
A BILL FOR AN ACT

RELATING TO HYDROFLUOROCARBONS.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

1 SECTION 1. The legislature finds that hydrofluorocarbons,
2 or HFCs, are synthetic gases that pose a significant risk to our
3 environment and therefore should be phased out and replaced with
4 available alternatives that are safer and more cost-effective.

5 Hydrofluorocarbons are greenhouse gases that are hundreds to
6 thousands of times more potent than carbon dioxide in
7 contributing to climate change. If left unchecked,
8 hydrofluorocarbon emissions will increase to seven to nineteen
9 per cent of global greenhouse gas emissions by 2050.

10 Hydrofluorocarbons are widely used as cooling agents in air
11 conditioners and refrigerators and in aerosol propellants,
12 solvents, and foaming agents. These gases enter the environment
13 through the manufacture, leakage, and disposal of these
14 products.

15 Prior to the use of hydrofluorocarbons, chlorofluorocarbons
16 (CFCs) were used for these applications. Beginning in 1987,
17 chlorofluorocarbons were globally phased out by the Montreal



1 Protocol due to the role of these gases in ozone depletion.
2 Hawaii banned the sale and release of chlorofluorocarbons
3 through Act 77, Session Laws of Hawaii 1989; Act 316, Session
4 Laws of Hawaii 1990; and Act 264, Session Laws of Hawaii 1992;
5 however, hydrofluorocarbons were excluded from these
6 prohibitions.

7 Now, following nearly three decades of widespread use,
8 there is an increased awareness of the significant impacts that
9 hydrofluorocarbons have on climate change. While
10 hydrofluorocarbons do not deplete ozone like
11 chlorofluorocarbons, they are long-lived and have more than a
12 thousand times more warming potential than carbon dioxide.
13 Given this understanding, there has been action nationally and
14 internationally to phase out the use of hydrofluorocarbons.
15 California and Washington have both passed legislation to
16 replace hydrofluorocarbons with safer alternatives, and the
17 Kigali Amendment to the Montreal Protocol provides a framework
18 to transition from hydrofluorocarbons to substances having low
19 to zero global warming potential.

20 Given Hawaii's efforts to reduce greenhouse gas emissions
21 and mitigate the effects of climate change, the phase-out of



1 hydrofluorocarbons aligns with many existing goals and
2 priorities. This is especially important now because federal
3 action to address hydrofluorocarbons has stalled. Although the
4 United States Environmental Protection Agency, recognizing the
5 impacts of hydrofluorocarbons on climate change, previously
6 implemented a rule under the Clean Air Act that imposed stricter
7 requirements on hydrofluorocarbons emission monitoring and
8 disposal, the agency subsequently proposed a reversal of this
9 rule, thereby jeopardizing the increased regulation of
10 hydrofluorocarbons at the federal level.

11 In the absence of federal action, states must provide
12 leadership by addressing hydrofluorocarbons now because the
13 impacts of climate change will not wait for federal law to
14 regulate these harmful emissions. The legislature finds that
15 substituting or reducing the use of hydrofluorocarbons with the
16 highest global warming potential will provide a significant
17 boost to the State's efforts to reduce its greenhouse gas
18 emissions to established limits. The legislature also finds
19 that hydrofluorocarbons will be comparatively easy to reduce and
20 eliminate without widespread detriment to industry consumers.



1 While phasing out hydrofluorocarbons is essential to
2 reducing greenhouse gas emissions, disposal of
3 hydrofluorocarbons currently in use is also a necessary
4 consideration. Because the State does not regulate
5 hydrofluorocarbons in the same way that it regulates
6 chlorofluorocarbons, there are currently no standards addressing
7 the disposal of products containing hydrofluorocarbons.
8 However, hydrofluorocarbons are recyclable and it is estimated
9 that if thirty per cent of hydrofluorocarbons currently in use
10 globally were recycled, approximately eighteen billion metric
11 tons of carbon dioxide-equivalent emissions would be prevented
12 over the next twenty-five years.

13 The purpose of this Act is to:

- 14 (1) Preserve federal regulations on the use of
15 hydrofluorocarbons in state law;
- 16 (2) Establish a preference for products that do not
17 contain hydrofluorocarbons in the state procurement
18 code; and
- 19 (3) Direct the state energy office and the environmental
20 management division of the department of health to
21 study how to increase the use of refrigerants with low



1 global warming potential and recommend how to
2 establish a state program that supports the
3 elimination of legacy uses of hydrofluorocarbons.

4 SECTION 2. Chapter 342B, Hawaii Revised Statutes, is
5 amended by adding a new part to be appropriately designated and
6 to read as follows:

7 **"PART . REGULATION OF HYDROFLUOROCARBONS**

8 **§342B-A Definitions.** As used in this part, unless the
9 context otherwise requires:

10 "Class I substance" and "class II substance" means those
11 substances listed in 42 United States Code section 7671a, as it
12 read on November 15, 1990, or those listed in Appendix A or B of
13 Subpart A of 40 Code of Federal Regulations part 82, as those
14 read on January 3, 2017.

15 "Consumer refrigeration product" shall have the same
16 meaning as in 10 Code of Federal Regulations section 430.2, as
17 that section read on January 3, 2017.

18 "Greenhouse gas" includes carbon dioxide, methane, nitrous
19 oxide, hydrofluorocarbons, perfluorocarbons, sulfur
20 hexafluoride, and any other gas designated by the department by
21 rule.



1 "Hydrofluorocarbons" means a class of greenhouse gases that
2 are saturated organic compounds containing hydrogen, fluorine,
3 and carbon.

4 "Manufacturer" means a person that produces, imports, or
5 distributes a product that contains or uses hydrofluorocarbons.

6 "Retrofit" shall have the same meaning as in 40 Code of
7 Federal Regulations section 82.152 section 152, as that section
8 read on January 3, 2017.

9 "Substitute" means a chemical, product substitute, or
10 alternate manufacturing process, whether existing or new, that
11 is used to perform a function previously performed by a class I
12 substance or class II substance and any substitute subsequently
13 adopted to perform that function, including but not limited to
14 hydrofluorocarbons; provided that the term shall not include 2-
15 BTP or any compound as applied to its use in aerospace fire
16 extinguishing systems.

17 **§342B-B Regulation of hydrofluorocarbons.** (a) No person
18 shall offer any product or equipment for sale, lease, rent, or
19 installation, or otherwise cause the product or equipment to
20 enter commerce in the State if that equipment or product



1 consists of, uses, or will use a substitute, consistent with the
2 deadlines established in subsection (b).

3 (b) The restrictions under subsection (a) for the
4 following products and equipment identified in Appendixes U and
5 V, Subpart G of 40 Code of Federal Regulations Part 82, as those
6 read on January 3, 2017, shall take effect beginning:

7 (1) January 1, 2021, for:

8 (A) Propellants;

9 (B) Rigid polyurethane applications and spray foam,
10 flexible polyurethane, integral skin
11 polyurethane, flexible polyurethane foam,
12 polystyrene extended sheet, polyolefin, phenolic
13 insulation board, and bunstock; and

14 (C) Supermarket systems, remote condensing units,
15 standalone units, and vending machines;

16 (2) January 1, 2022, for:

17 (A) Refrigerated food processing and dispensing
18 equipment;

19 (B) Compact consumer refrigeration products; and



- 1 (C) Polystyrene extruded boardstock and billet, and
2 rigid polyurethane low-pressure two component
3 spray foam;
- 4 (3) January 1, 2023, for consumer refrigeration products
5 other than compact and built-in consumer refrigeration
6 products;
- 7 (4) July 1, 2023, for cold storage warehouses;
- 8 (5) July 1, 2024, for built-in consumer refrigeration
9 products;
- 10 (6) July 1, 2024, for centrifugal chillers and positive
11 displacement chillers; and
- 12 (7) On either July 1, 2022, or the effective date of the
13 restrictions identified in appendixes U and V, Subpart
14 G of 40 Code of Federal Regulations Part 82, as those
15 read on January 3, 2017, whichever is later, for all
16 other applications and end uses for substitutes not
17 covered by the categories listed in paragraphs (1)
18 through (6) of this subsection.
- 19 (c) Except where existing equipment is retrofit, nothing
20 in this section shall be deemed to require a person who acquired
21 a restricted product or equipment prior to the effective date of



1 the restrictions in subsection (b) to cease use of that product
2 or equipment. A product or equipment manufactured prior to the
3 applicable effective date of the restrictions specified in
4 subsection (b) may be sold, imported, exported, distributed,
5 installed, and used after the specified effective date.

6 (d) The department may adopt rules pursuant to chapter 91
7 to:

- 8 (1) Modify the effective date of a prohibition established
9 in subsection (b) if the department determines that
10 the rule reduces the overall risk to human health or
11 the environment and reflects the earliest date that a
12 substitute is currently or potentially available;
- 13 (2) Prohibit the use of a substitute if the department
14 determines that the prohibition reduces the overall
15 risk to human health or the environment and that a
16 lower risk substitute is currently or potentially
17 available;
- 18 (3) Adopt a list of approved substitutes, use conditions,
19 or use limits, if any;
- 20 (4) Add or remove substitutes, use conditions, or use
21 limits to or from the list of approved substitutes if



1 the department determines those substitutes reduce the
2 overall risk to human health and the environment; and

3 (5) Designate acceptable uses of hydrofluorocarbons for
4 medical uses that are exempt from the requirements of
5 subsection (b).

6 (e) Within twelve months of another state's enactment or
7 adoption of restrictions on substitutes applicable to new light
8 duty vehicles, the department may adopt restrictions applicable
9 to the sale, lease, rental, or other introduction into commerce
10 by a manufacturer of new light duty vehicles consistent with the
11 restrictions identified in Appendix B, Subpart G of 40 Code of
12 Federal Regulations Part 82, as it read on January 3, 2017. The
13 department shall not adopt restrictions that take effect prior
14 to the effective date of the restrictions adopted or enacted in
15 at least one other state.

16 (f) If the United States Environmental Protection Agency
17 approves a previously prohibited hydrofluorocarbon blend with a
18 global warming potential of seven hundred fifty or less for foam
19 blowing of polystyrene extruded boardstock and billet and rigid
20 polyurethane low-pressure two-component spray foam pursuant to
21 the significant new alternatives policy program under 42 United



1 States Code section 7671k, the department shall adopt rules to
2 conform its rules to that federal action as soon as practicable.

3 **§342B-C Disclosure of the use of substitutes. A**

4 manufacturer shall disclose the substitutes used in its products
5 or equipment in the form of:

6 (1) A label on the product or equipment that meets the
7 requirements established by the department by rule;
8 provided that:

9 (A) To the extent practicable, the department shall
10 recognize existing labeling that provides
11 sufficient disclosure of the use of substitutes
12 in the product or equipment;

13 (B) The department shall consider labels required by
14 state building codes and other safety standards
15 when adopting rules pursuant to this paragraph;
16 and

17 (C) The department shall not require the labeling of
18 aircraft and aircraft components subject to
19 certification requirements of the Federal
20 Aviation Administration; and



- 1 (2) Submitting information about the use of substitutes to
2 the department, upon request; provided that the
3 submission meets the following deadlines:
- 4 (A) By December 31, 2021, all manufacturers shall
5 notify the department of the status of each
6 product class utilizing hydrofluorocarbons or
7 other substitutes restricted under section 342B-A
8 that the manufacturer sells, offers for sale,
9 leases, installs, or rents in the State. This
10 status notification shall identify the
11 substitutes used by the products or equipment in
12 each product or equipment class in a manner
13 determined by rule;
- 14 (B) Within one hundred twenty days of the date a
15 restriction is put in place pursuant to this
16 section, any manufacturer affected by the
17 restriction shall provide an updated status
18 notification, which shall indicate whether the
19 manufacturer has ceased the use of
20 hydrofluorocarbons or substitutes restricted
21 under this section within each product class and,



1 if not, what hydrofluorocarbons or other
2 restricted substitutes remain in use; and
3 (C) After the effective date of a restriction put in
4 place pursuant to this section, a manufacturer
5 shall provide an updated status notification when
6 the manufacturer introduces a new or modified
7 product or piece of equipment that uses
8 hydrofluorocarbons or changes the type of
9 hydrofluorocarbons utilized within a product
10 class affected by a restriction; provided that
11 the notification shall occur within one hundred
12 twenty days of the date the product or equipment
13 triggering the notification requirement in this
14 subparagraph is introduced into commerce in the
15 State.

16 **§342B-D Rules.** The department may adopt rules pursuant to
17 chapter 91 to implement this section; provided that:

18 (1) The department shall seek, where feasible, to adopt
19 rules, including rules under section 342B-B(e), that
20 are consistent with the regulatory standards,
21 exemptions, reporting obligations, disclosure



1 requirements, and other compliance requirements of
2 other states or the federal government that have
3 adopted restrictions on the use of hydrofluorocarbons
4 and other substitutes; and

5 (2) Prior to the adoption or update of a rule under this
6 section, the department shall identify the sources of
7 information it relied on, including peer-reviewed
8 science.

9 **§342B-E Aircraft maintenance; definition.** For the
10 purposes of implementing the restrictions specified in
11 Appendix U of Subpart G of 40 C.F.R. Part 82, as it read on
12 January 3, 2017, consistent with this section, the department
13 shall interpret the term "aircraft maintenance" to mean
14 activities to support the production, fabrication, manufacture,
15 rework, inspection, maintenance, overhaul, or repair of
16 commercial, civil, or military aircraft, aircraft parts,
17 aerospace vehicles, or aerospace components.

18 **§342B-F Authority to regulate supplementary.** The
19 authority granted by this part to the department to restrict the
20 use of substitutes shall be supplementary to the department's
21 authority to control air pollution pursuant to this chapter.



1 Nothing in this part shall be construed to limit any authority
2 granted to the department under any other law.

3 **§342B-G Use of commercial refrigeration equipment after**
4 **effective date of restrictions.** Except where existing equipment
5 is retrofit, the restrictions of this part shall not apply to or
6 limit any use of commercial refrigeration equipment that was
7 installed or placed in use prior to the effective date of the
8 restrictions established in this part.

9 **§342B-H Penalties.** (a) The department may fine any
10 person not more than \$25,000 per day for each violation of any
11 provision of this part or any rule adopted under this part. The
12 director may also impose an administrative penalty of not more
13 than \$25,000 per day for each violation of any provision of this
14 part or any rule adopted under this part. Each day of each
15 violation shall constitute a separate offense for the purpose of
16 calculating the fine or penalty.

17 (b) Any person who fails to comply with an order issued
18 pursuant to this part shall be fined not more than \$25,000 for
19 each day of continued noncompliance.

20 (c) A fine or administrative penalty incurred but not paid
21 shall accrue interest, beginning on the ninety-first day



1 following the date the penalty became due, at the highest rate
2 allowed under chapter 478. If a fine or administrative penalty
3 is appealed, interest shall not begin to accrue until the
4 thirty-first day following the date of the final resolution of
5 the appeal.

6 (d) The maximum penalty amount established by subsection
7 (a) may be increased annually to adjust for inflation, as
8 calculated by the consumer price index or other acceptable
9 adjustment mechanism as determined by the rule.

10 (e) All fines collected under this section shall be
11 deposited in the environmental response revolving fund
12 established by section 128D-2.

13 (f) A public or private entity that receives or is the
14 potential recipient of a grant from the department may have the
15 grant rescinded or withheld by the department for failure to
16 comply with the provisions of this part.

17 (g) In addition to other penalties provided by this part
18 or by a rule adopted pursuant to this part, any person who
19 knowingly underreports emissions or other information used to
20 set fees, or persons who are required to pay emission or permit
21 fees who are more than ninety days late with regard to the



1 payment, may be subject to a penalty equal to three times the
2 amount of the original fee owed.

3 (h) The department shall adopt rules to excuse excess
4 emissions from enforcement action if the emissions are
5 unavoidable. The rules shall specify the criteria and
6 procedures for the department and local air authorities to
7 determine whether a period of excess emissions is excusable in
8 accordance with the state implementation plan."

9 SECTION 3. Chapter 103D, Hawaii Revised Statutes, is
10 amended by adding a new section to part X to be appropriately
11 designated and to read as follows:

12 "§103D- Preference for products that do not contain
13 hydrofluorocarbons. (a) The policy board shall adopt rules
14 that provide a preference for products that:

- 15 (1) Are not restricted under section 342B-B;
- 16 (2) Do not contain hydrofluorocarbons or contain
17 hydrofluorocarbons with a comparatively low global
18 warming potential;
- 19 (3) Are not designed to function only in conjunction with
20 hydrofluorocarbons characterized by a comparatively
21 high global warming potential; and



1 (4) Were not manufactured using hydrofluorocarbons or were
2 manufactured using hydrofluorocarbons with a low
3 global warming potential.

4 (b) A government body shall not knowingly purchase a
5 product that is not accorded a preference in the purchasing and
6 procurement rules established by the policy board pursuant to
7 subsection (a) unless there is no cost-effective and
8 technologically feasible option that is accorded a preference.

9 (c) Nothing in this section shall require an agency to
10 breach an existing contract or dispose of stock that has been
11 ordered or is in the possession of the agency as of the
12 effective date of this section.

13 (d) As used in this section, "hydrofluorocarbon" shall
14 have the same meaning as in section 342B-A."

15 SECTION 4. Chapter 107, Hawaii Revised Statutes, is
16 amended by adding a new section to part II to be appropriately
17 designated and to read as follows:

18 **"§107- State building codes; hydrofluorocarbons;**
19 **updates.** (a) When adopting, amending, or updating the codes
20 and standards identified in section 107-25, the council shall
21 establish codes and standards that permit the use of substitutes



1 and do not require the use of substitutes that are restricted by
2 section 342B-B.

3 (b) As used in this section, "substitute" shall have the
4 same meaning as in section 342B-A."

5 SECTION 5. (a) The state energy office, in conjunction
6 with the environmental management division of the department of
7 health, shall conduct a study that:

- 8 (1) Addresses how to increase the use of refrigerants with
9 low global warming potential in mobile sources,
10 utility equipment, and consumer appliances;
11 (2) Addresses how to reduce other uses of
12 hydrofluorocarbons in the State; and
13 (3) Provides recommendations for funding, structuring, and
14 prioritizing a state program that incentivizes or
15 provides grants to support the elimination of legacy
16 uses of all hydrofluorocarbons, including
17 hydrofluorocarbons that are not regulated by section 2
18 of this Act.

19 (b) The state energy office shall submit a report of its
20 findings and recommendations, including any proposed
21 legislation, to the legislature no later than December 1, 2022.



1 SECTION 6. This Act does not affect rights and duties that
2 matured, penalties that were incurred, and proceedings that were
3 begun before its effective date.

4 SECTION 7. If any provision of this Act, or the
5 application thereof to any person or circumstance, is held
6 invalid, the invalidity does not affect other provisions or
7 applications of the Act that can be given effect without the
8 invalid provision or application, and to this end the provisions
9 of this Act are severable.

10 SECTION 8. In codifying the new sections added by section
11 2 of this Act, the revisor of statutes shall substitute
12 appropriate section numbers for the letters used in designating
13 the new sections in this Act.

14 SECTION 9. New statutory material is underscored.

15 SECTION 10. This Act shall take effect on July 1, 2020.

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INTRODUCED BY: Nide E. Lowen

Bud Agar
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H.B. NO. 2492

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JAN 22 2020



H.B. NO. 2492

Report Title:

Greenhouse Gas Emissions; Hydrofluorocarbons; State Energy Office; Environmental Management Division; DOH; Phase Out; Procurement; Study

Description:

Preserves preexisting federal regulations on the use of hydrofluorocarbons in state law. Phases out hydrofluorocarbons in favor of alternatives with lower global warming potential. Establishes a preference for products that do not contain hydrofluorocarbons in the state procurement code. Directs the State Energy Office and the Environmental Management Division of the Department of Health to study how to increase the use of refrigerants with low global warming potential, reduce the use of hydrofluorocarbons, and recommend how to fund, structure, and prioritize a state program that incentivizes or provides grants to support the elimination of legacy uses of hydrofluorocarbons.

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