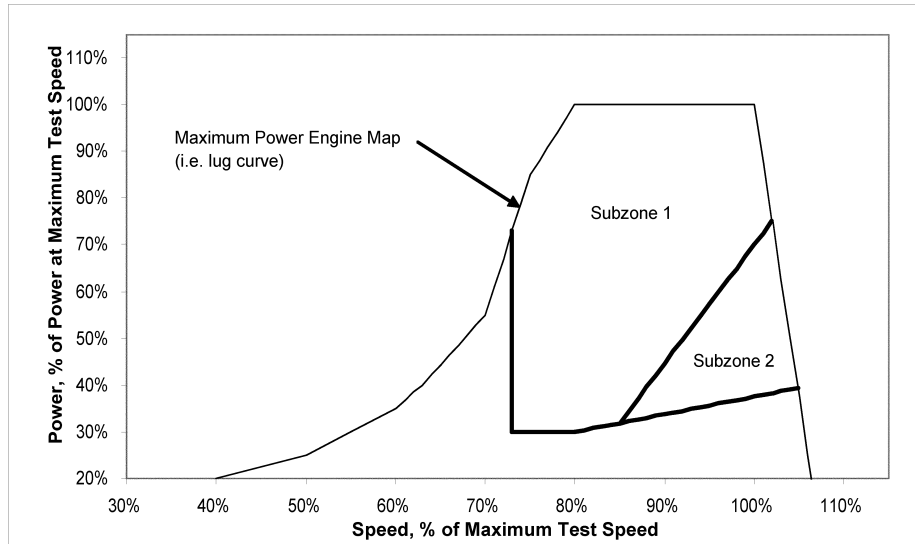


Figure 5 of Appendix III — NTE Zone and Subzones for Variable-Speed Auxiliary Marine Engines (nonpropeller-law)



[81 FR 74157, Oct. 25, 2016]

**PART 1043—CONTROL OF NO<sub>x</sub>, SO<sub>x</sub>, AND PM EMISSIONS FROM MARINE ENGINES AND VESSELS SUBJECT TO THE MARPOL PROTOCOL**

- Sec.
- 1043.1 Overview.
- 1043.5 Effective dates.
- 1043.10 Applicability.
- 1043.20 Definitions.
- 1043.30 General obligations.
- 1043.40 EIAPP certificates.
- 1043.41 EIAPP certification process.
- 1043.50 Approval of methods to meet Tier 1 retrofit NO<sub>x</sub> standards.
- 1043.55 Applying equivalent controls instead of complying with fuel requirements.
- 1043.60 Operating requirements for engines and vessels subject to this part.
- 1043.70 General recordkeeping and reporting requirements.
- 1043.80 Recordkeeping and reporting requirements for fuel suppliers.
- 1043.90 [Reserved]
- 1043.95 Great Lakes provisions.
- 1043.97 Interim provisions.
- 1043.100 Incorporation by reference.

AUTHORITY: 33 U.S.C. 1901–1912.

SOURCE: 75 FR 23013, Apr. 30, 2010, unless otherwise noted.

**§ 1043.1 Overview.**

The Act to Prevent Pollution from Ships (APPS) requires engine manufacturers, owners and operators of vessels, and other persons to comply with Annex VI of the MARPOL Protocol. This part implements portions of APPS as it relates to Regulations 13, 14 and 18 of Annex VI. These regulations clarify the application of some Annex VI provisions; provide procedures and criteria for the issuance of EIAPP certificates; and specify requirements applicable to ships that are not registered by Parties to Annex VI. This part includes provisions to apply the equivalency provisions of Regulation 4 of Annex VI with respect to Regulations 14 and 18 of Annex VI. Additional regulations may also apply with respect to the Annex VI, such as those issued separately by the U.S. Coast Guard. Note that references in this part to a specific subsection of an Annex VI regulation (such as Regulation 13.5.1) reflect the regulation numbering of the 2008 Annex VI (incorporated by reference in § 1043.100).

(a) The general requirements for non-public U.S.-flagged and other Party vessels are specified in Annex VI, as

## § 1043.5

implemented by 33 U.S.C. 1901–1915. These requirements apply to engine manufacturers, owners and operators of vessels, and other persons.

(b) The provisions of this part specify how Regulations 13, 14 and 18 of Annex VI, as implemented by APPS, will be applied to U.S.-flagged vessels that operate only domestically.

(c) This part implements section 33 U.S.C. 1902(e) by specifying that non-public vessels flagged by a country that is not a party to Annex VI are subject to certain provisions under this part that are equivalent to the substantive requirements of Regulations 13, 14 and 18 of Annex VI as implemented by APPS.

(d) This part also describes where the requirements of Regulation 13.5.1 of Annex VI and Regulation 14.4 of Annex VI will apply.

(e) This part 1043 does not limit the requirements specified in Annex VI, as implemented by APPS, except as specified in §1043.10(a)(2) and (b)(3).

(f) Nothing in this part limits the operating requirements and restrictions applicable for engines and vessels subject to 40 CFR part 1042 or the requirements and restrictions applicable for fuels subject to 40 CFR part 80.

(g) The provisions of this part specify how to obtain EIAPP certificates and certificates for Approved Methods.

### § 1043.5 Effective dates.

(a) The requirement of APPS for marine vessels to comply with Annex VI of the MARPOL Protocol is in effect.

(b) [Reserved]

(c) Compliance with the applicable regulations of this part is required for all persons as of July 1, 2010. (Note that certain requirements begin later, as described in paragraph (d) of this section.) Note also that compliance with §§1043.40 and 1043.41 is required to obtain EIAPP certificates under this part whether the application is submitted before July 1, 2010 or later.

(d) Compliance with the requirements related to ECAs are effective as follows:

(1) Compliance with the ECA NO<sub>x</sub> requirements (*see* §1043.60(a)) is required beginning on the date on which the ECA enters into force for the United States under Annex VI.

## 40 CFR Ch. I (7–1–17 Edition)

(2) Compliance with the fuel content requirements applicable within ECAs and ECA associated areas (*see* §1043.60(b)) is required beginning 12 months after date on which the ECA enters into force for the United States under Annex VI.

[75 FR 23013, Apr. 30, 2010, as amended at 80 FR 9112, Feb. 19, 2015]

### § 1043.10 Applicability.

(a) *U.S.-flagged vessels.* The provisions of this part apply for all U.S.-flagged vessels wherever they are located (including engines installed or intended to be installed on such vessels), except as specified in this paragraph (a) or in §1043.95.

(1) Public vessels are excluded from this part.

(2) Vessels that operate only domestically and conform to the requirements of this paragraph (a)(2) are excluded from Regulation 13 of Annex VI and the NO<sub>x</sub>-related requirements of this part (including the requirement to obtain an EIAPP certificate and to keep a Technical File and an Engine Book of Record Parameters). For the purpose of this exclusion, the phrase “operate only domestically” means the vessels do not enter waters subject to the jurisdiction or control of any foreign country, except for Canadian portions of the Great Lakes. (See §§1043.60 and 1043.70 for provisions related to fuel use by such vessels). To be excluded, the vessel must conform to each of the following provisions:

(i) All compression-ignition engines on the vessel must conform fully to all applicable provisions of 40 CFR parts 94 and 1042.

(ii) The vessel may not contain any engines with a specific engine displacement at or above 30.0 liters per cylinder.

(iii) Any engine installed in the vessel that is not covered by an EIAPP certificate must be labeled as specified in 40 CFR 1042.135 with respect to whether it meets the requirements of Regulation 13 of Annex VI.

(b) *Foreign-flagged vessels.* The provisions of this part apply for all non-public foreign-flagged vessels (including engines installed on such vessels) as follows:

## Environmental Protection Agency

## § 1043.20

(1) The requirements of this part apply for foreign-flagged vessels operating in U.S. navigable waters or the U.S. EEZ.

(2) For non-public vessels flagged by a country that is not a party to Annex VI, the requirements of this part apply in the same manner as apply for Party vessels, except as otherwise provided in this part. For example, see §1043.30(c)(4) for provisions related to showing compliance with this requirement without an EIAPP certificate. See §1043.60 for specific operating requirements.

(3) Canadian vessels that operate only within the Great Lakes and are subject to an alternative NO<sub>x</sub> control measure established by the Canadian government are excluded from the NO<sub>x</sub>-related requirements of this part.

(c) *Fuel suppliers.* The provisions of §1043.80 apply for all persons supplying fuel to any vessel subject to this part.

(d) *Sea bed mineral exploration.* This part does not apply to emissions directly arising from the exploration, exploitation, and associated offshore processing of sea-bed mineral resources. Note that other regulations apply with respect to these emissions in certain circumstances, and that engines that are not solely dedicated to such activities are otherwise subject to all requirements of this part.

[75 FR 23013, Apr. 30, 2010, as amended at 80 FR 9112, Feb. 19, 2015]

### § 1043.20 Definitions.

The following definitions apply to this part:

*2008 Annex VI* means Annex VI to the MARPOL Protocol, including the amendments from Annex 12, adopted through April 2014 (incorporated by reference in §1043.100). This version of Annex VI does not include any amendments that may be adopted in the future. This 2008 version applies for certain provisions of this part such as those applicable for internal waters and for non-Party vessels.

*Administrator* means the Administrator of the Environmental Protection Agency.

*Annex VI* means Annex VI of the MARPOL Protocol.

*APPS* means the Act to Prevent Pollution from Ships (33 U.S.C. 1901–1915).

*Designated Certification Officer* means the EPA official to whom the Administrator has delegated authority to issue EIAPP certificates. Note that the Designated Certification Officer is also delegated certain authorities under this part in addition to the authority to issue EIAPP certificates.

*ECA associated area* means the U.S. internal waters that are navigable from the ECA. This term does not include internal waters that are shoreward of ocean waters that are not part of an emission control area.

*EIAPP certificate* means a certificate issued to certify initial compliance with Regulation 13 of Annex VI. (Note that EIAPP stands for Engine International Air Pollution Prevention under Annex VI.)

*Emission control area (ECA)* means an area designated pursuant to Annex VI as an Emission Control Area that is in force.

*Engine* has the meaning given in 40 CFR 1068.30.

*EPA* means the United States Environmental Protection Agency.

*Foreign-flagged vessel* means a vessel of foreign registry or a vessel operated under the authority of a country other than the United States.

*Good engineering judgment* has the meaning given in 40 CFR 1068.30. We will evaluate engineering judgments as described in 40 CFR 1068.5.

*Great Lakes* means all the streams, rivers, lakes, and other bodies of water that are within the drainage basin of the St. Lawrence River, west of Anticosti Island.

*IMO* means the International Maritime Organization.

*Major conversion* has the meaning given in 2008 Annex VI (incorporated by reference in §1043.100).

*MARPOL Protocol* has the meaning given in 33 U.S.C. 1901.

*Navigable waters* has the meaning given in 33 U.S.C. 1901.

*Non-Party vessel* means a vessel flagged by a country that is not a party to Annex VI.

*NO<sub>x</sub> Technical Code* means the “Technical Code on Control of Emission of Nitrogen Oxides from Marine Diesel Engines” adopted by IMO (incorporated by reference in §1043.100). The

## § 1043.30

## 40 CFR Ch. I (7–1–17 Edition)

Technical Code is part of 2008 Annex VI.

*Operator* has the meaning given in 33 U.S.C. 1901.

*Owner* has the meaning given in 33 U.S.C. 1901.

*Party vessel* means a vessel flying the flag of, registered in, or operating under the authority of a country that is a party to Annex VI.

*Person* has the meaning given in 33 U.S.C. 1901.

*Public vessels* means warships, naval auxiliary vessels, and other vessels owned or operated by a sovereign country when engaged in noncommercial service. Vessels with a national security exemption under 40 CFR 80.606 or 1042.635 are deemed to be public vessels.

*Secretary* has the meaning given in 33 U.S.C. 1901.

*U.S. EEZ* means the Exclusive Economic Zone of the United States, as defined in Presidential Proclamation 5030 of March 10, 1983.

*U.S.-flagged vessel* means a vessel of U.S. registry or a vessel operated under the authority of the United States.

*Vessel* has the meaning given to “ship” in APPS.

*We* means EPA.

[75 FR 23013, Apr. 30, 2010, as amended at 80 FR 9112, Feb. 19, 2015]

### § 1043.30 General obligations.

(a) 33 U.S.C. 1907 prohibits any person from violating any provisions of the MARPOL Protocol, whether or not they are a manufacturer, owner or operator. For manufacturers, owners and operators of vessels subject to this part, it is the responsibility of such manufacturers, owners and operators to ensure that all employees and other agents operating on their behalf comply with these requirements.

(b) Manufacturers of engines to be installed on U.S. vessels subject to this part must obtain an EIAPP certificate for an engine prior to it being installed in a vessel.

(c) Engines with power output of more than 130 kW that are listed in this paragraph (c) must be covered by a valid EIAPP certificate, certifying the engine meets the applicable emission standards of Annex VI, unless the engine is excluded under § 1043.10 or paragraph (d) of this section. An EIAPP

certificate is valid for a given engine only if it certifies compliance with the tier of standards applicable to that engine and the vessel into which it is being installed (or a later tier). Note that none of the requirements of this paragraph (c) are limited to new engines.

(1) Engines meeting any of the following criteria must be covered by a valid EIAPP certificate:

(i) Engines installed (or intended to be installed) on vessels that were constructed on or after January 1, 2000. This includes engines that met the definition of “new marine engine” in 40 CFR 1042.901 at any time on or after January 1, 2000, unless such engines are installed on vessels that were constructed before January 1, 2000.

(ii) Engines that undergo a major conversion on or after January 1, 2000, unless the engines have been exempt from this requirement under paragraph (e) of this section.

(2) For such engines intended to be installed on U.S.-flagged vessels, the engine may not be introduced into U.S. commerce before it is covered by a valid EIAPP certificate, except as allowed by this paragraph (c)(2).

(i) This paragraph (c)(2) does not apply for engines installed on vessels excluded under this part 1043.

(ii) Engines without a valid EIAPP certificate (because they are intended for domestic use only) may be introduced into U.S. commerce, but may not be installed on vessels that do not meet the requirements of § 1043.10(a)(2).

(iii) Engines that have been temporarily exempted by EPA under 40 CFR part 1042 or part 1068 may be introduced into U.S. commerce without a valid EIAPP certificate to the same extent they are allowed to be introduced into U.S. commerce without a valid part 1042 certificate of conformity, however, this allowance does not affect whether the engine must ultimately be covered by an EIAPP certificate. Unless otherwise excluded or exempted under this part 1043, the engine must be covered by an EIAPP certificate before being placed into service. For example, engines allowed to be temporarily distributed in an uncertified configuration under 40 CFR 1068.260 would not be required to be covered by an EIAPP

## Environmental Protection Agency

## § 1043.40

certificate while it is covered by the temporary exemption under 40 CFR 1068.260; however, it would be required to be covered by an EIAPP certificate before being placed into service.

(iv) All uninstalled marine engines within the United States are presumed to be intended to be installed on a U.S.-flagged vessel, unless there is clear and convincing evidence to the contrary.

(3) For engines installed on Party vessels, the engine may not operate in the U.S. navigable waters or the U.S. exclusive economic zone, or other areas designated under 33 U.S.C. 1902(a)(5)(B)(iii), (C)(iii), or (D)(iv) unless it is covered by a valid EIAPP certificate.

(4) Engines installed on non-Party vessels are not required to have EIAPP certificates, but the operator must have evidence of conformity with Regulation 13 of Annex VI issued by either the government of a country that is party to Annex VI or a recognized classification society. For the purposes of this paragraph, "recognized classification society" means a classification society that is a participating member of the International Association of Classification Societies (IACS).

(d) In addition to the engines excluded under §1043.10, the following engines are excluded from the requirement to have an EIAPP certificate (or equivalent demonstration of compliance in the case of non-Party vessels) or otherwise meet the requirements of Regulation 13 of Annex VI.

(1) Spark-ignition engines.

(2) Non-reciprocating engines.

(3) Engines that do not use liquid fuel.

(4) Engines intended to be used solely for emergencies. This includes engines that power equipment such as pumps that are intended to be used solely for emergencies and engines installed in lifeboats intended to be used solely for emergencies. It does not include engines to be used for both emergency and non-emergency purposes.

(e) The following requirements apply to Party vessels, including U.S.-flagged vessels:

(1) The requirements specified in Annex VI apply for vessels subject to this part for operation in U.S. navigable waters or the U.S. EEZ. (*See*

§1043.60 for a summary of the standards included in these requirements.)

(2) Vessels operating in an ECA must also comply with the requirements of Annex VI applicable to operation in an ECA.

(3) Vessels operating in waters of an ECA associated area must also comply with the requirements in §1043.60.

(f) The following requirements apply to non-Party vessels:

(1) Non-Party vessels operating in U.S. navigable waters or the U.S. EEZ must comply with the operating and recordkeeping requirements of the 2008 Annex VI (incorporated by reference in §1043.100) related to Regulations 13, 14 and 18 of the 2008 Annex VI. This paragraph (f)(1) does not address requirements of other portions of Annex VI.

(2) Non-Party vessels operating in an ECA or ECA associated area must also comply with the requirements in §1043.60.

(g) A replacement engine may be exempted by EPA from Regulation 13 of Annex VI and the NO<sub>x</sub>-related requirements of this part if it is identical to the engine being replaced and the old engine was not subject to Regulation 13 of Annex VI. Send requests for such exemptions to the Designated Certification Officer.

(h) Compliance with the provisions of this part 1043 does not affect your responsibilities under 40 CFR part 1042 for engines subject to that part 1042.

### § 1043.40 EIAPP certificates.

(a) Engine manufacturers seeking EIAPP certificates for new engines to be used in U.S.-flagged vessels must apply to EPA for an EIAPP certificate in compliance with the requirements of this section (which references 40 CFR part 1042). Note that under APPS engine manufacturers must comply with the applicable requirements of Regulation 13 of Annex VI to obtain a certificate. Note also that only the Administrator or the EPA official designated by the Administrator may issue EIAPP certificates on behalf of the U.S. Government.

(b) Persons other than engine manufacturers may apply for and obtain EIAPP certificates for new engines to be used in U.S.-flagged vessels by complying with the requirements of this

## § 1043.41

## 40 CFR Ch. I (7–1–17 Edition)

section (which references 40 CFR part 1042) and the applicable requirements of Regulation 13 of Annex VI.

(c) In appropriate circumstances, EPA may issue an EIAPP certificate under this section for non-new engines or engines for vessels that will not initially be flagged in the U.S.

(d) EPA may issue both an EPA certificate and an EIAPP certificate for the same engine, as long as the manufacturer and the engine meet all applicable requirements. EPA may not issue an EIAPP certificate if the engine is certified with an FEL under 40 CFR part 1042 that is higher than the applicable NO<sub>x</sub> emission standard under Annex VI.

(e) The process for obtaining an EIAPP certificate is described in § 1043.41. That section references regulations in 40 CFR part 1042, which apply under the Clean Air Act. References in that part to certificates of conformity are deemed to mean EIAPP certificates. References in that part to the Clean Air Act as the applicable statute are deemed to mean 33 U.S.C. 1901–1915.

(f) For engines that undergo a major conversion or for engines installed on imported vessels that become subject to the requirements of this part, we may specify alternate certification provisions consistent with the intent of this part.

(g) This paragraph (g) applies for engines that were originally excluded from this part because they were intended for domestic use and were introduced into U.S. commerce without an EIAPP certificate. Note that such engines must be labeled as specified under 40 CFR 1042.135 to indicate that they are intended for domestic use. Such engines may be installed on vessels not intended only for domestic operation provided the engine manufacturer, vessel manufacturer, or vessel owner obtains an EIAPP certificate. Similarly, vessels originally intended only for domestic operation may be used internationally provided the engine manufacturer, vessel manufacturer, or vessel owner obtains an EIAPP certificate. The limitations for engine manufacturers described in paragraphs (a) and (d) of this section also apply for all EIAPP certificates issued under this paragraph (g). In ei-

ther case, the Technical File must specify that the engine was originally certified for domestic use only, prior to being covered by an EIAPP certificate. Engine manufacturers may provide a supplemental label to clarify that the engine is no longer limited to domestic service. An engine manufacturer, vessel manufacturer, or vessel owner may also ask to apply the provisions of this paragraph (g) to engines originally certified for public vessels.

[75 FR 23013, Apr. 30, 2010, as amended at 80 FR 9112, Feb. 19, 2015]

### § 1043.41 EIAPP certification process.

This section describes the process for obtaining the EIAPP certificate required by § 1043.40.

(a) You must send the Designated Certification Officer a separate application for an EIAPP certificate for each engine family. An EIAPP certificate is valid starting with the indicated effective date and is valid for any production until such time as the design of the engine family changes or more stringent emission standards become applicable, whichever comes first. You may obtain preliminary approval of portions of the application under 40 CFR 1042.210.

(b) The application must contain all the information required by this part. It must not include false or incomplete statements or information (*see* 40 CFR 1042.255). Include the information specified in 40 CFR 1042.205 except as follows:

(1) You must include the dates on which the test engines were built and the locations where the test engines were built.

(2) Include a copy of documentation required by this part related to maintenance and in-use compliance for operators, such as the Technical File and on-board NO<sub>x</sub> verification procedures as specified by the NO<sub>x</sub> Technical Code (incorporated by reference in § 1043.100).

(3) You are not required to provide information specified in 40 CFR 1042.205 regarding useful life, emission labels, deterioration factors, PM emissions, or not-to-exceed standards.

(4) You must include a copy of your warranty instructions, but are not required to describe how you will meet warranty obligations.

## Environmental Protection Agency

## § 1043.41

(c) We may ask you to include less information than we specify in this section as long as you maintain all the information required by paragraph (b) of this section.

(d) You must use good engineering judgment for all decisions related to your application (*see* 40 CFR 1068.5).

(e) An authorized representative of your company must approve and sign the application.

(f) *See* 40 CFR 1042.255 for provisions describing how we will process your application.

(g) Your application, including the Technical File and onboard NO<sub>x</sub> verification procedures, is subject to amendment as described in 40 CFR 1042.225.

(h) Perform emission tests as follows:

(1) Select an emission-data engine from each engine family for testing. For engines at or above 560 kW, you may use a development engine that is equivalent in design to the engine being certified. For Category 3 engines, you may use a single-cylinder version of the engine. Using good engineering judgment, select the engine configuration most likely to exceed an applicable emission standard, considering all exhaust emission constituents and the range of installation options available to vessel manufacturers.

(2) Test your emission-data engines using the procedures and equipment specified in 40 CFR part 1042, subpart F, or in the NO<sub>x</sub> Technical Code (incorporated by reference in §1043.100). We may require that your test be witnessed by an EPA official.

(3) We may measure emissions from any of your test engines or other engines from the engine family, as follows:

(i) We may decide to do the testing at your plant or any other facility. You must deliver the test engine to any test facility we designate. The test engine you provide must include appropriate manifolds, aftertreatment devices, electronic control units, and other emission-related components not normally attached directly to the engine block. If we do the testing at your plant, you must schedule it as soon as possible and make available the instruments, personnel, and equipment we need.

(ii) If we measure emissions from one of your test engines, the results of that testing become the official emission results for the engine. Unless we later invalidate these data, we may decide not to consider your data in determining if your engine family meets applicable requirements.

(iii) Before we test one of your engines, we may set its adjustable parameters to any point within the specified adjustable ranges (*see* 40 CFR 1042.115(d)).

(iv) Before we test one of your engines, we may calibrate it within normal production tolerances for anything we do not consider an adjustable parameter.

(4) We may require you to test a second engine of the same or different configuration in addition to the engine tested under paragraph (b) of this section.

(5) If you use an alternate test procedure under 40 CFR 1065.10 and later testing shows that such testing does not produce results that are equivalent to the procedures otherwise required by this part, we may reject data you generated using the alternate procedure.

(i) Collect emission data using measurements to one more decimal place than the applicable standard, then round the value to the same number of decimal places as the emission standard. Compare the rounded emission levels to the emission standard for each emission-data engine.

(j) Your engine family is considered in compliance with the emission standards in Regulation 13 of Annex VI if all emission-data engines representing that family have test results showing emission levels at or below these standards. Your engine family is deemed not to comply if any emission-data engine representing that family has test results showing an emission level above an applicable emission standard for any pollutant.

(k) If we determine your application is complete and shows that the engines meet all the requirements of this part, we will issue an EIAPP certificate for your engines. We may make the approval subject to additional conditions.

§ 1043.50

40 CFR Ch. I (7–1–17 Edition)

**§ 1043.50 Approval of methods to meet Tier 1 retrofit NO<sub>x</sub> standards.**

Regulation 13 of Annex VI provides for certification of Approved Methods, which are retrofit procedures that enable Pre-Tier 1 engines to meet the Tier 1 NO<sub>x</sub> standard of regulation 13 of Annex VI. Any person may request approval of such a method by submitting an application for certification of an Approve Method to the Designated Certification Officer. If we determine that your application conforms to the requirements of Regulation 13 of Annex VI, we will issue a certificate and notify IMO that your Approved Method has been certified.

**§ 1043.55 Applying equivalent controls instead of complying with fuel requirements.**

Regulation 4 of Annex VI allows Administrations to approve the use of fuels not meeting the requirements of Regulation 14 of the Annex, provided the vessel applies a method that results in equivalent emission reductions. This section describes provisions related to applying this allowance.

(a) Any person may request approval of such equivalent methods for controlling emissions on U.S.-flagged vessels by submitting an application for certification of an equivalent control method to the Designated Certification Officer. If we determine that your control method achieves emission levels equivalent to those achieved by the use of fuels meeting the requirements of

Regulation 14 of Annex VI, we will issue a certificate and notify IMO that your method has been certified.

(b) The provisions of this paragraph (b) apply for vessels equipped with controls certified by the Administration of a foreign flag vessel to achieve emission levels equivalent to those achieved by the use of fuels meeting the applicable fuel sulfur limits of Regulation 14 of Annex VI. Fuels not meeting the applicable fuel sulfur limits of Regulation 14 of Annex VI may be used on such vessels consistent with the provisions of the IAPP certificate, APPS and Annex VI.

(c) Compliance with the requirements of this section does not affect the applicability of requirements or prohibitions specified by other statutes or regulations with respect to water pollution.

**§ 1043.60 Operating requirements for engines and vessels subject to this part.**

This section specifies the operating requirements of this part. Note that it does not limit the operating requirements of APPS or Annex VI that are applicable to U.S.-flagged vessels outside of U.S. domestic waters.

(a) Except as specified otherwise in this part, NO<sub>x</sub> emission limits apply to all engines with power output of more than 130 kW that will be installed on vessels subject to this part as specified in the following table:

TABLE 1 TO § 1043.60 ANNEX VI NO<sub>x</sub> EMISSION STANDARDS (g/kW-hr)

Tier	Area of applicability	Implementation date <sup>a</sup>	Maximum in-use engine speed		
			Less than 130 RPM	130–2000 RPM <sup>b</sup>	Over 2000 RPM
Tier I .....	All U.S. navigable waters and EEZ.	January 1, 2004–December 31, 2010.	17.0	45.0 · n <sup>(-0.20)</sup>	9.8
Tier II .....	All U.S. navigable waters and EEZ.	January 1, 2011–December 31, 2015.	14.4	44.0 · n <sup>(-0.23)</sup>	7.7
Tier II .....	All U.S. navigable waters and EEZ, excluding ECA and ECA associated areas.	January 1, 2016 and later.	14.4	44.0 · n <sup>(-0.23)</sup>	7.7
Tier III .....	ECA and ECA associated areas.	January 1, 2016 and later <sup>c</sup> .	3.4	9.0 · n <sup>(-0.20)</sup>	2.0

<sup>a</sup>Standards apply for engines installed on vessels with a build date in the specified time frame, or for engines that undergo a major conversion in the specified time frame.

<sup>b</sup>Applicable standards are calculated from n (maximum in-use engine speed, in RPM, as specified in § 1042.140). Round the standards to one decimal place.

<sup>c</sup>In the case of recreational vessels of less than 500 gross tonnage with length at or above 24 meters, the Tier III standards start to apply January 1, 2021.



**Environmental Protection Agency**

**§ 1043.80**

(b) Except as specified otherwise in this part, fuel sulfur limits apply to all vessels subject to this part as specified in the following table:

**TABLE 2 TO § 1043.60 ANNEX VI FUEL SULFUR LIMITS (wt %) <sup>a</sup>**

Calendar years	Sulfur limit in all U.S. navigable waters and EEZ (percent)	Sulfur limit in ECA and ECA associated areas (percent)
2010–2011 .....	4.50	1.00
2012–2014 .....	3.50	1.00
2015–2019 .....	3.50	0.10
2020 and later .....	0.50	0.10

<sup>a</sup>Note that Regulation 3 and Regulation 4 of Annex VI allow for the use of noncompliant fuel in certain circumstances.

(c) Operators of non-Party vessels must comply with the requirements of paragraphs (a) and (b) of this section as well as other operating requirements and restrictions specified in 2008 Annex VI (incorporated by reference in §1043.100) related to Regulations 13, 14, and 18.

(d) This paragraph (d) applies for vessels that are excluded from Regulation 13 of Annex VI and the NO<sub>x</sub>-related requirements of this part under §1043.10(a)(2) or (b)(3) because they operate only domestically. Where the vessels operate using only fuels meeting the specifications of 40 CFR part 80 for distillate fuel, they are deemed to be in full compliance with the fuel use requirements and prohibitions of this part and of Regulations 14 and 18 of Annex VI.

(e) Except as noted in paragraph (d) of this section, nothing in this section limits the operating requirements and restrictions of Annex VI, as implemented by APPS, for Party vessels, including U.S.-flagged vessels. Note also that nothing in this part limits the operating requirements and restrictions applicable for engines and vessels subject to 40 CFR part 1042 or the requirements and restrictions applicable for fuels subject to 40 CFR part 80.

(f) We may exempt historic steamships from the fuel requirements of this part for operation in U.S. internal waters. Send requests for exemptions to the Designated Certification Officer.

[75 FR 23013, Apr. 30, 2010, as amended at 80 FR 9112, Feb. 19, 2015; 81 FR 74161, Oct. 25, 2016]

**§ 1043.70 General recordkeeping and reporting requirements.**

(a) Under APPS, owners and operators of Party vessels must keep records related to NO<sub>x</sub> standards and in-use fuel specifications such as the Technical File, the Engine Book of Record Parameters, and bunker delivery notes. Owners and operators of non-Party vessels must keep these records as specified in the NO<sub>x</sub> Technical Code and Regulations 13, 14, and 18 of 2008 Annex VI (incorporated by reference in §1043.100). We may inspect these records as allowed by APPS. As part of our inspection, we may require that the owner submit copies of these records to us.

(b) Nothing in this part limits recordkeeping and reporting the Secretary may require, nor does it preclude the Secretary from providing copies of any records to EPA.

(c) Nothing in this part limits the recordkeeping and reporting requirements applicable with respect to engines and vessels subject to 40 CFR part 1042 or with respect to fuels subject to 40 CFR part 80.

(d) This paragraph (d) applies for vessels that are excluded from Regulation 13 of Annex VI and the NO<sub>x</sub>-related requirements of this part under §1043.10(a)(2) or (b)(3) because they operate only domestically. Where the vessel operator has fuel receipts (or equivalent records) for the preceding three years showing it operated using only fuels meeting the specifications of 40 CFR part 80 for distillate fuel, they are deemed to be in full compliance with the fuel recordkeeping requirements and prohibitions of this part and Annex VI.

[75 FR 23013, Apr. 30, 2010, as amended at 80 FR 9113, Feb. 19, 2015]

**§ 1043.80 Recordkeeping and reporting requirements for fuel suppliers.**

Under APPS, fuel suppliers must provide bunker delivery notes to vessel operators for any fuel for an engine on any vessel identified in paragraph (a) of this section. Fuel suppliers must also keep copies of these records.

(a) The requirements of this section apply for fuel delivered to any of the following vessels:

## § 1043.90

(1) Vessels of 400 gross tonnage and above engaged in voyages to ports or offshore terminals under the jurisdiction of other Parties.

(2) Platforms and drilling rigs engaged in voyages to waters under the sovereignty or jurisdiction of other Parties.

(b) Except as allowed by paragraph (c) of this section, the bunker delivery note must contain the following:

(1) The name and IMO number of the receiving vessel.

(2) Port (or other description of the location, if the delivery does not take place at a port).

(3) Date the fuel is delivered to the vessel (or date on which the delivery begins where the delivery begins on one day and ends on a later day).

(4) Name, address, and telephone number of fuel supplier.

(5) Fuel type and designation under 40 CFR part 80.

(6) Quantity in metric tons.

(7) Density at 15 °C, in kg/m<sup>3</sup>.

(8) Sulfur content in weight percent.

(9) A signed statement by an authorized representative of the fuel supplier certifying that the fuel supplied conforms to Regulations 14 and 18 of Annex VI consistent with its designation, intended use, and the date on which it is to be used. For example, with respect to conformity to Regulation 14 of Annex VI, a fuel designated and intended for use in an ECA any time on or after January 1, 2015 may not have a sulfur content above 0.10 weight percent. This statement is not required if the vessel is not subject to fuel standards of Regulation 14 of Annex VI. The statement described in this paragraph (b)(9) is deemed to be a submission to EPA.

(c) You may measure density and sulfur content according to the specifications of Annex VI, or according to other equivalent methods that we approve. Where the density and/or sulfur content of the delivered fuel cannot be measured, we may allow the use of alternate methods to specify the density and/or sulfur content of the fuel. For example, where fuel is supplied from multiple tanks on a supply vessel, we may allow the density and sulfur content of the fuel to be calculated as a weighted average of the measured den-

## 40 CFR Ch. I (7–1–17 Edition)

sities and sulfur contents of the fuel that is supplied from each tank.

[75 FR 23013, Apr. 30, 2010, as amended at 80 FR 9113, Feb. 19, 2015]

### § 1043.90 [Reserved]

#### § 1043.95 Great Lakes provisions.

The provisions of this section apply for vessels operating exclusively in the Great Lakes.

(a) Notwithstanding other provisions of this part, the requirements of this part do not apply for vessels propelled by steam turbine engines or reciprocating steam engines (also known as steamships), provided they were propelled by steam engines and operated within the Great Lakes before October 30, 2009 and continue to operate exclusively within the Great Lakes.

(b) The fuel-use requirements of this part do not apply through December 31, 2025, for a ship qualifying under paragraph (a) of this section if it was in service as a steamship on October 30, 2009 and it is repowered with one or more marine diesel engines, subject to the following conditions and requirements:

(1) Engines must meet exhaust emission standards using one of the following approaches:

(i) All the installed replacement engines must be certified to applicable standards under 40 CFR part 1042 based on the date the vessel enters dry dock for service.

(ii) We may approve the use of an engine meeting less stringent standards if the owner can demonstrate that it took possession of the engine before October 30, 2009, and that engine is a new engine that has not been installed in a non-marine application. Such an engine must at a minimum be certified to the Annex VI NO<sub>x</sub> emission standard referenced in §1043.60 that applies based on its build date.

(2) The vessel owner must notify us regarding the intent to use this provision. The notification must include a description of the vessel and a summary of the project, including the expected timeline, and other relevant information.

(3) The vessel owner must notify the Designated Certification Officer when the project is complete. We will send

## Environmental Protection Agency

## § 1043.97

the owner a statement that the repowered ship is exempt from fuel sulfur requirements through December 31, 2025; this statement must be kept onboard the vessel for compliance purposes.

(4) All other requirements under this part 1043 continue to apply, including requirements related to bunker delivery notes.

(5) This paragraph (b) applies only for vessels whose hull remains intact through the repowering process. For example, if a steamship is converted to a barge for use with tugboats, those vessels must use fuel meeting the requirements of this part 1043.

(c) In cases of serious economic hardship, we may exempt Great Lakes vessels from the otherwise applicable fuel use requirements under this part.

(1) To be eligible, you must demonstrate that all of the following are true:

(i) Unusual circumstances exist that impose serious economic hardship and significantly affect your ability to comply.

(ii) You have taken all reasonable steps to minimize the extent of the nonconformity.

(iii) No other allowances are available under the regulations in this chapter to avoid the impending violation.

(2) Send the Designated Certification Officer a written request for an exemption no later than January 1, 2014.

(3) Applicants must provide, at a minimum, the following information:

(i) Detailed description of existing contract freight rates, the additional operating costs attributed to complying with the regulations, any loan covenants or other requirements regarding vessel financial instruments or agreements.

(ii) Bond rating of entity that owns the vessels in question (in the case of joint ventures, include the bond rating of the joint venture entity and the bond ratings of all partners; in the case of corporations, include the bond ratings of any parent or subsidiary corporations).

(iii) Estimated capital investment needed to comply with the requirements of this part by the applicable date.

(4) In determining whether to grant the exemptions, we will consider all

relevant factors, including the following:

(i) The number of vessels to be exempted.

(ii) The size of your company and your ability to endure the hardship.

(iii) The length of time a vessel is expected to remain out of compliance with this part.

(iv) The ability of an individual vessel to recover capital investments incurred to repower or otherwise modify a vessel to reduce air emissions.

(5) In addition to the application requirements of paragraphs (b)(1) through (4) of this section, your application for temporary relief under this paragraph (b) must also include a compliance plan that shows the period over which the waiver is needed.

(6) We may impose conditions on the waiver, including conditions to limit or recover any environmental loss.

(d) Prior to January 1, 2015, it is not a violation of this part for vessels operating exclusively in the Great Lakes to use a residual fuel not meeting the sulfur limits of Regulation 14.4.2 of Annex VI, where the operator bunkers with the lowest sulfur marine residual fuel that was available within the port area where the vessel bunkered the fuel. For purposes of this paragraph (c), port area means the geographic limits of the port as specified by the Army Corps of Engineers. The reporting and record-keeping requirements of this part continue to apply for such operation. In addition, if you operate using a residual fuel not meeting the sulfur limits of Regulation 14.4.2 under this paragraph (c), you must send a report to the Designated Certification Officer that identifies the fuel that was used and documents how you determined that no compliant fuel was available. You must send this report within three months after the fueling event.

[75 FR 23013, Apr. 30, 2010, as amended at 77 FR 2478, Jan. 18, 2012; 80 FR 9113, Feb. 19, 2015]

### § 1043.97 Interim provisions.

(a) The fuel-related requirements under APPS for operation in the North American ECA, the United States Caribbean Sea ECA, and ECA-associated areas do not apply until January 1, 2020

## § 1043.100

for steamships built on or before August 1, 2011 if they are powered by propulsion boilers that were not originally designed for continued operation on marine distillate fuel or natural gas.

(b) [Reserved]

[80 FR 9113, Feb. 19, 2015]

### § 1043.100 Incorporation by reference.

(a) Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, the Environmental Protection Agency must publish a document in the FEDERAL REGISTER and the material must be available to the public. All approved material is available for inspection at U.S. EPA, Air and Radiation Docket and Information Center, 1301 Constitution Ave. NW., Room B102, EPA West Building, Washington, DC 20460, (202) 202-1744, and is available from the sources listed below. It is also available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

(b) The International Maritime Organization, 4 Albert Embankment, London SE1 7SR, United Kingdom, or [www.imo.org](http://www.imo.org), or 44-(0)20-7735-7611.

(1) MARPOL Annex VI, Regulations for the Prevention of Air Pollution from Ships, Third Edition, 2013, and NO<sub>x</sub> Technical Code 2008.

(i) Revised MARPOL Annex VI, Regulations for the Prevention of Pollution from Ships, Third Edition, 2013 (“2008 Annex VI”); IBR approved for §§1043.1 introductory text, 1043.20, 1043.30(f), 1043.60(c), and 1043.70(a).

(ii) NO<sub>x</sub> Technical Code 2008, Technical Code on Control of Emission of Nitrogen Oxides from Marine Diesel Engines, 2013 Edition, (“NO<sub>x</sub> Technical Code”); IBR approved for §§1043.20, 1043.41(b) and (h), and 1043.70(a).

(iii) Annex 12, Resolution MEPC.251(66) from the Report of the Marine Environment Protection Committee on its Sixty-Sixth Session, April 25, 2014. This document describes

## 40 CFR Ch. I (7–1–17 Edition)

new and revised provisions that are considered to be part of Annex VI and NO<sub>x</sub> Technical Code 2008 as referenced in paragraphs (b)(1)(i) and (ii) of this section. IBR approved for §§1043.1 introductory text, 1043.20, 1043.30(f), 1043.41(b) and (h), 1043.60(c), and 1043.70(a).

(2) [Reserved]

[81 FR 74161, Oct. 25, 2016]

## PART 1045—CONTROL OF EMISSIONS FROM SPARK-IGNITION PROPULSION MARINE ENGINES AND VESSELS

### Subpart A—Overview and Applicability

Sec.

- 1045.1 Does this part apply for my products?
- 1045.2 Who is responsible for compliance?
- 1045.5 Which engines are excluded from this part’s requirements?
- 1045.10 How is this part organized?
- 1045.15 Do any other CFR parts apply to me?
- 1045.20 What requirements apply to my vessels?
- 1045.25 How do the requirements related to evaporative emissions apply to engines and their fuel systems?
- 1045.30 Submission of information.

### Subpart B—Emission Standards and Related Requirements

- 1045.101 What exhaust emission standards and requirements must my engines meet?
- 1045.103 What exhaust emission standards must my outboard and personal watercraft engines meet?
- 1045.105 What exhaust emission standards must my sterndrive/inboard engines meet?
- 1045.107 What are the not-to-exceed emission standards?
- 1045.110 How must my engines diagnose malfunctions?
- 1045.112 What are the standards for evaporative emissions?
- 1045.115 What other requirements apply?
- 1045.120 What emission-related warranty requirements apply to me?
- 1045.125 What maintenance instructions must I give to buyers?
- 1045.130 What installation instructions must I give to vessel manufacturers?
- 1045.135 How must I label and identify the engines I produce?
- 1045.140 What is my engine’s maximum engine power?
- 1045.145 Are there interim provisions that apply only for a limited time?