engine been installed and/or any maintenance carried out as per the manufacturer's manual? • Has a functional check of the engine demonstrated that it is in operational condition?

4. Guidance when completing survey report ships <400 GT (continued)

NO _x requirements items for survey	Element verification
<p>2c On a ship that became a NZ ship after 1 January 2023.</p> <ul style="list-style-type: none">• Each spark-ignition engine over 130 kW installed on or after 1 January 2011 must meet one of the standards in 2a (above).• Each spark-ignition engine over 130 kW, installed on or before 31 December 2010 must meet one of the standards in 2a (above) or hold one of the following types of evidence to confirm that it meets or better the IMO Tier I NO_x emissions limits:<ul style="list-style-type: none">i. evidence that the engine meets an appropriate standard for spark-ignition engines acceptable to the Director, orii. evidence of the actual NO_x emissions of the engine.	<ul style="list-style-type: none">• Does the documentation match the installed engine?• Has an inspection of the documentation which contains information on the level of NO_x emissions from the engine, determined whether the engine is likely to meet or better the IMO Tier I emission levels?.• Has the engine been installed and/or any maintenance carried out as per the manufacturer's manual?• Has a functional check of the engine demonstrated that it is in operational condition?

4. Guidance when completing survey report ships <400 GT (continued)

Ozone Depleting Substances (ODS)

ODS items for survey	Element verification
1 Installations with ODS, other than HCFC, are prohibited on ships constructed on or after 19 May 2005.	<ul style="list-style-type: none">• Are there any prohibited installations?• Does the documentation for any systems with refrigerants indicate that they contain one (or more) of the prohibited substances?
2 Installations with equipment that are not permanently sealed shall not contain HCFC on ships constructed on or after 1 January 2020.	<ul style="list-style-type: none">• Are there any prohibited installations?• Does the documentation for any systems with refrigerants indicate that they contain one (or more) of the prohibited substances?

SO_x and fuel oil quality

SO _x & fuel quality items for survey	Element verification
1 The sulphur content of combustible fuel (not coal or nuclear) used or carried for use on board must not exceed 0.50% mass by mass (m/m) and must meet other quality specifications.	<ul style="list-style-type: none">• Is there evidence for any fuel on board, sourced from a non-retail NZ supplier that it is correct quality fuel?• If fuel has been sourced from overseas, is there a form of delivery document specifying the quantities and specification of the fuel delivered e.g. delivery receipt, should be available, to check carriage of correct quality fuel? <p>Note: Petrol, diesel or gaseous fuel purchased from a NZ retailer can be assumed to be compliant.</p>
2 Ships operating in SO _x Emission Control Areas (ECA) must use fuels with a sulphur content that does not exceed 0.10% m/m. Note: this will only apply to a small number of ships.	<ul style="list-style-type: none">• Are there written procedures showing how the fuel changeover will be done when entering or leaving an ECA?• Is there a log book to record the volume of compliant fuels on board at each changeover of fuel type, as well as the date, time and position of the ship when entering and exiting the ECA?
3 Any alternative to using low sulphur fuels, must be approved as an equivalent method by the Director.	Is there an approval document for the equivalent method held on board, if applicable?

4. Guidance when completing checklist (continued)

Incineration

Incineration requirement items for survey	Element verification
1 Incinerators on ships constructed or installed on a ship, on or after 1 January 2000 must be approved.	<ul style="list-style-type: none">• Is there an IMO Type Approval Certificate on board for each incinerator, issued by or on behalf of Maritime NZ, or a state that is party to MARPOL Annex VI?
2 An operating manual for an approved incinerator issued by the manufacturer of the incinerator must be on board the ship.	<ul style="list-style-type: none">• Is there an operating manual for each incinerator, if required?• Is the operating manual kept on board and easily accessible for crew to locate and follow?
3 The operator of an approved shipboard incinerator must be trained on how to follow the guidance in the operating manual.	<ul style="list-style-type: none">• Are there records documenting training of the crew in operating each incinerator?
4 The approved shipboard incinerator must operate within the limits set out in Appendix IV of Annex VI. See MEPC 244(66) chapters 4, 5 and 7.	<ul style="list-style-type: none">• Has incinerator testing confirmed the incinerator is operating within specified limits and verified the operating requirements, controls and tests as required.

4. Guidance when completing checklist (continued)

Ships 400 GT or more

Check the following certification at the periodic survey to ensure ships of 400 GT or more, engaged on domestic or international voyage, comply with Part 199.

Certification	Element verification
<p>1 Domestic voyaging ships must have one of the following:</p> <p>a) Survey report confirming compliance with all applicable requirements of Part 199 issued by a recognised surveyor with category for MARPOL Annex VI (Part 199) for ships 400 GT or more on domestic voyages, or</p> <p>b) IAPP certificate and IEE certificate⁷, or</p> <p>c) Unmanned non-self-propelled (UNSP) barges may instead have an IAPP Exemption certificate.</p>	<p>Does the ship have a survey report confirming compliance with Part 199?</p> <p>If so, issue the Annex VI Endorsement on:</p> <ul style="list-style-type: none"> the Certificate of Survey, or if the ship is a novel ship, on the Certificate of Fitness. <p>If the ship is a barge, confirm to Maritime NZ on the 'application for barge safety certificate' that the barge complies with Part 199.</p> <hr/> <p>Does the ship have a valid IAPP certificate or IAPP exemption certificate issued by Maritime NZ or an RO surveyor?</p> <p>If so, notate the IAPP certificate or IAPP Exemption certificate, and the expiry date, as applicable, on:</p> <ul style="list-style-type: none"> the Certificate of Survey, or if the ship is a novel ship, on the Certificate of Fitness. <p>If the ship is a barge, confirm to Maritime NZ on the 'application for barge safety certificate' that the barge holds an IAPP certificate, as applicable. If the application is in order, Maritime NZ will then notate the certificate/expiry date on the NZ Barge Safety Certificate.</p>
<p>2 International voyaging ships must have a valid:</p> <p>a) IAPP certificate and</p> <p>b) IEE certificate⁸, or</p> <p>c) Alternatively, unmanned non-self-propelled (UNSP) barges may have an IAPP Exemption certificate.</p>	<p>Does the ship have a valid IAPP certificate or IAPP exemption certificate issued by Maritime NZ or an RO surveyor?</p> <p>If so, notate the IAPP certificate or IAPP Exemption certificate, and the expiry date, as applicable, on:</p> <ul style="list-style-type: none"> the Certificate of Survey, or if the ship is a novel ship, on the Certificate of Fitness. <p>If the ship is a barge, confirm to Maritime NZ on the 'application for barge safety certificate' that the barge holds an IAPP certificate, as applicable. If the application is in order, Maritime NZ will then notate the certificate/expiry date on the NZ Barge Safety Certificate.</p>

⁸ Note: An IAPP and IEE issued by or on behalf of another Administration is invalid when a ship is registered in NZ.

5. Where to find more information

Key documents

The International Maritime Organization (IMO) Convention for the Prevention of Pollution from Ships (MARPOL) Annex VI. The text of the convention is available to read on the [Incorporation by reference](#) webpage.

The [Marine Protection Rules Part 199: Prevention of Air Pollution from Ships](#) give effect to the aspects of MARPOL Annex VI that apply to ship operators.

The [Guide for Marine Protection Rules Part 199: Prevention of air pollution from ships](#) (Part 199 Guide).

The Guide on [New environmental rules for domestic commercial ships under 400 GT](#).

The IMO Technical Code on Control of Emission of Nitrogen Oxides from Marine Diesel Engines, [NO_x Technical Code](#).

To learn more about the requirements, here's a list of references.

Nitrogen oxides (NO_x)

Part 199 Guide:

- Section 4: Nitrogen oxides emission limits for international voyaging ships.
- Section 5: Nitrogen oxides emission limits for domestic voyaging commercial ships.

Part 199, Sections B3 and C3: Nitrogen oxides, and

[NO_x Technical Code 2008](#). In particular, Section 6.2 Engine Parameter Check Method of Chapter 6, Procedures for demonstrating compliance with NO_x emission limits on board

MARPOL Annex VI, Regulation 13 Nitrogen Oxides (NO_x).

Prohibited ODS

Part 199 Guide, Section 6. Control of other air pollutants.

Part 199, Sections B2 and C2 Ozone depleting substances.

SO_x and fuel quality

Part 199 Guide, Section 3. Fuel requirements.

Part 199:

- Sections B4 and C4 Sulphur oxides and particulate matter.
- Sections B7 and C7 Fuel oil availability and quality.

MARPOL Annex VI, Regulation 18 Fuel Oil Availability and Quality.

Shipboard Incineration

Part 199 Guide, Section 6. Control of other air pollutants.

Part 199, Sections B6 and C6 Shipboard Incineration.

5. Where to find more information (continued)

Contact us for help

If you need more information about the surveyor performance requirements, send us an email. Tell us what you need help with and remember to include your preferred contact details (email address and phone numbers).

surveyors@maritimenz.govt.nz

Or you can phone us toll free.

0508 22 55 22