ENVIRONMENT AND NATURAL RESOURCES

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STATE OF MAINE
HOUSE OF REPRESENTATIVES
130TH LEGISLATURE
FIRST SPECIAL SESSION

COMMITTEE AMENDMENT “ ” to H.P. 161, L.D. 226, “An Act To Limit the Use of Hydrofluorocarbons To Fight Climate Change”

Amend the bill by striking out everything after the enacting clause and inserting the following:

'Sec. 1. 38 MRSA §1612 is enacted to read:

§1612. Hydrofluorocarbon use restrictions

1. Definitions. As used in this section, unless the context otherwise indicates, the following terms have the following meanings.

A. "Aerosol propellant" means a liquefied or compressed gas, including, but not limited to, a cosolvent that is used in whole or in part to expel a liquid or other material from a self-pressurized container containing that liquid or other material or from a separate container.

B. "Air conditioning equipment" means chillers used exclusively for the comfort cooling of occupied spaces.

C. "Built-in household refrigerator or freezer" means a refrigerator, refrigerator-freezer or freezer designed for residential use that:

(1) Has 7.75 cubic feet, or 220 liters, or greater total refrigerated volume and 24 inches or less depth not including doors, handles and custom front panels;

(2) Has sides that are not finished and are not designed to be visible after installation;

(3) Is designed, intended and marketed exclusively to be installed completely encased by cabinetry or panels that are attached during installation and securely fastened to adjacent cabinetry, walls or flooring; and

(4) Is equipped with an integral factory-finished face or that accepts a custom front panel.
D. "Capital cost" means an expense incurred in the production of goods or in the rendering of services, including, but not limited to, the cost of engineering; the cost of the purchase and installation of components or systems and instrumentation; and contractor and construction fees.

E. "Centrifugal chiller" means air conditioning equipment that uses a centrifugal compressor in a vapor-compression refrigeration cycle and is designed for comfort cooling. "Centrifugal chiller" does not include air conditioning equipment used for industrial process cooling and refrigeration.

F. "Cold storage warehouse" means a cooled facility designed to store meat, produce, dairy products and other products prior to the delivery of those products to other locations for sale to the ultimate consumer.

G. "Compact household refrigerator or freezer" means a refrigerator, refrigerator-freezer or freezer designed for residential use that has a total refrigerated volume of less than 7.75 cubic feet or 220 liters.

H. "Component" means a part of a refrigeration system, including, but not limited to, a condensing unit, compressor, condenser, evaporator or receiver and all of the refrigeration system's connections and subassemblies without which the refrigeration system would not properly function or would be subject to failure.

I. "End use" means a process or class of specific applications within an industry sector.

J. "Flexible polyurethane" means a nonrigid synthetic foam containing polymers of urethane radicals, including, but not limited to, foam used in furniture, bedding, chair cushions and shoe soles.

K. "Foam" means a product with a cellular structure, or a substance used to produce a product with a cellular structure formed via a foaming process, including materials that undergo hardening via chemical reaction or phase transition.

L. "Heat pump" means a device designed for the comfort heating or cooling of residential or commercial spaces, whether air sourced, water sourced or ground sourced, including, but not limited to, a mini-split heat pump. "Heat pump" does not include air conditioning equipment.

M. "Household refrigerator or freezer" means a refrigerator, refrigerator-freezer, freezer or miscellaneous residential refrigeration appliance that is designed for residential use. "Household refrigerator or freezer" does not include a compact household refrigerator or freezer or a built-in household refrigerator or freezer.

N. "Integral skin polyurethane" means a self-skinning polyurethane foam, including, but not limited to, foam used in automobile steering wheels and dashboards.

O. "Light duty vehicle" has the same meaning as "car" or "light duty truck" as defined in Title 5, section 1812-E.

P. "Metered dose inhaler" means a device that delivers a measured amount of medication as a mist that an individual can inhale and that consists of a pressurized canister of medication in a case with a mouthpiece.

Q. "Miscellaneous residential refrigeration appliance" means a residential refrigeration appliance that is smaller than a refrigerator, refrigerator-freezer or freezer and that is
designed for residential use, including, but not limited to, a cooler, a cooler compartment and a combination cooler-refrigeration or cooler-freezer product.

R. "New" means, with regard to a product or equipment:

(1) A product or equipment that is manufactured after the date of an applicable prohibition under subsection 2; or

(2) Equipment that is substantially expanded or modified after the date of an applicable prohibition under subsection 2 such that the capital cost of the expansion or modification exceeds 50% of the cost of replacing the entire system of which that equipment is a part.

S. "Phenolic insulation board" means phenolic insulation, including, but not limited to, insulation used for roofing and walls.

T. "Phenolic insulation bunstock" means phenolic insulation that is a large solid box-like structure that can be cut into specific custom lengths and shapes.

U. "Polyolefin" means foam sheets and tubes made of polyolefin.

V. "Polystyrene extruded boardstock and billet" means a foam formed from styrene polymers that is produced on extruding machines in the form of continuous foam slabs that can be cut and shaped into panels to be used for insulation of roofing, walls, flooring and pipes.

W. "Polystyrene extruded sheet" means polystyrene foam including foam used for packaging and buoyancy or flotation, including, but not limited to, foam made into food-service items, such as hinged polystyrene containers, food trays, plates, bowls and retail egg containers.

X. "Positive displacement chiller" means a vapor compression cycle chiller that uses a positive displacement compressor and is typically used for commercial comfort air conditioning. "Positive displacement chiller" does not include a chiller used for industrial process cooling and refrigeration.

Y. "Refrigerant gas" or "refrigerant" means a substance, including blends and mixtures of substances, that is used for heat transfer purposes.

Z. "Refrigerated food processing and dispensing equipment" means retail food refrigeration equipment that is designed to process and dispense food and beverages that are intended for immediate or near-immediate consumption, including, but not limited to, chilled and frozen beverages, ice cream and whipped cream. "Refrigerated food processing and dispensing equipment" does not include water coolers or units designed to exclusively cool and dispense water.

AA. "Refrigeration equipment" means a stationary device that is designed to contain and use refrigerant gas to establish or maintain colder than ambient temperatures in a confined space, including, but not limited to, retail food refrigeration equipment, a household refrigerator or freezer and a cold storage warehouse.

BB. "Remote condensing unit" means retail food refrigeration equipment that has a central condensing portion and may consist of one or more compressors, condensers or receivers assembled into a single unit, which may be located outside a retail sales area, including, but not limited to, such units that are commonly installed in convenience
stores, specialty shops such as bakeries or butcher shops, supermarkets, restaurants and other locations where food is stored, served or sold.

CC. "Residential use" means use by an individual of a substance, or a product containing a substance, in or around a permanent or temporary household, during recreation or for any personal use or enjoyment. "Residential use" does not include use within a household for commercial or medical applications or use in automobiles, watercraft or aircraft.

DD. "Retail food refrigeration equipment" means equipment designed to store and display chilled or frozen goods for commercial sale, including, but not limited to, stand-alone units, refrigerated food processing and dispensing equipment, remote condensing units, supermarket systems and vending machines.

EE. "Retrofit" means to replace the refrigerant contained in refrigeration equipment with a different refrigerant, including, but not limited to, any related modifications to the refrigeration equipment required to maintain its operation and reliability following refrigerant replacement.

FF. "Rigid polyurethane and polyisocyanurate laminated boardstock" means laminated board insulation made with polyurethane or polyisocyanurate foam, including, but not limited to, insulation for roofing and walls.

GG. "Rigid polyurethane appliance foam" means polyurethane insulation foam used in domestic appliances.

HH. "Rigid polyurethane high-pressure 2-component spray foam" means a liquid polyurethane foam system sold as 2 parts, such as an A side and a B side, in nonpressurized containers and that is field-applied or factory-applied in situ using high-pressure proportioning pumps, to 800 to 1,600 pounds per square inch, and an application gun to mix and dispense the chemical components.

II. "Rigid polyurethane in commercial refrigeration" means polyurethane insulation for pipes, walls and metal doors in retail food refrigeration equipment.

JJ. "Rigid polyurethane low-pressure 2-component spray foam" means a liquid polyurethane foam system sold as 2 parts, such as an A side and a B side, in containers that are pressurized to less than 250 pounds per square inch during manufacture for application without pumps and that is typically applied in situ relying upon a liquid blowing agent or gaseous blowing agent that also serves as a propellant.

KK. "Rigid polyurethane marine flotation foam" means buoyancy or flotation foam used in boat and ship manufacturing for both structural and flotation purposes.

LL. "Rigid polyurethane one-component foam sealant" means a polyurethane foam typically packaged in aerosol cans that is applied in situ using a gaseous blowing agent that also serves as a propellant for the aerosol formulation.

MM. "Rigid polyurethane sandwich panels" means a polyurethane foam sandwiched between outer structural layers and used to provide insulation in walls and doors, including for insulation in commercial refrigeration equipment and garage doors.

NN. "Rigid polyurethane slabstock" means a rigid closed-cell polyurethane foam formed into slabstock insulation for panels and pipes.
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OO. "Stand-alone low-temperature unit" means a stand-alone unit that maintains food or beverages at temperatures at or below 32 degrees Fahrenheit.

PP. "Stand-alone medium-temperature unit" means a stand-alone unit that maintains food or beverages at temperatures above 32 degrees Fahrenheit.

QQ. "Stand-alone unit" means a retail refrigerator, freezer or reach-in cooler, whether open or with doors, that has fully integrated refrigeration components and a refrigeration circuit that may be completely brazed or welded and that is fully charged with refrigerant during manufacture and typically requires only an electricity supply to begin operation.

RR. "Substance" means any chemical or blend of chemicals intended for an end use listed in subsection 2 or regulated by the department by rule adopted pursuant to subsection 6.

SS. "Supermarket system" means a multiplex or centralized retail food refrigeration equipment system that is designed to cool or refrigerate and that operates using racks of compressors installed in a machinery room, including both a direct and an indirect system.

TT. "Use," with regard to a substance, includes, but is not limited to, consumption, incorporation or inclusion in a manufacturing process or product in the State; consumption for an end use in the State; and consumption, incorporation or inclusion in an intermediate application in the State, such as formulation or packaging for other subsequent applications. "Use" does not include residential use but does include manufacturing for the purpose of residential use.

UU. "Vending machine" means self-contained retail food refrigeration equipment that dispenses goods that must be kept cold or frozen.

2. Prohibitions. Except as provided in subsection 3 and in accordance with rules adopted by the department pursuant to this section, a person may not sell, lease, rent, install or enter into commerce in the State any product or equipment that uses or will use the following specified substances that are hydrofluorocarbons with high global warming potential for the following specified air conditioning, refrigeration, foam or aerosol propellant end uses.

A. Beginning January 1, 2022:

(1) For aerosol propellants in new products, the following substances are prohibited: HFC-125, HFC-134a, HFC-227ea and blends of HFC-227ea and HFC-134a;


(3) For retrofitted supermarket systems, the following substances are prohibited: R-404A, R-407B, R-421B, R-422A, R-422C, R-422D, R-428A, R-434A and R-507A;
(4) For new supermarket systems, the following substances are prohibited: HFC-227ea, R-404A, R-407B, R-421B, R-422A, R-422C, R-422D, R-428A, R-434A and R-507A;

(5) For retrofitted remote condensing units, the following substances are prohibited: R-404A, R-407B, R-421B, R-422A, R-422C, R-422D, R-428A, R-434A and R-507A;

(6) For new remote condensing units, the following substances are prohibited: HFC-227ea, R-404A, R-407B, R-421B, R-422A, R-422C, R-422D, R-428A, R-434A and R-507A;

(7) For retrofitted stand-alone units, the following substances are prohibited: R-404A and R-507A;


(11) For retrofitted vending machines, the following substances are prohibited: R-404A and R-507A;

(12) For new rigid polyurethane and polyisocyanurate laminated boardstock, the following substances are prohibited: HFC-134a, HFC-245fa, HFC-365mfc and any blends of those substances;

(13) For new flexible polyurethane, the following substances are prohibited: HFC-134a, HFC-245fa, HFC-365mfc and any blends of those substances;

(14) For new integral skin polyurethane, the following substances are prohibited: HFC-134a, HFC-245fa, HFC-365mfc and any blends of those substances; Formacel TI; and Formacel Z-6;

(15) For new polystyrene extruded sheet, the following substances are prohibited: HFC-134a, HFC-245fa, HFC-365mfc and any blends of those substances; Formacel TI; and Formacel Z-6;

(16) For new phenolic insulation board and new phenolic insulation bunstock, the following substances are prohibited: HFC-143a, HFC-134a, HFC-245fa, HFC-365mfc and any blends of those substances;
(17) For new rigid polyurethane slabstock and other new rigid polyurethane, the following substances are prohibited: HFC-134a, HFC-245fa, HFC-365mfc and any blends of those substances; Formacel TI; and Formacel Z-6;

(18) For new rigid polyurethane appliance foam, the following substances are prohibited: HFC-134a, HFC-245fa, HFC-365mfc and any blends of those substances; Formacel TI; and Formacel Z-6;

(19) For new rigid polyurethane in commercial refrigeration and new rigid polyurethane sandwich panels, the following substances are prohibited: HFC-134a, HFC-245fa, HFC-365mfc and any blends of those substances; Formacel TI; and Formacel Z-6;

(20) For new polyolefin, the following substances are prohibited: HFC-134a, HFC-245fa, HFC-365mfc and any blends of those substances; Formacel TI; and Formacel Z-6;

(21) For new rigid polyurethane one-component foam sealants, the following substances are prohibited: HFC-134a, HFC-245fa and any blends of those substances; blends of HFC-365mfc with 4% or more HFC-245fa; commercial blends of HFC-365mfc with 7% to 13% HFC-227ea and the remainder HFC-365mfc; and Formacel TI;


(23) For new vending machines, the following substances are prohibited: FOR12A, FOR12B, HFC-134a, KDD6, R-125/290/134a/600a (55.0/1.0/42.5/1.5), R-404A, R-407C, R-410A, R-417A, R-421A, R-422B, R-422C, R-422D, R-426A, R-437A, R-438A, R-507A, RS-24 (2002 formulation) and SP34E;

(24) For new rigid polyurethane marine flotation foam, the following substances are prohibited: HFC-134a, HFC-245fa, HFC-365mfc and any blends of those substances; Formacel TI; and Formacel Z-6;

(25) For new polystyrene extruded boardstock and billet, the following substances are prohibited: HFC-134a, HFC-245fa, HFC-365mfc and any blends of those substances; Formacel TI; Formacel B; and Formacel Z-6;

(26) For new rigid polyurethane high-pressure 2-component spray foam, the following substances are prohibited: HFC-134a, HFC-245fa and any blends of those substances; blends of HFC-365mfc with 4% or more HFC-245fa; commercial blends of HFC-365mfc with 7% to 13% HFC-227ea and the remainder HFC-365mfc; and Formacel TI; and

(27) For new rigid polyurethane low-pressure 2-component spray foam, the following substances are prohibited: HFC-134a, HFC-245fa and any blends of those substances; blends of HFC-365mfc with 4% or more HFC-245fa; commercial blends of HFC-365mfc with 7% to 13% HFC-227ea and the remainder HFC-365mfc; and Formacel TI.
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B. Beginning January 1, 2023:

(1) For new cold storage warehouses, the following substances are prohibited:
HFC-227ea, R-125/290/134a/600a (55.0/1.0/42.5/1.5), R-404A, R-407A, R-407B,
R-410A, R-410B, R-417A, R-421A, R-422A, R-422B, R-422C, R-422D,
composition); and

(2) For new built-in household refrigerators or freezers, the following substances
are prohibited: FOR12A, FOR12B, HFC-134a, KDD6, R-125/290/134a/600a
(55.0/1.0/42.5/1.5), R-404A, R-407C, R-407F, R-410A, R-410B, R-417A, R-
formulation), SP34E and THR-03.

C. Beginning January 1, 2024:

(1) For new centrifugal chillers, the following substances are prohibited: FOR12A,
FOR12B, HFC-134a, HFC-227ea, HFC-236fa, HFC-245fa, R-125/134a/600a
(28.1/70/1.9), R-125/290/134a/600a (55.0/1.0/42.5/1.5), R-404A, R-407C, R-
R-434A, R-438A, R-507A, RS-44 (2003 composition) and THR-03; and

(2) For new positive displacement chillers, the following substances are
prohibited: FOR12A, FOR12B, HFC-134a, HFC-227ea, KDD6, R-125/134a/600a
(28.1/70/1.9), R-125/290/134a/600a (55.0/1.0/42.5/1.5), R-404A, R-407C, R-
composition), SP34E and THR-03.

3. Exemptions. In accordance with rules adopted by the department pursuant to this
section, the following exemptions apply to the prohibitions in subsection 2.

A. Except in the case of retrofitted products or equipment regulated under this section,
the prohibitions in this section do not apply to the use of a product or equipment
regulated under this section that is acquired by a person prior to the date of an
applicable prohibition under subsection 2 on the selling, leasing, renting, installing or
entering into commerce in the State of that product or equipment.

B. A product or equipment regulated under this section that is manufactured prior to
the date of an applicable prohibition under subsection 2 on the selling, leasing, renting,
installing or entering into commerce in the State of that product or equipment may be
sold in, imported into, exported from, distributed in, installed in and used in the State
after that date.

C. The department may approve a waiver request submitted by a person to allow that
person to sell, lease, rent, install or enter into commerce in the State for a period of not
more than 2 years a product or equipment that is otherwise prohibited from sale, lease,
rental, installation or entry into commerce pursuant to this section and the rules adopted
pursuant to this section. The department shall adopt rules establishing the process by
which a person may submit such a waiver request and the criteria to be used by the
department in assessing and approving or denying such waiver requests. The
department shall require a person submitting such a waiver request to pay to the
department a reasonable fee to cover the department's costs in assessing and approving
or denying such waiver requests.

D. Heat pumps are not subject to the prohibitions in this section.

E. The following end uses of the substance HFC-134a are not subject to the
prohibitions in this section:

(1) As an aerosol propellant in new cleaning products designed to remove grease,
    flux and other soils from electrical equipment;

(2) For new refrigerant flushes;

(3) In a new product for sensitivity testing of smoke detectors;

(4) As a new lubricant or freeze spray for electrical equipment or electronics;

(5) As a new spray for aircraft maintenance purposes;

(6) As a new spray containing corrosion preventive compounds that is used in the
    maintenance of aircraft, electrical equipment, electronics or military equipment;

(7) As a new pesticide for use near electrical wires, in aircraft, in total release
    insecticide foggers or in certified organic use pesticides for which the federal
    Environmental Protection Agency has specifically disallowed all other lower
    global warming potential propellants;

(8) As a new mold release agent or mold cleaner;

(9) As a new lubricant or cleaner for spinnerets for synthetic fabrics;

(10) As a new duster spray specifically used for the removal of dust from
    photographic negatives, semiconductor chips, specimens under electron
    microscopes and energized electrical equipment;

(11) As a new adhesive or sealant in canisters for commercial use;

(12) As a new document preservation spray;

(13) As a new wound care spray, new topical cooling spray for pain relief or new
    product for removing bandage adhesives from skin; and

(14) As a new air conditioning refrigerant for military marine vessels when the
    department has determined that reasonable efforts have been made to ascertain that
    other alternatives are not technically feasible due to performance or safety
    requirements.

F. The substances HFC-134a and HFC-227ea and blends of HFC-227ea and HFC-
134a are not subject to the prohibitions in this section when used as an aerosol
propellant for new metered dose inhalers approved by the United States Department of
Health and Human Services, Food and Drug Administration for medical purposes.

G. The substances HFC-134a and R-404A are not subject to the prohibitions in this
section when used as a new air conditioning refrigerant in spacecraft intended for
human occupancy and related support equipment when the department has determined
that reasonable efforts have been made to ascertain that other alternatives are not
 technically feasible due to performance or safety requirements.

H. Until January 1, 2025, the prohibitions in this section do not apply to:
(1) New foams, excluding rigid polyurethane one-component foam sealants, when used in space-related and aeronautics-related applications when the department has determined that reasonable efforts have been made to ascertain that other alternatives are not technically feasible due to performance or safety requirements; and

(2) New rigid polyurethane high-pressure 2-component spray foams and new rigid polyurethane low-pressure 2-component spray foams, when used in military or space-related and aeronautics-related applications when the department has determined that reasonable efforts have been made to ascertain that other alternatives are not technically feasible due to performance or safety requirements.

I. Any product or equipment the end use of which is regulated under this section is exempt from the prohibitions in this section and the rules adopted pursuant to this section if such state regulation of the product or equipment is preempted by federal statute or regulation, so long as that federal preemption remains in effect.

4. Record keeping. In accordance with rules adopted by the department pursuant to this section, a person that manufactures for sale or entry into commerce in the State a product or equipment regulated under this section shall maintain for 5 years, and shall make available to the department upon request, records sufficient to demonstrate that the product or equipment does not contain any substances prohibited for an applicable end use regulated under this section or that the product or equipment is exempt from the prohibitions in this section pursuant to subsection 3.

5. Venting prohibition. In accordance with rules adopted by the department, a person may not intentionally or knowingly vent or otherwise release into the environment any prohibited substance identified pursuant to subsection 2 when maintaining, servicing, repairing or disposing of a product or equipment regulated under this section that was sold, leased, rented, installed or entered into commerce in the State prior to the date of an applicable prohibition under subsection 2 for that product or equipment. The prohibition under this subsection does not apply to a person who causes such a release if that release is de minimis and the person caused the release while engaged in a good faith attempt to recycle or recover the prohibited substance in a product or equipment regulated under this section.

6. Rulemaking. The department shall adopt rules to implement this section. Rules adopted pursuant to this section are routine technical rules as defined in Title 5, chapter 375, subchapter 2-A.

A. In its initial adoption of rules to implement this section, the department may not regulate a substance or end use not specifically identified in this section. Subsequent to that initial adoption of rules, the department may amend its adopted rules to regulate or exempt, consistent with this section, substances that are hydrofluorocarbons with high global warming potential and air conditioning, refrigeration, foam or aerosol propellant end uses that are not specifically identified in this section or for other purposes consistent with this section.

B. Prior to adopting or amending rules to implement this section, the department shall consult with the Department of Public Safety, Office of the State Fire Marshal regarding the effects of any proposed rules on safety-related requirements and restrictions in state or local building codes and in other related state laws and rules.
C. The department may not adopt by rule a prohibition pursuant to this section that is applicable to new light duty vehicles unless a substantially similar prohibition has been adopted in another state and is in effect in that other state.

D. If, pursuant to the federal Clean Air Act, 42 United States Code, Section 7671k, the United States Environmental Protection Agency approves a hydrofluorocarbon blend with a global warming potential of 750 or less for foam blowing of polystyrene extruded boardstock and billet or rigid polyurethane low-pressure 2-component spray foam, the department may initiate rulemaking to amend its rules adopted pursuant to this section to address that federal action.'

Amend the bill by relettering or renumbering any nonconsecutive Part letter or section number to read consecutively.

SUMMARY

This amendment, which is the majority report of the committee, replaces the bill and provides that, in accordance with rules adopted by the Department of Environmental Protection, a person may not sell, lease, rent, install or enter into commerce in the State a product or equipment that uses or will use certain specified substances that are hydrofluorocarbons with high global warming potential for certain specified air conditioning, refrigeration, foam or aerosol propellant end uses. Those specified substances and specified end uses that are prohibited under the amendment, as well as specified exemptions to those prohibitions, are identical or substantially similar to those provided for in the bill.

FISCAL NOTE REQUIRED

(See attached)