

**RULE 1415.1            REDUCTION OF REFRIGERANT EMISSIONS FROM  
STATIONARY REFRIGERATION SYSTEMS**

(a) Purpose

The purpose of this rule is to reduce emissions of high global warming potential refrigerants from stationary refrigeration systems by requiring persons subject to this rule to recover, recycle, or reclaim refrigerant and to minimize refrigerant leaks.

(b) Applicability

This rule applies to any person who owns or operates a refrigeration system, as defined in this rule. This rule also applies to any person who installs, repairs, maintains, services, relocates, or disposes of any refrigeration system, regardless of charge size; to any person who services or maintains recycling and recovery equipment; and to any person who recycles, recovers, reclaims, distributes or sells high global warming potential refrigerant.

(c) Definitions

For purposes of this rule, the following definitions shall apply:

- (1) **ADDITIONAL REFRIGERANT CHARGE** means or is the quantity, in pounds, of refrigerant added to a refrigeration system in order to bring the system to a full charge. Additional refrigerant charge does not include an initial refrigerant charge.
- (2) **AUTOMATIC LEAK DETECTION SYSTEM** means or is a calibrated device that uses continuous monitoring for detecting leakage of refrigerants, and alerts the operator when a refrigerant leak is detected. An automatic leak detection system may be either:
  - (A) A direct system that automatically detects the presence in air of refrigerant leaked from a refrigeration system; or
  - (B) An indirect system that automatically interprets measurements (e.g. temperature or pressure) within a refrigeration system that indicate a refrigerant leak and alerts the operator to the presence of a refrigerant leak.

- (3) BUBBLE TEST means applying a soap solution or spraying on with an aerosol around a potential leak source, and observing for bubbles.
- (4) CERTIFIED RECLAIMER means or is a person who holds a current, valid, and applicable reclaimer certificate in accordance with Title 40 of the Code of Federal Regulations, Part 82, Subpart F, §82.164.
- (5) CERTIFIED REFRIGERANT RECOVERY OR RECYCLING EQUIPMENT means or is equipment for refrigerant recovery or recycling that meets the definition by the U.S. Environmental Protection Agency pursuant to Title 40 of the Code of Federal Regulations, Part 82, Subpart F, §82.152.
- (6) CERTIFIED TECHNICIAN means or is a person who has a current, valid, and applicable U.S. Environmental Protection Agency technician certificate issued in accordance with Title 40 of the Code of Federal Regulations, Part 82, §82.40 or §82.161.
- (7) CHANGE OF OWNERSHIP means or is a transfer of the title of a facility subject to this rule.
- (8) CHLOROFLUOROCARBON or CFC means or is a class of compounds primarily used as refrigerants, consisting of only chlorine, fluorine, and carbon.
- (9) COMMERCIAL REFRIGERATION means or is a refrigeration appliance typically utilized in the retail food and cold storage warehouse sectors. Retail food refrigeration includes, but is not limited to, the refrigeration equipment found in supermarkets, convenience stores, restaurants and other food service establishments. Cold storage includes, but is not limited to, the equipment used to store meat, produce, dairy products, and other perishable goods.
- (10) COMPONENT means or is a part of a refrigeration system or appliance (including condensing units, compressors, condensers, evaporators, receivers) and all of its connections and subassemblies, without which the refrigeration system or appliance will not properly function or will be subject to failures.
- (11) CONTINUOUS MONITORING means or is measuring the ambient concentration of refrigerant using electronic or mechanical sensors, or

interpreting measurements (e.g. temperature or pressure) within a refrigeration system that indicate a refrigerant leak in real time.

- (12) **DIRECT EMISSIONS** mean high global warming potential refrigerant emissions from a facility that are emitted by refrigeration systems under the operational control of a facility owner or operator. Direct emissions are calculated as the total weight in pounds of each type of high global warming potential refrigerant that was charged into a refrigeration system minus the total weight in pounds of each type of high global warming potential refrigerant that was recovered from a refrigeration system, as reported in the annual Facility Stationary Refrigeration Report pursuant to paragraphs (f)(1), (f)(2), and (f)(3).
- (13) **ENCLOSED BUILDING OR STRUCTURE** means or is a building or structure with a roof and walls that prevent wind from entering the facility.
- (14) **EQUIPMENT TYPE** means or is commercial refrigeration, industrial process refrigeration, or other refrigeration appliance.
- (15) **FACILITY** for the purpose of this rule means or is any property, plant, building, structure, stationary source, stationary equipment or grouping of stationary equipment or stationary sources located on one or more contiguous or adjacent properties, in actual physical contact or separated solely by a public roadway or other public right-of-way, and under common operational control, that includes one or more refrigeration systems or appliance subject to this rule. Operators of military installations may classify such installations as more than a single facility based on distinct and independent functional groupings within contiguous military properties.
- (16) **FACILITY IDENTIFICATION NUMBER** means or is a unique identification number provided by the Executive Officer for each facility with one or more refrigeration systems in operation.
- (17) **FOLLOW-UP VERIFICATION TEST** means or is a test that involves checking the repairs within 30 days of the refrigeration system returning to normal operating characteristics and conditions. "Follow-up verification test" for a refrigeration system from which the refrigerant charge has been evacuated means a test conducted after the refrigeration system or portion of the refrigeration system has resumed operation at normal operating

characteristics and conditions of temperature and pressure, except in cases where sound professional judgment dictates that these tests will be more meaningful if performed prior to the return to normal operating characteristics and conditions. “Follow-up verification test” for a refrigeration system from which the refrigerant charge has not been evacuated means a reverification test conducted after the initial verification test and usually within 30 days of returning to normal operating characteristics and conditions. Where a refrigeration system is not evacuated, it is only necessary to complete any required changes to return the refrigeration system to normal operating characteristics and conditions.

- (18) “FULL CHARGE”, “OPTIMAL CHARGE”, or “CRITICAL CHARGE” means or is the amount of refrigerant required in the refrigerant circuit for normal operating characteristics and conditions of a refrigeration system, as determined by one of the following methods:
- (A) Use of the equipment manufacturer’s specifications of the full charge; or
  - (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.
- (19) GLOBAL WARMING POTENTIAL means or is the capacity to heat the atmosphere, calculated as the ratio of the time-integrated radiative forcing from the instantaneous release of 1 kilogram (kg) of a substance relative to that of 1 kg of CO<sub>2</sub>. Global warming potential shall be calculated according to the factors for a 100-year time horizon.
- (20) GLOBAL WARMING POTENTIAL VALUE or GWP VALUE means or is the 100-yr GWP value first published by the Intergovernmental Panel on Climate Change (IPCC) in its Second Assessment Report (SAR) (IPCC, 1995); or if a 100-yr GWP value was not specified in the IPCC SAR, it means the GWP value published by the IPCC in its Fourth Assessment A-3 Report (AR4) (IPCC, 2007); or if a 100-yr GWP value was not specified

in the IPCC AR4, then the GWP value will be determined by the Executive Officer based on data, studies and/or good engineering or scientific judgment. Both the 1995 IPCC SAR values and the 2007 IPCC AR4 values are published in Table 2.14 of the 2007 IPCC AR4. The SAR GWP values are found in column “SAR (100-yr)” of Table 2.14.; the AR4 GWP values are found in column “100 yr” of Table 2.14.

- (21) HIGH GLOBAL WARMING POTENTIAL REFRIGERANT means or is any compound used as a heat transfer fluid or gas that is:
- (A) A chlorofluorocarbon; or
  - (B) A hydrochlorofluorocarbon; or
  - (C) A hydrofluorocarbon; or
  - (D) A perfluorocarbon; or
  - (E) Any compound or blend of compounds, with a global warming potential value equal to or greater than 150; or
  - (F) Any ozone depleting substance as defined in Title 40 of the Code of Federal Regulation, Part 82, §82.3
- (22) HYDROCHLOROFLUOROCARBON or HCFC means or is a class of compounds primarily used as refrigerants, consisting of only hydrogen, chlorine, fluorine, and carbon.
- (23) HYDROFLUOROCARBON or HFC means or is a class of compounds primarily used as refrigerants, consisting of only hydrogen, fluorine, and carbon.
- (24) INDIRECT EMISSIONS are emissions that are a consequence of the activities of a facility, but occur at sources owned or controlled by another person, related to energy consumed for electricity, heat, steam, and cooling.
- (25) INDUSTRIAL PROCESS REFRIGERATION means complex customized appliances used in the chemical, pharmaceutical, petrochemical and manufacturing industries that are directly linked to the industrial process. Industrial process refrigeration includes, but is not limited to, industrial ice machines, appliances used directly in the generation of electricity, and ice rinks. Where one appliance is used for both industrial process

refrigeration and other applications, it will be considered industrial process refrigeration equipment if 50 percent or more of its operating capacity is used for industrial process refrigeration.

- (26) **INDUSTRIAL PROCESS SHUTDOWN** means that an industrial process or facility temporarily ceases to operate or manufacture whatever is being produced at that facility.
- (27) **INITIAL REFRIGERANT CHARGE** means or is the quantity, in pounds, of high global warming potential refrigerant added to a refrigeration system or appliance in order to bring the system to a full charge upon initial installation of a refrigeration system or appliance.
- (28) **INITIAL VERIFICATION TEST** means or is a leak test that is conducted as soon as practicable after the repair is completed. Initial verification test, with regard to leak repairs that require the evacuation of the refrigeration system or portion of the refrigeration system, means a test conducted prior to the replacement of the full charge and before the refrigeration system or portion of the refrigeration system has reached normal operating characteristics and conditions of temperature and pressure. Initial verification test, with regard to repairs conducted without the evacuation of the full charge, means a test conducted as soon as practicable after the conclusion of the repair work.
- (29) **INTENDED TO BE OPERATED YEAR ROUND** means a refrigeration system at a facility that is not a seasonal facility.
- (30) **LEAK INSPECTION** means or is an inspection of a refrigeration system to detect a leak of a high global warming potential refrigerant.
- (31) **LOW TEMPERATURE REFRIGERATION SYSTEM** means or is a commercial or industrial refrigeration system used for frozen products.
- (32) **MEDIUM TEMPERATURE REFRIGERATION SYSTEM** means or is a commercial or industrial refrigeration system used for chilled products.
- (33) **NEWLY CONSTRUCTED** means or is a facility that is not yet operational, or that has been operational for less than 6 months.
- (34) **NON-REFILLABLE CYLINDER** means or is a cylinder with a refrigerant capacity of two pounds or greater that is designed not to be refilled and is

used in the servicing, maintenance or filling of a refrigeration system, appliance, motor vehicle air conditioning system, or heat pump equipment.

- (35) **NORMAL OPERATING CHARACTERISTICS AND CONDITIONS** mean or are refrigeration system operating temperatures, pressures, fluid flows, speeds, and other characteristics, including full charge of the refrigeration system that would be expected for a given process load and ambient condition during operation. Normal operating characteristics and conditions are marked by the absence of atypical conditions affecting the operation of the refrigeration system.
- (36) **OTHER REFRIGERATION** means or is any stationary, non-residential appliance that is used for an application other than industrial process refrigeration, commercial refrigeration, or air conditioning, or is used for two or more applications including industrial process refrigeration, commercial refrigeration, or air conditioning.
- (37) **PERFLUOROCARBON** or **PFC** means or is a class of compounds consisting only of carbon and fluorine.
- (38) **PERSON** means or is any individual, firm, association, organization, partnership, business trust, corporation, company, contractor, supplier, installer, user or owner, or any state or local governmental agency or public district or any other officer or employee thereof. **PERSON** also means the United States or its agencies to the extent authorized by Federal law.
- (39) **RECLAIM** means or is to reprocess refrigerant to a level equivalent to new product specifications in accordance with applicable requirements of the U.S. Environmental Protection Agency contained in Title 40, Code of Federal Regulations, Part 82, Subpart F, §82.152.
- (40) **RECOVER** means or is to remove refrigerant in any condition from a system and to store it in an external container without necessarily testing or processing it in any way.
- (41) **RECYCLE** means or is to extract refrigerant from an appliance and to clean the refrigerant for reuse by oil separation and single or multiple passes through moisture-absorption devices, such as replaceable core

filter-driers which reduce moisture, acidity, and particulate matter, without meeting all of the requirements for reclamation.

- (42) REFRIGERANT CIRCUIT means the parts of a refrigeration system that are normally connected to each other (or are separated by isolation valves) and are designed to contain a high global warming potential refrigerant. A single refrigerant circuit is defined by all piping and components that use refrigerant from a common reservoir of a high global warming potential refrigerant.
- (43) REFRIGERANT DISTRIBUTOR OR WHOLESALER means or is a person to whom a product is delivered or sold for purposes of export, subsequent resale, or delivery to a certified technician, employer of a certified technician, appliance manufacturer, or another refrigerant distributor or wholesaler. Refrigerant distributor or wholesaler includes any person who imports refrigerant from outside of this state to distribute or sell refrigerant to a certified technician, employer of a certified technician, appliance manufacturer, or another refrigerant distributor or wholesaler, or who acts as an agent or broker in buying refrigerant.
- (44) REFRIGERANT LEAK means or is any discharge of refrigerant into the atmosphere from a refrigeration system, refrigerant recovery or recycling equipment, refrigerant cylinder, or other container.
- (45) REFRIGERANT LEAK DETECTION DEVICE means or is a device that can be calibrated to accurately detect and measure the ambient concentration of refrigerant at a minimum concentration level of 10 parts per million of vapor of a specific refrigerant or selection of refrigerants.
- (46) REFRIGERATION SYSTEM means or is a stationary, non-residential equipment that is an industrial process refrigeration, a commercial refrigeration, or other refrigeration appliance with a single refrigerant circuit that requires more than 50 pounds of any combination of high global warming potential refrigerant to maintain normal operating characteristics and conditions. Refrigeration system does not include an air-conditioning appliance. A single refrigeration system is defined by a single refrigerant circuit.
- (47) RESIDENTIAL means or is a residential dwelling containing four or fewer dwelling units on one lot or parcel.



- (48) RETIRE means or is 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.
- (49) RETROFIT means or is the replacement of the refrigerant used in a refrigeration system with a refrigerant approved under the SNAP program pursuant to Title 40 of the Code of Federal Regulation, Part 82, Subpart G, §82.170, or a refrigerant approved by the Executive Officer, and related refrigeration system changes required to maintain the refrigeration system operation and reliability following refrigerant replacement.
- (50) SEASONAL ADJUSTMENT means or is the need to add refrigerant to a refrigeration system due to a change in ambient conditions caused by a change in season, followed by the subsequent removal of refrigerant in the corresponding change in season, where both the addition and removal of refrigerant occurs within one consecutive 12-month period after the initial installation of a refrigeration system or a repair of a refrigeration system requiring evacuation or partial evacuation of the refrigerant circuit.
- (51) SEASONAL FACILITY means or is a facility where the purpose of the refrigeration system(s) at a facility ceases to be required during certain seasons of the year.
- (52) STATIONARY means or is meeting at least one of the following conditions:
  - (A) Is installed in a building, structure, or facility.
  - (B) Is attached to a foundation, or if not so attached, will reside at the same location for more than 12 consecutive months.
  - (C) Is located at the same single location on a permanent basis (at least two consecutive years) and that operates at that single location at three months each year.
- (53) SYSTEM IDENTIFICATION NUMBER means or is a unique identification number for each refrigeration system at a facility. It is comprised of the facility identification number followed by a hyphen, followed by a three digit number starting at 001 sequentially assigned to each unique refrigeration system at a facility. For example, if a facility has a facility identification number of ARB000001, then the system

identification number for the first refrigeration system would be ARB000001-001.

- (54) **SYSTEM MOTHBALLING** means or is the intentional shutting down of a refrigeration system for a period of time greater than 60 days by the owners or operators of that facility, where the refrigerant has been evacuated from the refrigeration system or the affected component of the refrigeration system, at least to atmospheric pressure.
- (55) **TACTICAL SUPPORT EQUIPMENT** means or is equipment that meets military specifications, owned by the U.S. Department of Defense, the U.S. military services, or its allies, and used in combat, combat support, combat service support, tactical or relief operations, or training for such operations.
- (56) **TOPPING OFF** means or is adding refrigerant to a refrigeration system or appliance in order to bring the system to a full charge.

(d) Requirements

(1) Registration

- (A) The owner or operator of a refrigeration system subject to this rule shall submit to the Executive Officer, at start of operation and every year thereafter, a Registration Plan for the entire facility. Such plan shall contain the following information:
  - (i) facility name and address;
  - (ii) name and title of contact person;
  - (iii) type of business;
  - (iv) number of refrigeration systems in operation;
  - (v) manufacturer name, model and serial number for the refrigeration system;
  - (vi) type of refrigerant in each refrigeration system;
  - (vii) full charge of refrigerant in each refrigeration system, in pounds;
  - (viii) date of last annual audit or maintenance performed for each refrigeration system; and

(ix) amount of additional refrigerant charge every year, in pounds.

(B) The owner or operator of a refrigeration system shall comply with the provision in (d)(1)(A) until such time that registration of the refrigeration system with the California Air Resources Board (CARB) is required pursuant to the CARB Refrigerant Management Program registration schedule as follows:

(i) Refrigeration System with a Full Charge Greater Than or Equal to 2000 Pounds.

Beginning January 1, 2012, the owner or operator of such refrigeration system shall submit registration to CARB by providing the information specified in subparagraph (d)(1)(C). Refrigeration systems that begin operation before January 1, 2012 shall be registered with the CARB Executive Officer on or before March 1, 2012. Refrigeration systems that begin operation on or after January 1, 2012, shall be registered with the CARB Executive Officer by March 1 of the year following commencement of operation.

(ii) Refrigeration System with a Full Charge Greater Than or Equal to 200 Pounds but Less Than 2,000 Pounds.

Beginning January 1, 2014, the owner or operator of such refrigeration system shall submit registration to CARB by providing the information specified in subparagraph (d)(1)(C). Refrigeration systems that begin operation before January 1, 2014 shall be registered with the CARB Executive Officer on or before March 1, 2014. Refrigeration systems that begin operation on or after January 1, 2014, shall be registered with the CARB Executive Officer by March 1 of the year following commencement of operation.

(iii) Refrigeration System with a Full Charge Greater Than 50 Pounds but Less Than 200 Pounds.

Beginning January 1, 2016, the owner or operator of such refrigeration system shall submit registration to CARB by providing the information specified in subparagraph (d)(1)(C). Refrigeration systems that begin operation before January 1, 2016 shall be registered with the CARB Executive Officer on or before March 1, 2016. Refrigeration systems that begin operation on or after January 1, 2016, shall be registered with the CARB Executive Officer by March 1 of the year following commencement of operation.

- (C) A person submitting registration to CARB pursuant to the provisions of subparagraph (d)(1)(B) shall provide the following information:
  - (i) Facility Information
    - (I) Name of operator.
    - (II) Operator Federal Tax Identification Number.
    - (III) Facility North American Industry Classification System (NAICS) Business Type Code based on the 2007 NAICS United States structure.
    - (IV) Facility Standard Industrial Classification (SIC) Code.
    - (V) Name of facility, including a facility identifier such as store number, if applicable.
    - (VI) Facility mailing address including a street address, city, state, and zip code.
    - (VII) Facility physical location address including a street address, city, state, and zip code.
    - (VIII) Facility contact person name, phone number, and e-mail address.
  - (ii) Refrigeration System Information (provided for each refrigeration system)

- (I) System identification number (assigned by the facility owner or operator).
  - (II) Equipment information such as equipment type, equipment manufacturer, equipment model or description, equipment model year and serial number. The serial number(s) of the affected equipment or component must be recorded when present and accessible. When the affected equipment 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 equipment must be recorded in enough detail to permit positive identification.
  - (III) Physical location of the refrigeration through schematic or floor plan with equipment locations clearly noted.
  - (IV) Temperature classification (e.g. low temperature refrigeration system, medium temperature refrigeration system, or other);
  - (V) Full charge of the refrigeration system, in pounds.
  - (VI) Type of high global warming potential refrigerant(s) used.
- (D) If there is a change of ownership of a facility that is required to be registered pursuant to subparagraph (d)(1)(B), the new owner or operator shall register the refrigeration system with CARB by March 1 of the calendar year after the change of ownership has occurred.
- (E) Before any change of ownership, the owner or operator of a refrigeration system subject to subparagraph (d)(1)(B) shall ensure that the refrigeration system is free of refrigerant leaks through a leak inspection performed by a certified technician. In addition, a person selling a refrigeration system that is required to have been

registered with CARB shall inform the buyer of the registration requirements, and submit a change of ownership notification to the CARB Executive Officer. The change of ownership notification shall include the following information:

- (i) Seller Information
  - (I) Facility identification number;
  - (II) Name of owner or operator; and
  - (III) Name of facility, including a facility identifier such as store number; and
- (ii) Buyer Information
  - (I) Name of owner or operator;
  - (II) Name of facility, including a facility identifier such as store number;
  - (III) Facility mailing address including a street address, city, state, and zip code; and
  - (IV) Facility contact person including phone number and e-mail address.

(F) The owner or operator of a refrigeration system subject to this rule shall pay a registration fee for the entire facility as follows:

- (i) Refrigeration systems that are required to be registered with the District pursuant to (d)(1)(A) shall pay a plan filing fee pursuant to Rule 306 – Plan Fees.
- (ii) Refrigeration systems that are required to be registered with CARB pursuant to (d)(1)(B)(i) and (d)(1)(B)(ii) shall pay to CARB an initial implementation fee at time of registration and an annual implementation fee in accordance with the fee schedule established by CARB. If a facility has more than one refrigeration system, the amount of fee shall be based on the refrigeration system with the largest full charge that is operating at the facility.

(2) Leak Detection and Monitoring

(A) Prior to January 1, 2011, the owner or operator of a refrigeration system that operates or is intended to be operated year round shall conduct an annual audit of the refrigeration system to determine whether such system is operating pursuant to manufacturer's specifications and does not have refrigerant leaks. At a minimum, the annual audit shall require a leak inspection conducted by a certified technician.

(B) Beginning January 1, 2011, the owner or operator of a refrigeration system that operates or is intended to be operated year round shall comply with the following requirements:

(i) Refrigeration Systems with a Full Charge Greater Than or Equal to 2,000 Pounds.

(I) A monthly leak inspection of the refrigeration system shall be conducted if the refrigerant circuit is located entirely within an enclosed building or structure, or the compressor, evaporator, condenser, or any other component of the refrigeration system with a high potential for a refrigerant leak is located inside an enclosed building or structure. However, a monthly leak inspection is not required if the refrigeration system is equipped with an automatic leak detection system.

(II) A quarterly leak inspection of the refrigeration system shall be conducted if the refrigerant circuit is not located entirely within an enclosed building or structure and is not monitored for leaks using an automatic leak detection system.

(III) By January 1, 2012, an automatic leak detection system shall be installed for the refrigeration system if the refrigerant circuit is located entirely within an enclosed building or structure, or the compressor, evaporator, condenser, or any other component of the refrigeration system with a high potential for a

refrigerant leak is located inside an enclosed building or structure.

- (ii) Refrigeration Systems with a Full Charge Greater Than or Equal to 200 Pounds but Less Than 2,000 Pounds.

A quarterly leak inspection shall be conducted for the refrigeration system. A leak inspection is not required if an automatic leak detection system is used to monitor the refrigeration system.

- (iii) Refrigeration Systems with a Full Charge Greater Than 50 Pounds but Less Than 200 Pounds.

An annual leak inspection shall be conducted for the refrigeration system. A leak inspection is not required if an automatic leak detection system is used to monitor the refrigeration system.

- (C) Beginning January 1, 2011, the owner or operator of a refrigeration system that does not operate or is not intended to be operated year round shall conduct a leak inspection within 30 days after starting each operation of the refrigeration system, and once every three months thereafter, until the refrigeration system is shut down. A leak inspection is not required after starting operation if there has been a leak inspection of the refrigeration system conducted within the preceding 90 days.

- (D) Beginning January 1, 2011, the owner or operator of a refrigeration system subject to this rule shall conduct a leak inspection each time an additional refrigerant charge equal to or greater than 5 pounds or one percent of the refrigeration system full charge, whichever amount is greater, is added to such refrigeration system.

- (E) All refrigerant leak inspections shall be conducted using one or more of the following methods:

- (i) Refrigerant leak detection device used in accordance with the manufacturer's specifications; or
- (ii) A bubble test; or



- (iii) Observation of oil residue; or
- (iv) An alternate method approved by the Executive Officer.

In addition, any time oil residue is observed indicating a refrigerant leak, a leak inspection shall be conducted using a leak detection device or a bubble test to confirm a refrigerant leak.

- (F) The owner or operator of a refrigeration system equipped with an automatic leak detection system that directly detects the presence of high global warming potential refrigerant in the air shall comply with the following requirements:
  - (i) Sensors or intakes of the automatic leak detection system shall be placed in the proximity of the compressor, evaporator, condenser, and other areas with a high potential for a refrigerant leak.
  - (ii) An annual audit and calibration of the automatic leak detection system shall be conducted using the manufacturer's recommended procedures to ensure that the system accurately detects a concentration level of 10 parts per million of vapor of the specific refrigerant used in the refrigeration system, and alerts the operator when a refrigerant concentration of 100 parts per million of vapor of the specific refrigerant used in the refrigeration system is reached.
- (G) The owner or operator of a refrigeration system equipped with an automatic leak detection system that automatically interprets measurements (e.g. temperature and pressure) within a refrigeration system to indicate a refrigerant leak shall annually audit and calibrate the system, so that it automatically alerts the operator when measurements indicate a loss of refrigerant of 50 pounds or 10 percent of the refrigeration system full charge, whichever is less.
- (H) If an automatic leak detection system alerts the owner or operator of a refrigerant leak, the owner or operator shall ensure that a leak

inspection of the refrigeration system is conducted within 24 hours after the system alert.

(3) Leak Repair

- (A) Any person who owns or operates a refrigeration system that has a refrigerant leak shall ensure that the leak is repaired no later than 14 calendar days after the leak has been discovered, except in situations when a longer time period is allowed as provided in subparagraphs (d)(3)(B) and (d)(3)(C). The owner or operator shall maintain a log of repair activities beginning at the time the leak is discovered and ending at the time when the leak has been repaired. The refrigeration system shall be verified by a certified technician to be leak free before any refrigerant is added to the system.
- (B) The owner or operator of a refrigeration system has 45 days to repair a refrigerant leak if one or more of the following conditions exist:
  - (i) A certified technician is not available to complete the repair. A written record shall be kept to document that no certified technician is available within 14 days of the initial leak detection; or
  - (ii) The parts necessary to repair a refrigerant leak are unavailable within 14 days of the initial leak detection. A written statement verifying that the parts are unavailable from the refrigeration system or component manufacturer or distributor shall be obtained; or
  - (iii) The refrigerant leak repair requires an industrial process shutdown that results in a process temporarily ceasing to manufacture the intermediate or final product that is produced when the industrial process refrigeration appliance is in operation.
- (C) The owner or operator of a refrigeration system has 120 days to repair a refrigerant leak if all of the following conditions exist:

- (i) The facility owner or operator is an entity subject to Mandatory Greenhouse Gas Emissions Reporting requirements pursuant to section 95101 of the California Code of Regulations; and
  - (ii) The refrigeration system is an industrial process refrigeration appliance; and
  - (iii) The refrigerant leak repair requires an industrial process shutdown; and
  - (iv) Written records are maintained to document that all the conditions in clauses (d)(3)(C)(i) thru (d)(3)(C)(iii) are met.
- (D) The owner or operator of a refrigeration system shall ensure that an initial verification test and a follow-up verification test, as defined in subdivision (c), are conducted by a certified technician upon completion of refrigerant repairs. For a refrigeration system that has been evacuated during the refrigerant repair leak, the follow-up verification shall be conducted when the system is operating at normal operating conditions. If the system was not evacuated during leak repair, the follow-up verification test requirement is satisfied once required changes are made to return the refrigeration system to normal operating conditions.
- (E) If verification tests indicate that a refrigerant leak has not been successfully repaired within the allowable time period specified in subparagraphs (d)(3)(A), (d)(3)(B), or (d)(3)(C), and no exemption has been granted by the Executive Officer pursuant to paragraph (d)(5), then the owner or operator shall comply with the following applicable requirements:
- (i) For refrigeration systems that fail to meet the 14-day leak repair allowance in subparagraph (d)(3)(A), the owner or operator shall successfully repair the refrigerant leak within 45 days of the initial refrigerant leak detection, or prepare a retrofit or retirement plan pursuant to paragraph (d)(4) within 60 days of the initial refrigerant leak detection.

- (ii) For refrigeration systems that fail to meet the 45-day leak repair allowance in subparagraph (d)(3)(B), the owner or operator shall prepare a retrofit or retirement plan pursuant to paragraph (d)(4) within 60 days of the initial refrigerant leak detection.
  - (iii) For refrigeration systems that fail to meet the 120-day leak repair allowance in subparagraph (d)(3)(C), the owner or operator shall prepare a retrofit or retirement plan pursuant to paragraph (d)(4) within 135 days of the initial refrigerant leak detection.
- (4) Retrofit or Retirement Plan
- (A) The plan shall establish a schedule to retrofit or retire a leaking refrigeration system no later than six months after the initial detection of the refrigerant leak. All work shall be completed during this six-month period.
  - (B) A retrofit or retirement plan shall include the following information:
    - (i) The system identification number of the refrigeration system being retired or retrofitted;
    - (ii) Equipment type, manufacturer, model number or description;
    - (iii) Physical location of the refrigeration system through schematic or floor plan with locations clearly noted;
    - (iv) Temperature classification of the refrigeration system;
    - (v) Full charge of the refrigeration system including the type of high global warming potential refrigerant(s) used;
    - (vi) A plan to dispose of the retired refrigeration system if the refrigeration system is to be retired and replaced;
    - (vii) A timetable which includes, at a minimum, the start date and completion date of installation, construction, or retrofit of the refrigeration system; and

(viii) A signature by a representative of the facility, including the date signed.

(5) Approval of Exemptions

(A) The owner or operator of a refrigeration system may submit a request to the Executive Officer for an exemption from the requirements of paragraphs (d)(3) and (d)(4) provided that the owner or operator demonstrates that one or more of the criteria below have been satisfied:

(i) Emissions Life Cycle Exemption

The Executive Officer may allow the continuation of a refrigerant leak for up to three years if the Executive Officer determines that the applicant has provided clear and convincing documentation that the refrigerant leak cannot be repaired, and that allowing the refrigerant leak to continue will result in less combined direct and indirect emissions than replacing the leaking refrigeration system. The documentation shall include information quantifying the lifecycle direct and indirect emissions, including energy use, and must include a calculation of these emissions based on the average lifetime of the refrigeration system or facility. The applicant shall also provide a mitigation plan that includes a list of proposed actions to minimize emissions. The plan shall include an analysis of options to minimize usage, reduce leaks or venting, and recycle or destroy high global warming potential refrigerant.

(ii) Economic Hardship Exemption

The Executive Officer may allow the continuation of a refrigerant leak for a specified time period of no longer than three years if the Executive Officer determines that the applicant has provided clear and convincing documentation that all of the following criteria are met:

(I) Compliance would result in extraordinary economic hardship, such as closure of the entire facility or a

large portion of the facility, or loss of a large portion of the revenue from the facility; and

- (II) The applicant has prepared a compliance report that can be implemented and can achieve compliance as expeditiously as possible. The compliance report shall reasonably detail when compliance will be achieved and the method by which compliance will be achieved.

(iii) Natural Disaster Exemption

The Executive Officer may allow the continuation of a refrigerant leak for a specified time period of no longer than three years if the Executive Officer determines that the applicant has provided clear and convincing documentation that failure to repair the refrigerant leak was due to a natural disaster such as an earthquake or flood, an act of war or an act by a public enemy, or a civil disorder or riot.

- (B) Any exemption granted may be extended for one or more additional periods of up to three years if the Executive Officer determines that the demonstrations made pursuant to clauses (d)(5)(A)(i), (d)(5)(A)(ii), or (d)(5)(A)(iii) remain valid.
- (C) The owner or operator requesting an exemption as provided in subparagraph (d)(5)(A) shall submit a written application demonstrating that one or more of the exemption criteria have been met. Within 30 days of receipt of the exemption application, the Executive Officer shall determine whether the application is complete, and shall notify the applicant of this determination. If the exemption application is determined to be incomplete, the Executive Officer shall notify the applicant and specify the information needed to make the application complete. Within 90 days after an application is determined to be complete, the Executive Officer shall determine whether and under what conditions an exemption will be granted. The applicant and the Executive Officer may agree to a longer time period for the Executive Officer to take action on the exemption application.

- (D) The exemption shall cease to be effective upon the failure of the person to whom the exemption was granted to comply with any term or condition of the exemption.
  - (E) If the Executive Officer determines that an exemption no longer meets the criteria specified in subparagraph (d)(5)(A), the Executive Officer may revoke the exemption or modify it as necessary to insure that the exemption continues to meet the criteria.
  - (F) If an application for an exemption is denied or an existing exemption is revoked, the owner or operator of a refrigeration system shall comply with the following:
    - (i) From the time a notice of denial or revocation is issued, the refrigerant leak shall be repaired within the allowable repair period in paragraph (d)(3); or
    - (ii) Within 30 days of a notice of such denial or revocation, the owner or operator of the facility shall prepare a retrofit or retirement plan pursuant to paragraph (d)(4). The plan shall establish a schedule to retrofit or retire a leaking refrigeration system no later than six months after a notice of denial or revocation, and all work shall be completed during this six-month period.
- (e) Required Service Practices and Prohibitions
- (1) No person shall install, maintain, service, repair, relocate, or dispose of any refrigeration system, regardless of charge size, that may cause the release of high global warming potential refrigerants unless that person meets all of the following applicable requirements:
    - (A) The person has a current, valid, and applicable U.S. Environmental Protection Agency technician certificate issued in accordance with Title 40 of the Code of Federal Regulations, Part 82, Subpart F, §82.161.
    - (B) The certified technician conducting leak repair holds a current and active California contractor's license in the C-38-Refrigeration Contractor licensing classification, or is an employee of a

contractor with the same qualifications. If the refrigeration system requiring service is also used in an air conditioning application, the refrigerant leak may be repaired by a certified technician holding a current and active California contractor's license in the C-20-Warm Air Heating, Ventilating and Refrigeration Contractor licensing classification, or by an employee of a contractor with the same qualifications.

- (C) The person recovers, recycles, or reclaims the refrigerant, using certified refrigerant recovery or recycling equipment for that type of refrigeration system, and employs procedures for which the certified refrigerant recovery or recycling equipment was approved by the U.S. Environmental Protection Agency. Attempts to recover refrigerant shall be made even if the person believes that all refrigerant has been removed or has previously leaked from the refrigeration system. Refrigerant may be returned to the refrigeration system from which it is recovered, or to another refrigeration system owned by the same person, without being recycled or reclaimed.
- (D) The refrigerant added to a refrigeration system during manufacture or service is:
  - (i) A Class I or Class II substance, as identified by section 602 of the federal Clean Air Act; or
  - (ii) An alternative that has been found acceptable under the SNAP program pursuant to Title 40 of the Code of Federal Regulations, Part 82, Subpart G, §82.170; or
  - (iii) Approved by the Executive Officer for the specific refrigeration end-use in which it is being employed.
- (E) No refrigerant charge is added to any refrigeration system known to have a refrigerant leak, except that it is permissible to add additional refrigerant charge required to maintain operations during leak repair.
- (F) Job site evacuation of refrigerants during recycling, recovering, reclaiming, or disposing is done in accordance with Title 40 of the



Code of Federal Regulations, Part 82, Subpart F, §82.156. De minimis refrigerant releases associated with a good faith attempt to recycle or recover refrigerants are allowed. Refrigerant releases shall be considered de minimis only if they occur when the required practices or requirements contained in Part 82, Subpart F, §§82.156 and 82.158, and Part 82, Subpart B of Title 40 of the Code of Federal Regulation are followed.

- (2) Any person who owns or operates a certified refrigerant recovery or recycling equipment shall:
  - (A) Ensure the equipment has been tested for and been determined to have no leaks within the past six months. Leaks in recycling, recovering, or charging equipment shall be repaired within 2 working days after the leak is first detected, unless its use is discontinued, and the equipment does not leak after its use is discontinued.
  - (B) Not alter the design of a certified recovery and recycling equipment in a manner that would affect the equipment's ability to meet the certification standards set by the U.S. Environmental Protection Agency without resubmitting the altered design to an approved equipment testing facility for certification testing. Until such altered equipment is tested by a U.S. Environmental Protection Agency approved equipment testing facility, and is shown to meet the certification standards set forth by the U.S. Environmental Protection Agency, the altered equipment shall not be considered certified, and shall not be used.
  - (C) Use the refrigerant recovery and recycling equipment used as specified by the certified refrigerant recovery or recycling equipment manufacturer, unless the manufacturer's specifications are in conflict with the procedures approved by the U.S. Environmental Protection Agency for the certified refrigerant recovery or recycling equipment.
  - (D) Provide proof of certification for the recovery and recycling equipment from the U.S. Environmental Protection Agency to the Executive Officer upon request.

- (3) No person shall sell, supply, offer for sale or distribute any high global warming potential refrigerant for use as a refrigerant unless:
  - (A) The buyer is a certified technician; or
  - (B) The buyer is an authorized representative of a person employing at least one certified technician, and the buyer has provided evidence that at least one technician is properly certified; or
  - (C) The refrigerant is sold only for eventual resale to a certified technician, an employer of a certified technician, or an refrigeration system manufacturer; or the refrigerant is being sent for reclamation; or
  - (D) The refrigerant is contained in a refrigeration appliance.
- (4) No person shall sell, supply, offer for sale or distribute any high global warming potential refrigerant for use as a refrigerant unless such refrigerant is a Class I or Class II substance identified by section 602 of the federal Clean Air Act; or is an alternative that has been found acceptable under the SNAP program pursuant to Title 40 of the Code of Federal Regulations, Part 82, Subpart G, §82.170; or is approved by the Executive Officer for the specific refrigeration end-use in which it is being employed.
- (5) No person shall sell, offer for sale, supply, or distribute, any high-global warming refrigerant consisting wholly or in part of used refrigerant unless the refrigerant has been reclaimed by a certified reclaimer.
- (6) No person shall distribute or sell a refrigerant recovery or recycling equipment unless such equipment meets the levels of evacuation to be achieved by recovery or recycling equipment as specified in Title 40 of the Code of Federal Regulations, Part 82, §82.158.
- (7) No person reclaiming refrigerants shall release into the atmosphere more than 1.5 percent of the refrigerant received for reclamation.
- (8) No person shall recycle or dispose of a non-refillable cylinder unless the refrigerant from such cylinder has been evacuated to a vacuum of 15 inches of mercury, relative to standard atmospheric pressure of 29.9 inches of mercury.

- (9) No person shall refill a non-refillable cylinder or use it as a temporary receiver during service.
  - (10) No person shall repair or modify a non-refillable cylinder in any way that allows the non-refillable cylinder to be refilled.
- (f) Reporting
- (1) A person operating a refrigeration system with a full charge greater than or equal to 200 pounds of a high global warming potential refrigerant shall submit annually to CARB a Facility Stationary Refrigeration Report (Annual Report) that contains the information specified in paragraph (f)(2). Each Annual Report shall provide this information for the previous calendar year and shall be submitted as follows:
    - (A) By March 1, 2012, the owner or operator of a facility with a refrigeration system that begins operation before January 1, 2012, and with a full charge greater than or equal to 2,000 pounds of a high global warming potential refrigerant, shall submit an Annual Report for the 2011 calendar year. By March 1, 2013, and each calendar year thereafter, the owner or operator shall submit an Annual Report providing information for the previous calendar year.
    - (B) The owner or operator of a facility with a refrigeration system that begins operation on or after January 1, 2012, and with a full charge greater than or equal to 2,000 pounds of a high global warming potential refrigerant shall submit an Annual Report for the previous calendar year by March 1 of the year following commencement of operation. Subsequent Annual Reports for the previous calendar year shall be submitted by March 1 of each year thereafter.
    - (C) By March 1, 2014, the owner or operator of a facility with a refrigeration system that begins operation before January 1, 2014, and with a full charge greater than or equal to 200 pounds but less than 2,000 pounds of a high global warming potential refrigerant, shall submit an Annual Report for the 2013 calendar year. By March 1, 2015, and each calendar year thereafter, the owner or

operator shall submit an Annual Report providing information for the previous calendar year.

(D) The owner or operator of a facility with a refrigeration system that begins operation on or after January 1, 2014, and with a full charge greater than or equal to 200 pounds but less than 2,000 pounds of a high global warming potential refrigerant, shall submit an Annual Report for the previous calendar year by March 1 of the year following commencement of operation. Subsequent Annual Reports for the previous calendar year shall be submitted by March 1 of each year thereafter.

(2) The Annual Report required in paragraph (f)(1) shall include the following information:

(A) Refrigeration System

The following data shall be provided for each refrigeration system:

- (i) System identification number;
- (ii) Equipment type;
- (iii) Equipment manufacturer;
- (iv) Equipment model or description, model year, and serial number. The serial number(s) of the affected equipment or component must be recorded when present and accessible. When the affected equipment 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 equipment must be recorded in enough detail to permit positive identification;
- (v) Physical location of a refrigeration system through schematic or floor plan with equipment locations clearly noted;
- (vi) Temperature classification;
- (vii) Full charge of the refrigeration system, in pounds;
- (viii) Type of high global warming potential refrigerant used; and

(ix) Date of initial installation.

**(B) Refrigeration System Service and Leak Repair**

The following information shall be provided for each automatic leak detection system audit, leak inspection, and refrigeration system service or refrigerant leak repair that required an additional refrigerant charge of five pounds or more, or an additional refrigerant charge equal to or greater than one percent of the full charge, whichever amount is greater:

- (i) Date leak detected, if applicable;
- (ii) Date of service provided or leak repair completed;
- (iii) Cause of refrigerant leak, if applicable;
- (iv) Description of service provided or leak repair completed;
- (v) Date(s) of initial verification test(s), if applicable;
- (vi) Date(s) of follow-up verification test(s), if applicable;
- (vii) Total additional refrigerant charge (in pounds) of each type of high global warming potential refrigerant, if applicable;
- (viii) Purpose for additional refrigerant charge (leak repair, topping off, initial refrigerant charge, or seasonal adjustment), if applicable;
- (ix) Name of certified technician completing leak repair, if applicable; and
- (x) The certified technician's identification number and certification type issued by an approved technician certification program pursuant to Title 40 of the Code of Federal Regulation, Part 82, §82.161, if applicable.

**(C) Refrigerant Purchases and Use Information**

The following information shall be provided on refrigerant purchase and use:

- (i) The total weight in pounds of each type of high global warming potential refrigerant that was purchased during the calendar year;

- (ii) The total weight in pounds of each type of high global warming potential refrigerant that was charged into a refrigeration system during the calendar year;
  - (iii) The total weight in pounds of each type of high global warming potential refrigerant that was recovered from a refrigeration system during the calendar year;
  - (iv) The total weight in pounds of each type of high global warming potential refrigerant that was stored in inventory at the facility, or stored at a different location for use by the facility, on the last day of the calendar year; and
  - (v) The total weight in pounds of high global warming potential refrigerant that was shipped by the owner or operator for reclamation and destruction during the calendar year.
- (3) A person operating a refrigeration system with a full charge greater than 50 pounds but less than 200 pounds of a high global warming potential refrigerant is not required to submit annual reports. However, the owner or operator of such refrigeration system shall report the information specified in paragraph (f)(2) within 60 days of receipt of a request from CARB or the District.
- (4) By March 1, 2012, and every year thereafter, a refrigerant distributor or wholesaler shall submit an annual report to CARB providing information for the previous calendar year. The annual report shall cover all California facilities under the operational control of the refrigerant distributor or wholesaler, and shall include the following information:
- (A) Name and mailing address of the refrigerant distributor or wholesaler;
  - (B) Contact person name, phone number, and e-mail address for the refrigerant distributor or wholesaler;
  - (C) The total statewide annual aggregated weight in pounds of each type of high global warming potential refrigerant that was purchased or received for the purpose of subsequent resale or delivery for any purpose other than reclamation or destruction;

- (G) The total statewide annual aggregated weight in pounds of each type of high global warming potential refrigerant that was sold or distributed, excluding all sales to facilities outside of California or to a refrigerant distributor or wholesaler for eventual resale;
  - (H) The total statewide annual aggregated weight in pounds of high global warming potential refrigerant that was shipped to a certified reclaimer;
  - (I) Name of all refrigerant distributor or wholesaler facilities under the operational control of the refrigerant distributor or wholesaler;
  - (J) Address of each refrigerant distributor or wholesaler facility under the operational control of the refrigerant distributor or wholesaler; and
  - (K) Contact person name, phone number, and e-mail address for each refrigerant distributor or wholesaler facility under the operational control of the refrigerant distributor or wholesaler.
- (5) By March 1, 2012, and every year thereafter, a person reclaiming any high global warming potential refrigerant in California shall submit an annual report to CARB providing information for the previous calendar year. The annual report shall cover all California facilities under the operational control of the certified reclaimer, and shall include the following information:
- (A) Name and mailing address of the certified reclaimer;
  - (B) Contact person name, phone number, and e-mail address for the certified reclaimer;
  - (C) The total statewide annual aggregated weight in pounds of high global warming potential refrigerant that was received by the certified reclaimer for reclamation or destruction;
  - (D) The total statewide annual aggregated weight in pounds of each type of high global warming potential refrigerant that was reclaimed in California;

- (E) The total statewide annual aggregated weight in pounds of high global warming potential refrigerant that was shipped out of California for reclamation;
  - (F) The total statewide annual aggregated weight in pounds of high global warming potential refrigerant that was destroyed or shipped out of California for destruction;
  - (G) Name and address of all certified reclaimer facilities under the operational control of the certified reclaimer; and
  - (H) Contact person name, phone number, and e-mail address for each certified reclaimer facility under the operational control of the certified reclaimer.
- (g) Recordkeeping
- (1) Any person owning or operating any refrigeration system subject to this rule shall maintain records for each refrigeration system for a minimum of five years. The following records shall be kept at the facility where the refrigeration system is in operation, and shall be made available to the Executive Officer upon request:
    - (A) All registration information for the refrigeration systems;
    - (B) Documentation of all leak detection systems, leak inspections, annual audit and calibration of automatic leak detection system;
    - (C) Records of refrigeration system service and leak repairs, including documentation of any conditions allowing leak repair of more than 14 days after leak detection pursuant to subparagraphs (d)(3)(B) and (d)(3)(C);
    - (D) Any retrofit or retirement plans, or records on application for exemption submitted pursuant to paragraph (d)(4), if applicable;
    - (E) Name(s) of the person(s) who completed the inspection and repair, including the name, address, and telephone number of the company the person is representing, and technician certificate number;
    - (F) A log of the quantity of each additional high global warming refrigerant charged to the refrigeration system and the date of each charge;



- (G) The quantity (in pounds) of high-global warming refrigerants purchased or used in the District in a calendar year, including invoices of all refrigerant purchases;
  - (H) Annual Reports submitted pursuant to paragraph (f)(1);
  - (I) Records of all shipments of refrigerants for reclamation or destruction, which include the following information:
    - (i) Name and address of refrigerant shipment destination;
    - (ii) Weight in pounds of refrigerant shipped;
    - (iii) Date of shipment; and
    - (iv) Purpose of shipment, e.g. reclamation, destruction, etc.
  - (J) Records of all refrigeration systems component data, measurements, calculations and assumptions used to determine full charge.
- (2) A refrigerant distributor, wholesaler, or certified reclaimer shall maintain records for a minimum of five years. The following records shall be kept at the facility of each distributor, wholesaler, or certified reclaimer, and shall be made available to the Executive Officer upon request, as follows:
- (A) Annual reports submitted pursuant to paragraphs (f)(4) and (f)(5);
  - (B) Invoices of all high-global warming refrigerants received through sale or transfer and all high-global warming refrigerants distributed through sale or transfer. These invoices must indicate the name of the purchaser, the date of sale, and the quantity and the type of high-global warming refrigerant purchased, sold, or transferred;
  - (C) Documents required pursuant to subparagraph (e)(3)(B); and
  - (D) Records of all shipments of refrigerant received for reclamation.
- (3) Any person owning and operating a certified refrigerant recovery or recycling equipment shall maintain records to determine compliance with the requirements of paragraph (e)(2), which includes the following information:
- (A) Date of semi-annual inspection;

- (B) All work completed for each recycling or recovery system to prevent or repair leaks, including results of leak testing and leak determinations; and
- (C) Name(s) of the person(s) who completed the inspection and repair, including the name, address, and telephone number of the company the person is representing.

(h) Exemption

- (1) The provisions of this rule do not apply to tactical support equipment.
- (2) An owner or operator shall not pay fees as required in clause (d)(1)(F)(ii) for any calendar year if during the previous calendar year all of the refrigeration systems at the facility have been maintained using the following advanced strategies and practices to reduce refrigerant charges and emissions of ozone-depleting substances and greenhouse gases:
  - (A) The facility uses only refrigerants with zero ozone-depleting potential; and
  - (B) The facility uses only refrigerants found acceptable by the U.S EPA SNAP program pursuant to Title 40 of the Code of Federal Regulation, Part 82, Subpart G, §82.170 for the specific end use; and
  - (C) The facility achieves an average hydrofluorocarbon full charge equal to or less than 1.25 lbs. of refrigerant per 1000 Btu per hour total evaporator cooling load; and
  - (D) If the facility is not newly constructed, the facility achieves a facility-wide annual refrigerant leak rate, as defined in Title 40 of the Code of Federal Regulation, Part 82, §82.152, of 10% or less; and
  - (E) The owner or operator swears under penalty of perjury that the criteria specified in subparagraphs (h)(2)(A) thru (h)(2)(D) have been met.
- (2) The requirements in paragraphs (d)(3) and (d)(4) shall not apply to the following conditions:

- (A) During the time the refrigeration system is undergoing or is in system mothballing, as defined in subdivision (c), and until the refrigeration system resumes operation at a facility; or
- (B) The owner or operator of a refrigeration system has received an exemption from the Executive Officer pursuant to paragraph (d)(5); or
- (C) The owner or operator of a refrigeration system has submitted a request for an exemption and until a final determination is made by the Executive Officer pursuant to paragraph (d)(5).

Written records must be kept pursuant to subdivision (g) to document that the owner or the operator has requested or received an exemption.

- (3) The contractor's license requirements in subparagraph (e)(1)(B) shall not apply if one or more conditions apply:
  - (A) The refrigeration system service or refrigerant leak repair is performed by the facility owner or operator or its employees with wages as sole compensation; or
  - (B) The refrigeration system service or refrigerant leak repair is performed by the facility owner or operator through one undertaking or by one or more contracts, and the aggregate contract price for labor, materials, and all other items is less than five hundred dollars (\$500); or
  - (C) The refrigeration system service or refrigerant leak repair is performed pursuant to a contract entered into before January 1, 2011 by any political subdivision of the United States government, or the State of California, or by any incorporated town, city, county, irrigation district, reclamation district, or other municipal or political corporation.

(i) Violations

- (1) Each day or portion thereof that any leak inspection or leak repair is not completed after the date such leak inspection or leak repair is required to be completed, or each day or portion thereof that any registration, report, or plan required by this rule remains unsubmitted, is submitted late, or

contains incomplete or inaccurate information, shall constitute a single, separate violation of this rule.

- (2) Failure to pay the full amount of any fee required by this rule shall constitute a single, separate rule violation for each day or portion thereof that the fee has not been paid after the date the fee is due.

(j) Severability

If any provision of this rule is held by judicial order to be invalid, or inapplicable to any person or circumstance, such order shall not affect the validity of the remainder of this rule, or the validity or applicability of such provision to other persons or circumstances. In the event any of the exceptions to this rule is held by judicial order to be invalid, the persons or circumstances covered by the exception shall instead be required to comply with the remainder of this rule.