

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

(Adopted June 7, 1991)(Amended October 14, 1994)(Amended December 3, 2010)

RULE 1415. REDUCTION OF REFRIGERANT EMISSIONS FROM STATIONARY AIR CONDITIONING SYSTEMS

(a) Purpose

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

(b) Applicability

This rule is applicable to any person who owns or operates an air conditioning system, as defined in this rule. This rule is also applicable to any person who installs, repairs, maintains, services, relocates, or disposes of an air conditioning system; to any person who services or maintains recycling and recovery equipment; and to any person who recycles, recovers, reclaims, or sells high-global warming potential refrigerant.

(c) Definitions

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

- (1) **ADDITIONAL REFRIGERANT CHARGE** means the quantity, in pounds, of refrigerant added to an air conditioning system in order to bring the system to a full charge. Additional refrigerant charge does not include an initial refrigerant charge.
- (2) **AIR CONDITIONING SYSTEM** means any stationary, non-residential appliance, which holds more than 50 pounds of high global warming potential refrigerant, and provides cooling to a space to an intended temperature of not less than 68°F for the purpose of cooling objects or occupants. Computer-room air conditioner is included in this definition.
- (3) **AUDIT** means inspection and maintenance of an air conditioning system conducted to identify leaks and ensure proper operation pursuant to manufacturer's specification.

- (4) BUBBLE TEST means applying a soap solution or spraying on with an aerosol around a potential leak source, and observing for bubbles.
- (5) CERTIFIED RECLAIMER 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.
- (6) CERTIFIED REFRIGERANT RECOVERY OR RECYCLING EQUIPMENT 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.
- (7) CERTIFIED TECHNICIAN 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.
- (8) CHLOROFLUOROCARBON or CFC is a class of compounds primarily used as refrigerants, consisting of only chlorine, fluorine, and carbon.
- (9) COMPONENT is a part of an air conditioning system or appliance (including condensing units, compressors, condensers, evaporators, receivers) and all of its connections and subassemblies, without which the air conditioning system or appliance will not properly function or will be subject to failures.
- (10) DISPOSE is to discard refrigerant in any manner, except destruction by incineration or by a treatment method specifically approved by the U.S. Environmental Protection Agency for handling such refrigerant without releasing it to the atmosphere.
- (11) 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 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.

- (12) HIGH GLOBAL WARMING POTENTIAL REFRIGERANT means 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
- (13) HYDROCHLOROFLUOROCARBON or HCFC is a class of compounds primarily used as refrigerants, consisting of only hydrogen, chlorine, fluorine, and carbon.
- (14) HYDROFLUOROCARBON or HFC is a class of compounds primarily used as refrigerants, consisting of only hydrogen, fluorine, and carbon.
- (15) PERFLUOROCARBON or PFC is a class of compounds consisting only of carbon and fluorine.
- (16) PERSON is any individual, firm, association, organization, partnership, business trust, corporation, company, contractor, supplier, installer, user or owner, or any state or local government 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.
- (17) RECLAIM 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.

- (18) RECOVER 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.
- (19) RECYCLE 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.
- (20) REFRIGERANT LEAK is any discharge of refrigerant into the atmosphere from an air conditioning system, refrigerant recovery or recycling equipment, refrigerant cylinder, or other container.
- (21) SELF-CONTAINED RECOVERY EQUIPMENT is any refrigerant recovery equipment that is capable of removing the refrigerant from an air conditioning system without the assistance of components contained in the air conditioning system.

(d) Requirements

- (1) A person shall not operate an air conditioning system subject to this rule unless all of the following requirements are met:
 - (A) A Registration Plan for the entire facility is submitted to the Executive Officer at start of operation, and every two years thereafter. 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 air conditioning systems in operation;
 - (v) manufacturer name, model and serial number for each of the air conditioning systems;
 - (vi) type of refrigerant in each air conditioning system;
 - (vii) full charge of refrigerant in each air conditioning system, in pounds;

- (viii) date of last audit and/or maintenance performed for each air conditioning system; and
 - (ix) amount of additional refrigerant charge every year for each system, in pounds.
- (B) The owner or operator shall conduct an audit of the air conditioning system no later than one year after beginning operation, and every year thereafter, 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 include the following:
- (i) A leak inspection using one or more of the following methods:
 - (I) Refrigerant leak detection device used in accordance with the manufacturer's specifications;
 - (II) A bubble test;
 - (III) Observation of oil residue; or
 - (IV) An alternate method approved by the Executive Officer.
 - (ii) A determination of the amount of refrigerant leak for each air conditioning system by recording the total capacity of refrigerant charge in each air conditioning system, the quantity of any additional refrigerant charge for each air conditioning system, and the date of each charge. The quantity of additional refrigerant charge shall be determined by weighing the refrigerant charging container before and after each charge, using equipment that is accurate to the nearest pound.
 - (iii) An examination for deficiencies which may cause refrigerant leakage.
- (2) Any person who owns or operates an air conditioning 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 or should have been

discovered. 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 air conditioning system shall be verified by a certified technician to be leak free before any refrigerant is added to the system.

- (3) The owner or operator of an air conditioning system has 45 days after initial leak detection to repair a refrigerant leak if one or more of the following conditions exist:
 - (A) 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
 - (B) 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 air conditioning system or component manufacturer or distributor shall be obtained.
- (4) No person shall install, service, repair, modify, or dispose of any air conditioning system that may cause the release of high-global warming potential refrigerants unless that person meets all of the following 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) Recovers, recycles, or reclaims the refrigerant, using certified refrigerant recovery or recycling equipment for that type of air conditioning unit, and employs procedures for which the certified refrigerant recovery or recycling equipment was approved by the U.S. Environmental Protection Agency. Such equipment shall be 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. Refrigerant may be returned to

the air conditioning system from which it is recovered, or to another air conditioning system owned by the same person, without being recycled or reclaimed.

- (C) Satisfies job site evacuation of high global warming potential refrigerants during recycling, recovering, reclaiming, or disposing 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 in Part 82, Subpart F, §§82.156 and 82.158, and Part 82, Subpart B of Title 40 of the Code of Federal Regulations, are followed.
- (D) Has at least one piece of certified, self-contained recovery equipment available at their place of business.
- (E) Any person who owns or operates a certified refrigerant recovery or recycling equipment:
 - (i) Shall not operate any certified refrigerant recycling or recovering equipment, except for the maintenance or repair of such equipment, unless the equipment has been tested for and been determined to have no leaks within the past six months as determined by a method approved by the Executive Officer. Leaks in recycling, recovering, or charging equipment shall be repaired within 2 working days after the leak is first detected, unless its use is promptly discontinued and the equipment does not leak after its use is discontinued;
 - (ii) Shall 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 equipment so altered shall not be considered certified, and shall not be used; and

- (iii) Shall provide proof of certification for the recovery and recycling equipment from the U.S. Environmental Protection Agency to the Executive Officer upon request.
- (5) No person shall sell, distribute, offer for sale or distribution any high-global warming potential refrigerant for use as a refrigerant to any person unless:
- (A) The buyer is a certified technician pursuant to Part 82 of Title 40 of the Code of Federal Regulations; 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 certified technicians or to air conditioning system manufacturers; or
 - (D) The refrigerant is contained in an air conditioning system.
- (6) 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.
- (7) No person reclaiming refrigerants shall release into the atmosphere more than 1.5 percent of the refrigerant received for reclamation.
- (e) Recordkeeping
- (1) Any person owning or operating any air conditioning system is required to maintain the following records for each air conditioning system:
 - (A) Documents demonstrating compliance with paragraphs (d)(1) and (d)(2), which includes the following information:
 - (i) Date of annual audit;

- (ii) All work completed for each air conditioning system to prevent or repair leaks, including results of leak testing and leak determinations;
 - (iii) Name(s) of the person who completed the inspection and repair, including the name, address, and telephone number of the company the person is representing;
 - (iv) The log of repair activities; and
 - (v) Technician certificate number.
 - (B) A log of the quantity of each additional refrigerant charged to the air conditioning system and the date of each charge.
 - (C) A log of malfunctions of the air conditioning system, other than that determined in paragraphs (d)(1) and (d)(2), including the following:
 - (i) The cause of the malfunction; and
 - (ii) The type of repairs required and the date the repairs were completed.
 - (D) If refrigerant is recycled off-site, a transportation bill-of-lading (or other transportation document as approved by the Executive Officer) indicating the name and location of the facility from which the refrigerant is shipped, the quantity of refrigerant transported, destination (company name, phone number, and location) and date of transportation.
 - (E) The quantity (in pounds) of high-global warming refrigerants purchased or used in the District in a calendar year and the name and address of the refrigerant supplier.
- (2) Any person who receives refrigerant for recycling or reclaiming from off-site locations shall maintain copies of all transportation documents as required in subparagraph (e)(1)(D) for each shipment of refrigerant received.
 - (3) Records and reports required under subparagraphs (e)(1)(A), (e)(1)(B), and (e)(1)(C) shall be generated by a certified technician. Annual audits and

maintenance records shall be in a format approved in writing by the Executive Officer.

- (4) All persons who sell or distribute any high-global warming refrigerant shall retain invoices, pursuant to paragraph (e)(9), that indicate the name of the purchaser, the date of sale, and the quantity of refrigerant purchased.
- (5) A refrigerant distributor or wholesaler selling high-global warming potential refrigerant to a purchaser who employs a certified technician shall obtain written documentation that the purchaser employs at least one certified technician. The distributor or wholesaler shall keep this information on file for a minimum of five years.
- (6) Reclaimers shall maintain records of the names and addresses of persons sending them material for reclamation and the quantity of the material (the combined mass in pounds of refrigerant and contaminants) sent to them for reclamation.
- (7) Reclaimers shall maintain records of the quantity of material sent to them for reclamation, the mass in pounds of refrigerant reclaimed, and the mass in pounds of waste product.
- (8) Any person owning and operating a certified refrigerant recovery or recycling equipment shall maintain records to determine compliance with clause (d)(4)(E)(i), 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 who completed the inspection and repair, including the name, address, and telephone number of the company the person is representing.
- (9) Records and reports as required under paragraphs (e)(1), (e)(2), (e)(4), (e)(5), (e)(6), (e)(7), and (e)(8) shall be maintained for a minimum of 5 years, shall be kept at the facility where the air conditioning system is in operation, and shall be made available to the Executive Officer upon request.