

## Proposed Regulation Order

### **Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Stationary Air-conditioning, Chillers, Aerosols-Propellants, and Foam Other End-Uses**

California Code of Regulations, Title 17, Division 3, Chapter 1, Subchapter 10 Climate Change, Article 4

[Note: The amendments to existing regulatory language are shown in ~~strike~~through to indicate deletions and underline to indicate additions.]

Amend sections 95371, 95372, 95373, 95374, 95375, 95376, 95377, and 95378, and adopt section 95379, Article 4, Subarticle 5, Chapter 1, Division 3, Title 17, California Code of Regulations to read as follows:

#### **Subarticle 5. Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Stationary Air-conditioning, Chillers, Aerosols-Propellants, and Foam Other End-Uses**

##### **§ 95371. Purpose.**

The purpose of this subarticle is to reduce hydrofluorocarbon (HFC) emissions by adopting specific prohibitions for certain substances in refrigeration, air-conditioning, chillers, ice rinks, cold storage, aerosols-propellants, and foam to support California's progress toward the 2030 greenhouse gas emission reduction goals.

NOTE: Authority cited: Sections 38510, 38598, 38560, 38562, 38566, 38580, 39600, 39601, 39730, 39730.5, 39734 and 41511, Health and Safety Code. Reference: Sections 38510, 38598, 38560, 38562, 38566, 38580, 39600, 39601, 39730, 39730.5, 39734 and 41511, Health and Safety Code.

##### **§ 95372. Applicability.**

This subarticle applies to any person who sells, leases, rents, installs, uses, or enters into commerce, in the State of California, any substance in end-uses listed in Table 1, section 95374(a); Table 2, section 95374(b); Table 3, section 95374(c); or Table 4, section 95374(d) of this subarticle.

NOTE: Authority cited: Sections 38510, 38598, 38560, 38562, 38566, 38580, 39600, 39601, 39730.5, 39734, and 41511, Health and Safety Code. Reference: Sections

38510, 38598, 38560, 38562, 38566, 38580, 39600, 39601, 39730, 39730.5, 39734, and 41511, Health and Safety Code.

**§ 95373. Definitions.**

(a) For the purposes of this subarticle, ~~excepting sections 95374(b) and 95376~~, the following definitions shall apply:

“Aerosols - Propellants” or “Aerosol Propellants” means an aerosol product with a pressurized spray system that dispenses product ingredients by means of a propellant contained in a product or a product’s container, or by means of a mechanically induced force.

“Air-conditioning Equipment” or “Air-conditioning System” means equipment that cools enclosed spaces in residential or non-residential settings, including room air conditioning such as window units, packaged terminal air conditioners (PTAC), packaged terminal heat pumps (PTHP), and portable air conditioners; central air conditioners (i.e., ducted); non-ducted systems (both mini and multi splits); packaged rooftop units; water-source and ground-source heat pumps; and other products. Air-conditioning also includes computer room and data center cooling. Chillers are defined separately from “air-conditioning equipment.”

“Air District” means an air quality management district or air pollution control district created or continued in existence under Health and Safety Code sections 40000-41357.

“Air Pollution Control Officer” or “APCO” means the appointed head of a local air quality management district or air pollution control district whose appointment and duties are set forth in Health and Safety Code sections 40750-40753.

“Baseline Greenhouse Gas Potential” or “Baseline GHGp” means the greenhouse gas potential (GHGp) of a company’s retail food facilities in calendar year 2018. The baseline GHGp will be revised when any of the following occur:

- (A) Retail food facilities that are sold, transferred, or closed will be removed from the baseline GHGp.
- (B) Acquired retail food facilities will be added to the baseline GHGp using their 2018 GHGp levels, and the current GHGp of acquired stores will be used to calculate the current GHGp.

“Blowing Agent” or “Foam Blowing Agent” or “Foam Expansion Agent” or “Foaming Agent” is a substance which is capable of producing a cellular structure via a foaming process in a variety of materials that undergo hardening or phase transition, such as polymers and plastics. Blowing agents are typically applied when the blown material is in a liquid stage.

“Capital Cost” means an expense incurred in the production of goods or in rendering services, including but not limited to the cost of engineering, purchase, and installation of components or systems, and instrumentation, and contractor and construction fees.

“Change in Ownership” means a transfer of the title of a facility subject to this subarticle.

“Charge” or “Refrigerant Charge” means the amount of refrigerant by mass contained in a refrigeration system. Charge is generally measured by grams, ounces, pounds, or kilograms.

“Charge Reduction” means to reduce the refrigerant full charge amount through an architectural change in the refrigeration circuit and not simply through a nominal full charge change.

“Chiller” means a water or heat transfer fluid chilling equipment package custom built in place, or a factory-made and prefabricated assembly of one (1) or more compressors, condensers and evaporators, with interconnections and accessories including controls, designed for the purpose of cooling or heating water or a heat transfer fluid. A chiller is a machine specifically designed to make use of a vapor compression refrigeration cycle or absorption refrigeration cycle to transfer heat from a cold water or heat transfer fluid circulating system to the air, a heat transfer fluid, or other heat exchange media. Chillers can be water-cooled, air-cooled, or evaporatively cooled. Chillers include rotary chillers, centrifugal chillers, and positive displacement chillers, including reciprocating, scroll, and screw chillers. For the purpose of this regulation, “chiller” includes those used for comfort cooling, or space and area cooling, or industrial process cooling.

“Class I Substance” means any ozone-depleting compound defined in the Clean Air Act, as amended, 42 U.S.C. §section 7671(3) (effective November 15, 1990).

“Class II Substance” means any ozone-depleting compound defined in the Clean Air Act, as amended, 42 U.S.C. §§section 7671(4) (effective November 15, 1990).

“Cold Storage” means a refrigerated facility or warehouse used to store meat, produce, dairy products, perishable goods, and the storage of any temperature-controlled substance. For the purposes of this regulation, cold storage is regulated as “refrigeration equipment (new), non-residential, containing more than 50 pounds refrigerant” in section 95374(c).

“Commercial Ice Machine” means a non-residential ice machine and/or ice maker used in a commercial establishment such as a hotel, restaurant, or convenience store, to produce ice artificially for consumer use.

“Company” means all businesses, affiliates, brands, subsidiaries, or franchises, owned by the same parent company.

“*Component*” means a part of a refrigeration system, including but not limited to condensing units, compressors, condensers, evaporators, and receivers; and all of its connections and subassemblies, without which the refrigeration system will not properly function or will be subject to failures.

~~“*Cumulative Replacement*” means the addition of or change in multiple components within a three-year period.~~

“*Date of Manufacture*” means: for foam, the date the foam system was initially manufactured; for chillers, air-conditioning and refrigeration equipment, the date that the manufacturer affixed an equipment label indicating the equipment’s date of manufacture; for chillers, air-conditioning and refrigeration equipment not factory-completed and built-up or assembled on site, the date of manufacture shall be the initial date that refrigerant was initially added or charged into the equipment.

“*End-use*” means processes or classes of specific applications within industry sectors, such as those listed in Table 1, Table 2, Table 3, and Table 4, section 95374 of this subarticle.

“*Executive Officer*” means the Executive Officer of the California Air Resources Board or his or her delegate.

“*Flexible Polyurethane*” means a non-rigid synthetic polyurethane foam containing polymers created by the reaction of isocyanate and polyol, including but not limited to that used in furniture, bedding, chair cushions, and shoe soles.

“*Foam System*” means a multipart liquid material that expands when mixed to form a solid or flexible substance in which thin films of material separate pockets of gas.

“*Full Charge*”, “*Optimal Charge*”, or “*Critical Charge*” means the amount of refrigerant required in the refrigerant circuit for normal operating characteristics and conditions of a refrigeration system or appliance, as determined by using one of the following three methods:

- (A) Use of the equipment manufacturer's specifications of the full charge;
- (B) Use of calculations based on component sizes, density of refrigerant, volume of piping, seasonal variances, and other relevant considerations; or
- (C) The midpoint of an established range for full charge based on the best available data regarding the normal operating characteristics and conditions for the system.

“Global Warming Potential Value” or “GWP Value” means the 100-yr GWP value first published by the Intergovernmental Panel on Climate Change (IPCC) in its Fourth Assessment Working Group 1 Report (AR4) (IPCC, 2007).

“Greenhouse Gas” or “GHG” means carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), nitrogen trifluoride (NF<sub>3</sub>) sulfur hexafluoride (SF<sub>6</sub>), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and other fluorinated gases.

“Greenhouse Gas Potential”, or “GHGp” means:

$$\text{GHGp} = \Sigma(\text{Charge} \times \text{GWP}) = \text{total lbs. CO}_2\text{e}$$

Where:

Charge equals the pounds of each separate type of refrigerant, refrigerant blend, or heat transfer fluid used in refrigeration equipment and systems. Refrigeration equipment with more than 50 pounds of refrigerant will be included in the calculation.

GWP is the 100-year GWP value of the refrigerant, refrigerant blend, or heat transfer fluid.

Refrigerant is a specific type of refrigerant, refrigerant blend, or heat transfer fluid, which may include, but is not limited to hydrofluorocarbons (HFCs), chlorofluorocarbons (CFCs), hydrofluorocarbons (HCFCs), hydrofluoroolefins (HFOs), carbon dioxide (CO<sub>2</sub>), ammonia, water, glycol, and other heat transfer fluids.

Σ is the sum of the products of charge x GWP for each separate type of refrigerant.

“Heat Transfer Fluid” means any gas or liquid used for the purpose of transmitting heat from one place to another.

“Household Refrigerators and Freezers” means appliances used to keep food and drink cool, and includes refrigerators, refrigerator-freezers, freezers, and miscellaneous household refrigeration appliances intended for residential use.

“Household Refrigerators and Freezers - Built-in” means any refrigerator, refrigerator-freezer or freezer intended for residential use with 7.75 cubic feet or greater total volume and 24 inches or less depth not including doors, handles, and custom front panels; with sides which are not finished and not designed to be visible after installation; and that is designed, intended, and marketed exclusively to be: installed totally encased by cabinetry or panels that are attached during installation; securely fastened to adjacent cabinetry, walls or floor; and equipped with an integral factory-finished face or accept a custom front panel.

“Household Refrigerators and Freezers - Compact” means any appliance used for cooling, including but not limited to refrigerator, refrigerator-freezer or freezer, intended for residential use with a total refrigerated volume of less than 7.75 cubic feet (220 liters).

“Hydrofluorocarbon” or “HFC” means a class of GHGs which are saturated organic compounds containing hydrogen, fluorine, and carbon; primarily used as refrigerants, foam blowing agents, aerosol propellants, solvents, and fire suppressants.

“Ice Rink” means a frozen body of water and/or hardened chemicals where people can ice skate or play winter sports. It includes professional ice skating rinks and those used by the general public for recreational purposes.

“Industrial Process Cooling” means to cool process streams at a specific location in manufacturing and other forms of industrial processes and applications. Industrial process cooling using a chiller is regulated as a chiller. Industrial process cooling not using a chiller is regulated as refrigeration equipment.

“Integral Skin Polyurethane” means polyurethane foam a synthetic, self-skinning foam, containing polyurethane polymers formed by the reaction of an isocyanate and a polyol, including but not limited to that used in car steering wheels, dashboards, and shoe soles.

“Low Temperature Refrigeration System” means a commercial or industrial process refrigeration system that maintains food, beverages, or other items at temperatures at or below 32°F (0 °C).

“Medium Temperature Refrigeration System” means a commercial or industrial process refrigeration system that maintains food, beverages, or other items at temperatures above 32°F (0 °C).

“Metered Dose Inhaler” or “Medical Dose Inhaler” or “MDI” means a device that delivers a measured amount of medication as a mist that a patient can inhale and consists of a pressurized canister of medication in a case with a mouthpiece.

“Motor-bearing” means refrigeration equipment containing motorized parts. This includes compressors, condensers, and evaporators.

“New Air-conditioning Equipment” means any air-conditioning equipment or system that is first installed using new or used components, or a combination of new or used components, or a new condensing unit in an existing system, or a new evaporator unit in an existing system.

“New Chiller” or “New Chiller Equipment” means any chiller equipment or chiller system applicable to chiller end-use sectors listed in Table 3, section 95374(c) that is:

(A) First installed using new or used components, or a combination of new or used components; or

(B) Modified such that:

(i) The capacity is increased through the addition of motor-bearing components, including evaporators, compressors, or condensers, or

(ii) The system has experienced replacements of motor-bearing components in full or exceeding 50 percent of the capital cost of replacing all the motor-bearing components in the entire chiller system.

“New Refrigeration Equipment” means any of the following:

(1) Any refrigeration equipment that is first installed using new or used components; or applicable to refrigeration end-use sectors listed in Table 1, section 95374(a) that is:

(A) First installed using new or used components, or a combination of new or used components; or

(B) Any refrigeration equipment that is mModified such that it is:

(i) The capacity is increased through Expanded after the date at which this subarticle becomes effective, to handle an expanded cooling load by the addition of components in which the capacity of the system is increased, including refrigerant lines, evaporators, compressors, condensers, and other components; or

(ii) The system has experienced replacements of components in full or exceeding 50 percent of the capital cost of replacing the entire refrigeration system, excluding the cost of refrigerated display cases. Replaced or cumulatively replaced after the date at which this subarticle becomes effective, such that the capital cost of replacing or cumulatively replacing components exceeds 50 percent of the capital cost of replacing the entire refrigeration system.

(2) Any refrigeration equipment that is first installed using new or used components, or a combination of new or used components, applicable to refrigeration end-use sectors listed in Table 3, Section 95374(c), in the following:

(A) New construction; or

(B) In an existing facility not previously used for retail food, commercial, cold storage, or industrial refrigeration; or

(C) In an existing facility, replacement of 75 percent or more of: compressors, condensers, and connected evaporator loads.

“Own” means to have title to the facility that is subject to this subarticle.

“Owner” means the person having title to the facility that is subject to this subarticle.

“Operate” means to have operational control of the facility.

“Operator” means the person or entity having operational control of the facility.

*“Person”* means any individual, firm, association, organization, manufacturer, distributor, partnership, business trust, corporation, limited liability company, company, state, or local governmental agency or public district.

*“Phenolic Insulation Board and Bunstock”* means phenolic insulation manufactured by a process in which a plastic foam forms an insulating core between two flexible tissue faced layers, or produced by mixing high solids and phenolic resin with a surface acting agent, including but not limited to that used for roofing and walls insulation. Bunstock or bun stock is a large solid box-like structure formed during the production of polystyrene insulation.

“Polyolefin” means foam sheets and tubes made of polyolefin, a macromolecule formed by the polymerization of olefin monomer units.

“Polystyrene Extruded Boardstock and Billet (XPS)” means a foam formed from polymers of styrene and produced on extruding machines in the form of continuous foam slabs that can be cut and shaped into panels used for roofing, walls, flooring, and pipes.

*“Polystyrene Extruded Sheet”* means polystyrene foam including that used for packaging, ~~and buoyancy or floatation.~~ It is also made into food-service items, including hinged polystyrene containers (for “take-out” from restaurants); food trays (meat and poultry) plates, bowls, and retail egg containers.

“Propellant” means a liquefied or compressed gas that is used in whole or in part, such as a cosolvent, to expel a liquid or any other material from the same self-pressurized container or from a separate container.

*“Refrigerant” or “Refrigerant Gas”* means any substance, including blends and mixtures, which is a compound or gas used in vapor compression cycle refrigeration that is used for heat transfer purposes and provides a cooling effect.



“Refrigerant Blend” is a mixture or combination of two or more single-component refrigerants.

*“Refrigerated Food Processing and Dispensing Equipment”* means equipment that dispenses and/or processes a variety of food and beverage products by either combining ingredients, mixing or preparing them at the proper temperature, or by function as a holding tank to deliver the product at the desired temperature or to deliver chilled ingredients for the processing, mixing and preparation. Some may use a refrigerant in a heat pump, or utilize waste heat from the cooling system to provide hot beverages. Some may also provide heating functions to melt or dislodge ice or for sanitation purposes. This equipment can be self-contained or connected by piping to a dedicated condensing unit located elsewhere. Equipment within this end-use category include but are not limited to: chilled and frozen beverages (carbonated and non-carbonated, alcoholic and nonalcoholic); frozen custards, gelato, ice cream, Italian ice, sorbets and yogurts; milkshakes, “slushies” and smoothies, and whipped cream.

*“Refrigeration”* means the use of a refrigerant gas to mechanically move heat from one region to another to create a cooled region via a vapor compression cycle.

*“Refrigeration Equipment” or “Refrigeration System”* means any stationary device that is designed to contain and use refrigerant gas, including any device listed in Section 95374(a), Table 1 under the general end-use “refrigeration”, listed in Section 95374(b), Table 2 under the general end-use “Household Refrigerators and Freezers” or listed in Section 95374(c), Table 3 under the general end-use “Cold Storage”, “Refrigeration”, and “Ice Rinks” (not using a chiller). For a device with multiple circuits, each independent circuit is considered a separate article of equipment. Refrigeration equipment includes non-residential refrigeration equipment used in retail food, commercial non-retail food, cold storage, industrial process refrigeration and cooling (not using a chiller), ice rinks (not using a chiller), and other non-residential refrigeration applications.

*“Refrigerant Registration and Reporting System” or “the R3 database”* means a web based tool for implementing the registration, reporting, and fee payment provision for facilities using at least one refrigeration system containing greater than 50 pounds of refrigerant.

*“Remote Condensing Units”* means refrigeration equipment or units that have a central condensing portion and may consist of one (and sometimes two) compressor(s), one condenser, and one receiver assembled into a single unit, which is normally located external to the sales area. The condensing portion (and often other parts of the system) is located outside the space or area cooled by the evaporator. Remote condensing units are commonly installed in convenience stores, specialty shops (e.g., bakeries, butcher

shops), supermarkets, restaurants, and other locations where food is stored, served, or sold.

*“Residential Consumer Refrigeration Products”* means “Household Refrigerators and Freezers”, or “Household Refrigerators and Freezers Compact”, or “Household Refrigerators and Freezers - Built-in”. “Residential Consumer Refrigeration Products”, “Household Refrigerators and Freezers”, “Household Refrigerators and Freezers Compact”, and “Household Refrigerators and Freezers - Built-in” do not include refrigerators and freezers used in aircraft, watercraft, passenger vehicles, recreational vehicles, recreational trailers, and campers; and do not include refrigerators and freezers used in hospitals, medical facilities, pharmacies, research facilities, and laboratories for the storage of non-food or non-potable drink items.

*“Retail Food Refrigeration”* or *“Commercial Refrigeration”* means equipment designed to store and display chilled or frozen goods for commercial sale. This end-use includes the following categories of equipment: stand-alone units (equipment), refrigerated food processing and dispensing units (equipment), remote condensing units, and supermarket systems.

*“Retail Food Facility”* means a facility that sells food and uses at least one retail food refrigeration equipment or refrigeration system with more than 50 pounds of a refrigerant with a GWP of 150 or greater. Retail food facility includes supermarkets, grocery stores, convenience stores, restaurants and other food service establishments.

*“Retire”* means the permanent removal from service of a refrigeration system, or component, rendering it unfit for use by the current or any future owner or operator.

*“Retrofit”* means the replacement of the refrigerant used in refrigeration equipment with a different refrigerant, and any related changes to the refrigeration equipment required to maintain its operation and reliability following refrigerant replacement.

*“Rigid Polyurethane”* means a rigid closed-cell foam containing urethane polymers produced by the reaction of an isocyanate and a polyol.

*“Rigid Polyurethane and Polyisocyanurate Laminated Boardstock”* means laminated board insulation made with polyurethane or polyisocyanurate foam, including that used for roofing and walls. This does not include the following end-use categories: rigid polyurethane appliance foam, rigid polyurethane commercial refrigeration and sandwich panels, rigid polyurethane marine flotation foam, rigid polyurethane spray foam, and rigid polyurethane one-component foam sealants.

*“Rigid Polyurethane Appliance Foam”* means rigid polyurethane insulation foam in domestic appliances.

“Rigid Polyurethane Commercial Refrigeration and Sandwich Panels” means rigid polyurethane insulation for use in walls and doors, including but not limited to commercial refrigeration equipment and garage doors.

“Rigid Polyurethane High-pressure Two-component Spray Foam” means a foam product that is pressurized to 800-1600 pounds per square inch (psi) during manufacture, sold in pressurized containers as two parts (i.e., A-side and B-side), and is blown and applied in situ using high-pressure pumps to propel the foam components, and may use liquid blowing agents without an additional propellant.

“Rigid Polyurethane Low-pressure Two-component Spray Foam” means a foam product that is pressurized to less than 250 psi during manufacture, sold in pressurized containers as two parts (i.e., A-side and B-side), and typically applied in situ relying upon a gaseous foam blowing agent that also serves as a propellant so pumps typically are not needed.

“Rigid Polyurethane Marine Flotation Foam” means a rigid polyurethane buoyancy or flotation foam used in boat and ship manufacturing for flotation purposes. Polyurethane used solely for structural purposes in boat and ship manufacturing is not considered marine flotation foam.

“Rigid Polyurethane One-component Foam Sealants” means a foam packaged in aerosol cans that is applied in situ using a gaseous foam blowing agent that is also the propellant for the aerosol formulation.

“Rigid Polyurethane Slabstock and Other” means a rigid closed-cell foam containing urethane polymers produced by the reaction of an isocyanate and a polyol and formed into slabstock insulation for panels, pipes, and other uses.

“Stand-alone Units or Equipment” means refrigerators, freezers, and reach-in coolers (either open or with doors) where all refrigeration components are integrated and, for the smallest types, the refrigeration circuit is entirely brazed or welded. These systems are fully charged with refrigerant at the factory and typically require only an electricity supply to begin operation. Stand-alone Units or Equipment does not include commercial ice machines.

“Stationary” means the system is: meets at least one of the following conditions:

(i) (A) installed in a building, structure, or facility; or

(ii) (B) attached to a foundation, or if not attached, will reside at the same location building, structure, or facility for more than twelve consecutive months; or

(iii) (C) Located intermittently permanently at the same facility for at least two consecutive years and operates at that facility a total of at least 90 days each year.

“*Substance*” means any chemical, product substitute, or alternative manufacturing process, whether new or retrofit, intended for use in the end-uses listed in Table 1, section 95374(a); Table 2, section 95374(b); Table 3, section 95374(c); or Table 4, section 95374(d) of this subarticle.

“*Supermarket Systems*” means multiplex or centralized systems designed to cool or refrigerate, which operate with rack(s) of compressors installed in a machinery room. Two main design classifications are used: direct and indirect systems.

(1) “*Direct Systems*” means the refrigerant circulates from the machinery room to the sales area, where it evaporates in display-case heat exchangers, and then returns in vapor phase to the suction headers of the compressor racks. Another direct supermarket design, often referred to as a distributed refrigeration system, uses an array of separate compressor racks located near the display cases rather than having a central compressor rack system.

(2) “*Indirect Systems*” means the system uses a central refrigeration system to cool a secondary fluid that is then circulated throughout the store to the cases. This includes secondary loop systems and cascade refrigeration.

“*Use*” means any utilization of a compound or any substance, including but not limited to utilization in a manufacturing process or product in California, consumption by the end-user in the State of California, or in intermediate applications in the State of California, such as formulation or packaging for other subsequent applications.

“*Vending Machines*” means a self-contained units that dispenses goods that must be kept cold or frozen.

“*Very Low Temperature Refrigeration or Cooling*” means a refrigeration or cooling system that maintains temperatures below -58 degrees Fahrenheit (-50 degrees Celsius), such as medical and laboratory freezers, specialized industrial process cooling applications, and extreme temperature environmental testing.

“*Weighted-average GWP*” means  $\sum (\text{charge} \times \text{GWP}) / \sum \text{charge}$

Where:

Charge equals the pounds of each separate type of refrigerant, refrigerant blend, or heat transfer fluid used in refrigeration equipment and systems. Refrigeration equipment with more than 50 pounds of refrigerant will be included in the calculation.

GWP is the 100-year GWP value of the refrigerant, refrigerant blend, or heat transfer fluid.

Refrigerant is a specific type of refrigerant, refrigerant blend, or heat transfer fluid, which may include, but is not limited to hydrofluorocarbons (HFCs), chlorofluorocarbons (CFCs), hydrofluorocarbons (HCFCs), hydrofluoroolefins (HFOs), carbon dioxide (CO<sub>2</sub>), ammonia, water, glycol, and other heat transfer fluids.

Σ in the numerator is the sum of the products of charge x GWP for each separate type of refrigerant.

Σ in the denominator is the sum of all pounds of refrigerant charge in all refrigeration equipment with more than 50 pounds of refrigerant.

NOTE: Authority cited: Sections 38510, 38598, 38560, 38562, 38566, 38580, 39600, 39601, 39730.5, 39734, and 41511, Health and Safety Code. Reference: Sections 38510, 38598, 38560, 38562, 38566, 38580, 39600, 39601, 39730, 39730.5, 39734, and 41511, Health and Safety Code.

**§ 95374. List of Prohibited Substances.**

(a) The following table lists prohibited substances as of their relevant dates:

Table 1: End-use and Prohibited Substances.

General End-Use	Specific End-Use	Prohibited Substances	Effective Date
Retail food refrigeration equipment	Supermarket systems (new)	HFC-227ea, R-404A, R-407B, R-421B, R-422A, R-422C, R-422D, R-428A, R-434A, R-507A	Prohibited as of January 1, 2019
Retail food refrigeration equipment	Supermarket systems (retrofit)	R-404A, R-407B, R-421B, R-422A, R-422C, R-422D, R-428A, R-434A, R-507A	Prohibited as of January 1, 2019
Retail food refrigeration equipment	Remote condensing units (new)	HFC-227ea, R-404A, R-407B, R-421B, R-422A, R-422C, R-422D, R-428A, R-434A, R-507A	Prohibited as of January 1, 2019

General End-Use	Specific End-Use	Prohibited Substances	Effective Date
Retail food refrigeration equipment	Remote condensing units (retrofit)	R-404A, R-407B, R-421B, R-422A, R-422C, R-422D, R-428A, R-434A, R-507A	Prohibited as of January 1, 2019
Retail food refrigeration equipment	Stand-alone medium-temperature units with a compressor capacity below 2,200 Btu/hr and not containing a flooded evaporator (new)	FOR12A, FOR12B, HFC-134a, HFC-227ea, KDD6, R-125/290/134a/600a (55.0/1.0/42.5/1.5), R-404A, R-407A, R-407B, R-407C, R-407F, R-410A, R-410B, R-417A, R-421A, R-421B, R-422A, R-422B, R-422C, R-422D, R-424A, R-426A, R-428A, R-434A, R-437A, R-438A, R-507A, RS-24 (2002 formulation), RS-44 (2003 formulation), SP34E, THR-03	Prohibited as of January 1, 2019
Retail food refrigeration equipment	Stand-alone medium-temperature units with a compressor capacity below 2,200 Btu/hr and containing a flooded evaporator (new)	FOR12A, FOR12B, HFC-134a, HFC-227ea, KDD6, R-125/290/134a/600a (55.0/1.0/42.5/1.5), R-404A, R-407A, R-407B, R-407C, R-407F, R-410A, R-410B, R-417A, R-421A, R-421B, R-422A, R-422B, R-422C, R-422D, R-424A, R-426A, R-428A, R-434A, R-437A, R-438A, R-507A, RS-24 (2002 formulation), RS-44 (2003 formulation), SP34E, THR-03	Prohibited as of January 1, 2020

General End-Use	Specific End-Use	Prohibited Substances	Effective Date
Retail food refrigeration equipment	Stand-alone medium-temperature units with a compressor capacity equal to or greater than 2,200 Btu/hr (new)	FOR12A, FOR12B, HFC-134a, HFC-227ea, KDD6, R-125/290/134a/600a (55.0/1.0/42.5/1.5), R-404A, R-407A, R-407B, R-407C, R-407F, R-410A, R-410B, R-417A, R-421A, R-421B, R-422A, R-422B, R-422C, R-422D, R-424A, R-426A, R-428A, R-434A, R-437A, R-438A, R-507A, RS-24 (2002 formulation), RS-44 (2003 formulation), SP34E, THR-03	Prohibited as of January 1, 2020
Retail food refrigeration equipment	Stand-alone low-temperature units (new)	HFC-227ea, KDD6, R-125/290/134a/600a (55.0/1.0/42.5/1.5), R-404A, R-407A, R-407B, R-407C, R-407F, R-410A, R-410B, R-417A, R-421A, R-421B, R-422A, R-422B, R-422C, R-422D, R-424A, R-428A, R-434A, R-437A, R-438A, R-507A, RS-44 (2003 formulation)	Prohibited as of January 1, 2020
Retail food refrigeration equipment	Stand-alone units (retrofit)	R-404A, R-507A	Prohibited as of January 1, 2019

General End-Use	Specific End-Use	Prohibited Substances	Effective Date
Retail food refrigeration equipment	Refrigerated food processing and dispensing equipment (new)	HFC-227ea, KDD6, R-125/290/134a/600a (55.0/1.0/42.5/1.5), R-404A, R-407A, R-407B, R-407C, R-407F, R-410A, R-410B, R-417A, R-421A, R-421B, R-422A, R-422B, R-422C, R-422D, R-424A, R-428A, R-434A, R-437A, R-438A, R-507A, RS-44 (2003 formulation)	Prohibited as of January 1, 2021
Vending machines	Vending machines (new)	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-410B, R-417A, R-421A, R-422B, R-422C, R-422D, R-426A, R-437A, R-438A, R-507A, RS-24 (2002 formulation), SP34E	Prohibited as of January 1, 2019
Vending machines	Vending machines (retrofit)	R-404A, R-507A	Prohibited as of January 1, 2019
Foams	Rigid polyurethane and polyisocyanurate laminated boardstock	HFC-134a, HFC-245fa, HFC-365mfc and blends thereof	Prohibited as of January 1, 2019
	Flexible polyurethane	HFC-134a, HFC-245fa, HFC-365mfc, and blends thereof	
	Integral skin polyurethane	HFC-134a, HFC-245fa, HFC-365mfc, and blends thereof; Formacel TI, and Formacel Z-6	



General End-Use	Specific End-Use	Prohibited Substances	Effective Date
	Polystyrene extruded sheet	HFC-134a, HFC-245fa, HFC-365mfc, and blends thereof; Formacel TI, and Formacel Z-6	
	Phenolic insulation board and bunstock	HFC-143a, HFC-134a, HFC-245fa, HFC-365mfc, and blends thereof	

(b) The following table lists prohibited substances as of their relevant dates:

Table 2: End-use and Prohibited Substances.

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<u>General End-Use</u>	<u>Specific End-Use</u>	<u>Prohibited Substances</u>	<u>Effective Date</u>
<b>Household Refrigerators and Freezers</b>			
Cold storage warehouses (new)	Cold storage warehouses (new)	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-421B, R-422A, R-422B, R-422C, R-422D, R-423A, R-424A, R-428A, R-434A, R-438A, R-507A, and RS-44 (2003 composition)	Prohibited as of January 1, 2023
Household refrigerators and freezers (new)	Compact residential consumer refrigeration products	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-421A, R-421B, R-422A, R-422B, R-422C, R-422D, R-424A, R-426A, R-428A, R-434A, R-437A, R-438A, R-507A, RS-24 (2002 formulation), RS-44 (2003 formulation), SP34E, and THR-03	Prohibited as of January 1, 2021

Household refrigerators and freezers (new)	Residential consumer refrigeration products	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-421A, R-421B, R-422A, R-422B, R-422C, R-422D, R-424A, R-426A, R-428A, R-434A, R-437A, R-438A, R-507A, RS-24 (2002 formulation), RS-44 (2003 formulation), SP34E, and THR-03	Prohibited as of January 1, 2022
Household refrigerators and freezers (new)	Built-in residential consumer refrigeration products	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-421A, R-421B, R-422A, R-422B, R-422C, R-422D, R-424A, R-426A, R-428A, R-434A, R-437A, R-438A, R-507A, RS-24 (2002 formulation), RS-44 (2003 formulation), SP34E, and THR-03	Prohibited as of January 1, 2023
<u>Chillers</u>			

Chillers	Centrifugal chillers (new)	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-410A, R-410B, R-417A, R-421A, R-422B, R-422C, R-422D, R-423A, R-424A, R-434A, R-438A, R-507A, RS-44 (2003 composition), and THR-03	Prohibited as of January 1, 2024
Chillers	Positive displacement chillers (new)	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-410A, R-410B, R-417A, R-421A, R-422B, R-422C, R-422D, R-424A, R-434A, R-437A, R-438A, R-507A, RS-44 (2003 composition), SP34E, and THR-03	Prohibited as of January 1, 2024
<b>Foams Systems Used to Manufacture</b>			
Foams	Rigid polyurethane slabstock and other	HFC-134a, HFC-245fa, HFC-365mfc, and blends thereof; Formacel TI, and Formacel Z-6	Prohibited as of January 1, 2019
Foams	Rigid polyurethane appliance foam	HFC-134a, HFC-245fa, HFC-365mfc, and blends thereof; Formacel TI, and Formacel Z-6	Prohibited as of January 1, 2020

Foams	Rigid polyurethane commercial refrigeration and sandwich panels	HFC-134a, HFC-245fa, HFC-365mfc, and blends thereof; Formacel TI, and Formacel Z-6	Prohibited as of January 1, 2020
Foams	Polyolefin	HFC-134a, HFC-245fa, HFC-365mfc, and blends thereof; Formacel TI, and Formacel Z-6	Prohibited as of January 1, 2020
Foams	Rigid polyurethane marine floatation foam	HFC-134a, HFC-245fa, HFC-365mfc, and blends thereof; Formacel TI, and Formacel Z-6	Prohibited as of January 1, 2020
Foams	Rigid polyurethane (PU) high-pressure two-component spray foam	HFC-134a, HFC-245fa, and blends thereof; blends of HFC-365mfc with at least four percent HFC-245fa, and commercial blends of HFC-365mfc with 7 to 13 percent HFC-227ea and the remainder HFC-365mfc; and Formacel TI	Prohibited as of January 1, 2020
Foams	Rigid polyurethane (PU) one-component foam sealants	HFC-134a, HFC-245fa, and blends thereof; blends of HFC-365mfc with at least four percent HFC-245fa, and commercial blends of HFC-365mfc with 7 to 13 percent HFC-227ea and the remainder HFC-365mfc; and Formacel TI	Prohibited as of January 1, 2020

Foams	Polystyrene extruded boardstock and billet (XPS)	HFC-134a, HFC-245fa, HFC-365mfc, and blends thereof; Formacel TI, Formacel B, and Formacel Z-6	Prohibited as of January 1, 2021
Foams	Rigid polyurethane (PU) low-pressure two-component spray foam	HFC-134a, HFC-245fa, and blends thereof; blends of HFC-365mfc with at least four percent HFC-245fa, and commercial blends of HFC-365mfc with 7 to 13 percent HFC-227ea and the remainder HFC-365mfc; and Formacel TI	Prohibited as of January 1, 2021
Aerosols - Propellants			
Aersosols - Propellants	Aersosols - propellants	HFC-125, HFC-134a, HFC-227ea, and blends of HFC-227ea and HFC-134a	Prohibited as of January 1, 2019

(c) The following table lists prohibited substances as of their relevant dates:

Table 3: End-use and-Prohibited Substances.

<u>General End-Use</u>	<u>Specific End-Use</u>	<u>Prohibited Substances</u>	<u>Effective Date</u>
<u>Chillers - Air-conditioning, Industrial Process Cooling</u>			
<u>Chillers</u>	<u>Chillers (new) designed for minimum evaporator temperature &gt; -15 °F (-26 °C)</u>	<u>Refrigerants with a GWP of 750 or greater</u>	<u>Prohibited as of January 1, 2024</u>
<u>Chillers</u>	<u>Chillers (new) designed for minimum evaporator temperature -15 °F (-26 °C) through -58 °F (-50 °C)</u>	<u>Refrigerants with a GWP of 2200 or greater</u>	<u>Prohibited as of January 1, 2024</u>
<u>Ice Rinks</u>			
<u>Ice Rinks</u>	<u>Refrigeration Equipment (new) and Chillers (new) used in Ice Rinks</u>	<u>Refrigerants with a GWP of 750 or greater</u>	<u>Prohibited as of January 1, 2024</u>
<u>Air-conditioning</u>			
<u>Air-conditioning Equipment</u>	<u>Air-conditioning equipment (new), residential and non-residential</u>	<u>Refrigerants with a GWP of 750 or greater</u>	<u>Prohibited as of January 1, 2023</u>
<u>Refrigeration</u>			
<u>Refrigeration Equipment</u>	<u>Refrigeration equipment (new), non-residential, containing more than 50 pounds refrigerant</u>	<u>Refrigerants with a GWP of 150 or greater</u>	<u>Prohibited as of January 1, 2022</u>

(d) The following table lists compliance options for retail food facilities with at least one piece of refrigeration equipment or system containing more than 50 pounds of refrigerant as of their relevant effective dates:

Table 4: Compliance Requirements for Companies with Retail Food Facilities.

<u>Companies with Retail Food Facilities</u>	<u>Requirement</u>	<u>Effective Date</u>
<u>Companies owning or operating 20 or more retail food facilities</u>	<u>Attain a company-wide weighted-average GWP of 2,500 or a 25% reduction in GHGp below 2018 levels</u>	<u>January 1, 2026</u>
	<u>Attain a company-wide weighted-average GWP of 1,400 or a 55% reduction in GHGp below 2018 levels</u>	<u>January 1, 2030</u>
<u>Companies owning or operating fewer than 20 retail food facilities</u>	<u>Attain a company-wide weighted-average GWP of 1,400 or a 55% reduction in GHGp below 2018 levels</u>	<u>January 1, 2030</u>

NOTE: Authority cited: Sections 38510, 38598, 38560, 38562, 38566, 38580, 39600, 39601, 39730.5, 39734, and 41511, Health and Safety Code. Reference: Sections 38510, 38598, 38560, 38562, 38566, 38580, 39600, 39601, 39730, 39730.5, 39734, and 41511, Health and Safety Code.

**§ 95375. Requirements Applicable to Table 1 of Section 95374(a).**

(a) *Prohibitions.* No person may ~~shall~~ sell, lease, rent, install, use, or enter into commerce, in the State of California, any refrigeration equipment or foam system manufactured after the effective date, that does not comply with Table 1, section 95374(a) of this subarticle.

(b) *Exceptions.* The following exceptions apply to the list of prohibited substances or the effective dates for prohibited substances for ~~foam~~ end-uses identified in Table 1 of section 95374(a) of this subarticle:

- (1) *Foam End-Uses.* The effective date for all foam end-uses identified in Table 1 of section 95374(a) of this subarticle are extended to January 1, 2022, for military end-uses and January 1, 2025, for space- and aeronautics-related end-uses where reasonable efforts have been made to ascertain that other alternatives are not technically feasible due to performance or safety requirements. For rigid polyurethane and polyisocyanurate laminated boardstock, polystyrene extruded sheet, and phenolic insulation board and bunstock, these same extensions include closed cell foam products and products containing closed cell foams manufactured with the applicable prohibited substances on or before these dates.



(2) Very Low Temperature Refrigeration or Cooling Uses. The prohibitions for refrigeration end-uses identified in Table 1 of section 95374(a) do not apply to refrigeration equipment used for Very Low Temperature Refrigeration or Cooling.

(c) *Disclosure and Recordkeeping for Refrigeration End-Use Categories.* ~~The disclosure and recordkeeping requirements of this subarticle do not apply to any end-use category listed in Table 2 of section 95374(b) of this subarticle.~~

(1) *Disclosure Statement.* As of the effective date of this subarticle, any person who manufactures motor-bearing new refrigeration equipment for sale or entry into commerce in the State of California, must provide a written disclosure to the buyer as part of the sales transaction and invoice. The required written disclosure must state: "This equipment is prohibited from use in California with any refrigerants on the "List of Prohibited Substances" for that specific end-use, in accordance with California Code of Regulations, title 17, section 95374. This disclosure statement has been reviewed and approved by [THE COMPANY] and [THE COMPANY] attests, under penalty of perjury, that these statements are true and accurate."

(2) *Recordkeeping.* As of the effective date of this subarticle, any person who manufactures motor-bearing new refrigeration equipment for sale or entry into commerce in the State of California, must maintain for five years and make available, upon request by the California Air Resources Board's Executive Officer, a copy of the following records:

(A) Name and address of the person purchasing the equipment at the time of purchase.

(B) Telephone number and email address of the person purchasing the equipment at the time of purchase, if provided to the manufacturer.

(C) Model and serial number of the equipment. When the affected equipment is part of an assembly without an individual serial number, the serial number of each component must be recorded. If a component or equipment does not have an individual serial number or the serial number is inaccessible after assembly the physical description must be recorded in enough detail for positive identification.

(D) Date of manufacture of the equipment.

(E) Date of sale of the equipment.

(F) The refrigerant type(s) the equipment is designed to use.

(G) The refrigerant and full charge capacity of the equipment, where available.

(H) A copy of the disclosure statement ~~issued~~made available to the ~~buyer~~person purchasing the equipment or recipient of the new refrigeration equipment.

(d) *Recordkeeping for Foam End-Use Categories.* The recordkeeping requirements of this subarticle do not apply to any end-use category listed in Table 2 of section 95374(b) of this subarticle.

(1) *Recordkeeping.* As of the effective date of this subarticle, any person who manufactures a foam system in any end-use category listed in Table 1 of section 95374(a) of this subarticle for sale or entry into commerce in the State of California, must maintain for five years and make available, upon request by the California Air Resources Board's Executive Officer, a copy of the following records:

(A) Name and address of the person purchasing the foam system at the time of purchase.

(B) Telephone number and email address of the person purchasing the foam system at the time of purchase, if provided to the manufacturer.

(C) The type of foam end-use category.

(D) Date of manufacture of the foam system.

(E) Date of sale of the foam system.

(F) The blowing agent used in the foam system.

NOTE: Authority cited: Sections 38510, 38598, 38560, 38562, 38566, 38580, 39600, 39601, 39607, 39730.5, 39734 and 41511, Health and Safety Code. Reference: Sections 38510, 38598, 38560, 38562, 38566, 38580, 39600, 39601, 39730, 39730.5, 39734 and 41511, Health and Safety Code.

**§ 95376. Requirements Applicable to Table 2 of Section 95374(b).**

(a) *Prohibitions.* No person may ~~shall~~ offer any equipment or product for sale, sell, lease, rent, install, use, or otherwise cause any equipment or product manufactured after ~~the effective date,~~ to enter into commerce in the State of California, if that equipment or product uses or will use a substitute in a manner inconsistent with any substitute in end-use equipment or product manufactured after the effective date, s that does not comply with the requirements of listed in Table 2 of section 95374(b) of this subarticle.

(b) *Exceptions.* The following exceptions apply to the list of prohibited substances or the effective dates for prohibited substances for end-uses identified in Table 2 of section 95374(b) of this subarticle:

(4) *Foam End-Uses*. Except where specified below, the effective date for foam end-uses identified in Table 2 of section 95374(b) of this subarticle are extended to January 1, 2022, for military applications and January 1, 2025, for space- and aeronautics-related applications, where reasonable efforts have been made to ascertain that other alternatives are not technically feasible due to performance or safety requirements, including closed cell foam products and products containing closed cell foams manufactured with the applicable prohibited substances on or before these dates.

(A) *Polystyrene: Extruded Boardstock and Billet*: The prohibited substances for polystyrene extruded boardstock and billet are acceptable for use in this specific end-use from January 1, 2021, until January 1, 2022, in military applications and until January 1, 2025, for space- and aeronautics-related applications where reasonable efforts have been made to ascertain that other alternatives are not technically feasible due to performance or safety requirements. Closed cell foam products and products containing closed cell foams manufactured with the prohibited substances for polystyrene extruded boardstock and billet on or before January 1, 2022, for military applications or on or before January 1, 2025, in space- and aeronautics-related applications, may be used after those dates.

(B) *Rigid Polyurethane: Spray Foam - High-Pressure Two-Component ("High-Pressure RP")*: The prohibited substances for High-Pressure RP are acceptable for use in High-Pressure RP from January 1, 2020, until January 1, 2025, only in military or space- and aeronautics-related applications where reasonable efforts have been made to ascertain that other alternatives are not technically feasible due to performance or safety requirements. Closed cell foam products and products containing closed cell foams manufactured with the prohibited substances for High-Pressure RP on or before January 1, 2025, may be used after that date.

(C) *Rigid Polyurethane: Spray Foam - Low-Pressure Two-Component ("Low-Pressure RP")*: The prohibited substances for Low-Pressure RP are acceptable for use in Low Pressure RP from January 1, 2021, until January 1, 2025, only in military or space- and aeronautics-related applications where reasonable efforts have been made to ascertain that other alternatives are not technically feasible due to performance or safety requirements. Low pressure two-component spray foam kits

manufactured with the prohibited substances for Low-Pressure RP on or before January 1, 2025, for military or space- and aeronautics-related applications may be used after that date.

~~(2) Chillers End-Uses.~~ ~~New centrifugal chillers and new positive displacement chillers are allowed to use HFC-134a for military marine vessels and allowed to use R-404A and HFC-134a for human-rated spacecraft and related support equipment where reasonable efforts have been made to ascertain that other alternatives are not technically feasible due to performance or safety requirements.~~

(3) (2) Aerosols - Propellants End-Uses. HFC-134a is allowed in the following aerosol propellant specific uses:

- (A) Cleaning products for removal of grease, flux and other soils from electrical equipment or electronics;
- (B) Refrigerant flushes;
- (C) Products for sensitivity testing of smoke detectors;
- (D) Sprays containing corrosion preventive compounds used in the maintenance of aircraft, electrical equipment or electronics, or military equipment;
- (E) Duster sprays specifically for removal of dust from photographic negatives, semiconductor chips, and specimens under electron microscopes, and energized electrical equipment;
- (F) Adhesives and sealants in large canisters;
- (G) Lubricants and freeze sprays for electrical equipment or electronics;
- (H) Sprays for aircraft maintenance;
- (I) Pesticides for use near electrical wires or in aircraft, in total release insecticide foggers, or in certified organic use pesticides for which the U.S. EPA has specifically disallowed all other lower-global warming potential (GWP) propellants;
- (J) Mold release agents and mold cleaners;
- (K) Lubricants and cleaners for spinnerettes for synthetic fabrics;
- (L) Document preservation sprays;
- (M) Metered dose inhalers (MDIs) approved by the U.S. Food and Drug Administration (FDA) for medical purposes;
- (N) Wound care sprays;
- (O) Topical coolant sprays for pain relief; and

(P) Products for removing bandage adhesives from skin.

(3) Aerosols - Propellants End-Uses. HFC-227ea and blends of HFC-227ea and HFC-134a are allowed in metered dose inhalers (MDIs) approved by the U.S. Food and Drug Administration (FDA) for medical purposes.

NOTE: Authority cited: Section 39734, Health and Safety Code. Reference: Section 39734, Health and Safety Code.

**§95377. Requirements Applicable to Table 3 of Section 95374(c).**

- (a) Prohibitions. No person shall sell, lease, rent, install, use, or enter into commerce in the State of California, any end-use equipment or product manufactured after the effective date, that does not comply with Table 3 of section 95374(c) of this subarticle.
- (b) Exceptions. The following exceptions apply to the list of prohibited substances or the effective dates for prohibited substances for end-uses identified in Table 3 of section 95374(c) of this subarticle:
- (1) Chillers End-Uses. New centrifugal chillers and new positive displacement chillers are allowed to use HFC-134a for military marine vessels and allowed to use R-404A and HFC-134a for human-rated spacecraft and related support equipment where reasonable efforts have been made to ascertain that other alternatives are not technically feasible due to performance or safety requirements.
  - (2) Refrigeration End-Uses. Replacement of a refrigeration component in refrigeration equipment or system in an existing facility as part of the normal maintenance of refrigeration equipment; if the replacement of components does not exceed 50 percent of the capital cost of replacing the entire refrigeration equipment or system, excluding the cost of refrigerated display cases.
  - (3) Refrigeration and Ice Rink End-Uses. Refrigeration equipment with 50 pounds or less of refrigerant.
  - (4) Very Low Temperature Refrigeration or Cooling: The prohibitions in Table 3, section 95374(c), do not apply to any end-uses used for Very Low Temperature Refrigeration or Cooling.

(d) Labeling and Recordkeeping for Refrigeration, Air-conditioning, Chiller, Cold Storage, Retail Food Facilities, and Ice Rink End-Use Categories.

(1) Labeling. As of the effective date of this subarticle, any person who manufactures new refrigeration equipment, air-conditioning equipment, chillers, refrigeration/cooling equipment used in cold storage, and chillers or refrigeration cooling equipment used in ice rinks shall display a label on the equipment that clearly and visibly indicates:

(A) The type of refrigerant.

(B) The refrigerant charge size in ounces, pounds, or kilograms; and

(C) The date of manufacture, indicating at a minimum, the four digit year of manufacture in standard format.

(D) Existing labels meeting the above requirements may be used.

(3) Recordkeeping for Manufacturers. As of the effective date of this subarticle, any person who manufactures new air-conditioning, new chiller, new cold storage, new ice rinks, or new motor-bearing refrigeration equipment in any end-use category listed in Table 3 of section 95374 (c) of this subarticle, for sale or entry into commerce in the State of California, shall maintain for five years and make available, upon request by the California Air Resources Board's Executive Officer or a local Air Pollution Control Officer, a copy of the following records:

(A) Name and address of the person purchasing the equipment at the time of purchase.

(B) Telephone number and email address of the person purchasing the equipment at the time of purchase, if provided to the manufacturer.

(C) Model and serial number of the equipment. When the affected equipment is part of an assembly without an individual serial number, the serial number of each component must be recorded. If a component or equipment does not have an individual serial number or the serial number is inaccessible after assembly, the physical description must be recorded in enough detail for positive identification.

(D) Date of manufacture of the equipment.

(E) Date of sale of the equipment.

(F) The refrigerant type(s) the equipment is designed to use.

(G) The refrigerant and full charge capacity of the equipment, where available.

NOTE: Authority cited: Sections 38510, 38598, 38560, 38562, 38566, 38580, 39600, 39601, 39607, 39730.5, 39734, and 41511, Health and Safety Code. Reference: Sections 38510, 38598, 38560, 38562, 38566, 38580, 39600, 39601, 39730, 39730.5, 39734, and 41511, Health and Safety Code.

**§95378. Requirements Applicable to Table 4 of Section 95374(d).**

**(a) Compliance Requirements for Retail Food Facilities.**

**(1) The following requirement applies to companies that own or operate 20 or more retail food facilities in California:**

**(A) By January 1, 2026, the weighted-average GWP shall be less than 2,500 for the aggregated total of all refrigerant in all refrigeration systems greater than 50 pounds; or**

**(B) By January 1, 2026, GHGp of all refrigerant in all refrigeration systems greater than 50 pounds shall be reduced by 25 percent or more of their 2018 baseline GHGp.**

**(2) The following requirement to companies that own or operate one or more retail food facilities in California:**

**(A) By January 1, 2030, the weighted-average GWP shall be less than 1,400 for the aggregated total of all refrigeration systems greater than 50 pounds; or**

**(B) By January 1, 2030, the GHGp of all refrigerant in all refrigeration systems greater than 50 pounds shall be reduced by 55 percent or more of their 2018 baseline GHGp.**

**(b) Registration Requirements for Retail Food Facilities. On or before January 1, 2022, retail food facilities must register with the R3 database the following information:**

**(1) Refrigeration systems containing more than 50 pounds of refrigerant that use a GWP less than 150, along with:**

**(A) System identification number (assigned by the facility owner or operator).**

**(B) System type.**

**(C) System manufacturer.**

**(D) System model or description.**

- (E) System model year.
  - (F) System serial number. The serial number(s) of the affected system or component must be recorded when present and accessible. When the affected system or component is part of an assembly without a serial number or does not have an individual serial number or is not accessible after assembly, the physical location of the affected system must be recorded in enough detail to permit positive identification.
  - (G) Physical location of the refrigeration system through schematic or floor plan with system locations clearly noted.
  - (H) Temperature classification – The refrigeration system must be identified as a low temperature system, a medium temperature system, or other.
  - (I) Full charge of the refrigeration system.
  - (J) Type of refrigerant(s) used.
- (2) When a refrigeration system full charge size decreases to 50 pounds or less after a retrofit or charge reduction, the exact amount of charge reduced must be registered.
- (3) All retail food facilities owned by the company that are located in California.
- (4) All registered information required in sections §95378(b)(1) and §95378(b)(2) shall be updated by January 1 of the year after the information has changed.
- (c) Choosing a Compliance Requirement for Retail Food Facilities. On or before March 1, 2022, all companies with a retail food facility shall register with the R3 database whether they plan to utilize the GHGp compliance pathway as described in 95378(a)(1)(B) or 95378(a)(2)(B). Failure to register on or before March 1, 2022 will automatically enroll the company into the weighted-average GWP as described in sections 95378(a)(1)(A) or 95378(a)(2)(A).
- (d) Reporting Requirements for Retail Food Facilities. On or before March 1, 2022, and each year thereafter, all companies with a retail food facility shall report into the R3 database for the prior calendar year the following information:
- (1) Company Information:
    - (A) Name of Company.
    - (B) Company Federal Tax Identification Number.



(C) Company mailing address, including a street address, city, state, and zip code.

(D) Company location address including a street address, city, state, and zip code.

(E) Company contact person.

(F) Company contact person phone number.

(G) Company contact person e-mail address.

(2) Compliance Information:

(A) The company's weighted-average GWP, only if the company has not satisfied the requirements of section 95378(c).

(B) The company's GHGp, only if the company has satisfied the requirements of section 95378(c).

(e) Recordkeeping Requirements for Retail Food Facilities. As of the effective date of this subarticle, any person who owns or operates a retail food facility shall maintain for five years and make available, upon request by the California Air Resources Board's Executive Officer or a local Air Pollution Control Officer, the following records or documentation that shows the following information:

(1) The means by which the full charge was determined, both before and after either a retrofit or charge reduction.

(2) Each refrigeration system retrofit, including the full charge and type of refrigerant used in the system before a retrofit and after a retrofit.

(3) Each refrigeration system charge reduction, including the full charge size before a refrigerant charge reduction and after a refrigerant charge reduction.

(4) Refrigeration system retirement, including date of removal of the refrigeration system from the facility.

(5) Amount and type of refrigerant removed from the refrigeration system and where the refrigerant was stored and/or sent afterwards, either after a system retirement, system retrofit, or a system charge reduction.

(6) The calculations and spreadsheets used to create the reported information under section 95378(d)(2)

(e) The recordkeeping requirements of section 95378(d) shall include documentation including but not limited to, invoices, receipts, records of shipments, plans, or work details, that are generated or supported by information from a third party, such as a service technician or refrigerant reclaimer.

NOTE: Authority cited: Sections 38510, 38598, 38560, 38562, 38566, 38580, 39600, 39601, 39607, 39730.5, 39734, and 41511, Health and Safety Code. Reference: Sections 38510, 38598, 38560, 38562, 38566, 38580, 39600, 39601, 39730, 39730.5, 39734, and 41511, Health and Safety Code.

**§ 953779. Enforcement.**

(a) Failure to comply with any requirement of this subarticle constitutes a separate violation of this subarticle, including but not limited to failure to retain or produce any records.

(b) Submitting or producing inaccurate information or record(s) that are required to be submitted or retained by this subarticle constitutes a separate violation of this subarticle.

(c) Falsifying any information or record required to be submitted or retained by this subarticle constitutes a separate violation of this subarticle.

(d) ~~Excepting sections 95374(b) and 95376, v~~Violations of this subarticle are subject to penalties under the Health and Safety Code section 38580.

~~(e) Violations of sections 95374(b) and 95376 are subject to penalties set forth in Article 3 (commencing with Section 42400) of Chapter 4 of Part 4 of the Health and Safety Code.~~

~~(f)~~ Any violation of this subarticle may be enjoined pursuant to the Health and Safety Code section 41513.

(f) Enforcement of this subarticle may be carried out by authorized representatives of the Executive Officer or a local Air Pollution Control Officer.

NOTE: Authority cited: Sections 38510, 38598, 38560, 38562, 38566, 38580, 39600, 39601, 39730.5, 39734, and 41511, Health and Safety Code. Reference: Sections 38510, 38598, 38560, 38562, 38566, 38580, 39600, 39601, 39730, 39730.5, 39734, and 41511, Health and Safety Code.

**§ 9537880. Severability.**

Each part of this subarticle shall be deemed severable, and in the event that any provision of this subarticle is held to be invalid, the remainder of this subarticle shall continue in full force and effect.

NOTE: Authority cited: Sections 38510, 38598, 38560, 38562, 38566, 38580, 39600, 39601, 39730.5, 39734, and 41511, Health and Safety Code. Reference: Sections 38510, 38598, 38560, 38562, 38566, 38580, 39600, 39601, 39730.5, 39734, and 41511, Health and Safety Code.

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