



# CHILLER EMISSIONS PROGRAM

Region 8 Sustainability & Environmental Management System

## 1.0 Purpose & Scope

The GSA Chiller Emissions Program is designed to help ensure chillers are not leaking refrigerant; therefore reducing air pollution. The program will ensure compliance with Federal, State, local and GSA requirements.

## 2.0 Activities & Departments Affected

- Contracting – responsible for issuing the O&M contract.
- Property Management – responsible for overseeing the O&M contractor.
- Designated CFC Manager responsible for ensuring state permit fees are paid on time and reporting releases to the state & EPA.

## 3.0 Exclusions

None

## 4.0 Forms Used & Permits Required: (include reporting requirements)

### Federal and State Forms and Permits:

PERMIT / FORM / REPORT	SUBMITTED TO: FEDERAL OR STATE AGENCY	SUBMITTAL FREQUENCY
Colorado <sup>(1)</sup> : "Registration form for Air Conditioning and Refrigeration Systems"	Colorado Department of Public Health and Environment; APCD-SS-B1-CFC Program	Upon Registration and yearly
Montana: " Application for Mechanical Permit "	Exempt <sup>(2)</sup> :	Not Applicable

(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;.

(2) Montana lists a permit requirement, through the Montana Department of Labor and Industry, Mechanical Safety Section for repair or alteration of or addition to heating appliance, refrigeration unit, cooling unit, absorption unit or heating, cooling, absorption or evaporative cooling system, including controls. The purpose of the permit is for a State inspection and approval; therefore, GSA is exempt from the inspection, for it is the responsibility of the GSA Project Manager to conduct the inspection.

There are no Federal permit requirements; neither are there any permits or reporting requirements for the states of, Montana, North Dakota, South Dakota, Utah, and Wyoming.

### In-house GSA Region 8 and Contractor Forms:

- Refrigerant Inventory and Usage Log Form. These logs are maintained and stored by the O&M contractor.



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## 5.0 Acronyms, Abbreviations, and Definitions

Acronyms	Meaning
CFC	Chlorofluorocarbons
CO	Contracting Officer
COR	Contracting Officers Representative
EPA	Environmental Protection Agency
O&M	Operations and Maintenance
PM	Preventative Maintenance
SC	Service Center

### Definitions:

Chiller: Air conditioning system

Refrigerant: Substance used in refrigerating mechanism.

## 6.0 Procedure

**State Specific Procedures & Requirements** [refer to individual State Legal Reviews for details on Statues, Laws, and Rules]:

STATE	REQUIREMENTS / PROCEDURES
Colorado	Colorado's Chlorofluorocarbon Program's mission is to reduce emissions of ozone depleting compounds, chlorofluorocarbons and hydrofluorocarbons through an inspection and compliance program. The program is self-supporting through fees and it regulates all air conditioning and refrigeration sources throughout the state of Colorado. <a href="#">Air Quality Control Regulation No. 15, "Regulation to Control Emissions of Ozone Depleting Compounds,"</a> details the program's requirements for businesses and individuals utilizing ozone depleting compounds.
Montana	No person shall cause or contribute to concentrations of ozone in the ambient air which exceed the following standard (a) hourly average: 0.10 ppm one-hour average, not to be exceeded more than once per year. Contact local authorities to properly dispose of refrigeration or air conditioning equipment.
North Dakota	North Dakota Department of Health, Division of Waste Management: <a href="#">Guideline 15</a> - Recycling Metal Appliances And Other Scrap Metal, Section II. II. Venting of Refrigerants is Prohibited. The EPA has regulations addressing the venting of chlorofluorocarbons (CFCs), Freon, or other refrigerants from scrap refrigerators, freezers and air conditioning units.
South Dakota	Air conditioning and refrigeration equipment. Equipment containing ozone-depleting compounds must be emptied of the ozone-depleting compounds in compliance with Pub. L. No. 101-549 (U.S. Clean Air Act) before disposal.
Utah	Utah is in attainment to the federal ozone standard. Utah references: <a href="#">Title 40: Protection of Environment, Part 82 - Protection of Stratospheric Ozone, Subpart F - Recycling and Emissions Reduction</a>
Wyoming	Used chlorofluorocarbon refrigerants from totally enclosed heat transfer equipment (i.e., commercial and industrial air conditioning and refrigeration



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STATE	REQUIREMENTS / PROCEDURES
	systems) that is use as the heat transfer fluid in a refrigeration cycle, is not a hazardous waste, provided the refrigerant is reclaimed for further use.

### Standardized Procedure:

- 6.0 Responsible parties will comply with all federal regulations and where applicable state regulations and local ordinances. Where required obtain permits and comply with reporting requirements.
- 6.1 The Industrial Hygienist (IH) will review state-specific chiller registration requirements. Ensure that yearly fees are paid, if necessary.
- 6.2 Refrigerant Inventory and Usage Logs will be kept by the O&M Contractor for each building as a permanent record after each test. The Contracting Officer's Representative (COR) will give an additional copy to the Region 8 CFC Manager annually.
- 6.3 The Property Manager or COR will hire licensed chiller Contractors as needed to perform testing. The Fire Protection Engineer will verify that the Contractors are licensed. Refer to the O&M contract for the chiller equipment inventory, frequency of inspection, and the GSA PM Guides.
- 6.4 The Contractor will leak test all chillers and calibrate the refrigerant monitor once a year to ensure they are operating according to the manufacturers' specifications. The date of testing and any refrigerant added or lost will be recorded on the Refrigerant Inventory Usage Log.
- 6.9 The O&M Contractor will provide a copy of the Refrigerant Inventory and Usage Log to the COR annually or whenever a release or other problem occurs.
- 6.9 The Fire Protection Engineer will review the Refrigerant Inventory and Usage Logs during the management analysis review system (MARS).

### 7.0 Records Management

#### Refrigerant Inventory and Usage Log

- Gains and losses of refrigerant record (Contractor)
- Date unit was leak tested record (Contractor)

Date refrigerant monitor is checked for malfunctions (Contractor)

Employee training and certification records (maintained by O&M Contractor).



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### 8.0 References

U.S. Environmental Protection Agency [Administering Agency]; Clean Air Act (CAA); 42 U.S.C. § 7401 et seq. [Statute]; 40 CFR 50-88 [Regulation]; Part 82, Protection of the Stratospheric Ozone

O&M contract – Each O&M contractor has a separate contract. Contact the building’s Property Manager to examine the contract for the chiller in question.

### 9.0 Appendices

Attachment A: GSA Region 8 SEMS Chiller Emissions Program Flowchart

Attachment B: Refrigerant Inventory and Usage Log [Form]

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03/16/2006	Original Release	Tom Record, Harvey Wong, Jack Pontinen
01/29/2010	Add ISO 14001 Document Controls, state regulations, Flowchart, outline Region 8 requirements, and evaluate new regulations.	Robert Melvin
03/17/2010	Updated Procedure	Tom Record
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## ATTACHMENT A: GSA Region 8 SEMS Chiller Emissions Program Flowchart



