 Albemarle County Public Schools			Subject: Ozone Depleting Substances (ODS) Management SOP		
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1.0 PURPOSE

This Standard Operating Procedure (SOP) outlines the work instructions for managing ozone depleting substances (ODS) in accordance with Federal environmental regulations (40 CFR Part 82) for Albemarle County Public Schools. ODS, including refrigerants, can be extremely harmful to the stratospheric ozone layer of the atmosphere, therefore MUST be managed according to the regulations.


2.0 RESPONSIBILITY

- 2.1 **Environmental Compliance Manager** – Responsible for maintaining required inventory of equipment, conducting leak rate calculations when necessary, maintaining required records of technician certification, equipment certification, keeping copies of monthly-submitted Tracking & Inventory Form (F-SOP-ODS-01 - attached), and training any affected/new employees on this SOP. Also responsible for monitoring updates and changes in regulations concerning refrigerants.
- 2.2 **HVAC Mechanic Foreman** – Responsible for ensuring Tracking & Inventory Forms are submitted monthly to Environmental Manager and communicating any major issues (e.g. refrigerant release) to the Environmental Manager. Also responsible for assisting with training employees on this SOP.
- 2.3 **Certified Refrigerant Technicians** – Responsible for following all that is included in this procedure, for completely and accurately filling out tracking & use form every time refrigerant is added or evacuated to/from equipment, and for turning these forms into the Environmental Manager in a timely manner.
- 2.4 **Inventory Technician** - Responsible for maintaining inventory of refrigerants that are kept in the Building Services stock room.

3.0 PROCEDURES

3.1 When Repairing ANY ODS-using equipment:


- Fill out **Tracking & Inventory Form** (Attachment 2) completely when adding ANY amount of refrigerant to ANY piece of equipment, and hand this form into the **Environmental Manager on the last day of each month**. You will receive a **Work Order each month to do so**.

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- Indicate on this form if the equipment being serviced contains over **50 lbs of charge** of refrigerant. This is critical, as the **Environmental Manager must calculate the leak rate** of the appliance based on this information, every time this equipment is serviced.

3.2 General Procedures

- All refrigerant purchases **must be documented**. All invoices must be obtained from ALL CONTRACTORS who add ANY refrigerant to ANY machine, or who provide refrigerant for Albemarle County Public Schools personnel to use. The contractor must provide what type and the amount of refrigerant added to which machine. This information should be indicated on the **Contractor/Vendor Use Form** (Attachment 3).
- **A *copy* of all invoices of any refrigerant purchased by Albemarle County Public Schools or received from/used by a contractor or vendor, should be attached to the Tracking & Inventory form to be submitted to the Environmental Manager monthly. Original invoices can be given to the Senior Account Clerk in Building Services.**
- Only **EPA-certified technicians** are allowed to service or repair refrigeration and air conditioning equipment. A database of all properly certified technicians, including a copy of each certificate, is maintained by the Environmental Manager.
- Venting of **ANY refrigerants** into the atmosphere while performing preventative maintenance, servicing, oil changes, repairing or disposing of air-conditioning and refrigeration equipment is **PROHIBITED**.
- When any unit is opened for maintenance, the technician must evacuate the refrigerant in either the entire unit or the part being serviced to a receiver within the system, or to a recovery or recycling machine. **The technician must evacuate the refrigerant to the levels noted in Attachment 1.** If the oil is being changed, the unit must be evacuated or pressurized to a pressure of no higher than 5 psig before it is opened. The system should not be vented to the atmosphere during an oil change or any other type of repair.
- Ozone-depleting substances (ODS, Refrigerants) from all equipment, regardless of size, **MUST BE** recovered prior to equipment disposal. "Disposal" in this case means sending the unneeded equipment anywhere off-site where it will no longer be used by Albemarle County Public Schools. All of this equipment must be evacuated to the EPA-prescribed level in Attachment 1. Reclaimed refrigerant should be reflected on the monthly inventory tracking & use form for that Refrigerant.

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ATTACHMENT 1

REQUIRED LEVELS OF EVACUATION FOR APPLIANCES
EXCEPT FOR SMALL APPLIANCES, MVACS, AND MVAC-LIKE APPLIANCES
Inches of Mercury Vacuum* Using Equipment

Type of Appliance	Manufactured Before Nov. 15, 1993	Manufactured On or After Nov. 15, 1993
HCFC-22 appliance** normally containing less than 200 pounds of Refrigerant	0	0
HCFC-22 appliance** normally containing 200 pounds or more of refrigerant	4	10
Other high-pressure appliance** normally containing less than 200 pounds of refrigerant (CFC-12, R-500, R-502, CFC-114)	4	10
Other high-pressure appliance** normally containing 200 pounds or more of refrigerant (CFC-12, R-500, R-502, CFC-114)	4	15
Very High Pressure Appliance (CFC-13, -503)	0	0
Low-Pressure Appliance (CFC-11, HCFC-123)	25	25

* Relative to standard atmospheric pressure of 29.9" Hg

** Or isolated component of such an appliance

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ATTACHMENT 3

CONTRACTOR / VENDOR REFRIGERANT USE FORM

Use the following table to indicate when:

- 1) Any refrigerant is used in any Albemarle County Public Schools equipment by a contractor
- 2) Or, in the case of an Emergency, when refrigerant is purchased from a vendor, rather than checked out of the Building Services stock room.

Amount Used from Contractor / Vendor – Always get receipt and attach to this form

Amount*	Date	Where Used (be specific!)	Is Machine > 50 lbs charge?	Work Order #	Leak repaired? (Y/N)	Date Repaired