

This document has been prepared as part of the implementation project of Legal Pathways to Deep Decarbonization (Michael B. Gerrard and John C. Dernbach, eds. Environmental Law Institute [2019]) (LPDD). For background information on the project, see <https://lpdd.org>

117TH CONGRESS
XX SESSION

An Act¹

To ensure any ship that departs from or calls at a U.S. port utilizes Arctic-eligible fuels on Arctic journeys.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the “Reduction of Arctic Shipping Emissions that Lead to Warming Act”.

SEC. 2. DEFINITIONS.

In this Act:

- (1) The term “Administrator” means the Administrator of the Environmental Protection Agency.²
- (2) The term “Arctic” means all United States and foreign territory north of the Arctic Circle and all United States territory north and west of the boundary formed by the Porcupine, Yukon, and Kuskokwim Rivers; all contiguous seas, including the Arctic Ocean and the Beaufort, Bering, and Chukchi Seas; and the Aleutian chain.³
- (3) The term “Arctic Baseline Fuel” means fuel not prohibited in section 4(a)(1) or not otherwise prohibited by law.
- (4) The term “Arctic-eligible Fuel” means a fuel or battery operation—
 - (a) eligible to be considered by the Administrator pursuant to section 4(b),
 - (b) not prohibited by the Administrator pursuant to section 4(a), and
 - (c) not otherwise prohibited by law.

¹ Suggested placement, 33 USC § 1971.

² Modified from 33 USC § 1901(a)(1).

³ 15 USC § 4111.

(5) The term “Baseline lifecycle climate emissions” means the lifecycle climate emissions, as determined by the Administrator to be feasible using the best available current technology, after notice and opportunity for comment, for Arctic Baseline Fuel.⁴

(6) The term “carbon dioxide equivalent emissions” means greenhouse gas emissions together with short-lived climate pollutants emissions.

(7) The term “Convention” means the International Convention for the Prevention of Pollution from Ships, 1973, including Protocols I and II and Annexes I, II, V, and VI thereto, including any modification or amendments to the Convention, Protocols, or Annexes which have entered into force for the United States.⁵

(8) The term “Greenhouse gas” means carbon dioxide, hydrofluorocarbons, methane, nitrous oxide, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride.⁶ The Administrator may include any other anthropogenically-emitted gas that is determined by the Administrator, after notice and comment, to contribute to global warming.⁷

(9) The term “Lifecycle climate emissions” means the aggregate quantity of carbon dioxide equivalent emissions (including direct emissions and significant indirect emissions such as significant emissions from land use changes), as determined by the Administrator, related to the full fuel lifecycle, including all stages of fuel and feedstock production and distribution, from feedstock generation or extraction through the distribution and delivery and use of the finished fuel to the ultimate consumer, where the mass values for all greenhouse gases and short-lived climate pollutants are adjusted to account for their relative global warming potential. For purposes of this Act, the “global warming potential” is the 20-year global warming potential.⁸

(10) The term “MARPOL Protocol” means the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973, and includes the Convention.⁹

(11) The term "Secretary" means the Secretary of the department in which the Coast Guard is operating.¹⁰

(12) The term "Ship" means a vessel of any type whatsoever, including hydrofoils, air-cushion vehicles, submersibles, floating craft whether self-propelled or not, and fixed or floating platforms.¹¹

(13) The term “Short-lived climate pollutants” are warming short-lived climate forcers.¹² Short-lived climate pollutants include the following substances: black carbon, hydrofluorocarbons

⁴ Modified from 42 USC § 7545(o)(1)(C)

⁵ Modified from 33 USC § 1901(a)(5)

⁶ Modified from 42 USC § 7545(o)(1)(G). Addition of GHG nitrogen trifluoride (NF3).

⁷ Id.

⁸ Modified from 42 USC § 7545(o)(1)(H). Modified from 17 CCR 95481(a)(88) (California).

⁹ Modified from 33 USC § 1901(a)(4).

¹⁰ Modified from 33 USC § 1901(a)(11).

¹¹ Modified from 33 USC § 1901(a)(12).

¹² Definition adapted from *IPCC Ocean and Cryosphere* glossary. See memorandum subsection 3.3.

(HFCs), methane, and tropospheric (ground-level) ozone.”¹³ The Administrator may include any other anthropogenically-emitted short-lived climate pollutant that is determined by the Administrator, after notice and comment, to contribute to global warming.¹⁴

SEC. 3. APPLICABILITY.

- (a) Included vessels. This Act shall apply—
 - (1) to a ship—¹⁵
 - (A) entering any port or place under the jurisdiction of the United States¹⁶ within a 1-year time period of operating in Arctic waters;¹⁷ and
 - (B) departing from any port or place under the jurisdiction of the United States¹⁸ with the intent to operate in Arctic waters within a 1-year time period.¹⁹
- (b) Excluded vessels. This Act shall not apply—
 - (1) to a ship—
 - (A) engaged in—
 - (i) securing the safety of ships; or
 - (ii) search and rescue operations;²⁰
 - (B) dedicated to oil spill preparedness and response; or
 - (C) whose passage is rendered necessary by force majeure or distress.²¹

SEC. 4. PROHIBITIONS; ARCTIC-ELIGIBLE FUELS; CREDITS.

- (a) Effective dates.
 - (1) Heavy Fuel Oil.— Not later than January 1, 2023,²² a ship shall be prohibited from the use and carriage as fuel of the following in the Arctic:²³
 - (A) oils, other than crude oils, having a density at 15°C higher than 900 kg/m³ or a kinematic viscosity at 50°C higher than 180 mm²/s.²⁴

¹³ See memorandum subsection 3.3 for identification of substances.

¹⁴ Modified from 42 USC § 7545(o)(1)(G).

¹⁵ Modified from 33 USC § 1902(a)(5).

¹⁶ Modified from 46 USC § 70021.

¹⁷ The language “within a 1-year time period” is to reflect LPDD low climate impact fuel recommendation. See memorandum subsection 1.0.

¹⁸ Modified from 46 USC 70021.

¹⁹ The language “within a 1-year time period” is to reflect LPDD low climate impact fuel recommendation.

²⁰ Modified from MARPOL Annex I regulation 43A.1.

²¹ Modified from UNCLOS art 18(2).

²² The deadline precedes the MARPOL Annex I regulation 43A date by 18 months. Id regulation 43A.1. See memorandum subsections 4.3.2 and 7.4.

²³ Modified from Annex I regulation 43A.1. This provision could be expanded by Congress to prohibit all carriage of HFO (e.g., oil tankers). Such a prohibition would be consistent with the prohibition of carriage of HFO in the Antarctic. See memorandum subsection 4.3.2 and note 166.

²⁴ Modified from Annex I regulation 43A.1.

(2) Twenty percent lifecycle reduction.— Not later than January 1, 2025, the use and carriage as fuel by a ship of fuel that has lifecycle climate emissions, as determined by the Administrator, after notice and opportunity for comment, that is more than 80 percent of baseline lifecycle climate emissions shall be prohibited in the Arctic.²⁵

(3) Fifty percent lifecycle reduction.— Not later than January 1, 2030, the use and carriage as fuel by a ship of fuel that has lifecycle climate emissions, as determined by the Administrator, after notice and opportunity for comment, that is more than 50 percent of baseline lifecycle climate emissions shall be prohibited in the Arctic.²⁶

(4) Seventy percent lifecycle reduction.— Not later than January 1, 2035, the use and carriage as fuel by a ship of fuel that has lifecycle climate emissions, as determined by the Administrator, after notice and opportunity for comment, that is more than 30 percent of baseline lifecycle climate emissions shall be prohibited in the Arctic.²⁷

(5) One hundred percent lifecycle reduction.— Not later than January 1, 2050, the use and carriage as fuel by a ship of fuel that has lifecycle climate emissions, as determined by the Administrator, after notice and opportunity for comment, shall be prohibited in the Arctic.²⁸

(b) Inclusions.²⁹

(1) The types of fuels eligible for consideration as Arctic-eligible fuel may include any of the following, as determined by the Administrator:³⁰

- (A) Hydrogen;
- (B) Methanol;
- (C) Ammonia;
- (D) Biofuels;
- (E) Arctic-eligible fuel blends, including arctic baseline fuel blends;
- (F) Other fuel as determined by the Administrator to be at least as protective of human health and welfare, after notice and opportunity for comment.³¹

(2) Battery operation may also be eligible for consideration.

²⁵ Modified from 42 USC 7545(o)(1)(B)(i).

²⁶ Modified from 42 USC 7545(o)(1)(B)(i).

²⁷ Id.

²⁸ Id. See also memorandum subsection 3.3 note 51 pertaining to U.S. net-zero emissions by 2050 pledge, and subsection 3.7.2 note 99 pertaining to future U.S. effort for shipping net-zero emissions by 2050.

²⁹ Modified from 42 USC 7545(o)(1)(B)(ii).

³⁰ Id.

³¹ Modified from 42 USC § 7543(b)(2).

(3) Arctic-eligible fuel shall not include fuel prohibited in section 4 or otherwise prohibited by law.

(c) Credit Program.³²

(1) Generation of credits. A ship that uses as fuel an Arctic-eligible fuel that exceeds the required lifecycle reduction by at least 50 percent shall generate an appropriate amount of commensurate credits.³³

(2) Use of credits. A ship that generates credits under paragraph (1) may use the credits, or transfer all or a portion of the credits to another ship, for the purpose of complying with the applicable required lifecycle reduction.³⁴

(3) Duration of credits. A credit generated under paragraph (1) shall be valid to show compliance for the 12 months as of the date of generation.³⁵

SEC. 5. ADMINISTRATION.³⁶

(a) Duty of Secretary.—³⁷

(1) Unless otherwise specified in this Act,—

(A) The Secretary shall administer and enforce this Act.³⁸

(B) The Secretary shall prescribe any necessary or desired regulations to carry out the provisions of this Act.³⁹

(C) The administration and enforcement of this Act shall apply only to seagoing ships unless otherwise specified.⁴⁰

(2) Not later than January 1, 2022, the Secretary shall initiate a rulemaking to prescribe regulations to carry out the provisions of subsection 6(a), and shall promulgate a final rule within 12 months of the required date of initiation.⁴¹

(3) Whenever the Secretary is otherwise required to initiate a rulemaking under this subsection, the Secretary shall promulgate a final rule within 18 months of the required date of initiation.⁴²

³² Modified from 42 USC 7545(o)(5).

³³ Modified from 42 USC 7545(o)(5)(A)(ii).

³⁴ Modified from 42 USC 7545(o)(5)(B).

³⁵ Modified from 42 USC 7545(o)(5)(C).

³⁶ Modified from 33 USC § 1903(c).

³⁷ Modified from 33 USC § 1903(a).

³⁸ Modified from 33 USC § 1903(c)(1).

³⁹ Id.

⁴⁰ Modified from 33 USC § 1903(a). See memorandum subsection 4.3.2 note 166 and subsection 7.4 pertaining to Annex I and seagoing ships.

⁴¹ Modified from 42 USC § 7545(u)(3). The rulemaking period is limited to 12 months since the U.S. Coast Guard rely on existing procedures pertaining to ships for its basis (e.g., 33 CFR Subpart A).

⁴² Modified from 42 USC § 7545(u)(3).

(b) Duty of the Administrator.—⁴³

(1) Arctic baseline fuel determination. Not later than January 1, 2023,⁴⁴ the Administrator shall determine baseline lifecycle climate emissions, after notice and opportunity for comment, for Arctic Baseline Fuel.⁴⁵

(2) Inclusions. Unless the American Society for Testing and Materials has adopted a standard for a type of fuel eligible for consideration as Arctic-eligible fuel, not later than January 1, 2023,⁴⁶ the Administrator shall initiate a rulemaking to establish a uniform per unit fuel standard for a type of fuel eligible for consideration as Arctic-eligible fuel and designate an identification number.⁴⁷

(3) Credits. Not later than January 1, 2023,⁴⁸ the Administrator shall initiate a rulemaking to provide for the generation, use, and duration of credits.

(4) Certification. Not later than January 1, 2023,⁴⁹ the Administrator shall initiate a rulemaking to establish procedures under which the Administrator shall certify Arctic-eligible fuel as complying with the requirements established pursuant to this Act. Under such regulations, the Administrator shall establish procedures for any person to petition the Administrator to certify a fuel or fuels.⁵⁰

(5) Whenever the Administrator is required to initiate a rulemaking under this subsection, the Administrator shall promulgate a final rule within 18 months of the required date of initiation.⁵¹

(c) Consultation. In prescribing any regulations under this Act, the Secretary and the Administrator shall consult with each other.⁵²

⁴³ Modified heading from 33 USC § 1903(b).

⁴⁴ This date is one year after the HFO as fuel ban takes effect, and will be in place prior to the first required lifecycle reduction.

⁴⁵ Modified from 42 USC 7545(o)(1)(H).

⁴⁶ This date is one year after the HFO as fuel ban takes effect, and will be in place prior to the first required lifecycle reduction.

⁴⁷ Modified from 42 USC § 7545(u)(1).

⁴⁸ This date is one year after the HFO as fuel ban takes effect, and will be in place prior to the first required lifecycle reduction.

⁴⁹ Id.

⁵⁰ Modified from 42 USC § 7545(k)(4)(A).

⁵¹ Modified from 42 USC § 7545(u)(3).

⁵² Modified from 33 USC § 1903(c)(3).

SEC. 6. DOCUMENTATION BY SHIPS; INSPECTION.

(a) Documentation.—

(1) A ship shall keep its bunker delivery note and certifications on board the ship in such a place as to be readily available for inspection at all reasonable times. A bunker delivery note shall be retained for three years after the fuel has been delivered on board.⁵³

(2) The master or person in charge of the ship shall certify that such copy is a true copy of such bunker delivery note.⁵⁴

(3) A ship that uses separate fuels for its operation in the Arctic and outside the Arctic shall carry a written procedure showing how the changeover is to be done. Documentation in a logbook shall include:

(A) Documentation of procedure and showing of sufficient time for flushing prior to entering the Arctic.

(B) Documentation of the volume of fuels in each tank, and the date, time, and position of ship when fuel changeover occurs.⁵⁵

(b) Inspection.—

(1) The Secretary may inspect the bunker delivery notes and certifications on board a ship while the ship is in a port or place under the jurisdiction of the United States.⁵⁶

(2) For purposes of this Act, the Secretary's inspection authorities shall correspond to those authorities set forth in regulations 18.7.1 – 18.8.1 of Annex VI of the MARPOL Protocol, including authorities related to bunker delivery notes and representative samples.⁵⁷

(3) This section shall not limit the authority of any official or employee of the United States under any other treaty, law, or regulation to board and inspect a ship or its equipment.⁵⁸

⁵³ Modified from MARPOL Annex VI regulation 18.6.

⁵⁴ Modified from MARPOL Annex VI regulation 18.7.1.

⁵⁵ Modified from MARPOL Annex VI regulation 14.6.

⁵⁶ Modified from MARPOL Annex VI regulation 18.7.1 and 46 USC 70021.

⁵⁷ *Mutatis mutandis*.

⁵⁸ Modified from 33 USC 1904(d).

SEC. 7. SUPPLIERS; FUEL AVAILABILITY.⁵⁹

(a) Suppliers of compliant fuel.—

(1) A supplier shall provide to a ship:

(A) A bunker delivery note;

(B) An associated sample as required; and

(C) Certification by the fuel supplier that the fuel meets the requirements of this Act and regulations thereunder.⁶⁰

(2) The supplier shall retain a copy of the bunker delivery note for at least three years for inspection and verification by the Secretary.⁶¹

(b) Fuel Availability.—

(1) The Secretary and Administrator shall coordinate among other Federal agencies, in cooperation and coordination with non-governmental organizations, industry, universities, and research institutions, States, Indian tribes, and other nations, as appropriate, to promote the availability of fuels that comply with the requirements of this Act.⁶²

(2) The Secretary shall maintain a register of suppliers of each compliant fuel.⁶³

SEC. 8. VIOLATIONS.

(a) General prohibition; cooperation and enforcement; detection and monitoring measures; reports; evidence—

It is unlawful to act in violation of this Act or the regulations issued thereunder. If a possible violation involves a foreign ship, the Secretary should cooperate with the government of the country in the detection of violations and in enforcement. The Secretary shall use all appropriate and practical measures of detection and environmental monitoring, and shall establish adequate procedures for reporting violations and accumulating evidence.⁶⁴

(b) Investigations; subpoenas: issuance by Secretary, enforcement; action by Secretary; information to party—

Upon receipt of evidence that a violation has occurred, the Secretary shall cause the matter to be investigated. In any investigation under this section the Secretary may issue subpoenas to require the attendance of any witness and the production of documents and

⁵⁹ Modified from MARPOL Annex VI regulation 18.

⁶⁰ Modified from MARPOL Annex VI regulation 18.9.2

⁶¹ Modified from MARPOL Annex VI regulation 18.9.3

⁶² Modified from 33 USC § 1954(a).

⁶³ Modified from MARPOL Annex VI regulation 18.9.1.

⁶⁴ Modified from 33 USC § 1907(a). 33 USC § 1913(a) uses the term “foreign ship.”

other evidence. In case of refusal to obey a subpoena issued to any person, the Secretary may request the Attorney General to invoke the aid of the appropriate district court of the United States to compel compliance. Upon completion of the investigation, the Secretary shall take the action required by this Act and whatever further action he considers appropriate under the circumstances. If the initial evidence was provided by a government of a foreign country, the Secretary, acting through the Secretary of State, shall inform that government of the action taken or proposed.⁶⁵

SEC. 9. PENALTIES FOR VIOLATIONS.

(a) Criminal penalties; payment for information leading to conviction—

A person who knowingly violates this Act or the regulations issued thereunder commits a class D felony. In the discretion of the Court, an amount equal to not more than ½ of such fine shall⁶⁶ be paid to the person giving information leading to conviction.⁶⁷

(b) Civil penalties; separate violations; assessment notice; considerations affecting amount; payment for information leading to assessment of penalty—

A person who is found by the Secretary, or the Administrator as provided for in this Act, after notice and an opportunity for a hearing, to have—

(1) violated this Act or the regulations issued thereunder shall be liable to the United States for a civil penalty, not to exceed \$25,000 for each violation; or

(2) made a false, fictitious, or fraudulent statement or representation in any matter in which a statement or representation is required to be made to the Secretary, or the Administrator as provided for in this Act, under this Act or the regulations thereunder, shall be liable to the United States for a civil penalty, not to exceed \$25,000⁶⁸ for each statement or representation.

Each day of a continuing violation shall constitute a separate violation. The amount of the civil penalty shall be assessed by the Secretary, or the Administrator as provided for in this Act or his designee, by written notice. In determining the amount of the penalty, the Secretary, or the Administrator as provided for in this Act, shall take into account the nature, circumstances, extent, and gravity of the prohibited acts committed and, with respect to the violator, the degree of culpability, any history of prior offenses, ability to pay, and other matters as justice may require. An amount equal to not more than ½ of such penalties shall⁶⁹ be paid by the Secretary, or the Administrator as provided for in this Act, to the person giving information leading to the assessment of such penalties.⁷⁰

⁶⁵ Modified from 33 USC § 1907(b).

⁶⁶ See memorandum subsection 7.3.

⁶⁷ Modified from 33 USC § 1908(a).

⁶⁸ See memorandum subsection 7.3.

⁶⁹ Id.

⁷⁰ Modified from 33 USC § 1908(b).

(c) Abatement of civil penalties; collection by Attorney General—

The Secretary, or the Administrator as provided for in this Act, may compromise, modify, or remit, with or without conditions, any civil penalty which is subject to assessment or which has been assessed under this section. If any person fails to pay an assessment of a civil penalty after it has become final, the Secretary, or the Administrator as provided for in this Act, may refer the matter to the Attorney General of the United States for collection in any appropriate district court of the United States.⁷¹

(d) Liability in rem; district court jurisdiction—

A ship operated in violation of this Act or the regulations thereunder is liable in rem for any fine imposed under subsection (a) or civil penalty assessed pursuant to subsection (b), and may be proceeded against in the United States district court of any district in which the ship may be found.⁷²

(e) Ship clearance or permits; refusal or revocation; bond or other surety—

If any ship subject to this Act, its owner, operator, or person in charge is liable for a fine or civil penalty under this section, or if reasonable cause exists to believe that the ship, its owner, operator, or person in charge may be subject to a fine or civil penalty under this section, the Secretary of the Treasury, upon the request of the Secretary, shall refuse or revoke the clearance required by section 60105 of title 46. Clearance may be granted upon the filing of a bond or other surety satisfactory to the Secretary.⁷³

(f) Deposits in Abandoned Seafarers Fund—

Any penalty collected under subsection (a) or (b) that is not paid under that subsection to the person giving information leading to the conviction or assessment of such penalties shall be deposited in the Abandoned Seafarers Fund established under section 11113 of title 46.⁷⁴

**SEC. 10. RELATIONSHIP TO ACT TO PREVENT POLLUTION FROM SHIPS;
EFFECT ON OTHER LAWS.**

(a) Related act. This Act serves to supplement the Act to Prevent Pollution from Ships [33 U.S.C. 1901 et seq.] and its implementation of the MARPOL Protocol.

(b) The Secretary shall give due publicity of requirements under this Act, and shall communicate the requirements to the International Maritime Organization.⁷⁵

⁷¹ Modified from 33 USC § 1908(c).

⁷² Modified from 33 USC § 1908(d).

⁷³ Modified from 33 USC § 1908(e).

⁷⁴ Modified from 33 USC § 1908(g).

⁷⁵ Modified from UNCLOS art 211(3).

Additionally, the Secretary shall seek to involve other coastal nations in adopting the requirements under this Act in identical form.⁷⁶

(c) Effect on other laws. Authorities, requirements, and remedies of this Act supplement and neither amend nor repeal any other authorities, requirements, or remedies conferred by any other provision of law. Nothing in this Act shall limit, deny, amend, modify, or repeal any other authority, requirement, or remedy available to the United States or any other person, except as expressly provided in this Act.⁷⁷

(d) The Secretary may utilize by agreement, with or without reimbursement, personnel, facilities, or equipment of other Federal departments and agencies in administering this Act or the regulations under this Act.⁷⁸

⁷⁶ Id.

⁷⁷ Modified from 33 USC § 1911.

⁷⁸ Modified from 33 USC § 1903(d).