



Colorado Air Pollution Control Division

Colorado Department
of Public Health
and Environment

INFORMATION SHEET FOR REGISTRATION OF AIR CONDITIONING AND REFRIGERATION SYSTEMS

Certain air conditioning and refrigeration systems which use Ozone Depleting Compounds (ODCs) as a refrigerant are required to be registered with the State of Colorado, (25-7-105(11)(h), C.R.S). There are two (2) types of registrations which are required.

- (1) Registration of all air conditioning or industrial processes which have an individual or combined system compressor horsepower of one hundred (100) horsepower or greater and;
- (2) Registration of all commercial refrigeration systems used to refrigerate foods for human consumption and have three hundred (300) pounds of product refrigerants in use.

Registration is due within thirty days of installation for any new or existing appliance or ownership of an appliance.

After the equipment becomes registered, equipment owners/operators are required to keep records of refrigerant usage on site and such record shall be available for inspection. An annual registration fee is assessed for each site and renewal is required July 1 of each year. A state registration decal will be issued for each registered system and owners/operators should indicate the following information on the decal: 1) the type of refrigerant used, 2) the amount of refrigerant in the system, and 3) a system identification number. The system identification number is any identification number(s) that can identify the system and distinguish that system from other systems.

In order to determine if your equipment must be registered, answer the following questions:

Question #1 applies to all refrigeration and air conditioning systems **EXCEPT** those used in the refrigerated food industry.

1) For all air conditioning or refrigeration equipment, is **the individual or combined system compressor motor horsepower 100 HP or greater?** If yes, registration was required by the following dates:

500 HP and greater -----> Nov. 15, 1993
350 HP ---> 499 HP -----> Jan. 1, 1994
200 HP ---> 349 HP -----> July 1, 1994
100 HP ---> 199 HP -----> Jan. 1, 1995

NOTE: For registration purposes, systems or appliances shall include (1) all necessary hardware (compressors, condensers, evaporators and condensing units) connected by refrigerant piping, and (2) all hardware required as designed, to make the system operate. All configurations may be considered a system if connected by a common evaporator, condenser or air handling unit. Typically, registration for multiple compressor systems occur in the 60 to 80 ton range and greater. Where possible, use input motor electrical data to calculate horsepower ratings (from system name plate), as the threshold for registration is not based on output in horsepower or refrigeration tonnage. To calculate horsepower, see attachment "A".

Question #2 applies **ONLY** to the refrigerated food industry.

2) For all refrigerated food facilities, **are the total pounds of product refrigerants in use at the site 300 pounds or greater?** If yes, registration was required by **November 15, 1993 for all retail food facilities and by July 30, 1998 for all other refrigerated food facilities which sell food for human consumption.** For determining the total pounds of product refrigerants at the site, exclude all refrigeration applications which have **less than 3 compressor horsepower** in the total calculation. In addition, 300 pounds of refrigerants should only include those systems which are used for product refrigeration. If air conditioning and product refrigeration systems are physically connected, add all refrigerant charges.

INSTRUCTIONS FOR COMPLETING INITIAL REGISTRATION

Initial registration information will only be required the first time equipment becomes registered, unless changes occur in the operational characteristics of the registered equipment. Some examples of changes could be a conversion to a different refrigerant or recalculation of the equipment's refrigerant charge.

The "Initial Registration" includes: (1) facility information form and (2) equipment information form. **All information must be completed on each form for each piece of equipment in order to qualify for initial registration.** The type of refrigerant(s) must be indicated and the total pounds (lbs.) of refrigerants being stored on site and being used in the registered system(s) must be provided. The total pounds in the registered system(s) can be estimated or referenced from the manufacturer's recommended charge.

Please use the correct forms for initial registration. All sources use the same facility information form, however; equipment information forms are different for the two types of registrations.

After the initial registration information and fees are received, the initial information will be reviewed and the State Registration Decal(s) will be mailed back to the facility. Facilities which meet the requirements of registration are required to submit fees on an annual basis. The facility will be invoiced for registration fees due November 1 of each year and will receive an analysis of the fee structure and how it was applied to each facility. Registration fees range from \$29 to a maximum of \$300, depending on the size of the facility and the number of refrigeration systems at the site.

The State Registration Decals should be posted in a visible place on each corresponding appliance/system. **Do not place decals on any surface that is exposed to heat or weather.**

**TO OBTAIN REGISTRATION FORMS AND ADDITIONAL INFORMATION
PLEASE CALL (303) 692-3200**

INITIAL REGISTRATION FOR ALL AIR CONDITIONING AND REFRIGERATION SYSTEMS

FACILITY INFORMATION

Date: _____

Facility Name: _____

County in which Facility is located: _____

Mailing Address

Site Address

_____	_____
_____	_____
_____	_____
_____	_____

Authorized Agent: ⁽¹⁾ _____

Phone: _____

Title: _____

Contact Person: _____

Phone: _____

Title: _____

Total number of registered systems at site: _____

Total pounds of additional refrigerant(s) stored at site: _____

**FOR INITIAL REGISTRATION, PLEASE MAIL: 1) FACILITY INFORMATION form(s),
2) EQUIPMENT INFORMATION form(s) to:**

**Mailing Address: COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
APCD-IEP-B1-CFC PROGRAM
4300 CHERRY CREEK DR. SOUTH
DENVER, COLORADO 80246-1530**

Or Fax To: 303-782-0278

NOTE: After initial registration(s) are received, facilities will be billed for fees.

(1) An authorized agent is a person within an organization who ultimately accepts the legal responsibilities for providing and verifying information.

RETURN THIS INFORMATION FOR INITIAL REGISTRATION

**INITIAL REGISTRATION FOR STATIONARY A/C EQUIPMENT
(only)
A/C EQUIPMENT INFORMATION**

Facility Name: _____

Site Address (include building no.): _____

System Manufacturer: _____

Model Number: _____

Serial Number: _____

Number of Compressors: _____ Refrigerant type: _____

Input Electrical Data (from unit name plate):

Compressor(s) Voltage: _____ Compressor(s) Amperage (RLA or FLA): _____
(each)

System Horsepower Rating (calculated from input electrical data): _____ (see attachment
"A")

Total Pounds of Refrigerant in Registered System: _____ lbs.

Date Installed (Include Month & Year): _____

System Manufacturer: _____

Model Number: _____

Serial Number: _____

Number of Compressors: _____ Refrigerant type: _____

Input Electrical Data (from unit name plate):

Compressor(s) Voltage: _____ Compressor(s) Amperage (RLA or FLA): _____
(each)

System Horsepower Rating (calculated from input electrical data): _____ (see attachment
"A")

Total Pounds of Refrigerant in Registered System: _____ lbs.

Date Installed (Include Month & Year): _____

RETURN THIS INFORMATION FOR INITIAL REGISTRATION
Please copy this form if additional copies are needed.

INITIAL REGISTRATION FOR STATIONARY A/C EQUIPMENT
(only)
A/C EQUIPMENT INFORMATION

Facility Name: _____

Site Address (include building no.): _____

System Manufacturer: _____

Model Number: _____

Serial Number: _____

Number of Compressors: _____ Refrigerant type: _____

Input Electrical Data (from unit name plate):

Compressor(s) Voltage: _____ Compressor(s) Amperage (RLA or FLA): _____
(each)

System Horsepower Rating (calculated from input electrical data): _____ (see attachment
"A")

Total Pounds of Refrigerant in Registered System: _____ lbs.

Date Installed (Include Month & Year): _____

System Manufacturer: _____

Model Number: _____

Serial Number: _____

Number of Compressors: _____ Refrigerant type: _____

Input Electrical Data (from unit name plate):

Compressor(s) Voltage: _____ Compressor(s) Amperage (RLA or FLA): _____
(each)

System Horsepower Rating (calculated from input electrical data): _____ (see attachment
"A")

Total Pounds of Refrigerant in Registered System: _____ lbs.

Date Installed (Include Month & Year): _____

RETURN THIS INFORMATION FOR INITIAL REGISTRATION
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**INITIAL REGISTRATION FOR
REFRIGERATED FOOD EQUIPMENT
(only)**

EQUIPMENT INFORMATION

Date Installed (Include Month & Year): _____

Facility Name: _____

SYSTEM 1

Manufacturer: _____ Model Number: _____ Refrigerant Type: _____

Total pounds of refrigerant in registered system: _____ lbs.

SYSTEM 2

Manufacturer: _____ Model Number: _____ Refrigerant Type: _____

Total pounds of refrigerant in registered system: _____ lbs.

SYSTEM 3

Manufacturer: _____ Model Number: _____ Refrigerant Type: _____

Total pounds of refrigerant in registered system: _____ lbs.

SYSTEM 4

Manufacturer: _____ Model Number: _____ Refrigerant Type: _____

Total pounds of refrigerant in registered system: _____ lbs.

SYSTEM 5

Manufacturer: _____ Model Number: _____ Refrigerant Type: _____

Total pounds of refrigerant in registered system: _____ lbs.

SYSTEM 6

Manufacturer: _____ Model Number: _____ Refrigerant Type: _____

Total pounds of refrigerant in registered system: _____ lbs.

SYSTEM 7

Manufacturer: _____ Model Number: _____ Refrigerant Type: _____

Total pounds of refrigerant in registered system: _____ lbs.

SYSTEM 8

Manufacturer: _____ Model Number: _____ Refrigerant Type: _____

Total pounds of refrigerant in registered system: _____ lbs.

RETURN THIS INFORMATION FOR INITIAL REGISTRATION
Please copy this form if additional copies are needed

**INITIAL REGISTRATION FOR
REFRIGERATED FOOD EQUIPMENT
(only)**

EQUIPMENT INFORMATION

Date Installed (Include Month & Year): _____

Facility Name: _____

SYSTEM 9

Manufacturer: _____ Model Number: _____ Refrigerant Type: _____

Total pounds of refrigerant in registered system: _____ lbs.

SYSTEM 10

Manufacturer: _____ Model Number: _____ Refrigerant Type: _____

Total pounds of refrigerant in registered system: _____ lbs.

SYSTEM 11

Manufacturer: _____ Model Number: _____ Refrigerant Type: _____

Total pounds of refrigerant in registered system: _____ lbs.

SYSTEM 12

Manufacturer: _____ Model Number: _____ Refrigerant Type: _____

Total pounds of refrigerant in registered system: _____ lbs.

SYSTEM 13

Manufacturer: _____ Model Number: _____ Refrigerant Type: _____

Total pounds of refrigerant in registered system: _____ lbs.

SYSTEM 14

Manufacturer: _____ Model Number: _____ Refrigerant Type: _____

Total pounds of refrigerant in registered system: _____ lbs.

SYSTEM 15

Manufacturer: _____ Model Number: _____ Refrigerant Type: _____

Total pounds of refrigerant in registered system: _____ lbs.

SYSTEM 16

Manufacturer: _____ Model Number: _____ Refrigerant Type: _____

Total pounds of refrigerant in registered system: _____ lbs.

RETURN THIS INFORMATION FOR INITIAL REGISTRATION
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ATTACHMENT "A"

FORMULA FOR DETERMINING HORSEPOWER

(III phase A.C. electrical)

$$\frac{\mathbf{A} \times \mathbf{V} \times \mathbf{1.73} \times \mathbf{.85}}{\mathbf{746}} = \mathbf{HP}$$

Where,

- A =** R.L.A. or F.L.A. Amperage, (**R**ated **L**oad **A**mps or **F**ull **L**oad **A**mps)
- V =** Volts, (III Phase), use voltage listed on mfg nameplate. If given as a range (208-230), use the larger number.
- 1.73 =** Constant, III phase electrical
- .85 =** % Efficiency (power factor + motor efficiency)
- 746 =** Conversion Factor
- HP =** Horsepower