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FORT CARSON REFRIGERANT COMPLIANCE PLAN
FORT CARSON, COLORADO
DECEMBER 2015

Directorate of Public Works
FORT CARSON, COLORADO

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List of Acronyms – (some acronyms appear in the appendices)

°C	Degrees Celsius
°F	Degrees Fahrenheit
AAFES	Army-Air Force Exchange Service
AC	Air Conditioning
AC&R	Air Conditioning and Refrigeration
ACSIM	Assistant Chief of Staff for Installation Management
AHRI	Air-Conditioning, Heating & Refrigeration Institute
ANSI	American National Standards Institute
AOAP	Army Oil Analysis Program
APCD	Air Pollution Control Division
AQCC	Air Quality Control Commission
BMP	Best Management Practice
CAA	Clean Air Act
CCl4	Carbon tetrachloride
CCR	Code of Colorado Regulations
CDPHE	Colorado Department of Public Health and Environment
CFC	Chlorofluorocarbon
CFC-12	Dichlorodifluoromethane
CFR	Code of Federal Regulations
COANR	Colorado Army National Reserve
DA	Department of the Army
DDRV	Defense Depot Richmond Virginia
DeCA	Defense Commissary Agency
DLA	Defense Logistics Agency
DoD	Department of Defense
DoDAAC	Department of Defense Activity Address Code
DOL	Directorate of Logistics
DOT	Department of Transportation
DPW	Directorate of Public Works
DPW-ED	Directorate of Public Works, Environmental Division
DRMO	Defense Reutilization and Marketing Office
DSCR	Defense Supply Center Richmond
EACH	Evans Army Community Hospital

ECAT	Environmental Compliance Assessment Team
EO	Executive Order
EPA	U.S. Environmental Protection Agency
EPO	Environmental Protection Officer
ESO ASA(ALT)	Environmental Support Office, Assistant Secretary of the Army for Acquisition, Logistics and Technology
FTC	Fort Carson
GHG	Greenhouse Gas
HazMat	Hazardous Material
HBFC	Hydrobromofluorocarbon
HCFC	Hydrochlorofluorocarbon
HFC	Hydrofluorocarbon
Hg	Mercury
HMMC	Hazardous Materials Management Center
Hp	Horsepower
ID	Identification
MOU	Memorandum of Understanding
MVAC	Motor Vehicle Air Conditioner
ODC	Ozone-depleting Chemical
ODP	Ozone-depleting Potential
ODS	Ozone-depleting Substance
PFC	Perfluorocarbon
Plan	Fort Carson Refrigerant / ODC Compliance Plan
POC	Point of Contact
psia	pound per square inch, absolute
psig	pounds per square inch, gauge
R	Refrigerant
RML	Refrigerant Management Log
SNAP	Significant New Alternatives Policy
UL	Underwriters Laboratories, Inc.
URSL	Universal Refrigerant Service Log

Questions & Comments about Fort Carson Refrigerant /ODC Compliance Plan?

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1.0 INTRODUCTION

1.1 Policy Statement

The Department of Defense (DoD) and the Department of the Army (DA) have implemented sustainable guidelines for the elimination of Army Wide Ozone Depleting Chemical (ODC) dependence (see Appendix A for specific DoD guidance documents). It is the strict policy of Fort Carson to comply with all laws enacted for the protection of human health and environment with respect to the handling and management of ODCs and refrigerants.

1.2 Purpose and Scope

This document outlines U.S. Environmental Protection Agency (EPA) requirements for the Protection of Stratospheric Ozone, Colorado Department of Public Health and Environment (CDPHE) Air Quality Control Regulation 15, and Army / DoD guidance (see Appendix A, F & G) concerning the continued use of ODCs.

It is essential that all of the applicable compliance procedures outlined in this document be integrated into the subject organization's existing work processes to assure continued compliance with Sections 608 and 609 of the Clean Air Act (CAA), as amended.

Additionally, proper execution of the listed requirements will ensure consistency for measuring compliance across the Garrison. This will provide a single uniform methodology, conforming to best management practices (BMPs) of Refrigerant / ODC management for organizations to implement. Several checklists and standardized recordkeeping forms have been included to assist Fort Carson organizations and personnel with recordkeeping, internal compliance audits, and EPA inspections.

1.3 Background

The U.S. EPA, CDPHE Air Quality Control Regulation 15, and Army / DoD have primacies for enacting compliance regulations, there are Executive Orders (EOs), a federal Memorandum of Understanding (MOU), DoD, and Army policies that must be adhered to. The EPA has been implementing a program to phase-out the production and use of ODCs in the United States, and has a program to approve substitutes for Class I and Class II ODCs for most applications. The tables below list the Class 1 and Class 2 ODCs.

ODCs are commonly used on military installations as refrigerants in refrigeration and air conditioning units, solvents for cleaning and degreasing operations, and as fire extinguishing agents. The goal of the Army ODC Management Program is to eliminate the dependency on ODCs in Army operations. In the interim, the practice of retiring older equipment as soon as possible and the recovery / recycle of the retired equipment's refrigerant for re-use elsewhere on the installation (a process called cascading) is recommended. In addition, during the design phase of new construction, approved alternative substitutes found on the EPA's significant new alternative policy (SNAP) program, such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs) should be used.

NOTE: HFC and PFC refrigerants are not considered to be ozone depleting; however, recent changes to EPA rules that regulate the use of ODCs have extended some of the provisions to HFC and PFC use.

Table 1-1: List of Class 1 ODCs

Class 1 ODCs		
CFC-11 (CCl3F) Trichlorofluoromethane	CCl4 Carbon tetrachloride	C3HF3Br4
CFC-12 (CCl2F2) Dichlorodifluoromethane	Methyl Chloroform (C2H3Cl3) 1,1,1-trichloroethane	C3HF4Br3
CFC-113 (C2F3Cl3) 1,1,2-Trichlorotrifluoroethane	Methyl Bromide (CH3Br)	C3HF5Br2
CFC-114 (C2F4Cl2) Dichlorotetrafluoroethane	CHFBr2	C3HF6Br
CFC-115 (C2F5Cl) Monochloropentafluoroethane	HBFC-12B1(CHF2Br)	C3H2F2Br4
Halon 1211 (CF2ClBr) Bromochlorodifluoromethane	CH2FBr	C3H2F3Br3
Halon 1301 (CF3Br) Bromotrifluoromethane	C2HFBr4	C3H2F4Br2
Halon 2402 (C2F4Br2) Dibromotetrafluoroethane	C2HF2Br3	C3H2F5Br
CFC-13 (CF3Cl) Chlorotrifluoromethane	C2HF3Br2	C3H3FBr4
CFC-111 (C2FCl5) Pentachlorofluoroethane	C2HF4Br	C3H3F2Br3
CFC-112 (C2F2Cl4) Tetrachlorodifluoroethane	C2H2FBr3	C3H3F3Br2
CFC-211 (C3FCl7) Heptachlorofluoropropane	C2H2F2Br2	C3H3F4Br
CFC-212 (C3F2Cl6) Hexachlorodifluoropropane	C2H2F3Br	C3H4FBr3
CFC-213 (C3F3Cl5) Pentachlorotrifluoropropane	C2H3FBr2	C3H4F2Br2
CFC-214 (C3F4Cl4) Tetrachlorotetrafluoropropane	C2H3F2Br	C3H4F3Br
CFC-215 (C3F5Cl3) Trichloropentafluoropropane	C2H4FBr	C3H5FBr2
CFC-216 (C3F6Cl2) Dichlorohexafluoropropane	C3HFBr6	C3H5F2Br
CFC-217 (C3F7Cl) Chloroheptafluoropropane	C3HF2Br5	C3H6FBr
		CH2BrCl Chlorobromomethane

Table 1-2: List of Class 2 ODCs

Class 2 ODCs	
HCFC-21 (CHFCl2) Dichlorofluoromethane	HCFC-251 (C3H4FCl3) Monochlorotetrafluoropropane
HCFC-22 (CHF2Cl) Monochlorodifluoromethane	HCFC-252 (C3H4F2Cl2) Dichlorodifluoropropane
HCFC-31 (CH2FCl) Monochlorofluoromethane	HCFC-253 (C3H4F3Cl) Monochlorotrifluoropropane
HCFC-121 (C2HFCl4) Tetrachlorofluoroethane	HCFC-261 (C3H5FCl2) Dichlorofluoropropane
HCFC-122 (C2HF2Cl3) Trichlorodifluoroethane	HCFC-262 (C3H5F2Cl) Monochlorodifluoropropane
HCFC-123 (C2HF3Cl2) Dichlorotrifluoroethane	HCFC-271 (C3H6FCl) Monochlorofluoropropane
HCFC-124 (C2HF4Cl) Monochlorotetrafluoroethane	HCFC-225cb (C3HF5Cl2) Dichloropentafluoropropane
HCFC-131 (C2H2FCl3) Trichlorofluoroethane	HCFC-226 (C3HF6Cl) Monochlorohexafluoropropane
HCFC-132b (C2H2F2Cl2) Dichlorodifluoroethane	HCFC-231 (C3H2FCl5) Pentachlorofluoropropane
HCFC-133a (C2H2F3Cl) Monochlorotrifluoroethane	HCFC-232 (C3H2F2Cl4) Tetrachlorodifluoropropane
HCFC-141b (C2H3FCl2) Dichlorofluoroethane	HCFC-233 (C3H2F3Cl3) Trichlorotrifluoropropane
HCFC-142b (C2H3F2Cl) Monochlorodifluoroethane	HCFC-234 (C3H2F4Cl2) Dichlorotetrafluoropropane
HCFC-221 (C3HFCl6) Hexachlorofluoropropane	HCFC-235 (C3H2F5Cl) Monochloropentafluoropropane
HCFC-222 (C3HF2Cl5) Pentachlorodifluoropropane	HCFC-241 (C3H3FCl4) Tetrachlorofluoropropane
HCFC-223 (C3HF3Cl4) Tetrachlorotrifluoropropane	HCFC-242 (C3H3F2Cl3) Trichlorodifluoropropane
HCFC-224 (C3HF4Cl3) Trichlorotetrafluoropropane	HCFC-243 (C3H3F3Cl2) Dichlorotrifluoropropane
HCFC-225ca (C3HF5Cl2) Dichloropentafluoropropane	HCFC-244 (C3H3F4Cl) Monochlorotetrafluoropropane

2.0 APPLICABILITY

All Duty Stationed personnel working on Fort Carson, including U.S. Army, Department of the Army Civilian, contractors and sub-contractors involved in air conditioning and refrigerant servicing, including technicians and / or mechanics servicing air conditioning and refrigeration (AC&R) equipment, motor vehicle air conditioners (MVACs), MVAC-like appliances, and Tactical Vehicle Weapons Systems, are responsible for complying with the requirements outlined in this Plan as they apply to an individual's job duties.

Tenant organizations such as Army-Air Force Exchange Service (AAFES), Defense Commissary Agency (DeCA), Colorado Army National Reserve (COANR), etc., which have been disaggregated from the installation's compliance management control, based on the principles of exclusive command / control chains, shall not be subject to the provisions of this Plan. However, tenant organizations must still comply with the following:

- comply with all the applicable provisions of Sections 608 and 609 of the CAA,
- comply with DoD / Army policy to eliminate dependency on ODCs throughout their operations,
- comply with the DoD policy to retain full control and turn in of all Class I ODCs and HCFC-22. The Army / DoD guidance memorandums contained in appendix A & F outline these requirements.

2.1 Technicians

The technician will be responsible for compliance with Section 608 and 609 of the CAA Amendments, the requirements of 40 Code of Federal Regulations (CFR) Part 82, Subpart B, E, F, G, H, CDPHE Air Quality Control Commission (AQCC) Reg. 15, and the Plan provisions. The technician will comply specifically with the following:

- Identify equipment and services required to comply with EPA regulations and report this source to DPW-ED.
- Complete required Universal Refrigerant Service Logs (URSLs) for all refrigerant-related activities.
- Ensure recovery units meet evacuation requirements as detailed in EPA regulations.
- Ensure proper submission of the necessary documentation to the EPA for registering refrigerant recovery and recycling equipment.

- Ensure proper submission of the necessary documentation to the State for registering ozone-depleting substance refrigerant containing equipment exceeding the de minimis thresholds.
- Document recovery unit maintenance per manufacturer's recommendations.
- Maintain correct level of certifications for job requirements.
- Follow procedures to eliminate refrigerant contamination and mixing (i.e., labeling).
- Perform proper refrigerant recovery procedures as required.
- Perform initial leak tests using an acceptable method prior to charging refrigerant into any system.
- Perform annual leak audits on all equipment with greater than 50 lbs of refrigerant.
- Ensure calculations of refrigerant leak rates for AC&R equipment that contains more than 50 lbs of an ODC, or an ODC substitute, are accurate and that records are being maintained.
- Notify DPW-ED and follow-up with shop refrigerant supervisors / coordinators of any AC&R equipment exceeding a leak rate threshold.
- Coordinate with the EPA requests for extensions and or waivers for AC&R equipment that cannot be repaired or retrofitted / replaced within EPA timelines specified in 40 CFR Part 82. Notify DPW-ED of any requests for extensions.
- Maintain the refrigerant inventory of equipment over 50 pounds, including records of refrigerant purchase, usage, and disposal (Mass Balance), and a comprehensive inventory of facility AC&R equipment and servicing records.
- Notify the Directorate of Public Works, Environmental Division (DPW-ED) if a member of personnel is observed violating regulatory requirements.
- Submit all documents to Directorate of Public Works, Environmental Division (DPW-ED) monthly.

2.2 Contractors

Off-site contractors shall be responsible and accountable for compliance with all of the above Technician requirements. Also, the contractor shall maintain and provide, upon request, all service order data for AC&R equipment including equipment identification (ID) number and / or serial number, equipment manufacturer and model number, location of equipment, refrigerant type, charge, date of service, and all applicable service, repair and / or disposal records as

required by 40 CFR Part 82. It will be the responsibility of those individuals who oversee these contracted functions to request and maintain the above required information.

2.3 Directorate of Public Works, Environmental Division

The DPW-ED Air Program Manager shall have overall responsibility for the administration, implementation, and / or delegation of the Plan provisions, including but not limited to any one or all of the following activities:

- Oversee and implement policies addressing compliance with 40 CFR Part 82.
- Provide interim review guidance for any regulatory changes that are implemented and require immediate compliance procedures.
- Ensure calculations of refrigerant leak rates for AC&R equipment that contains more than 50 lb of an ODC, or an ODC substitute, are accurate and that records are being maintained.
- Communicate with the shop refrigerant supervisors / coordinators to track the repair of any AC&R equipment exceeding a leak rate threshold.
- Communicate with the shop refrigerant supervisors / coordinators to ensure any extensions or waivers requested to the EPA for AC&R equipment that cannot be repaired or retrofitted / replaced within EPA timelines are met.
- Ensure all applicable civilian employees have received and reviewed a copy or have been provided access to the Fort Carson Refrigerant / ODC Management Guidance Document.
- Ensure military personal receive applicable plan training via the Environmental Protection Officer (EPO) certification course and via Environmental Compliance Assessment Team (ECAT) / Environmental Support Office (ESO) assistance.
- Ensure all maintenance personnel (contractor or government) have completed an EPA approved training course before servicing Chlorofluorocarbon (CFC) / Hydrochlorofluorocarbon (HCFC) AC&R equipment.
- Ensure service technicians conduct recycling, recovery, and reuse operations correctly, in accordance with their level of training and pursuant to the manufacturer instructions for the recycling and recovery equipment.

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3.0 DEFINITIONS

For the purposes of Fort Carson's Refrigerant / ODC Management Guidance Document, the following applicable, amended definitions (duplicate definitions have been consolidated across subparts), from the respective 40 CFR Part 82 Subparts, and CDPHE AQCC Regulation 15 apply.

3.1 Subpart B – Servicing of Motor Vehicle Air Conditioners

Approved refrigerant recycling equipment - Equipment that extracts and recycles refrigerant or extracts refrigerant for recycling on-site or reclamation off-site that has been certified by the Administrator or an organization approved under §82.38 (such as Underwriters Laboratories, Inc. [UL]) as meeting either one of the standards in §82.36.

Motor vehicle - Any vehicle which is self-propelled and designed for transporting persons or property on a street or highway, including but not limited to passenger cars, light duty vehicles, and heavy duty vehicles.

MVACs - Mechanical vapor compression refrigeration equipment used to cool the driver's or passenger's compartment of any motor vehicle. This definition is not intended to encompass the hermetically sealed refrigeration systems used on motor vehicles for refrigerated cargo and the air conditioning systems on passenger buses using HCFC-22 refrigerant.

MVAC-like appliance - Mechanical vapor compression, open-drive compressor appliances used to cool the occupant's compartment of a non-road motor vehicle. This includes the air-conditioning equipment found on agricultural or construction vehicles. This definition is not intended to cover appliances using HCFC-22 refrigerant.

Properly using - Using equipment in conformity with the regulations set forth in this subpart, including but not limited to the prohibitions and required practices set forth in §82.34, and the recommended service procedures and practices for the containment of refrigerant set forth in appendices A, B, C, D, E, and F of this subpart, as applicable. In addition, this term includes operating the equipment in accordance with the manufacturer's guide to operation and maintenance and using the equipment only for the controlled substance for which the machine is designed. For equipment that extracts and recycles refrigerant, properly using also means to recycle refrigerant before it is returned to an MVAC or MVAC-like appliance, including to the MVAC or MVAC-like appliance from which the refrigerant was extracted. For equipment that only

recovers refrigerant, properly using includes the requirement to recycle the refrigerant on-site or send the refrigerant off-site for reclamation.

Refrigerant - Any class I or class II substance used in an MVAC. Class I and class II substances are listed in Tables 1-1 and 1-2 of this document. Effective November 15, 1995, refrigerant shall also include any substitute substance.

Service for consideration - Being paid to perform service, whether it is in cash, credit, goods, or services. This includes all service except that done for free.

Service involving refrigerant - Any service during which discharge or release of refrigerant from the MVAC or MVAC-like appliance to the atmosphere can reasonably be expected to occur. Service involving refrigerant includes any service in which an MVAC or MVAC-like appliance is charged with refrigerant but no other service involving refrigerant is performed (i.e., a "top-off").

3.2 Subpart E – Labeling of Products Using Ozone-depleting Substances

Container - The immediate vessel in which a controlled substance is stored or transported.

Container containing - A container that physically holds a controlled substance within its structure that is intended to be transferred to another container, vessel or piece of equipment in order to realize its intended use.

Controlled substance - Any class I or class II ozone-depleting substance.

Product containing - A product including, but not limited to, containers, vessels, or pieces of equipment that physically holds a controlled substance at the point of sale to the ultimate consumer which remains within the product.

Warning label - The warning statement required by Section 611 of the Act. The term warning statement shall be synonymous with warning label for purposes of this subpart.

3.3 Subpart F – Recycling and Emissions Reduction

Appliance - Any device which contains and uses a refrigerant and which is used for household or commercial purposes, including any air conditioner, refrigerator, chiller, or freezer.

Commercial refrigeration - The refrigeration appliances utilized in the retail food and cold storage warehouse sectors. Retail food includes the refrigeration equipment found in supermarkets, convenience stores, restaurants and other food service establishments. Cold storage includes the equipment used to store meat, produce, dairy products, and other perishable goods. All of the equipment contains large refrigerant charges, typically over 75 pounds.

Disposal - The process leading to and including:

(1) The discharge, deposit, dumping or placing of any discarded appliance into or on any land or water;

(2) The disassembly of any appliance for discharge, deposit, dumping or placing of its discarded component parts into or on any land or water; or

(3) The disassembly of any appliance for reuse of its component parts.

Full charge - The amount of refrigerant required for normal operating characteristics and conditions of the appliance as determined by using one or a combination of the following four methods:

(1) Use the equipment manufacturer's determination of the correct full charge for the equipment;

(2) Determine the full charge by making appropriate calculations based on component sizes, density of refrigerant, volume of piping, and other relevant considerations;

(3) Use actual measurements of the amount of refrigerant added or evacuated from the appliance; and / or

(4) Use an established range based on the best available data regarding the normal operating characteristics and conditions for the appliance, where the midpoint of the range will serve as the full charge, and where records are maintained in accordance with §82.166(q).

High-pressure appliance - An appliance that uses a refrigerant with a liquid phase saturation pressure between 170 pound per square inch, absolute (psia) and 355 psia at 104 degrees Fahrenheit (°F). This definition includes but is not limited to appliances using Refrigerant (R)–401A, R–409A, R–401B, R–411A, R–22, R–411B, R–502, R–402B, R–408A, and R–402A.

Initial verification test – Leak tests that are conducted as soon as practicable after the repair is completed. An initial verification test, with regard to the leak repairs requiring the evacuation of the appliance or portion of the appliance, means a test conducted prior to the replacement of the full refrigerant charge and before the appliance or portion of the appliance has reached operation at normal operating characteristics and conditions of temperature and pressure. An initial verification test with regard to repairs conducted without the evacuation of the refrigerant charge means a test conducted as soon as practicable after the conclusion of the repair work.

Leak rate - The rate at which an appliance is losing refrigerant, measured between refrigerant charges. The leak rate is expressed in terms of the percentage of the appliance's full charge that would be lost over a 12-month period if the current rate of loss were to continue over that period.

Low-pressure appliance - An appliance that uses a refrigerant with a liquid phase saturation pressure below 45 psia at 104°F. This definition includes but is not limited to appliances using R–11, R–123, and R–113.

Major maintenance, service, or repair - Any maintenance, service, or repair involving the removal of any or all of the following appliance components: compressor, condenser, evaporator, or auxiliary heat exchange coil; or any maintenance, service, or repair that involves uncovering an opening of more than four (4) square inches of “flow area” for more than 15 minutes.

Opening an appliance - Any service, maintenance, repair, or disposal of an appliance that would release refrigerant from the appliance to the atmosphere unless the refrigerant was recovered previously from the appliance. Connecting and disconnecting hoses and gauges to and from the appliance to measure pressures within the appliance and to add refrigerant to or recover refrigerant from the appliance shall not be considered “opening.”

Person (and by extension Personnel) - Any individual or legal entity, including an individual, corporation, partnership, association, state, municipality, political subdivision of a state, Indian tribe, and any agency, department, or instrumentality of the United States, and any officer, agent, or employee thereof.

Reclaim – To reprocess refrigerant to all of the original specifications that are applicable to that refrigerant and to verify that the refrigerant meets these specifications using prescribed analytical methodology.

Recover - To remove refrigerant in any condition from an appliance and to store it in an external container without necessarily testing or processing it in any way.

Recovery efficiency - The percentage of refrigerant in an appliance that is recovered by a piece of recycling or recovery equipment.

Recycle - To extract refrigerant from an appliance and clean refrigerant for reuse without meeting all of the requirements for reclamation. In general, these procedures are usually implemented at the field job site.

Small appliance - Any appliance that is fully manufactured, charged, and hermetically sealed in a factory with five (5) pounds or less of a class I or class II substance used as a refrigerant, including, but not limited to, refrigerators and freezers, medical or industrial research refrigeration equipment, room air conditioners (including window air conditioners and packaged terminal air heat pumps), dehumidifiers, under-the-counter ice makers, vending machines, and drinking water coolers.

Substitute - Any chemical or product, whether existing or new, that is used by any person as an EPA approved replacement for a class I or II ozone-depleting substance in a given refrigeration or air-conditioning end-use.

Technician - Any person who performs maintenance, service, or repair, that could be reasonably expected to release refrigerants from appliances. Performing maintenance, service, repair, or disposal could be reasonably expected to release refrigerants only if the activity is reasonably expected to violate the integrity of the refrigerant circuit. Activities reasonably expected to violate the integrity of the refrigerant circuit include activities such as attaching and detaching hoses and gauges to and from the appliance to add or remove refrigerant or to measure pressure and adding refrigerant to and removing refrigerant from the appliance. Technician includes but is not limited to installers, contractor employees, in-house service personnel, and in some cases owners and / or operators.

Very high-pressure appliance - An appliance that uses a refrigerant with a critical temperature below 104°F or with a liquid phase saturation pressure above 355 psia at 104°F. This definition includes but is not limited to appliances using R–13 or R–503.

3.4 Subpart G – Significant New Alternatives Policy Program

Use - Any use of a substitute for a Class I or Class II ozone-depleting compound, including but not limited to use in a manufacturing process or product, in consumption by the end-user, or in intermediate uses, such as formulation or packaging for other subsequent uses.

Use restrictions - Restrictions on the use of a substitute imposing either conditions on how the substitute can be used across a sector end-use or limits on the end-uses or specific applications where it can be used within a sector.

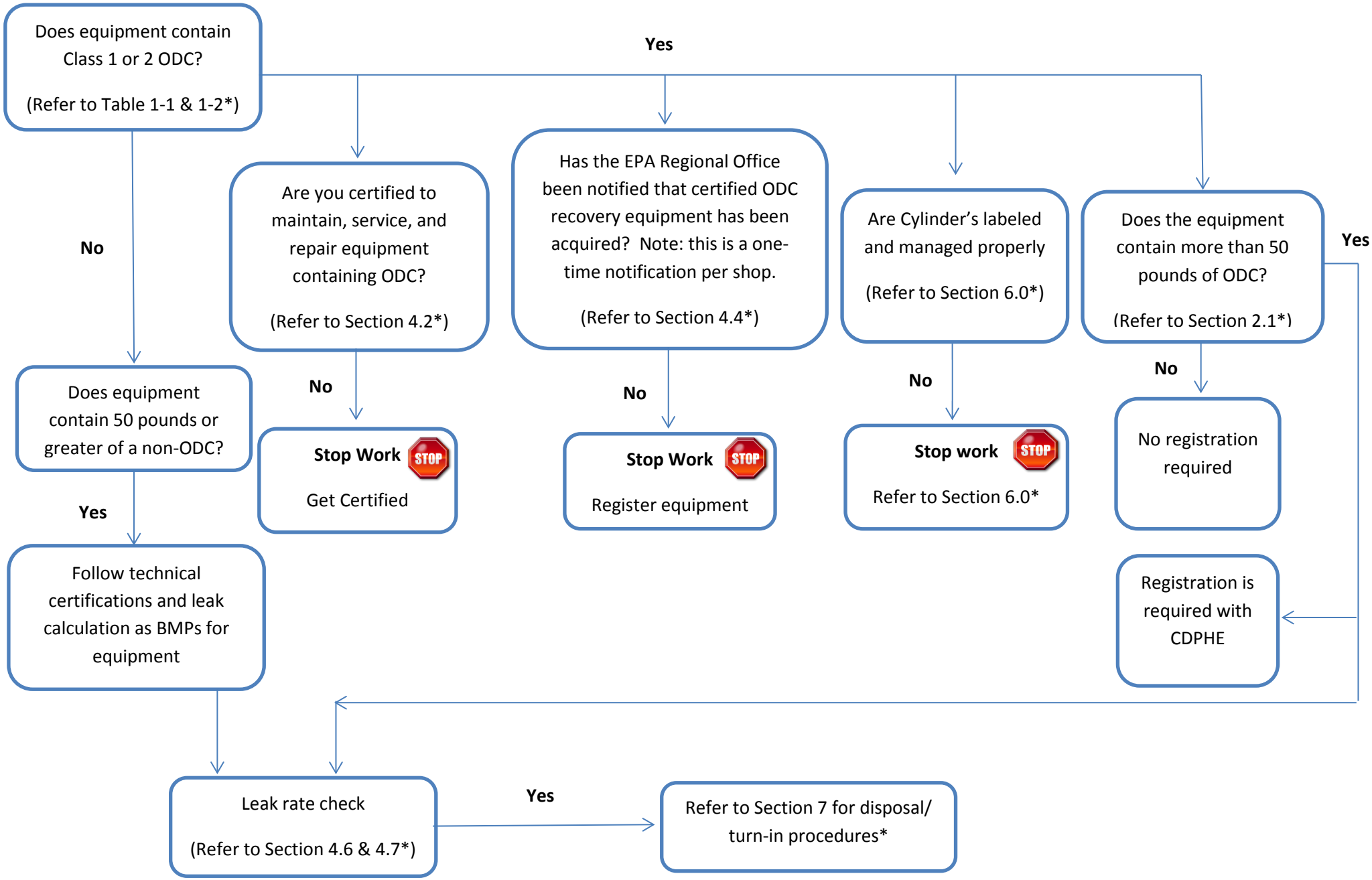
3.5 Subpart H – Halon Emissions Reduction

No New Definitions.

3.6 Regulation 15 – Control of Emission of Ozone-depleting Compounds

Stationary Appliance - Any refrigeration and air conditioning equipment that contains and uses an ozone depleting compound refrigerant, which is not portable by nature or design or considered an integral part of a building or structure, has compressor(s) motors rated by the original equipment manufacturer at one hundred (100) horsepower or greater, and is not a refrigerated food appliance. The calculation of the horsepower of a stationary appliance shall be based on an evaluation of the compressor motor(s). For purposes of this Regulation No. 15 and registration requirements, a stationary appliance shall also mean one or more compressor(s) and all necessary piping and hardware required to make that system operate as designed. All configurations may be considered a system if connected by a common evaporator, condenser, or air-handling unit, or if compressors are housed in a common framework.

Registration / Certification ODC Containing Equipment - Stationary



* Note: This flow chart is meant as a guide only. Please refer to the Fort Carson's ODC Plan, Revision 10/20/2014, for details.

4.0 AIR CONDITIONING AND REFRIGERANT APPLIANCE SERVICING REQUIREMENTS (40 CFR 82 SUBPART F)

NOTE if you service MVAC or MVAC-like equipment skip to Section 5.0 of this ODC Plan.

Consult this manual and the applicable regulations prior to conducting maintenance on any piece of equipment containing refrigerant to ensure the proper procedures are being followed.

4.1 Venting Prohibition

Knowingly releasing and/or venting refrigerants from air conditioning and refrigeration equipment while maintaining, servicing, repairing, or disposing should not be conducted. As is the case for CFC and HCFC refrigerants, only four types of releases of HFCs and PFCs are permitted under the prohibition:

1. "De minimis" quantities of refrigerant released in the course of making good faith attempts to recapture and recycle or safely dispose of refrigerant.
2. Refrigerants emitted in the course of normal operation of air-conditioning and refrigeration equipment such as from mechanical purging and leaks.
3. Releases of HFCs and PFCs that are not used as refrigerants (note that heat transfer fluids are considered refrigerants).
4. Small releases of refrigerant that result from purging hoses or from connecting or disconnecting hoses to charge or service appliances.

4.2 Service Technician Training/Certification

The EPA has established a technician certification program for persons ("technicians") who perform maintenance, service, repair, or disposal preparations that could be reasonably expected to release refrigerants into the atmosphere. Technicians are required to pass an EPA-approved test given by an EPA-approved certifying organization to become certified under the mandatory program. The definition of "technician" specifically includes and excludes certain activities as described in the sections below.

4.2.1 Included Activities

The following activities **require** EPA certification:

- Attaching and detaching hoses and gauges to and from the appliance to measure pressure within the appliance / air conditioning (AC) unit.
- Adding refrigerant to or removing refrigerant from the appliance / AC unit.
- Any other activity that violates the integrity of the refrigerant circuit while there is refrigerant in the appliance / AC unit.

4.2.2 Excluded Activities

The following activities **do not require** EPA certification:

- Activities that are not reasonably expected to violate the integrity of the refrigerant circuit, such as painting the appliance, re-wiring an external electrical circuit, replacing insulation on a length of pipe, or tightening nuts and bolts on the appliance.
- Maintenance, service, repair, or disposal of appliances that have already been evacuated in accordance with EPA requirements

4.2.3 Technician Certification Types (608)

The EPA has developed four types of certification under Section 608 of the CAA, and a separate distinctive certification under Section 609 for MVAC, and MVAC-like appliance technicians. Service technicians may not work on AC&R equipment, MVAC, and MVAC-like appliances located on Fort Carson for which they do not possess the correct refrigerant handling classification (see Section 5 for more information on MVAC Requirements). The four certification types under CAA section 608 are as follows:

- **Type I** - Maintain, service, or repair small appliances with 5 pounds or less of refrigerant.
- **Type II** - Maintain, service, repair, or dispose of high- or very high-pressure appliances (an appliance using a refrigerant with a boiling point between – 50° and 10° Celsius [C]); typically comfort cooling appliances with greater than 50 pounds of refrigerant charge. Type II technicians can also maintain, service, or repair MVAC-like appliances.
- **Type III** - Maintain, service, repair, or dispose of low-pressure appliances (an appliance using a refrigerant with a boiling point above 10°C at atmospheric pressure); typically industrial cooling systems such as large building chillers.

- **Type IV** (Universal Technicians) - Maintain, service, repair, or dispose of low and high-pressure equipment.

NOTE: Personnel servicing MVAC appliances must receive a separate certification under the requirements in 40 CFR Part 82 Subpart B. Technicians maintaining, servicing, or repairing MVAC-like appliances can do so if they have been properly certified either as a 609 MVAC Certification or as a 608 Type II or universal technician under 40 CFR Subpart F.

4.2.4 Technician Certification Review Procedures

1. All government and government contracted technicians must provide DPW-ED with a copy of their refrigerant handling certification within 30 days of their initial reporting for duty date. *(This requirement is not applicable to outside contractors.)*

2. DPW-ED will ensure all Fort Carson service technicians have received a refrigerant handling certification from an approved program. If the technicians' certification card was issued from any of the institutions listed on EPA's revocation website (link below), the technicians' card is not valid and the technician must be re-certified by an approved program. http://www.epa.gov/Ozone/title6/608/revoke.html.

3. DPW-ED will ensure the technicians' card has a level indicated from the list above, and contains the following statement: "as required by 40 CFR Part 82, Subpart F."

4.2.5 Technician Training / Certification Resources

Fort Carson offers proctored examination for qualified individuals seeking EPA certification for Section 608 certifications. Please note the exams are closed book. To schedule an examination please send a memorandum containing the names of examinees and their respective point of contact (POC) information via e-mail to the individual listed below.

Section 608 Exams

Mr. Loren T. Keeler
CECOM LCMC P&E LAR
1-407th AFSB, Bldg. 8100
COMM: 719-526-2763
DSN: 691-2763
Cell: 719-439-7370

E-mail: loren.t.keeler@us.army.mil

The EPA Ozone Depletion website contains an inclusive list of EPA approved training facilities.

The Section 608 EPA approved certification programs can be found online at: http://www.epa.gov/ozone/title6/608/technicians/608certs.html

These programs are subject to change so it is recommended that the EPA Ozone Depletion website be referenced to assure the organization has maintained its EPA approval status.

4.3 Significant New Alternative Policy – ODC Alternatives

The EPA developed a SNAP program to define alternatives to ODCs for use in MVACs and MVAC-like equipment. Refer to 40 CFR 82 Subpart G for approved alternative ODC and retrofitting instructions.

4.4 ODC Recovery/Recycling Equipment for Air Conditioning and Other Refrigerant Containing Equipment

EPA requires that persons servicing or disposing of AC&R equipment certify to the appropriate EPA Regional Office that they have acquired certified recovery or recycling equipment and that they are complying with the applicable requirements of CAA Section 608 (see Appendix B for the form and instructions). This certification is a one-time requirement. If a shop purchased a piece of recycling equipment in the past, and submitted the certification to the EPA, the shop does not need to send a second certification to the EPA when it purchases a second piece of equipment. This is the case regardless of the type of refrigerant the equipment is designed to handle. *However, it is Fort Carson's internal policy that if the certification cannot be found that the certification be resubmitted to the EPA and a copy is kept attached to the equipment for future inspections.*

Refrigerant recovery equipment owners shall provide a completed and signed copy of the EPA Recovery Unit Acquisition Certification Form to the DPW-ED within 30 days after unit acquisition or before initial use, whichever comes first.

Technicians and contractors shall service and maintain recovery / recycling equipment per manufacturer's specifications and keep records of services performed. Leak testing of recovery

units shall be performed as recommended in manufacturer's documentation. If required, leak testing results shall be documented and kept in the shop office.

4.5 Refrigerant Equipment Inventory

The EPA has established recordkeeping requirements for owners and operators of air conditioning and refrigeration equipment containing ODCs (CFCs and HCFCs) or ODC alternatives (HFCs and PFCs) that in part consist of an ODC.

Additionally, the State of Colorado has also promulgated a regulation (AQCC 15) for reporting and registering certain ODC containing equipment as well as shops that service them. AQCR 15 states:

1. The owner or operator of any existing stationary appliance by or within sixty (60) days of November 1 of each year and any new stationary appliance within thirty (30) days of installation shall submit an ozone depleting compound refrigerant registration form and pay a fee of forty-seven dollars ($47.00) for each stationary appliance to the Division. Total fees shall not exceed three hundred dollars ($300.00) per facility. .

2. The owner or operator of any site containing existing refrigerated food appliances which contain three hundred (300) pounds or greater of any ozone depleting compound refrigerant based upon the estimated refrigerant charge shall submit an ozone depleting compound refrigerant registration form and fee to the Division by or within sixty (60) days of November 1 of each year. The owner or operator of any site containing new refrigerated food appliances which contain three hundred (300) pounds or greater of any ozone depleting compound refrigerant based upon the estimated refrigerant charge shall submit an ozone depleting compound refrigerant registration form and fee to the Division within thirty (30) days of installation.

Refer to Appendices I and J for CDPHE Reporting Forms.

Further, Colorado requires notification requirements for organizations that employ more than one technician. An annual fee and notification is required under Section IV of AQCC 15. Each individual shop is responsible for submitting the annual fee and appropriate forms to CDPHE.

Fort Carson requires that records be kept to comply with the laws and the BMPs outlined within this guidance document, and to establish data for the efficient and effective management of refrigerant assets.

Records of stationary refrigerant equipment containing more than 50 pounds of ODC on Fort Carson shall be tracked by the technicians and maintained by DPW-ED regardless of ODC type, charge, or equipment classification.

The following section provides details about the requirements for reporting new, replacement, and retrofitted ODC-containing equipment to DPW-ED, and the specific equipment / refrigerant types to be used when doing so.

4.5.1 New & Replacement Refrigerant Containing Equipment

With the possible exception of small hermetically sealed appliances, all AC&R equipment to be purchased or that requires replacement should be charged with a non ozone depleting chemical alternative such as a pure HFC or PFC refrigerant.

4.5.2 Retrofitting Existing Refrigerant Equipment

The use of new refrigerants (refrigerant substitutes) as alternatives to ODCs must have been tested in specific applications or equipment, and approved for use in that application or equipment by the EPA. The EPA has established a SNAP in which they evaluate applications for use with substitute chemicals (refrigerants) that are not ODCs. Only approved alternatives found on the SNAP list shall be used for CFC or HCFC retrofit / conversion or replacement projects on Fort Carson. If the EPA places a substance on the SNAP unacceptable list, it becomes unlawful to use it as a substitute for an ODC.

A current copy of the approved SNAP list can be obtained from the EPA's website.

4.5.3 Equipment Reporting Procedures

1. All previously unreported, replacement, and retrofitted AC&R equipment containing over 50 pounds shall be reported to DPW-ED within 30 days of installation via the URSL.

2. Each shop will provide DPW-ED with a copy of the inventory report for the AC&R equipment over 50 pounds under their control at least annually. It will be the responsibility of each shop to verify that the inventory is correct.

3. The equipment inventory shall consist of the following information:

- Building number and location within the building (room, roof top, etc.).
- Equipment manufacturer, model number, serial number, and ID, if applicable.
- Refrigerant type and normal (full) operating charge. *If the operating charge is unknown (split system, not listed on nameplate, etc.) then it must be calculated. Consult manufacturer data sheets, measure piping length, component capacity and detail calculations. An alternate method is to establish a charge by total circuit or system tonnage times a value of 1.5 pounds per ton.*
- Date that full charge amount was determined.
- Equipment duty type (comfort cooling, commercial refrigeration, industrial process refrigeration, other application).
- Leak rate limit, if applicable.

4. The inventory report shall be kept on file in the shop office along with equipment leak service logs.

4.6 Refrigerant Recovery

4.6.1 Appliance Service, Maintenance, Repair & Disposal

All persons opening appliances except for MVACs and MVAC-like appliances for maintenance, service, repair, or disposal must evacuate the refrigerant, including all the liquid refrigerant (except as provided in the EPA exceptions below), in either the entire unit or the part to be serviced (if the latter can be isolated) to a system receiver (e.g., the remaining portions of the appliance, or a specific vessel within the appliance) or a certified recovery or recycling machine. A technician must verify that the applicable level of evacuation (see tables 4-1 and 4-2) has been reached in the appliance or the part before it is opened.

4.6.2 EPA Exceptions

If, due to leaks in the appliance, evacuation to the levels in tables 4-1 or 4-2 is not attainable, or would substantially contaminate the refrigerant being recovered, persons disposing of the appliance must:

- Isolate leaking from non-leaking components wherever possible;
- Evacuate non-leaking components to the levels specified in tables 4-1 and 4-2; and
- Evacuate leaking components to the lowest level that can be attained without substantially contaminating the refrigerant. In no case shall this level exceed 0 pounds per square inch, gauge (psig).

If evacuation of the equipment to the environment is not to be performed when repairs are complete, and if the repair is not major, as defined in section 3.3, then the appliance must:

- Be evacuated to at least 0 psig before it is opened if it is a high- or very high pressure appliance; or
- Be pressurized to 0 psig before it is opened if it is a low-pressure appliance. Methods requiring subsequent purging (e.g., nitrogen) cannot be used except with appliances containing R-113.

Table 4-1: Required Levels of Evacuation for Appliances

(Inches of Hg vacuum relative to standard atmospheric pressure of 29.9 inches Hg, unless otherwise noted)

Type of Appliance*	Recovery Unit Manufactured Date	
	Before Nov. 15, 1993	After Nov. 15, 1993
R-22, R-402A/B, R-407A/B/C appliance, or isolated component of such appliance, normally containing less than 200 pounds of refrigerant.	0 Hg	0 Hg
R-22, R-402A/B, R-407A/B/C appliance, or isolated component of such appliance, normally containing 200 pounds or more of refrigerant.	4 Hg	10 Hg
Very High Pressure Appliance **R-410A/B, R-13, R-23, R-503**	0 Hg	0 Hg
Other high-pressure appliance, or isolated component of such appliance, normally containing less than 200 pounds of refrigerant. **R-12, R-114, R-134a, R-401A/B/C, R-500, R-502**	4 Hg	10 Hg
Other high-pressure appliance, or isolated component of such appliance, normally containing more than 200 pounds of refrigerant. **R-12, R-114, R-134a, R-401A/B/C, R-500, R-502)**	4 Hg	15 Hg
Low-Pressure Appliance **R-11, R-113, R-123**	25 in	25 mm Hg absolute

** Evacuation levels in table 4-1 do not apply to small appliances (< 5 lbs. of refrigerant), MVACs and MVAC-like appliances.*

Table 4-2: Required Levels of Recovery / Evacuation for Small Appliances

(Inches of Hg vacuum relative to standard atmospheric pressure of 29.9 inches Hg)

Small Appliance (< 5 lbs. of Refrigerant)	Recovery Unit Manufactured Date	
	Before Nov. 15, 1993	After Nov. 15, 1993
Unit Compressor IS Working	Recover 80%	Recover 90%
Unit Compressor IS NOT Working	Recover 80%	Recover 80%
All Units	4 Hg	4 Hg

4.6.3 Recovery Procedures

1. Verify refrigerant recovery equipment has been properly maintained (see Equipment Maintenance) in the past six months.

2. Follow the manufacturer's operating procedures for the equipment being used. Make sure that copies of the operating and maintenance procedures are attached to the equipment. Original operating instructions should be maintained in a file in the shop office.

3. Evacuate refrigerant to the levels specified above according to the type of equipment being serviced or prepared for disposal and record the evacuation levels achieved on the URSL. All AC&R, MVAC and MVAC-like equipment must be evacuated to EPA-required vacuum level prior to opening.

4. Recovered refrigerants of different types shall not be mixed. A separate, clean, evacuated (or partially filled), labeled vessel / cylinder will be used for each refrigerant type recovered. Only approved containment vessels / cylinders shall be used.

5. Refrigerant recovered shall be weighed using a digital scale (when recovering large amounts of refrigerant, use a drum or hanging scale). Record the weight of the recovered refrigerant on the URSL to satisfy recordkeeping requirements.

6. Refrigerant recovered can be returned to the same system. EPA rules also allow re-use in other systems owned by the same owner without restriction. However, refrigerant may not be reused in unlike appliances, i.e., stationary appliances and MVAC and MVAC-like appliances.

NOTE: All Class I and R-22 refrigerant that is recovered from Fort Carson equipment must remain on Fort Carson within the government's control (see turn-in requirements, section 7.1).

7. Ensure all service data was recorded according to the requirements and procedures outlined in this Plan.

8. Turn in all refrigerant (used, expired, no longer in use) per Appendix F for DoD turn-in procedures. Do not turn in through third party vendors.

4.7 Equipment Service & Refrigerant Leaks

The following sections are applicable for all stationary AC&R equipment that has an ODC, or HFC and PFC ODC alternatives consisting in part of an ODC charge (i.e., > 0% ODC), of more than 50 pounds. **However, it is strongly recommended by EPA as BMP to perform both the initial and follow-up verification test for all leak repairs performed regardless of equipment or refrigerant type (i.e., Non-ODC containing equipment). Fort Carson will attempt to adhere to this rule subject to available funds.** Fort Carson technicians should follow this recommendation for all leak repairs on any equipment with more than a 50-lb charge. The tests will ensure that leaks have been completely repaired, provide evidence to the EPA that Fort Carson complies with the requirements for leaking equipment, and eliminate confusion about which AC&R equipment is subject to leak testing.

The following leak rates (trigger rates) for a 12-month period are applicable for all equipment subject to this section:

- Commercial refrigeration - 35%
- Industrial process refrigeration - 35%
- Comfort cooling - 15%
- All other appliances - 15%

If refrigerant is leaking at a rate that would exceed the applicable trigger rate as stated above, then corrective action must be taken. It must be repaired within 30 days of leak discovery.

Additional leak repair time beyond the 30 days may be permitted if it has been determined that the leak repair cannot be made within 30 days. Fort Carson may apply for the extension to the 30-day repair requirement if they document all repair efforts undertaken to date and then notify the EPA of their inability to comply. In cases where an industrial process shutdown is required, a repair period of 120 days is substituted for the normal 30-day repair period.

If Fort Carson chooses to retrofit or retire appliances, a retrofit or retirement plan must be developed within 30 days of detecting a leak rate that exceeds the trigger rates. A copy of the plan must be kept on site, and the original plan must be made available to EPA upon request. Activities under the plan must be completed within 12 months (from the date of the plan). If a request is made within 6 months from the expiration of the initial 30-day period, additional time beyond the 12-month period is available for owners of industrial process refrigeration equipment and federally owned chillers (commercial and comfort).

4.7.1 Leak Testing

For industrial process refrigeration equipment and federally owned chillers (commercial and comfort), EPA requires an initial and follow-up verification test for any repairs completed in relation to a leak that exceeds the trigger rate for the applicable equipment. **However, it is strongly recommended by EPA as BMP to perform both the initial and follow-up verification test for all leak repairs performed regardless of equipment or refrigerant type (i.e., Non-ODC containing equipment). Fort Carson will attempt to adhere to this rule subject to available funds.** Fort Carson technicians will follow this recommendation for all leak repairs on any equipment with more than a 50-lb charge.

4.7.1.1 Acceptable Leak Testing Methods

Initial and follow-up verification tests may use any method that meets sound professional judgment. Test examples include, but are not limited to:

- Electronic Leak detector
- Ultrasonic Leak detector
- Pressurizing system to 10 psig with HCFC-22 then increasing pressure to safe level with dry nitrogen.
- Soap bubbles
- Halide torch detector
- Deep Vacuum - Low-pressure chiller (pull to 1mm Hg. Ok if rise is < 2.5 mm Hg in 12 hours)
- Hydrostatic Tube test kit - Low pressure chiller water tubes

Safety Notice: Never use oxygen, high-pressure air or a flammable gas for leak checking. Oxygen and oil form an extremely explosive mixture.

4.7.1.2 Leak Testing Procedures

1. Perform an **initial verification test** (for example, a soap bubble test) after performing one or more repairs to ensure that the repairs have been successfully completed. This test should be performed before adding refrigerant to the system. Do not bring the system back on-line until you verify the leak has been fixed.

2. Schedule and conduct **follow-up verification leak tests** for the repaired system. This test must be completed within 30 days after the initial leak verification test was completed or within 30 days of bringing the system back on line if it was shut down for the repairs. The follow-up verification test must be conducted with the unit operating at normal operating characteristics and conditions (normal load). The purpose of this test is to ensure that all repairs continue to hold under normal operation.

3. Document the results of both the initial verification and follow-up tests on the same URSL form.

4. If the follow-up verification test fails, notify DPW-ED immediately. DPW-ED will take the appropriate action to notify the EPA of the failed test and coordinate any additional actions required, such as request for extension to the 30-day repair period if needed.

4.7.2 Leak Rate Determinations

EPA has adopted two methods to determine leak rates (annualizing and rolling total based). Fort Carson will use the Annualizing Method (shown below, steps 1 thru 4) to perform leak rate calculations. **It is not acceptable to switch between the two methods.**

4.7.2.1 Leak Rate Calculations

1. Take the number of pounds of refrigerant added to return the system to a *full charge* and divide it by the number of pounds of refrigerant in the normal *full charge* for the system.

$$\frac{\text{\#lbs refrigerant added}}{\text{\#lbs refrigerant in normal } \textit{full charge}}$$

2. Take the number of days that have passed between charges (cannot be greater than 365 for an annualized leak rate calculation) and divide by 365 (the number of days in a year).

$$\frac{\text{\#days since refrigerant last added (Maximum = 365)}}{\text{365 days}}$$

3. Take the number you determined in step 1 and divide it by the number you determined in step 2.

4. Multiply the number you determined in step 3 by 100 (to calculate a percentage).

4.7.3 Adding Refrigerant to Equipment

If a service technician needs to add additional refrigerant to return a system to its normal operating charge, that equipment shall be treated as **leaking**, and shall trigger the applicable requirements listed above. If the equipment's normal operating charge is greater than **50 lbs** and the refrigerant used is an ODC, or an HFC or PFC substitute consisting of an ODC (blend), then a leak rate determination **is required**. Follow the EPA recommended BMP and perform leak rate determinations for all refrigerant containing equipment with a charge of over 50 lbs.

4.7.4 Equipment / Leak Service Logs

For each piece of refrigerant containing equipment, the following information must be recorded by the service technician whenever a service is performed that could potentially compromise the system and release or vent refrigerant to the atmosphere. A copy of the URSL, which includes all the required information below, is given in Appendix C.

- Date of service / disposal and service technician name.
- Description of service and repair performed.
- Model number, serial number or ID number (if applicable) of the equipment that contained the refrigerant and oil.
- Amount of refrigerant recovered / added. For recovered refrigerant also indicate if it was re-used or stored for reuse, reclamation, or disposal. Indicate the storage vessel ID or serial number.
- Location of leak(s) if applicable. (Note that the description of the leak is important to document. If another leak develops at a different location on a unit that has exceeded its allowable leak rate, the 30 day repair clock restarts for the new leak.)
- Recovery unit ID or serial number and vacuum level achieved (inches).
- Initial leak verification test method and result (is the leak repaired [Yes / No]), if applicable.
- Follow-up test method, date and result (is the leak repaired [Yes / No]), if applicable.
- Equipment disposal method (dumpster, scrap, etc.).

1. Fort Carson AC&R service technicians shall use this log when servicing or disposing of refrigeration equipment. MVAC-like and Tactical Vehicle service technicians shall use the MVAC Service Log as proof of compliance.

2. For small appliances (<5 lbs of refrigerant) that have been sent to an EPA approved scrap / salvage company, record the salvager's name and point of contact, the date of the transaction, unit model and serial numbers, and refrigerant type for all units sent.

3. Keep invoices, receipts, and any other document that records the transfer of ODCs and contaminated lubricants to disposal locations.

4. The URSLs must be kept along with the equipment inventory and other transfer or disposal receipts in the shop office.

5. The URSLs and disposal / transfer documentation must be provided to DPW-ED no later than the 15th of the following month for which the records were made.

4.7.5 Appliance Disposal Notes

When AC&R equipment is to be disposed of, refrigerant and oil must be removed. Records describing the disposal process must be maintained and used oil should be turned into the DPW Bunker.

The following records must be maintained for equipment being demolished or disposed of in house. Use the URSL to record the required data below when disposing of refrigerant containing AC&R equipment.

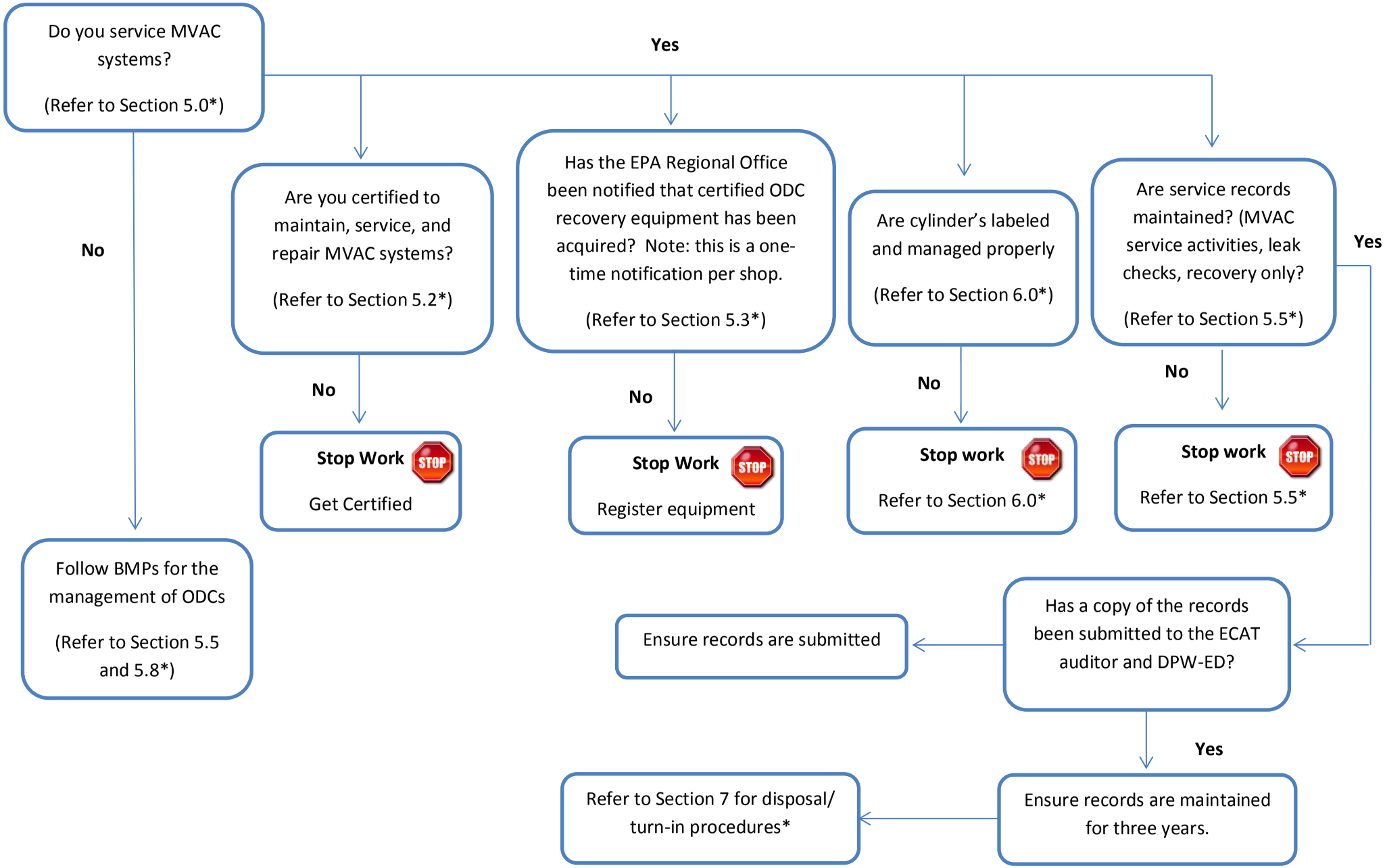
1. After the refrigerant has been recovered, properly remove the oil, filters, capacitors, and any mercury switches if applicable.

2. Refrigerant removed must be stored in approved, labeled containers in accordance with all applicable requirements. Records documenting the fate of recovered refrigerants shall be annotated on the Refrigerant Management Log (RML).

3. If refrigerants are recycled or reclaimed, they are not considered hazardous waste. In addition, used oils contaminated with CFCs are not hazardous waste if:

- The oils are not mixed with other waste;
- The oils are subjected to CFC recycling or reclamation; and
- The oils are not mixed with used oils from other sources.

Motor Vehicle Air Conditioner (MVAC)



* Note: This flow chart is meant as a guide only. Please refer to the Fort Carson's ODC Plan, Revision 10/20/2014, for details.

5.0 MOTOR VEHICLE AIR CONDITIONING AND MOTOR VEHICLE AIR CONDITIONERS-LIKE SERVICING REQUIREMENTS (40 CFR 82 SUBPART B)

NOTE if you service stationary equipment (i.e. non-MVAC equipment) skip to Section 6.0 of this ODC Plan.

An MVAC is defined as any vehicle which is self-propelled and designed for transporting persons or property on a street or highway, including but not limited to passenger cars, light duty vehicles, and heavy duty vehicles. An MVAC-like appliance is defined as mechanical vapor compression, open-drive compressor appliances used to cool the occupant's compartment of a non-road motor vehicle; this includes the air-conditioning equipment found on agricultural or construction vehicles. This definition is not intended to cover appliances using HCFC-22 refrigerant.

5.1 Venting Prohibition

Knowingly releasing and/or venting refrigerants (i.e., R-12 or HCF-134a) from MVAC and MVAC-like appliances while maintaining, repairing, servicing, or disposing should not be conducted. Note that while HCF-134a is defined as a non-ozone depleting compound, it is still prohibited from intentional releases to the atmosphere as it is a contributor to greenhouse gas (GHG) emissions.

5.2 Service Technician Training/Certification

Technicians who repair or service MVACs must be trained and certified as a Section 609 MVAC Technician by an EPA-approved organization. The training programs must include the importance of refrigerant recovery, and the effects of ozone depletion. The DoD has established and provides its own training course. The contact information for this class is:

Department of the Army
U.S. Army Ordnance Mechanical Maintenance School
Tactical Support Equipment Department
ATTN: Section 609 TT&C Program
Building 18041, Room 1074
126 Edgewood Road
Fort Lee, VA 23801
(804) 765-9180
(804) 765-9188 (fax)

Fort Carson offers proctored examination for qualified individuals seeking EPA certification for both Section 608 and 609 certificates. Please note the exams are closed book. To schedule an examination please send a memorandum containing the names of examinees and their respective POC information via e-mail to the individual listed below.

Section 609 Exams

Mr. Ben Miera
TACOM AUTO LAR
1 – 407th AFSB, Bldg. 8100
Cell: 719-330-4530
E-mail: ben.miera@us.army.mil

Technicians servicing MVAC-like appliances must also be trained and certified as a Section 609 MVAC or as a Section 608 Type II and Type IV technician. The EPA Ozone Depletion website contains an inclusive list of EPA approved training facilities.

The Section 609 EPA approved certification programs can be found online: http://www.epa.gov/ozone/title6/609/technicians/609certs.html.

These programs are subject to change so it is recommended that the EPA Ozone Depletion website be referenced to assure the organization has maintained its EPA approval status.

5.3 ODC Recovery/Recycling Equipment

Technicians who repair or service MVAC or MVAC-like appliances must use only EPA certified recycle or recycle/recovery equipment. The equipment shall be certified with the local EPA office and shall meet the maintenance and specifications found in 40 CFR 82 Subpart B Appendices A, B, C, D, E, and F. The shop needs to certify that it has acquired certified equipment only one time. It is not necessary to recertify when the equipment is replaced. A copy of the certification and proof of submittal to the EPA (i.e., delivery confirmation) shall be kept on file. See Appendix D for the form and instructions for certification of recovery equipment. *However, it is Fort Carson's internal policy that if the certification cannot be found that the certification be resubmitted to the EPA and a copy is kept attached to the equipment for future inspections.*

Equipment used to recover EPA-approved blend refrigerants that substitute R-12 cannot be used to recover uncontaminated R-12 or R-134a refrigerant.

5.4 Significant New Alternative Policy – ODC Alternatives

The EPA developed the SNAP program to define alternatives to ODCs for use in MVACs and MVAC-like equipment. Refer to 40 CFR 82 Subpart G for approved alternative ODC and retrofitting instructions.

5.5 Motor Vehicle Air Conditioners – Recordkeeping Requirements

The "MVAC & Tactical Equipment Refrigerant Usage Tracking Form" found in Appendix E shall be used for all MVAC service activities. A copy of the form shall be submitted to the ECAT auditor and DPW-ED.

Per AQCC 15:

- MVAC service facilities shall maintain records of MVAC services and leak checks for three years or when the unit is vacating the premises, whichever occurs first.
- MVAC service facilities that utilize recovery only methods shall document the handling and disposition of all ODC refrigerants removed from vehicles.

5.6 Military Technicians

1. All Fort Carson Military Refrigerant Service log forms used by military technicians for compliance tracking must be maintained within the unit's motor pool in a secure, designated location (preferably with / or adjacent to the unit's recovery equipment) and must be made available for inspection upon request.

2. Maintain all paperwork or documents showing transfers of any refrigerant not meeting the DoD restriction guidelines above along with the MVAC Refrigerant Service logs.

3. Maintain all paperwork or documents showing acquisitions, transfers, or turn-ins of any halon ODC along with the MVAC Refrigerant Service logs.

4. Records shall be kept for the duration of the unit's occupation of the assigned facility, but no less than 3 years and must be collected by DPW-ED personnel prior to the unit vacating the premises.

NOTE: Class I ODC (i.e., halon 1301) and Class II (i.e., HCFC 22) refrigerants shall not be transferred to any military unit personnel that are not properly certified to possess such controlled substances. See section 7.1.2 for Special Halon Requirements.

5.7 Recovery from MVAC & MVAC-like Appliances

Persons opening MVAC and MVAC-like appliances for maintenance, service, repair, or disposal may do so only while properly using, certified recycling or recovery equipment, and must be properly certified under Section 609 of the CAA.

- Persons recovering refrigerant from MVACs and MVAC-like appliances for purposes of maintenance, service, repairs, or disposal of these appliances must reduce the system pressure to or below **4" of mercury vacuum**.

5.8 MVAC & MVAC-like Appliance Requirements

In addition to the other applicable parts of this Plan, Fort Carson personnel servicing MVAC and / or MVAC-like appliances shall follow the required practices below.

1. Do not use refrigerant blends or other refrigerant substitutes that have been disapproved by the EPA (Consult SNAP List) to retrofit any system.

2. Recover all refrigerants used in MVAC systems prior to beginning work on the system.

3. Follow EPA guidance when retrofitting MVAC appliances from R-12 to R-134a. This guidance can be found at http://www.epa.gov/ozone/title6/609/technicians/retrguid.html.

4. Technicians are prohibited from changing fittings on the same recovery or recycling unit back and forth so that the same unit is recovering or recycling different types of refrigerant.

5. Equipment that is converted for use with a new refrigerant must be able to meet the applicable equipment standards set forth in the regulations (look for a current UL certification).

6. Handle R-12 that has been mixed with other refrigerants as a hazardous waste and shall be disposed of per the DoD memo found in Appendix F.

7. Properly manage compressor oil recovered from MVAC systems.

8. Maintain name and address of any facility to which refrigerant is sent. All recovered refrigerants shall be subject to the storage and recordkeeping requirements outlined in this Plan.

9. Civilian and Military personnel shall record all service data on the MVAC Refrigerant Service Log (Appendix E).

10. Maintain the service records in accordance with the requirements of section 5.5.

NOTE: Intentional venting of any refrigerant is a violation of the CAA, subject to enforcement

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6.0 REFRIGERANT CYLINDER REQUIREMENTS

The following procedures must be followed by all technicians and shops engaging in refrigerant handling activities.

1. Make certain that the pressure rating of the cylinder is adequate for the refrigerant type being filled.

2. Each refrigerant cylinder shall be labeled and marked in accordance with the Air-Conditioning, Heating & Refrigeration Institute (AHRI) Guidelines K and N (found http://www.ahrinet.org/site/793/Standards/HVACR-Industry-Guidelines), and EPA and DOT regulations.

3. Do not re-use cylinders intended for virgin refrigerant service, i.e., disposable cylinders. All recovered refrigerants, whether recovered to cylinders, drums or tanks, need to be marked in a yellow and gray color scheme per the following:

- Cylinders with non-removable collars: body of the cylinder needs to be gray, the shoulders and collar yellow.
- Cylinders with removable caps: cylinder body needs to be gray, the cylinder's shoulder and cap should be yellow.
- Drums: the drum body needs to be gray, the top yellow.
- Tanks: the body needs to be gray, the ends and chimes of the container need to be yellow.
- Also, label the cylinder or container with a Department of Transportation (DOT) 4 x 4 green, diamond-shaped, "nonflammable gas" label.
- Refillable cylinders should have a label noting the refrigerant type, CAS number, and UN number.

4. Inspect cylinder to be used for signs of damage, such as dents, gouges, and corrosion. Also check the valve for damage. Do not fill damaged cylinders.

5. Use only DOT CFR Title 49 or UL approved storage containers for recycled refrigerant. Refillable cylinders must be retested and recertified every five years and the test date stamped

on the cylinder collar, in accordance with DOT Title 49 CFR Section 173.34 (e) and 173.31 (d). Retesting by visual inspection alone is not permitted. Do not fill a container that is 5 years or older; return it empty to the owner or a recertification company for retesting.

6. Refrigerant cylinders should not be filled in excess of 80% of the fluid capacity. More than 80% would be considered overfilling and may result in serious safety issues.

7. To prevent cylinder overturning while being transported and to comply with 49 CFR transportation requirements, all refrigerant cylinders shall be lashed in an upright position, loaded into racks securely attached to the motor vehicle, or packed in boxes or crates of such dimensions as to prevent their overturning. Also, never transport a gas cylinder without its valve protection cap firmly in place.

8. Prior to disposing of any cylinder (virgin, or reclaimed), the vessel will be completely emptied by drawing a vacuum (follow the small appliance evacuation guidelines) and punctured prior to being turned into Defense Reutilization and Marketing Office (DRMO) for disposal / recycling. Any cylinder that is disposed of shall be reported on the URSL and provided to the DPW in accordance with the refrigerant inventory and recordkeeping requirements outlined in this Plan.

9. All approved refillable refrigerant storage vessels shall be clearly marked or stenciled with an internal identifier such as a serial number, so that its contents can be accurately tracked and accounted via the URSL, or RML.

10. Do not mix different refrigerants in the same cylinder. If refrigerants are mixed, they shall be considered unusable and treated as hazardous waste. The only exception is for Class I refrigerants. Contact DPW-ED for details.

11. Follow the turn-in procedures per DoD guidance in Appendix F.

7.0 REFRIGERANT INVENTORY / RECORDS MANAGEMENT

7.1 Department of Defense / Army Policy & Turn-In

All Class I ODCs and HCFC-22 are to remain in the control of DoD facilities at all times. These materials shall not be sold or transferred to any outside interest. The "DoD ODC Turn-in Procedures," contained in Appendix F, provide specific guidance on anti-stockpiling provisions as well as **turning in** all Class I ODCs and pure HCFC-22 to the Defense Logistics Agency (DLA). The DLA is assigned the mission of managing the Defense Reserve of Ozone-depleting Substances to ensure that the supplies for mission critical uses are available. DLA provides central management for the receipt, storage and issuance through the Defense Supply Center Richmond (DSCR) which is the activity within DLA that manages these substances. The Defense Depot Richmond, Virginia (DDRV) is the primary storage site for ozone-depleting substance.

7.1.1 Class I & HCFC-22 Turn-in Exceptions

The only exceptions to the turn-in policy are as follows:

- HCFC-22 may be retained on the installation (stockpiled) for use in existing equipment.
- See DoD specific turn in procedures in Appendix F.
- Class I ODCs that serve an immediate need may be retained on the installation for use in tactical vehicles and mission essential weapons systems only.

For any Class I material inadvertently discovered on the installation that is not being managed in an organization's / unit's working inventory, please refer to the DoD turn in policy as found in Appendix F. Contact DPW-ED at 719.526.6601 with any further questions.

7.1.2 Obtaining Class I ODCs (Halon 1301)

Halon 1301 is the only identified Class I ODC requirement the Defense Reserve has for the Army. Halon 1301 is reserved for critical mission essential weapons systems and tactical vehicles only, and may not be used by an installation to charge or recharge existing ODC containing systems. For specific procedures on obtaining Halon 1301 from the reserve please consult the DoD Ozone-depleting Substances Requisitioning Procedures in Appendix G.

7.2 Fort Carson-Issued Refrigerants

All Class II ODCs issued from the Fort Carson stock points (Hazardous Materials Management Center [HMCC], DPW Hazardous Material [HazMat], etc.) will require the customer to provide proof of sufficient certification to obtain a controlled substance. Refrigerant will be issued only to persons who have valid technician certification as per 40 CFR Subpart F or 40 CFR Subpart B.

7.3 Refrigerant Disposal / Recycling / Reclamation

Class 1 ODC and HFCF-22 should only be turned in per DoD procedures outlined in Appendix F.

Disposal of recovered refrigerants that are **NOT** Class 1 ODC and HFCF-22 as a hazardous waste should be the exception and not the rule. In most cases, unmixed refrigerants **that are not Class I ODCs and HFCF-22** should be sent to a certified recycler / reclaimer to effectively process the material back into the specifications meeting virgin product standards. There are several local vendors capable of processing these materials, and organizations need only to keep the records showing the details of the transaction.

7.4 Recordkeeping Procedures

Directorates and units employing AC&R equipment, MVAC, and MVAC-like appliance technicians shall maintain an accurate accounting of all refrigerant types regardless of ozone-depleting potential at all times. Affected personnel will complete one of the following forms as applicable to their certification, and action: the URSL form; the MVAC Service Log form; and / or the RML (see appendices C, E, & H) for each service, repair, purchase, or disposal action involving opening an appliance, MVAC, MVAC-like appliance, tactical weapons system component, or refrigerant containing cylinder. DPW-ED will collect the log data into an inventory that will be utilized to track all refrigerants in service on a mass balance basis. The tracking system will include AC&R equipment, recovery equipment, and storage vessels. MVAC and MVAC-like records will be audited according the scheduled outlined by DPW-ED.

7.4.1 Civilian Technicians

1. All URSL forms, and RMLs used by civilian technicians for compliance tracking must be turned into the DPW-ED no later than the 15th of the following calendar month for which the records were made.

2. Forward copies of all paperwork, such as receipts and invoices showing transfers of any refrigerant not meeting the restriction guidelines above. DPW-ED will maintain copies of the records and make notes in the refrigerant database detailing any transactions.

3. Contact the DPW-ED with any questions about potential disposal, or hazardous waste issues.

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APPENDIX A

DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT
600 ARMY PENTAGON
WASHINGTON, DC 20310-0600

DAIM-ZA

JUN 12 2008

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: R-22 Refrigerant Use on Army Installations

1. The Army has a long term requirement to use refrigerant R-22, a Class II ozone depleting substance (ODS), to support tactical equipment. Approximately 120,000 pounds of R-22 produced prior to 2010 are needed through 2024. The Clean Air Act of 1990 implements an international production phase-out of R-22 beginning in 2010. The law also reduces demand for R-22 by prohibiting its use in new equipment after 2010 and directs the recovery of all refrigerants when Air Conditioning and Refrigeration (AC&R) systems are serviced or retired. As Army installations service and replace aging air conditioning and refrigeration units, the recovered R-22 not otherwise needed to meet installation requirements will be stockpiled to meet the future tactical need.

2. To this end, the Defense Logistics Agency will accept and store recovered R-22 for the Army. The ODS Reserve, a function of Defense Supply Center, Richmond (DSCR), will fund the shipment of recovered R-22 to their facility, just as they currently do for Class I ODS. Therefore, effective immediately, installations will ship excess R-22 recovered from AC&R equipment to DSCR. ODS turn-in procedures are available from DCSR by e-mailing a request to odsreserve@dscr.dla.mil.

3. Personnel involved in the acquisition of new AC&R equipment, such as installation DPWs or Corps of Engineer project engineers, must be alert to suppliers and contractors, such as Energy Service Contractors, who may attempt to provide AC&R equipment using R-22 refrigerant in the project. While legal, this should be avoided.

4. The OACSIM POC is Mr. Joe R. Schroeder, DAIM-ISE, (703) 601-1572, email: joe.schroeder@us.army.mil and the ODS Reserve POC is Mr. Bobby Carwile, (704) 279-5203, email: rcarwile@dscr.dla.mil.

ROBERT WILSON
Lieutenant General, GS
Assistant Chief of Staff
for Installation Management

Printed on Recycled Paper

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APPENDIX B

Form Approved 11/04/2011
OMB No. 2060-0256
Expires: 12/31/2017

ENVIRONMENTAL PROTECTION AGENCY
REFRIGERANT RECOVERY OR RECYCLING DEVICE
ACQUISITION CERTIFICATION FORM

EPA regulations require establishments that service or dispose of refrigeration or air-conditioning equipment to certify that they have acquired recovery or recycling devices that meet EPA standards for such devices. To certify that you have acquired equipment, please complete this form according to the instructions and **mail it to the appropriate EPA Regional Office. BOTH THE INSTRUCTIONS AND MAILING ADDRESSES CAN BE FOUND ON THE REVERSE SIDE OF THIS FORM.**

PART 1: ESTABLISHMENT INFORMATION

Name of Establishment

Street

(Area Code) Telephone Number

City State Zip Code

Number of Service Equipment Based at Establishment

Country

PART 2: REGULATORY CLASSIFICATION

Identify the type of work performed by the establishment**. Check all boxes that apply.**

- ☐ Type A - Service small appliances
- ☐ Type B - Service refrigeration or air-conditioning equipment other that small appliances
- ☐ Type C- Dispose of small appliances
- ☐ Type D - Dispose of refrigeration or air-conditioning equipment other than small appliances

PART 3: DEVICE IDENTIFICATION

	Name of Device(s) Manufacturer	Model Number	Year	Serial Number (if any)	Check Box if Self-Contained
1.					☐
2.					☐
3.					☐
4.					☐
5.					☐

PART 4: CERTIFICATION SIGNATURE

I certify that the establishment in Part 1 has acquired the refrigerant recovery or recycling device(s) listed in Part 2, that the establishment is complying with Section 608 regulations, and that the information gives is true and correct.

Signature of Owner/Responsible Officer Date Name (Please Print) Title

Form Approved 11/04/2011
OMB No. 2060-0256
Expires: 12/31/2017

INSTRUCTIONS

Part 1: Please provide the name, address, and telephone number of the establishment where the refrigerant recovery or recycling device(s) is (are) located. Please complete one form for each location. State the number of vehicles based at this location that are used to transport technicians and equipment to and from service sites.

Part 2: Check the appropriate boxes for the type of work performed by technicians who are employees of the establishment. The term "small appliance" refers to any of the following products tat are fully manufactured, charged, and hermetically sealed in a factory with five pounds or less of refrigerant: refrigerators, and freezers designed for home use, room air conditioners (including window air conditioners and packaged terminal air conditioners), packaged terminal heat pumps, dehumidifiers, under-the-counter ice makers, vending machines, and drinking water coolers.

Part 3: For each recovery or recycling device acquired, please list the name of the manufacturer of the device, and (if applicable) its model number and serial number.

If more that seven devices have been acquired, please fill out an additional form and attach it to this one. Recovery devices that are self-contained should be listed first and should be identified by checking the box in the last column on the right. Self-contained recovery equipment means refrigerant recovery or recycling equipment that is capable of removing the refrigerant from an appliance without the assistance of components contained in the appliance. On the other hand, system-dependent recovery equipment means refrigerant recovery equipment that requires the assistance of components contained in an appliance to remove the refrigerant from the appliance.

If the establishment has been listed as Type B and/or Type D in Part 2, then the first device listed in Part # must be a self-contained device and identifies as such by checking the box in the last column on the right.

If any of the devices are homemade, they should be identified by writing "homemade" in the column provided for listing the name of the device manufacturer. Type A or Type B establishments can use homemade devices manufactured before November 15, 1993. Type C or Type D establishments can use homemade manufactured anytime. If, however, a Type C or Type D establishment is using homemade equipment manufactured after November 15, 1993, then it must <u>not</u> use these devices for service jobs.

Form Approved
OMB No. 2060-0256
Expires: 12/31/2017

EPA REGIONAL OFFICES

Send your form to the EPA office listed under the state or territory in which the establishment is located.

Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont

CAA 608 Enforcement Contact: EPA Region I; Mail Code OES04-2; 5 Post Office Square; Boston, MA 02109

New York, New Jersey, Puerto Rico, Virgin Islands

CAA 608 Enforcement Contact: EPA Region II; Mail Code 2DECA-AC; 290 Broadway; New York, NY 10007-1866

Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia

CAA 608 Enforcement Contact: EPA Region III-Wheeling Office; Mail Code 3AP20; 1060 Chapline Street, Suite 303 Wheeling, WV 26003-2995

Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee

CAA 608 Enforcement Contact: EPA Region IV; Mail Code APT-AE; 61 Forsyth Street, SW; Atlanta, GA 30303-8960

Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin

CAA 608 Enforcement Contact: EPA Region V; Mail Code AE-17J; 77 West Jackson Blvd.; Chicago, IL 60604-3507

Arkansas, Louisiana, New Mexico, Oklahoma, Texas

CAA 608 Enforcement Contact: EPA Region VI; Mail Code 6EN-HM; 1445 Ross Ave., Suite 1200; Dallas, TX 75202

Iowa, Kansas, Missouri, Nebraska

CAA 608 Enforcement Contact: EPA Region VII; Mail Code APCOAWMD; 901 11201 Renner Boulevard
Lenexa, Kansas 66219

Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming

CAA 608 Enforcement Contact: EPA Region VIII; Mail Code 8ENE-AT; 1595 Wynkoop Street, Denver, CO 80202

American Samoa, Arizona, California, Guam, Hawaii, Nevada

CAA 608 Enforcement Contact: EPA Region IX; Mail Code AIR-5; 75 Hawthorne Street; San Francisco, CA 94105

Alaska, Idaho, Oregon, Washington

CAA 608 Enforcement Contact: EPA Region X; Mail Code OAQ-107; 1200 Sixth Ave.; Seattle, WA 98101

Form Approved
OMB No. 2060-0256
Expires: 12/31/2017

PUBLIC BURDEN

The purpose and need of this renewed collection request is to facilitate compliance with and enforcement of Section 608 of the Act by reducing emissions of class I and class II ozone-depleting refrigerants to the lowest achievable level during the service, maintenance, repair, and disposal of appliances. EPA has used and will continue to use these records and reports to ensure that refrigerant releases are minimized during the recovery and recycling of ozone-depleting refrigerants during the service, maintenance, repair, and disposal of appliances. Collection of this information is mandated by EPA regulations, in accordance with 40 CFR 82.162. This information is not shared with parties outside of the Federal government. EPA's confidentiality regulations (40 CFR 2.201 et seq.) assure computer data security, disclosure prevention, proper handling, proper storage, and proper disposal of the submitted information.

The public reporting and recordkeeping burden for this collection of information is estimated to average one (1) hour per response per respondent annually. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

To comment on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including the use of automated collection techniques, EPA has established a public docket for this ICR under Docket ID No. OAR-2003-0018, which is available for public viewing at the Air and Radiation Docket and Information Center in the EPA Docket Center (EPA/DC), EPA West, Room B102, 1301 Constitution Ave., NW, Washington, DC. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566-1744, and the telephone number for the OAR Docket is (202) 566-1742. An electronic version of the public docket is available through EPA Dockets (EDOCKET) at http://www.epa.gov/edocket. Use EDOCKET to submit or view public comments, access the index listing of the contents of the public docket, and to access those documents in the public docket that are available electronically. Once in the system, select “search,” then key in the docket ID number identified above. Also, you can send comments to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW, Washington, DC 20503, Attention: Desk Office for EPA. Please include the EPA Docket ID No. (OAR-2003-0018) and OMB control number (2060-0256) in any correspondence.

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APPENDIX C

Universal Service, Repair, and Disposal Refrigerant Mass Balance Tracking Form

Please fill out this form completely for any activity involving Refrigerant Management for AC&R appliances or Tactical Weapons System Components.
This form shall be used to track refrigerants in all equipment serviced regardless of charge and refrigerant type.
(Contact DPW Environmental Division Air Program at 719/526-6601 or 719/526-1708 with questions.)

Compliance Month: _____ **Shop:** _____ **Validated:** _____

Technician: _____ **Service Date:** _____ **Ph. #:** _____

Equipment Duty Type: ☐ Process / Commercial ☐ Comfort Cooling ☐ Small Appliance ☐ Halon System

Service / Work Order Number: _____ **Service Type (check all that apply):** ☐ Minor Maintenance ☐ Add Refrigerant ☐ Refrigerant Conversion / Retrofit ☐ Start-up ☐ Major Maintenance ☐ Confirm Charge ☐ Dispose of Unit ☐ Other (Describe)

Equipment DataBase ID: _____ ☐ New or Previously Unreported Equipment

OR:

Make: _____ **Bldg. No.:** _____

Model: _____ **Location:** _____

Serial No.: _____

Refrigerant Type: _____ **No. of Circuits:** _____

Total Charge: _____ (lbs) _____ (oz) **TONS:** _____

Refrigerant Management:

	Cylinder ID Number	Type	Condition	Vacuum (inches / microns)		Measured Quantity	
Recovered						(lbs)	(oz)
						(lbs)	(oz)
	Recovery Unit ID:						
Added				NA		(lbs)	(oz)
				NA		(lbs)	(oz)
					Net Refrigerant Added:	(lbs)	(oz)

Leak Repair Notes:

Was a Leak Found? ☐ Yes ☐ No

Was the Leak Repaired? ☐ Yes ☐ No

Trace Gas Used: **Amt:** _____ **Cylinder ID:** _____

What was the Source of the Leak? _____

Service Notes:

Leak / Service Data:

	Date	Leak Rate %	Detection Method
Initial Leak Test:			
Follow-up Leak Test:			

☐ NA, Leak Rate Determination Not Required

Leak Rate Calculation Documentation

Lbs. of Ref. Added (lbs): _____ **Pounds in Normal Charge:** _____

Days Since Refrigerant Last Added (365 Max.): _____ **Leak Rate** = _____ %

Disposal Considerations: ☐ Copy of Disposal / Reclaimer Recipts / Records Included w/Monthly Submissions?

Oil Removed? ☐ Yes ☐ No ☐ NA **Oil Disposal Method:** _____

Oil Amount: _____ **Units:** _____

Oil Contaminated with Refrigerant? _____ **Equipment Disposal Method:** _____

Accidental Release Reporting: **Was Refrigerant Accidentally Released?** ☐ Yes ☐ No

Release Point: _____

Exp. Cause: _____

Estimated Amount Released: _____ Units: _____

Refrigerant Activity Report Description of Fields

UNIT SERVICED

Work Order / Service Number – A unique number used by the office to differentiate between service calls.
Refrigerant Type – List the type of refrigerant in the equipment/appliance (i.e. R-22, R-123, R-11, R- 410A, etc)
Duty Type: *Process/Commercial* - Industrial Process equipment is equipment directly linked to the manufacturing process (bakeries, pharmaceutical companies etc.). Commercial equipment is refrigeration for food in warehouses or stores. *Comfort* equipment is cooling for the comfort of people or animals (office bldgs, hospitals, zoos etc.). *Small appliances* are those units with less than 5 lbs. of refrigerant.

FTC requires documentation on all equipment serviced if refrigerant is involved.

Unit Charge/Circuit Charge –The full charge or circuit charge is needed for leak rate calculations. The full charge or circuit charge can be determined in the following ways: 1) The manufacturer's charge stamped on name plate. 2) The quantity of refrigerant added to a newly installed piece of equipment. 3) By recovering the charge and weighing the refrigerant (not recommended). 4) For split systems, use the manufacturer's charge for any standard equipment and calculate the charge for actual piping lengths. The full charge or circuit charge can be estimated by using two pounds per ton. (If estimated, check the estimated box for unit or circuit charge). Estimated charges should NOT be used in leak rate calculations.
Equipment or DataBase ID - Enter the unique database ID number or provide the required information and indicate if the unit is new or previously unreported.

SERVICE

Recovery is removing refrigerant from the unit and putting it in a separate container(s). Recycling is replacing recovered refrigerant back in the same unit or another of the same customer's units. Reclaiming refrigerant is sending it to an EPA certified reclaimer.
Minor Maintenance – Repairs which do not require opening the unit to perform (refrigerant can be isolated).
Major Maintenance – Repairs which requires refrigerant be recovered and the unit evacuated according to EPA requirements prior to repair. This includes: repairs on the compressor, condenser, evaporator or auxiliary heat exchanger coil or repairs which would result in a release of refrigerant.
Confirm Charge – Recover refrigerant and then put it back in to determine the full charge (not recommended)
Retrofit / Conversion – Replacement of refrigerant in the unit with another refrigerant.
Dispose of Unit – Recovery of refrigerant prior to disposal of equipment
Start Up – New equipment installation. Refrigerant added to initially charge unit
Other: This is a short recap of the service performed

REFRIGERANT MANAGEMENT

Cylinder ID(s) – List unique cylinder numbers.
Type – The recovered refrigerant, i.e. R-22, R-123, R-11, R- 410A, etc
Condition – New, Recovered (removed from unit and placed into container), Reclaimed or Contaminated
Vacuum - The inch/micron measurement of vacuum achieved upon recovery
Measured Quantity – List amount in lbs (and oz where applicable)
Recovery Unit ID - Unique number of recovery unit used
Net Refrigerant Added - The difference between the added refrigerant and the recovered refrigerant

LEAKS

Leak Found - Complete if a leak was found. Describe the fix in the Service Notes.
Leak Repaired – All leaks should be repaired. If a leak cannot be repaired, notate issues in the Service Notes. DO NOT add additional refrigerant to a leaking unit**.**
Trace Gas – Small amounts of refrigerant may be used as trace gas. Write the amount and cylinder number used in the Service Notes.
Initial Leak Test - Record the date and the method used to perform the tests (pressurized, electronic, soap bubbles, or vacuum).
Follow Up Leak Test - Record the method used to perform the test**.** Follow-up tests can be completed on the same day but must be completed within 30 days of the repair.
Accidental Release- A release of refrigerant not deliberately released. Explain and estimate the amount released.

LEAK RATE DETERMINATION

Leak Rate Calculation - (Net amount of refrigerant added / lbs in normal charge) / (Days since last add / 365) x 100

DISPOSAL CONSIDERATIONS

Ensure all equipment and oil disposal records are provided to the Air Program along with the URSL forms monthly.

MONTHLY REPORTING REQUIREMENTS

FTC uses refrigerant cylinder accounting as the compliance assurance model for records keeping. As such, the additional records below need to be maintained to ensure the integrity of the system.
Transfers, Purchases, and Disposal – Refrigerant transferred from one cylinder to another, to a reclaim or disposal facility, shipped as hazardous waste, and any purchases made during each month. .
Cylinder Reporting - All cylinders need to maintain complians with the management plan. Report all actions occuring during the month on the form.

SIGNATURES

The form must be dated and signed by the Service Tech. The customer/owner needs the information on this form to meet their EPA requirements.
Validated and Recorded – All Universal Refrigerant Service logs are required to be reviewed and verified by the Air Program prior to DataBase entry. The reviewer initials in the Validated section. The person who records the form into the software initials the form after it has been entered into the software system.

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APPENDIX D

MVAC RECOVER, RECOVER/RECYCLE OR RECOVER/RECYCLE/RECHARGE EQUIPMENT CERTIFICATION FORM

1 _____
NAME OF ESTABLISHMENT

_____
STREET

_____
CITY, STATE, ZIP CODE

_____
TELEPHONE NUMBER

2 _____
NAME OF EQUIPMENT MANUFACTURER & MODEL NUM

_____
SERIAL NUMBER(S) YEAR

3 I certify that I have approved recover, recover/recycle, or recover/recycle/recharge equipment under Section 609 of the Clean Air Act. I certify that only properly trained and certified technicians operate the equipment and that the information given above is true and correct.

_____
SIGNATURE OF OWNER/OPERATOR DATE

_____
NAME (PRINT) TITLE

SEND THIS FORM TO THE EPA REGIONAL OFFICE LISTED UNDER YOUR STATE OR TERRITORY IN WHICH THE ESTABLISHMENT IS LOCATED.

MAILING ADDRESSES CAN BE FOUND ON THE REVERSE SIDE OF THIS FORM.

MVAC RECOVER, RECOVER/RECYCLE OR RECOVER/RECYCLE/RECHARGE EQUIPMENT CERTIFICATION FORM INSTRUCTIONS

Motor vehicle refrigerant recover, recover/recycle, or recover/recycle/recharge equipment must be acquired by January 1, 1992 and certified to EPA on or before January 1, 1993 under Section 609 of the Clean Air Act. To certify your equipment, please complete the above form according to the following instructions and mail to the appropriate EPA region based on where your establishment is located.

1 Please provide the name, address, and telephone number of the establishment where the equipment is located.

2 Please provide the name brand, model number, year and serial number(s) of the equipment acquired for use at the above establishment.

3 The certification statement must be signed by the person who has acquired the equipment (the person may be the owner of the establishment or another responsible officer). The person who signs is certifying that they have acquired the equipment, that each individual authorized to use the equipment is properly trained and certified, and that the information provided is true and correct.

EPA REGIONAL OFFICES

Send your form to the EPA office listed under the state or territory in which the establishment is located.

Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont
CAA section 609 Enforcement Contact; EPA Region 1; 5 Post Office Square; Suite 100; OES04-2; Boston, MA 02109-3912

New York, New Jersey, Puerto Rico, Virgin Islands
CAA section 609 Enforcement Contact; EPA Region 2 (2DECA-AC); 290 Broadway, 21st Floor; New York, NY 10007-1866

Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia
CAA section 609 Enforcement Contact; EPA Region 3--Wheeling Operations Office; Mail Code 3AP12; 303 Methodist Building; 11th and Chapline Streets; Wheeling, WV 26003

Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee
CAA section 609 Enforcement Contact; EPA Region 4(APT-AE); Atlanta Federal Center; 61 Forsyth Street, SW.; Atlanta, GA 30303

Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin
CAA section 609 Enforcement Contact, EPA Region 5 (AE17J); 77 West Jackson Blvd.; Chicago, IL 60604-3507

Arkansas, Louisiana, New Mexico, Oklahoma, Texas
CAA section 609 Enforcement Contact; EPA Region 6 (6EN-AA); 1445 Ross Avenue, Suite 1200; Dallas, Texas 75202

Iowa, Kansas, Missouri, Nebraska
CAA section 609 Enforcement Contact; EPA Region 7; Mail Code APCO/ ARTD; 11201 Renner Boulevard
Lenexa, Kansas 66219

Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming
CAA section 609 Enforcement Contact, EPA Region 8, 1595 Wynkoop St., Denver, CO 80202

American Samoa, Arizona, California, Guam, Hawaii, Nevada
CAA section 609 Enforcement Contact; EPA Region 9; Mail Code AIR-5; 75 Hawthorne Street; San Francisco, CA 94105

Alaska, Idaho, Oregon, Washington
CAA section 609 Enforcement Contact; EPA Region 10 (OAQ-107); 1200 Sixth Avenue; Seattle, WA 98101

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APPENDIX E

MVAC & Tactical Equipment Refrigerant Usage Tracking Form

This form is to be used to track refrigerant usage in equipment with less than 50 lbs. charge. Please fill this form out completely each time a certified technician conducts service/repair. If you service equipment with more than 50 lbs. charge, please contact DPW Air Program for a different form.

Contact DPW Environmental Division Air Program at 719/526-6601 with questions

Date	Technician Name	Tech. Certification Type	Refrigerant Type	Equipment Serviced (Apache, Humvee, A/C Unit)	Amount Refrigerant Recovered (Units)	Vacuum Achieved	Vacuum Units	Amount Refrigerant Added (Units)	Description of Repairs

Bldg. Number: _____

Supervisor or Responsible Official: _____ Phone Number: _____

DESCRIPTION OF FIELDS

Technician Type	List the type of technician certification (Type II, Universal, MVAC)
Refrigerant Type	List the type of refrigerant in the equipment/appliance (i.e. R-22, R-123, R-11, R- 410A, etc)
Equipment Serviced	List the type of equipment that was serviced (Humvee, Apache, A/C Unit)
Amount of Refrigerant Recovered	The amount of refrigerant recovered from the system
Vacuum Achieved	Vacuum achieved upon recovery
Vacuum Units	Unit of measurement for vacuum
Amount Refrigerant Added	The amount of refrigerant added back into the system
Description of Repairs	Describe the type of repairs performed on the equipment

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APPENDIX F

DEPARTMENT OF DEFENSE
OZONE DEPLETING SUBSTANCES

TURN-IN PROCEDURES

AUG 2015

PREFACE

The Defense Logistics Agency (DLA) is assigned the mission of managing the Defense Reserve of Ozone Depleting Substances to ensure that the supplies for mission critical uses are available. DLA provides central management for the receipt, storage and issuance through the DLA Aviation which is the activity within DLA that manages these substances. The DLA Distribution Richmond is the primary storage site for ODS.

It is imperative that your Military Service or Defense Agency turn in to the Reserve the following excess CFCs 11, 12, 114, 500, 502; Halons 1202, 1211, 1301, 2402; and HCFC-22 . The Reserve accepts both used and new CFCs, Halons, and HCFC-22 in a relatively pure state (i.e. not as a component of other products). These chemicals may have been purchased under the Federal Supply Classes (FSC) 6830 and 4210, or from a commercial source. CFC/Solvent - 113 (Type I & II) and 1,1,1 Trichloroethane (FSCs 6850 and 6810) can also be turned in to the Reserve provided they have never been used and the containers in which the chemicals reside have never been opened or unsealed.

All turn ins must be returned to DLA Distribution in Richmond VA unless the activity is located in Japan, Hawaii, the United Kingdom or the European Community. Section 1 provides procedures on how to turn-in excess ODS to DLA Distribution in Richmond VA. Section 2 provides site specific guidance pertaining to turn-ins to the collection sites at Germersheim, Germany; Yokosuka, Japan; and Pearl Harbor, Hawaii, and at the DoD ODS Reserve European Holding Facility in The Netherlands. Guidance for other overseas collection sites will be added, as needed**.** Section 3 provides National Stock Numbers (NSN's) specifically assigned to identify ODS turned in to the Reserve and associated recovery cylinders. Section 4 lists the chemical names of the Reserve ODS. Section 5 lists the DoD Services' and Coast Guard POC's.

For questions concerning requisitions (sales orders) and stock availability, contact the Reserve at DSN 695-6451 or commercial (804) 279-6451. For procedural concerns or questions please call, DSN 695-5203, 4525 or 5004. The commercial number is (804) 279-5203, 4525 or 5004.

Program Manager
DoD ODS Reserve

Section 1

GENERAL ODS TURN-IN INFORMATION

I. Procedures

A. No authorization/pre-notification to the item manager or ODS Program Office is required when turning in ODS to the Reserve.

B. All types of ODS containers will be accepted in the Reserve to include cylinders, fire extinguishers, drums, spheres, and canisters. Government recovery cylinders are available free of charge through DLA Aviation for ODS turned in to the Reserve. The Military Standard Requisition and Issue Procedure (MILSTRIP) is used to requisition ODS. The DLA preferred method for your input of a requisition (sales order) into the supply system is through EMALL, but requisitions can be phoned in to DLA Customer Interaction Center. The Center is available 24 hours a day at DSN 661-7766 or COMM toll free (877) 352-2255 (877-DLA-CALL) to answer questions concerning MILSTRIP and requisition status. The government cylinders used for recovering CFC refrigerants are painted orange, and Halons red. Both have yellow tops and dual port (two valves) to distinguish them from single port valve standard spec gas cylinders. Dual port spec gas (virgin) CFC cylinders are only available for Navy shipboard applications.

C. All ODS containers returned to the Reserve must be tagged/labeled as follows:

1. The shippers DoD Activity Address Code (DoDAAC).

2. The shipping activity's "in-the-clear" address with POC and phone number.

3. The NSN of cylinder(s) containing the recovered ODS (see Section 3).

4. Type of ODS (i.e., Halon 1301 or CFC-12).

5. The quantity of containers on the pallet or within the shipping crate.

6. Packaged and labeled in compliance with DOT regulations.

Note: When multiple containers (cylinders, drums, spheres, canisters, or fire extinguishers) with the same NSN are shipped palletized or in a box/crate, apply only one tag/label to the shipment, not to each item.

D. Fire suppression system cylinders and canisters with electrical charges or initiators must be deactivated prior to shipment to the Reserve. Also, safety caps must be used to cover exposed actuation mechanisms and discharge ports on these special cylinders, otherwise dangerous safety situations could arise during the shipping, receiving, or storage process. Your local area fire protection equipment companies can provide safety services. Special handling procedures for Halon system cylinders are provided later in Section 1. If further guidance is

needed contact the ODS Reserve Program Office at DSN 695- 5203 or Commercial (804) 279-5203 or email avnodsreserve@dla.mil.

E. Monetary credit will not be given for turned in ODS or cylinders. However, ownership credit will always be given to the service or agency for the pounds of ODS returned to the Reserve.

F. Empty recovery, and spec gas cylinders must be turned in to the Reserve. Spec gas empty cylinders (see Section 3 for applicable NSNs) should not be used for recovering ODS. Spec gas cylinders will be refurbished and refilled with product for future requisitions. There are exceptions to recovering product into spec gas cylinders but this applies to limited Navy shipboard applications. Approval by the ODS Program Office is required to obtain these unique spec gas cylinders for shipboard applications.

G. CFC/Solvents - 113 and 1,1,1 Trichloroethane when turned in must be in their original containers in which the seal has never been broken.

H. Burnt out or mixed reserve products can be turned in to the Reserve. Clearly identify the chemical by defining its components (i.e. R-12 & R-502).

I. The following items **are not** a part of the Reserve:

1. Empty fire extinguishers (valves removed)
2. Empty commercial containers
3. Aerosol cans with Reserve chemicals
4. Dry chemicals
5. HCFC refrigerants except for R-22
6. R-134a or other HFC refrigerants

Contact your local Property Disposal Office for guidance on discarding these items.

II. Transportation Guidance

A. When shipping ODS refer to the following regulations if needed:

1. MIL-STD-129L, Military Standard Marking for Shipment and Storage.

2. DLAR 4145.25, Storage and Handling of Compressed Gases and Liquids in Cylinders, and of Cylinders or the following applicable Service regulation:

(a) AR-700-68

(b) NAVSUPINST 4440.128C

(c) MCO 10330.2C

(d) AFR 67-12

3. Code of Federal Regulations 49.173 (particularly 173.301), Requirements for the Shipment of Compressed Gas Cylinders.

B. If funding is not available within your activity to ship ODS to the Reserve, transportation cost can be paid by the Reserve. For transportation cost assistance, contact the ODS Reserve via email at avnodsreserve@dla.mil to obtain a Transportation Authorization form.

C. Turn-ins should be forwarded to the following address:

DLA Distribution Richmond, VA
SW0400 ODS Cylinder Operations
Open Shed 6
Chippenham Pkwy Entrance, Gate 13*
Richmond, VA 23297-5900

All Carriers will be required to make an appointment at least 24 hours prior to delivery. Delivery should be scheduled between 8:00 A.M. and 11:00 A.M., Monday through Thursday, excluding holidays. Appointments will need to be scheduled using the Carrier Appointment System (CAS). CAS is a Department of Defense web based application. Users will need to register for CAS access at the following URL: https://eta.sddc.army.mil'. **If a carrier does not have access to CAS**, the carrier should email the DLA Distribution Richmond, VA, ddrv.dtcidla.mil@dla.mil with all the appropriate information to make an appointment for delivery, such as the NSN, number of pallets, the bill of lading and/or contract number, dispatch name, number and email address.

Transportation Service Provider (TSP) users will require an External Certificate Authority (ECA) prior to registering for access to CAS. This process may take several weeks. Users can get information on how to obtain an ECA by going to the ETA homepage (https://eta.sddc.army.mil) and selecting "PKI Information" under "Help" from the task bar. Then select "ECA Instructions" under PKI Guides.

Users can also call the System Response Center (SRC) at 1-800-462-2176 for additional information on ECAs or digital certificates.

Please contact Mitch Conley (618) 220-5475 for information on CAS or to schedule a CAS overview once you have a CAS account.

Please contact Ruben Bryant, Transportation Officer at DDRV (804) 279-2393 for questions concerning the use of CAS at DLA Distribution Richmond VA (DDRV-TEAM OLGOONIK).

*Carriers making deliveries will use only Gate 13, located off State Route 150, Chippenham Parkway, 1/4 mile west of U.S. Highway 1 and 301, Strathmore Road/DDRV/DSCR Exit, between 8:00 A.M. and 11:00 A.M., Monday through Thursday, excluding holidays. Carriers shall call the DDRV Dispatch Office at (804) 279-3834/3835/3157 for directions and confirmation of the appointment before arriving at DLA Distribution Richmond, VA and shall also call the DDRV Dispatch Office if they are unable to meet the scheduled delivery appointment time. Carriers should also contact Ray Parker upon arrival at the Depot at Cell:

804-543-4404 for unloading of the shipment. Carriers will be responsible for any additional delay costs caused by not making an appointment or making a delivery outside the scheduled delivery appointment timeframe. Please make sure the material is properly marked, palletized and banded.

III. Special Handling Procedures for Halon 1301 System Cylinders

A. Halon 1301 is typically incorporated into built-in fire suppression systems applications with the charged Halon cylinder connected to the system piping. Because the Halon is over pressurized with nitrogen to facilitate distribution, these system cylinders are usually disconnected from the system and used as the transportation cylinder to return the product to the Reserve as the systems are taken out of service. However, fire suppression system cylinders and canisters with electrical charges or initiators must be deactivated prior to shipment to the Defense Reserve. Special care should be taken when deactivating and disassembling the systems. The valves on these cylinders are designed in a manner that upon activation, they are changed instantly from a closed position to fully open position and will dispense the Halon in less than 10 seconds. The combination of these sensitive valves and the high pressure within the cylinders require compliance with good safety practices. It is highly recommended that an expert in Fire Suppression Systems be contracted to perform the decommissioning/removal.

B. Instructions for dismantling a Halon Fire Suppression System are provided as follows:

1. The first step is to deactivate the actuation system, which is usually electrical or pneumatic. However, disconnection from the electrical or pneumatic source is not sufficient from a safety standpoint. In the case of pneumatic systems, there is often still a small pin exposed that must be covered with a safety cap before handling. Just the slightest touch on this pin could cause full activation of the valve. In the case of electrically activated valves, simple disconnection of the electrical leads to solenoid valves is acceptable. However, if the electrical connection is to an explosive initiator, it is very important to remove the initiator. This is a very important safety practice, because static electricity can cause the explosive to detonate. These actions should be done before any other dismantling is initiated.

2. The next step is to disconnect any discharge piping from the discharge port. Immediately upon disconnection of the piping, install an anti-recoil device (discharge port safety cap). Safety caps should be used to cover exposed actuation mechanisms and discharge ports on these special cylinders, otherwise dangerous safety situations could arise during the shipping, receiving, or storage process. Application of manufacturer's designed and supplied caps are the proper safety practice. In some cases the threads are not exactly the same as pipe threads and may not hold under the pressure of release. However, if pipe caps, plugs or plates are substituted for manufacturer's caps, at least four opposing holes must be drilled in the anti-recoil cap, plug or plate to disperse any release of the Halon if the valve inadvertently activates. Anti-recoil device safety caps/plugs/plates must always be in place before handling the cylinders.

3. Adherence with the above safety practices is paramount before removing any cylinders from the mounting position. Once the safety devices are in place, cylinders can be moved with relative safety. However, these are high-pressure compressed gas cylinders and require all the safe handling practices of any other gas cylinder. Also, protective safety wear is required for personnel deactivating cylinders.

Section 2

SITE SPECIFIC PROCEDURES

A. Procedures for European Collection Site at DLA Distribution, Germersheim, Germany

I. The primary turn-in site for the DoD ODS Reserve is located at DLA Distribution in Richmond, VA. However, collection sites have been established in Germersheim, Germany for European bases (See Section 2.B. for turn-ins from the United Kingdom), Yokosuka, Japan for all Japanese bases and Pearl Harbor, Hawaii. These sites are not mini Reserves, only ODS Reserve collection sites. The following procedures apply to the European collection site at DLA Distribution at Germersheim, Germany.

II. This collection site accepts excess and recovered Halons and Refrigerants, and excess solvents in unopened original issue containers, of the types identified in Section 4. As other items become eligible at later dates, you will be notified when those products will be accepted.

III. Turn-in procedures:

A. All ODS containers being shipped to DLA Distribution at Germersheim will be coordinated in advance through the Transportation Office by telephoning 378-5445/3893 or civilian 49-7274-96-5445/96-3893. ODS will be received Monday through Friday. If units cannot turn in on these days, special accommodations will be made for turn-ins.

B. All types of ODS containers will be accepted in the Reserve to include cylinders, fire extinguishers, drums, spheres, and canisters. Government recovery cylinders are available free of charge from DLA for ODS turned in. They can be requisitioned by following normal MILSTRIP procedures. The government cylinders used for recovering CFC refrigerants are painted orange, and Halons red. Both have yellow tops and dual port (two valves) to distinguish them from single port valve standard spec gas (virgin) cylinders.

C. All ODS containers being turned in to Germersheim must have the following information attached:

1. The shippers DoD Activity Address Code (DoDAAC).

2. The shipping activity with POC and phone number.

3. The NSN of cylinder(s) containing the recovered ODS (see Section 3).

4. Type of ODS (i.e., Halon 1301 or CFC-12).

5. The quantity of containers on the pallet or within the shipping crate.

Note: When multiple containers (cylinders, drums, spheres, canisters, or fire extinguishers) with the same NSN are shipped palletized or in a box/crate, apply only one tag/label to the shipment, not to each item. Pallets must contain items of the same type, i.e., cylinders, drums, canisters, etc.).

D. Fire suppression system cylinders and canisters with electrical charges or initiators must be deactivated prior to shipment to the Reserve. Also, safety caps must be used to cover exposed actuation mechanisms and discharge ports on these special cylinders, otherwise dangerous safety situations could arise during the shipping, receiving, or storage process. Local fire protection experts can provide safety services. Special handling procedures for Halon system cylinders are provided in Section 1. If further guidance is needed contact the ODS Reserve Program Office in Richmond, VA at DSN 695-5203 or Commercial (804) 279-5203 or email avnodsreserve@dla.mil.

E. Monetary credit will not be given for turned in ODS or cylinders. However, ownership credit will always be given to the service or agency for the pounds of ODS returned to the Reserve. ODS can be requisitioned from the Reserve by service-authorized activities.

F. The following procedures will be followed:

1. Units with leaking containers must transfer the ODS into proper storage containers before shipment to Germersheim. If guidance is needed related to leaking cylinders, please call one of the collection sites POCs as provided in paragraph H of this section.

2. Cylinders will be banded to wooden pallets using metal/steel-banding material or secured in a wooden crate.

3. Halon fire extinguishers/system cylinders will have safety pins installed where applicable and secured to prevent accidental release. Safety caps will be installed on cylinders.

4. DD Form 1348-1/DD 1149, or local equivalent, will be the document used to turn-in ODS cylinders.

5. The cargo vehicle (truck/trailer) will have means for forklift off-loading; e.g., removable side rails. Cylinders will not be off-loaded by hand.

G. Transportation Guidance

1. When transporting compressed gas cylinders with ODS, the following guidelines apply to military and in some cases contracted carriers:

(a) Military carriers must be in compliance with USAREUR Regulation 55 and USAFE Regulation 75 and comply with the European Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR) and the equivalent in Germany (GGVS).

(b) Any shipment performed by U.S. military and military vehicles will require driver training and certification, inspection requirements of vehicles, and other requirements as mandated by regulation.

(c) Shipments coming from outside of Germany must be in compliance with exporting and importing country requirements.

(d) Shipments performed over water must be in compliance with the International Maritime Dangerous Goods Code (IMDG).

2. For units in Germany without appropriate transportation capability, transportation services for ODS to the collection point in Germersheim will be made through DLA Disposition Services disposal contracts. Units that want to utilize this service are required to provide a separate DD Form 1348-1 to fund transportation, and shall contact the servicing DLA Disposition Service facility for instructions. DLA Disposition Services will monitor shipments for regulatory compliance.

3. Turn-ins originating in Europe, except for the United Kingdom, should be forwarded to the following consolidation point:

SWE300
DLA Distribution Germersheim, Germany
ATTN: Hazmat Team, Bldg. 7889
US Depot Germersheim GEB 7525
76726 Germersheim DE
Germany

H. Points of contact at Germersheim are:

	DSN	Commercial
Hazmat Team	378	49-7274-96-5445/5161
Martin Mendel, Receiving Chief	378	49-7274-96-5040
Leonard Scroggins	378	49-7274-96-5161

After duty hours, contact gate guards at DSN378-3678, Commercial 49-7274-58678. Security guards have the home telephone numbers of the designated personnel.

5. Shipments originating from the United Kingdom are covered in Section 2.B.

Section 2

B. Procedures for United Kingdom Shipments to European Holding Facility in Zevenaar, Netherlands

I. The DoD ODS Reserve established a long-term holding facility in Netherlands in April 2004 to hold stocks of Halons for potential emergency use by DoD activities. This facility collects, reclaims and store Halons and collects and destroys refrigerants and solvents. Due to its proximity to the Netherlands, ODS turn-ins from the United Kingdom (UK) will be shipped directly to the European ODS Holding facility in The Netherlands rather than to the collection site at Germersheim.

II. All ODS containers being shipped to the DoD ODS Reserve European Holding Facility will be coordinated in advance. The POC for coordinating shipments is: Erick Leferink, facility manager, Hugen, Tel 31-316-247494.

III. All types of ODS containers will be accepted at Hugen, to include cylinders, fire extinguishers, drums, spheres, and canisters. Government recovery cylinders are available free of charge through DLA Aviation for ODS turned in. They can be requisitioned by following normal MILSTRIP procedures. The government cylinders used for recovering CFC refrigerants are painted orange, and Halons red. Both have yellow tops and dual port (two valves) to distinguish them from single port valve standard spec gas (virgin) cylinders.

IV. Turn-in procedures:

A. All ODS containers being turned into the DoD ODS Reserve European Holding Facility must have the following information attached:

1. The shippers DoD Activity Address Code (DoDAAC).

2. The shipping activity with POC and phone number.

3. The NSN of cylinder(s) containing the recovered ODS (see Section 3).

4. Type of ODS (i.e., Halon 1301 or CFC-12).

5. The quantity of containers on the pallet or within the shipping crate.

Note: When multiple containers (cylinders, drums, spheres, canisters, or fire extinguishers) with the same NSN are shipped palletized or in a box/crate, apply only one tag/label to the shipment, not to each item. Pallets must contain items of the same type, i.e., cylinders, drums, canisters, etc.).

B. Fire suppression system cylinders and canisters with electrical charges or initiators must be deactivated prior to shipment to the Reserve. Also, safety caps must be used to cover exposed actuation mechanisms and discharge ports on these special cylinders, otherwise dangerous safety situations could arise during the shipping, receiving, or storage process. Local fire protection experts can provide safety services. Special handling procedures for Halon

system cylinders are provided in Section 1. If further guidance is needed contact the ODS Reserve Program Office in Richmond, VA at DSN 695-5203 or Commercial (804) 279-5203 or email avnodsreserve@dla.mil.

C. Monetary credit will not be given for turned in ODS or cylinders. However, ownership credit will always be given to the service or agency for the pounds of ODS returned to the Reserve. ODS can be requisitioned from the Reserve by service-authorized activities.

D. The following procedures will be followed:

1. Units with leaking containers must transfer the ODS into proper storage containers before shipment to the Netherlands facility. If guidance is needed related to leaking cylinders, please call one of the collection sites POCs as provided in paragraph H of this section.

2. Cylinders will be banded to wooden pallets using metal/steel-banding material or secured in a wooden crate.

3. Halon fire extinguishers/system cylinders will have safety pins installed where applicable and secured to prevent accidental release. Safety caps will be installed on cylinders.

4. DD Form 1348-1 or DD 1149, or the local equivalent, will be the document used to turn-in ODS cylinders.

5. The cargo vehicle (truck/trailer) will have means for forklift off-loading (removable side rails etc.). Cylinders will not be off-loaded by hand.

E. Transportation Guidance

1. When transporting compressed gas cylinders with ODS, the following guidelines apply to military and in some cases contracted carriers:

(a) Military carriers must be in compliance with USAREUR regulation 55 and USAFE regulation 75 and comply with the European Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR) and the equivalent in Germany (GGVS).

(b) Any shipment performed by U.S. military and military vehicles will require driver training and certification, inspection requirements of vehicles, and other requirements as mandated by regulation.

(c) Shipments performed over water must be in compliance with the International Maritime Dangerous Goods Code (IMDG).

2. The shipping address for the Netherlands Facility is:

    Hugen
    Hengelder 17
    6902 PA Zevenaar
    The Netherlands

For more Information on Hugen, go to this web site:

http://www.hugen.com/en/

Section 2

C. Procedures for DLA Distribution Pearl Harbor, Hawaii

I. The primary turn-in site for the DoD ODS Reserve is located at DLA Distribution Richmond, VA. However, collection sites have been established in Germersheim, Germany for European bases, Yokosuka, Japan for all Japanese bases and Pearl Harbor, Hawaii. These sites are not mini Reserves, only ODS collection sites. The following procedures apply to the collection site at Pearl Harbor.

II. This site accepts excess and recovered Halons and Refrigerants, and excess solvents in unopened original issue containers, of the types identified in Section 4. As other items become eligible at later dates, you will be notified when those products will be accepted.

III. Turn-in procedures:

A. Deliveries will be accepted Monday through Friday, between 0800 and 1400 (except holidays). Advance notification is not required on quantities of four (4) pallets or less. For quantities greater than 4 pallets, a delivery schedule should be coordinated in advance with DLA Distribution, Pearl Harbor, telephone (808) 474-3770. Any other special accommodations should be coordinated at the same phone number.

B. All types of ODS containers will be accepted in the Reserve to include cylinders, fire extinguishers, drums, spheres and canisters. The exception is aircraft specific Halon canisters, which should be returned through the airframe maintenance channels. Government recovery cylinders are available free of charge through DLA for ODS turn-ins. They can be requisitioned by following normal MILSTRIP procedures. The government cylinders used for recovering refrigerants are painted orange, and Halons red. Both have yellow tops and dual port (two valves) to distinguish them from single port valve standard spec gas cylinders.

C. All ODS being turned-in to Pearl Harbor must have the following information attached to each cylinder or to each palletized load:

1. Shippers DoD Activity Address Code (DoDAAC).

2. Shipping activity with POC and phone number.

3. NSN of ODS container(s) (see Section 3).

4. Type of ODS (i.e., Halon 1301, CFC-12, etc.).

5. The quantity of containers on the pallet or within the shipping crate.

Note: When multiple containers (cylinders, drums, fire extinguishers, etc.) with the same NSN are shipped palletized or in a box/crate, apply only one tag/label to the shipment, not each item. Palletized loads must contain items of the same type and size, i.e., cylinders, drums canister, etc.

Boxed/crated loads may contain different size containers, but should contain the same type of product, and must note on the exterior that multiple NSNs are within.

D. Fire suppression system cylinders and canisters with electrical charges or initiators must be deactivated prior to shipment to the Reserve. Also, safety caps must be used to cover exposed actuation mechanisms and discharge ports on these special cylinders, otherwise dangerous safety situations could arise during shipping, receiving, or storage processes. Local fire protection experts can provide safety services. Special handling procedures for Halon system cylinders are provided in Section 1. If further guidance is needed, contact one of the collection site POCs provided in paragraph H of this Section, or the ODS Reserve Program Office in Richmond, VA, phone DSN 695-5203 or commercial (804) 279-5303 or email avnodsreserve@dla.mil.

E. Monetary credit will not be given to individual activities for turned-in ODS or cylinders. However, ownership credit by Service or Agency will always be maintained for the pounds of ODS returned to the Reserve. ODS can be requisitioned from the Reserve only by Service authorized activities.

F. The following procedures will be followed:

1. Units with leaking containers must transfer the ODS into proper storage containers before shipment to Pearl Harbor. If guidance is needed related to leaking cylinders, please call one of the collection site POCs provided in paragraph H of this Section.

2. Cylinders will be banded together in an upright position, utilizing a wooden collar, on wooden pallets using metal/steel-banding material or secured in a wooden crate.

3. Halon fire extinguishers/system cylinders will have safety pins installed where applicable and secured to prevent accidental release. Safety caps will be installed on cylinders.

4. DD Form 1348-1, or the local equivalent, will be the document used to turn-in ODS containers, with the address shown in paragraph G.4.

5. Direct deliveries from installations must be on cargo vehicles (truck/trailer) with means for ground level forklift off-loading (removable side rails, etc.). Off-island shipments can be shipped via routine commercial or military means. Containers will not be off-loaded by hand.

G. Transportation Guidance:

1. When transporting compressed gas cylinders with ODS, the following guidelines apply to military and in some cases contracted carriers:

(a) Shipments coming from outside of Hawaii must be in compliance with exporting and importing country requirements.

(b) Shipments performed over water must be in compliance with the International Maritime Dangerous Goods Code (IMDG).

2. Turn-ins originating in the Pacific region should be forwarded to the following consolidation point address:

DLA Distribution Pearl Harbor
Cylinder Operations (Bldg. 1762)
840 Vincennes Avenue
Pearl Harbor, Hawaii 96860-4544

H. Points of contact are:

– LCDR Bryan Boudreaux, (808) 473-4072

Section 2

D. Procedures for Collection Site at DLA Distribution Yokosuka, Japan

I. The primary turn-in site for the DoD ODS Reserve is located at DLA Distribution in Richmond, VA. However, collection sites have been established in Germersheim, Germany for European bases, Yokosuka, Japan for all Japanese bases and Pearl Harbor, Hawaii. These sites are not mini Reserves, only ODS collection sites. The following procedures apply to the collection site at Yokosuka, Japan.

II. This site accepts excess and recovered Halons and Refrigerants, and excess solvents in unopened original issue containers, of the types identified in Section 4. As other items become eligible at later dates, you will be notified when those products will be accepted.

III. Turn-in procedures:

A. Deliveries will be accepted Monday through Friday, between 0800 and 1400 (except holidays). Coordinate delivery in advance with DLA Distribution, Mr. Jake Sibayan, Telephone Commercial: 81-46816-8339 or DSN 243-8339, for receiving phone number is 243-8340. Any other special accommodations should be coordinated at the same phone number.

B. All types of ODS containers will be accepted in the Reserve to include cylinders, fire extinguishers, drums, spheres and canisters. The exception is aircraft specific Halon canisters, which should be returned through the airframe maintenance channels. Government recovery cylinders are available free of charge through DLA for ODS turn-ins. They can be requisitioned by following normal MILSTRIP procedures. The government cylinders used for recovering refrigerants are painted orange, and Halons red. Both have yellow tops and dual port (two valves) to distinguish them from single port valve standard spec gas cylinders.

C. All ODS being turned-in to Yokosuka must have the following information attached to each cylinder or to each palletized load:

1. Shippers DoD Activity Address Code (DoDAAC).

2. Shipping activity with POC and phone number.

3. NSN of ODS container(s) (see Section 3).

4. Type of ODS (i.e., Halon 1301, CFC-12, etc.).

5. The quantity of containers on the pallet or within the shipping crate.

Note: When multiple containers (cylinders, drums, fire extinguishers, etc.) with the same NSN are shipped palletized or in a box/crate, apply only one tag/label to the shipment, not each item. Palletized loads must contain items of the same type and size, i.e., cylinders, drums canister, etc. Boxed/crated loads may contain different size containers, but should contain the same type of product, and must note on the exterior that multiple NSNs are within.

D. Fire suppression system cylinders and canisters with electrical charges or initiators must be deactivated prior to shipment to the Reserve. Also, safety caps must be used to cover exposed actuation mechanisms and discharge ports on these special cylinders, otherwise dangerous safety situations could arise during shipping, receiving, or storage processes. Local fire protection experts can provide safety services. Special handling procedures for Halon system cylinders are provided in Section 1. If further guidance is needed, contact one of the collection site POCs provided in paragraph H of this Section, or the ODS Reserve Program Office in Richmond, VA, phone DSN 695-5203 or commercial (804) 279-5203 or email avnodsreserve@dla.mil.

E. Monetary credit will not be given to individual activities for turned-in ODS or cylinders. However, ownership credit by Service or Agency will always be maintained for the pounds of ODS returned to the Reserve. ODS can be requisitioned from the Reserve only by Service authorized activities.

F. The following procedures will be followed:

1. Units with leaking containers must transfer the ODS into proper storage containers before shipment to Yokosuka. If guidance is needed related to leaking cylinders, please call one of the collection site POCs provided in Paragraph H of this Section.

2. Cylinders will be banded together in an upright position, utilizing a wooden collar, on wooden pallets using metal/steel-banding material or secured in a wooden crate.

3. Halon fire extinguishers/system cylinders will have safety pins installed where applicable and secured to prevent accidental release. Safety caps will be installed on cylinders.

4. DD Form 1348-1, or local equivalent, will be the document used to turn-in ODS containers, with the address shown in paragraph G.4.

5. Direct deliveries from installations must be on cargo vehicles (truck/trailer), seavan containers or ship. Off-island shipments can be shipped via routine commercial or military means. Containers will not be off-loaded by hand.

G. Transportation Guidance:

1. When transporting compressed gas cylinders with ODS, the following guidelines apply to military and in some cases contracted carriers:

(a) Shipments coming from outside of Japan must be in compliance with exporting and importing country requirements.

(b) Shipments performed over water must be in compliance with the International Maritime Dangerous Goods Code (IMDG).

2. Turn-ins should be forwarded to the following consolidation point address:

DLA Distribution Yokosuka, Japan
SW3142
Operations Receiving (J3R)
Bldg. 5010
Yokosuka, Japan

H. Points of contact are:

Jeffrey L. York	Tel: DSN: 315-243-7033 COM: 81-46-816-7033 Fax: DSN: 315-243-7042- COM: 81-46-816-7042 Japan COM: 046-816-7033 Fax: 7042 E-Mail: jeffrey.york@dla.mil
Jake Sibayan	Tel: DSN 315-243-8339, COM 81-46-816-8339 FAX DSN 315-243-7042, COM 81-46-816-7042 Japan Com 046-816-8339, FAX 7042 Email: renato.sibayan@dla.mil

Section 2

E. Procedures for Collection Site at DLA Distribution San Diego, California (Restricted to Navy Only).

I. The primary turn-in site for the DoD ODS Reserve is located at DLA Distribution Richmond, VA. However, collection sites have been established in Germersheim, Germany for European bases, Yokosuka, Japan for all Japanese bases Pearl Harbor, Hawaii, and San Diego CA. These sites are not mini Reserves, only ODS collection sites. The following procedures apply to the collection site at San Diego.

II. This site accepts excess and recovered Halons and Refrigerants, and excess solvents in unopened original issue containers, of the types identified in Section 4. As other items become eligible at later dates, you will be notified when those products will be accepted. Only turn-ins from U.S. Navy facilities in the **immediate vicinity** of Defense Distribution Depot San Diego (e.g. ported Navy ships and facilities at North Island and Point Loma) are accepted.

III. Turn-in procedures:

A. Deliveries will be accepted Monday through Friday, between 0600 and 1300 (except holidays). Advance notification is required on all turn-ins. A delivery schedule should be coordinated in advance with DLA Distribution, San Diego, telephone (619) 556-0053. Proper paperwork is required (completed DD 1149 or DD 1348-1 form). Any other special accommodations should be coordinated at the same phone number.

B. All types of ODS containers will be accepted in the Reserve to include cylinders, fire extinguishers, drums, spheres and canisters. The exception is aircraft specific Halon canisters, which should be returned through the airframe maintenance channels. Government recovery cylinders are available free of charge through DLA for ODS turn-ins. They can be requisitioned by following normal MILSTRIP procedures. The government cylinders used for recovering refrigerants are painted orange, and Halons red. Both have yellow tops and dual port (two valves) to distinguish them from single port valve standard spec gas cylinders.

C. All ODS being turned-in to San Diego must have the following information attached to each cylinder or to each palletized load:

1. Shippers DoD Activity Address Code (DoDAAC).

2. Shipping activity with POC and phone number.

3. NSN of ODS container(s) (see Section 3).

4. Type of ODS (i.e., Halon 1301, CFC-12, etc.).

5. The quantity of containers on the pallet or within the shipping crate.

Note: When multiple containers (cylinders, drums, fire extinguishers, etc.) with the same NSN are shipped palletized or in a box/crate, apply only one tag/label to the shipment, not each item. Palletized loads must contain items of the same type and size, i.e., cylinders, drums canister, etc. Boxed/crated loads may contain different size containers, but should contain the same type of product, and must note on the exterior that multiple NSNs are within.

D. Fire suppression system cylinders and canisters with electrical charges or initiators must be deactivated prior to shipment to the Reserve. Also, safety caps must be used to cover exposed actuation mechanisms and discharge ports on these special cylinders, otherwise dangerous safety situations could arise during shipping, receiving, or storage processes. Local fire protection experts can provide safety services. Special handling procedures for Halon system cylinders are provided in Section 1. If further guidance is needed, contact one of the collection site POCs provided in paragraph H of this Section, or the ODS Reserve Program Office in Richmond, VA, phone DSN 695-5203 or commercial (804) 279-5303 or email avnodsreserve@dla.mil.

E. Monetary credit will not be given to individual activities for turned-in ODS or cylinders. However, ownership credit by Service or Agency will always be maintained for the pounds of ODS returned to the Reserve. ODS can be requisitioned from the Reserve only by Service authorized activities.

F. The following procedures will be followed:

1. Units with leaking containers must transfer the ODS into proper storage containers before shipment to San Diego. If guidance is needed related to leaking cylinders, please call one of the collection site POCs provided in paragraph H of this Section.

2. Cylinders will be banded together in an upright position, utilizing a wooden collar, on wooden pallets using metal/steel-banding material or secured in a wooden crate.

3. Halon fire extinguishers/system cylinders will have safety pins installed where applicable and secured to prevent accidental release. Safety caps will be installed on cylinders.

4. DD Form 1348-1, or the local equivalent, will be the document used to turn-in ODS containers, with the address shown in paragraph G.4.

G. Transportation Guidance:

1. Turn-ins originating in the Pacific region should be forwarded to the following consolidation point address:

DLA Distribution San Diego
3581 Cummings Road, Bldg. 3322
San Diego, CA 92136-3581

H. Points of contact are:

– Lawrence Gaona, (619) 556-0053
– Romeo Lantacon (619) 556-0053

Section 3 PRODUCT/COMMODITY NSN TABLES

I.

NSNs FOR
EMPTY RECOVERY CYLINDERS

COMMODITY	SIZE (LBs)	EMPTY RECOVERY CYLINDER NSNs
HALONS		
Halon 1202	160	8120-01-356-1781
Halon 1211	200	8120-01-356-1248
Halon 1211	1500	8120-01-356-1249
Halon 1301	117	*8120-01-371-0533
Halon 1301	122	8120-01-356-5963
Halon 1301	1000	8120-01-356-5962
Halon 2402	122	8120-01-469-2550
Halon 2402	1000	8120-01-469-2774
REFRIGERANTS		
R- 11	59	8120-01-356-5960
R- 11	170	8120-01-356-9756
R- 11	1400	8120-01-355-9763
R- 12	45	8120-01-355-4017
R- 12	145	8120-01-355-4018
R- 12	1190	8120-01-355-4019
R- 114	57	8120-01-356-1245
R- 114	165	8120-01-356-1246
R- 114	1360	8120-01-356-1247
R- 500	43	8120-01-357-6774
R- 500	127	8120-01-357-7656
R- 500	1045	8120-01-357-7657
R- 502	44	8120-01-357-6770
R- 502	128	8120-01-357-6771
R- 502	1050	8120-01-357-6769
R-22	44	8120-01-357-9140
R-22	128	8120-01-357-9139
R-22	1050	8120-01-357-9141

* DENOTES A HIGH PRESSURE CYLINDER for use when recovering Halon 1301 from nitrogen charged fire suppression system cylinders. This cylinder can accommodate pressure up to 2265 psi.

II.

NSNs FOR EMPTY
SPEC GAS (VIRGIN) PRODUCT CYLINDERS
(FOR TURN-INS ONLY)

COMMODITY	SIZE (LBs)	EMPTY CYLINDER NSNs
HALONS		
Halon 1202	160	8120-01-339-6277
Halon 1202	2000	8120-01-371-0532
Halon 1211	200	8120-00-337-2899
Halon 1211	1500	8120-01-396-2165
Halon 1301	137 &150	8120-00-531-8193
Halon 1301	1123 &1240	8120-01-356-5961
REFRIGERANTS		
R- 11	59	8120-01-355-9760
R- 11	170	8120-01-355-9761
R- 11	1400	8120-01-531-2122
R- 12	45	8120-01-337-1816
R- 12	145	8120-01-337-6242
R- 12	1190	8120-01-355-4016
R- 114	57	8120-01-354-9400
R- 114	165 (49”x10”)	8120-00-063-3983
R- 114	165 (36”x12”)	8120-01-337-6236
R- 114	1360	8120-01-356-1244
R- 500	43	8120-01-357-6773
R- 500	127	8120-01-357-6772
R- 500	1045	8120-01-357-9137
R- 502	44	8120-01-357-7655
R- 502	128	8120-01-337-6239
R- 502	1050	8120-01-357-6907

III. NSNs FOR ODS TURN-INS

To determine the correct NSN for Halons, weight each cylinder and subtract tare weight on cylinder to determine estimated product weight. Select NSN for cylinder capacity size (range that includes the product weight.)

To determine the correct NSN for Refrigerants, select the NSN based on cylinder capacity size.

COMMODITY	CYLINDER CAPACITY SIZE (Lbs)	CYLINDER NSNs
HALONS AND FIRE EXTINGUISHERS		
Halon 1202	160	6830-01-356-1780
Halon 1202	2000	6830-01-447-3632
Halon 1211	1-5	6830-01-376-8013
Halon 1211	6-10	6830-01-376-8014
Halon 1211	11-20	6830-01-376-8015
Halon 1211	21-60	6830-01-376-8016
Halon 1211	61-125	6830-01-376-8017
Halon 1211	126-200	6830-01-356-1209
Halon 1211	201-340	6830-01-376-8018
Halon 1211	341-1500	6830-01-356-1211
Halon 1301	1-5	6830-01-376-8394
Halon 1301	6-10	6830-01-376-8395
Halon 1301	11-20	6830-01-376-8396
Halon 1301	21-70	6830-01-376-8397
Halon 1301	71-100	6830-01-376-8398
Halon 1301	101-117	6830-01-371-0501
Halon 1301	118-125	6830-01-376-8399
Halon 1301	126-150	6830-01-356-9752
Halon 1301	151-200	6830-01-376-8400
Halon 1301	201-260	6830-01-376-8401
Halon 1301	261-350	6830-01-376-8402
Halon 1301	351-530	6830-01-376-8403
Halon 1301	531-600	6830-01-376-8404
Halon 1301	601-1240	6830-01-356-5958
Halon 2402	122	6830-01-469-9138
Halon 2402	1000	6830-01-469-9135

COMMODITY	CYLINDER CAPACITY SIZE (Lbs)	CYLINDER NSNs
R- 11	59	6830-01-355-9754
R- 11	100	6830-01-368-4847
R- 11	170	6830-01-355-9756
R- 11	200	6830-01-367-9554
R- 11	650	6830-01-367-9555
R- 11	1400	6830-01-355-9758
R- 12	45	6830-01-355-4013
R- 12	145	6830-01-355-6648
R- 12	1190	6830-01-355-4015
R- 114	57	6830-01-356-1203
R- 114	165	6830-01-356-1205
R- 114	165 (10”x49”)	6830-01-377-1807
R- 114	1350	6830-01-356-1207
R- 500	43	6830-01-357-7650
R- 500	127	6830-01-358-5123
R- 500	1045	6830-01-357-7654
R- 502	44	6830-01-357-6726
R- 502	128	6830-01-357-6727
R- 502	1050	6830-01-357-6905
HCFC		
R-22	44	6830-01-357-9131
R-22	128	6830-01-357-9129
R-22	1050	6830-01-357-9133

IV.

NSNs FOR DRUMS/CANS
CONTAINING CFC SOLVENTS
FOR TURN-IN

COMMODITY	DRUM/CAN CAPACITY	DRUM/CAN NSN
CFC/Solvent 113		
	6 oz	6850-01-424 8532
	1 pint	6850-01-424-8533
	1 quart	6850-01-424-8540
	1 gl / 11 lbs	6850-01-424-8531
	100 lbs	6850-01-424-8535
	200 lbs	6850-01-424-8536
	5 gl / 60 lbs	6850-01-424-8534
	55 gl / 690 lbs	6850-01-424-8537
1,1,1 Trichloroethane		
	6 oz	6810-01-424-8538
	1 pint	6810-01-424-9662
	1 quart	6810-01-424-9665
	1 gl / 12 lbs	6810-01-424-8539
	5 gl / 60 lbs	6810-01-424-9674
	55gl / 640 lbs	6810-01-424-9673

Section 4

ODS IN THE RESERVE

CLASS I

Commodity	Chemical Name	Symbol
CFCs		
CFC-11	Trichlorofluromethane	$CFCl_3$
CFC-12	Dichlorodifluromethane	CF_2Cl_2
CFC-114	Dichlorotetrafluroethane	$C_2F_4Cl_2$
R-500*	(See note below)	CF_2Cl_2/C_2F_2
R-502**	(See note below)	CF_2Cl/C_2F_5Cl
Halons		
Halon 1202	Dibromodifluromethane	CF_2Br_2
Halon 1211	Bromochlordifluromethane	CF_2ClBr
Halon 1301	Bromotrifluromethane	CF_3Br
Solvents		
Methyl Chloroform	1,1,1 Trichloroethane	CH_3CCl_3
CFC-113	Trichlorotrifluoroethane	$C_2F_3Cl_3$

CLASS II

HCFC-22	Monochlorodifluoromethane	CHF2CI

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* Azeotropic mixture of CFC-12 and HFC-152a (1,1 Difluroethane)
** Azeotropic mixture of CFC-115 and HCFC-22

Section 5

SERVICE/AGENCY POINTS OF CONTACT

SERVICE	NAME	OFFICE	PHONE NUMBERS COMMERCIAL	DSN PREFIX	FAX	E-MAIL ADDRESS EXTENSION
AIR FORCE	KENNETH DORMER	HQ-USAF	571-256-0413	260	7399	kenneth.dormer.ctr@pentagon.af.mil
	SHERMAN FORBES	HQ-USAF	703-588-7839		0066	sherman.forbes@pentagon.af.mil
ARMY	DAVID KOEHLER	HQ-AMC	703-304-1680			david.a.koehler@us.army.mil
	JIM VINCENT	HQ-AMC	636-477-7515		636-447-3875	jim.vincent1@us.army.mil
MARINES	JIM LETTINHAND	HQ-USMC	571-256-7134			edmond.lettinhand@usmc.mil
NAVY	PETE MULLENHARD	NAVSEA	571-241-9195			peter.m.mullenhard@leidos.com
	JIM HIGGINS	NAVSEA	301-227-4928			james.higgins1@navy.mil
	FRANK STOUDT	NAVSUP	717-605-5520	430	3480	frank.stoudt@navy.mil
	MARY HAMMERER	NAVAIR	301-866-2493	757	301-342-0958	mary.hammerer@navy.mil
	JAMES FERNAN	MSC	202-685-5764	325	5224	james.b.fernan@navy.mil
COAST GUARD	JOHN CEPHAS	HQ-USCG	202-475-5668		4516	john.w.cephas@uscg.mil
	HENRY HERZBERG	HQ-USCG	202-475-5666		4516	henry.j.herzberg@uscg.mil
DLA	JEFF MORSCH	DLA AVIATION RICHMOND-VO	804-279-4525	695	804-279-4970	avnodsreserve@dla.mil
	ALEX STUART	DLA AVIATION RICHMOND-VO	804-279-5004	695	804-279-4970	avnodsreserve@dla.mil
	SCOTT JOHNSON	DLA AVIATION RICHMOND-VO	804-279-6451	695	804-279-4970	avnodsreserve@dla.mil
	BRIAN HOWARD	DLA AVIATION RICHMOND-VO	804-279-5202	695	804-279-4970	avnodsreserve@dla.mil

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APPENDIX G

DEPARTMENT OF DEFENSE
OZONE DEPLETING SUBSTANCES
REQUISITIONING PROCEDURES

JUNE 2015

PROCEDURES

The Defense Logistics Agency (DLA) is responsible for managing the Department of Defense (DoD) Ozone Depleting Substances (ODS) Reserve for weapon system support. The material manager of the Reserve is DLA Aviation and operational support and storage are provided by the co-located DLA Distribution Richmond.

The Reserve consists of various Class I refrigerants (R-11, 12, 114, 500, 502), halons (1211, 1301, 1202), solvents (1, 1, 1 Trichloroethane and CFC-113) and associated containers.

Empty ODS recovery cylinders can be requisitioned "free of charge" provided the ODS and cylinders are returned to the Reserve. A list of the NSNs for recovery cylinders is provided at Enclosure 1.

ODS (except for halon fire extinguishers and system cylinders) are also free issue (Enclosure 2). However, customers must be authorized by their Service to requisition those chemicals from the Reserve.

-Army and Navy/USMC and Coast Guard provide DLA with an Authorized Users List (AUL), and requisitions are checked against the AUL to determine if the requisitioning activity is authorized to requisition ODS products.

- Air Force does not require pre-approval for the following NSNs, as long as the quantity requisitioned is below the indicated threshold.

COMMODITY	CYLINDER CAPACITY SIZE (LBS)	NSN	MAXIMUM THRESHOLD *(quantity of U/I)*
Halon 1211(Fire Ex)	2.5	6830-01-254-5030	10
Halon 1211(Fire Ex)	5	6830-01-128-1673	25
Halon 1211	200	6830-00-285-5887	3
Halon 1211	1,500	6830-01-219-8529	3
Halon 1301 (Virgin Type II)	150	6830-00-543-6623	2
CFC-12	45	6830-00-264-5913	3

-Air Force users that need to requisition quantities higher than the maximum thresholds or require an ODS NSN that is not listed, must submit an email request to HQ AF and receive approval before DLA can process the requisition. Transmit email requests to the AF points of contact identified in Enclosure 3. Do not submit multiple requisitions to evade the thresholds listed above. HQ Air Force will follow-up with MAJCOMs and installations that have unusual requisition patterns.

-A Services' Point of Contact (POC) list is provided at Enclosure 3.

Each ODS NSN has an inventory system freeze in the DLA supply system, and will require Manager's review before release. Requisitions (sales orders) submitted to DLA Aviation by non-authorized activities will be processed with Status Code "D8" (Rejected) to the requisitioner, indicating the material is a commodity requiring advance service authorization.

The Military Standard Requisition and Issue Procedure (MILSTRIP) is used to requisition ODS. The DLA preferred method to input a requisition (sales order) into the supply system is through EMALL, but requisitions can be phoned in to DLA Customer Interaction Center. The Center is available 24 hours a day at DSN 661-7766 or COMM toll free (877) 352-2255 (877-DLA-CALL) to answer questions concerning MILSTRIP and requisition status.

The Customer Account Specialist for the Reserve inventory may be reached at DSN 695-6451 or COMM (804) 279-6451 or 6102. Additional contact phone numbers for the ODS Reserve Program Management Office are DSN 695-4525, 5203, 5004 and 3064 or COMM (804) 279-4525, 5203, 5004 and 3064. The email address is avnodsreserve@dla.mil.

Program Manager
DoD ODS RESERVE

NSNs FOR
EMPTY RECOVERY CYLINDERS
(FILLED CYLINDER NOT TO EXCEED 80% OF WATER CAPACITY)

COMMODITY	WATER CAPACITY (LBS.)	MAX FILL CAPACITY (LBS.)	EMPTY RECOVERY CYLINDER NSN
HALONS			
Halon 1202	122	98	8120-01-356-1781
Halon 1211	122	98	8120-01-356-1248
Halon 1211	1,000	800	8120-01-356-1249
Halon 1301	95	76	8120-01-371-0533*
Halon 1301	122	98	8120-01-356-5963
Halon 1301	1,000	800	8120-01-356-5962
Halon 2402	122	98	8120-01-469-2550
Halon 2402	1000	800	8120-01-469-2774
REFRIGERANTS			
R- 11	42	34	8120-01-356-5960
R- 11	122	98	8120-01-356-9756
R- 11	1,000	800	8120-01-355-9763
R- 12	42	34	8120-01-355-4017
R- 12	122	98	8120-01-355-4018
R- 12	1,000	800	8120-01-355-4019
R- 114	42	34	8120-01-356-1245
R- 114	122	98	8120-01-356-1246
R- 114	1,000	800	8120-01-356-1247
R- 500	42	34	8120-01-357-6774
R- 500	122	98	8120-01-357-7656
R- 500	1,000	800	8120-01-357-7657
R- 502	42	34	8120-01-357-6770
R- 502	122	98	8120-01-357-6771
R- 502	1,000	800	8120-01-357-6769
R-22	42	34	8120-01-357-9140
R-22	122	98	8120-01-357-9139
R-22	1,000	800	8120-01-357-9141

* DENOTES A HIGH PRESSURE CYLINDER for use when recovering Halon 1301 from nitrogen charged fire suppression system cylinders. This cylinder can accommodate pressure up to 2265 psi.

Encl 1

NSNs FOR REQUISITIONING ODS

HALONS

COMMODITY	CYLINDER CAPACITY SIZE (LBS)	NATIONAL STOCK NUMBER(NSNs)
Halon 1202	160	6830-00-985-7284
Halon 1202	2000	6830-01-370-8671
Halon 1211(Fire Ex)	2.5	6830-01-092-4420
Halon 1211(Fire Ex)	2.5	6830-01-254-5030
Halon 1211(Fire Ex)	5	6830-01-128-1673
Halon 1211(Fire Ex)	5	6830-01-477-0134
Halon 1211(Fire Ex)	20	6830-01-283-9662
Halon 1211(Fire Ex)	20	6830-01-570-7231
Halon 1211	200	6830-00-285-5887
Halon 1211	1500	6830-01-219-8529
Halon 1211	1904	6830-01-399-3032
***		
Halon 1301 (Fire Ex)	2.75	6830-00-555-8837
Halon 1301 (Type 1)	137	6830-01-392-4154
Halon 1301 (Virgin Type II)	150	6830-00-543-6623
Halon 1301 (Reclaimed Type II)	150	6830-01-392-5012
Halon 1301 (Type 1)	1123	6830-01-392-4999
Halon 1301 (Virgin Type II)	1240	6830-01-356-9751
Halon 1301 (Reclaimed Type II) 1240		6830-01-392-5017
Halon 1301 (Type 1)	1800	6830-01-430-2879
Halon 1301 (Reclaimed Type II)	1925	6830-01-430-2885
Halon 1301 (Type II)	1925	6830-01-387-1008

Encl 2

NAVY HALON 1301 SYSTEM CYLINDERS

SIZE	ANSUL	KIDDE-FENWAL
10 lb	6830-01-171-7361	6830-01-073-6543
15 lb	6830-01-221-2192	6830-01-284-5852
60 lb	6830-01-252-2428	6830-01-294-4455
95 lb	6830-01-196-8338	6830-01-302-2555
125 lb	6830-01-140-6150	6830-01-275-1637

MARINE AMPHIBIOUS ASSAULT VEHICLE HALON 1301 SYSTEM CYLINDERS

SIZE	NSNs
7 LBS	6830-01-321-6527
7 LBS	6830-01-331-6714
9 LBS	6830-01-160-9653
17 LBS	6830-00-435-9415

Encl 2

REFRIGERANTS

COMMODITY	CYLINDER CAPACITY SIZE (LBS)	NSN's
R-11	100 drum	6830-00-079-4694
R-11	200 drum	6830-00-281-3036
R-11	1400	6830-01-355-9753
R-12	10	6830-00-264-9089
R-12	45	6830-00-264-5913
R-12 (Dual Port Valve)	45	6830-01-443-0387
R-12	145	6830-00-292-0133
R-12	1190	6830-01-355-4011
R-114	11.5	6830-00-290-4378
R-114	57	6830-00-290-4379
R-114 (Dual Port Valve)	57	6830-01-443-0397
R-114 (10"x49" For Ship Rack)	165	6830-00-088-3385
R-114 (12"x36")	165	6830-00-782-6232
R-114	1360	6830-01-356-1201
R-114 (Dual Port 10"x 49")	165	6830-01-430-2857
R-500	43	6830-01-357-7648
R-500	127	6830-01-357-7646
R-502	44	6830-01-357-4840
R-502	128	6830-00-138-2482

SOLVENTS

COMMODITY	CONTAINER CAPACITY SIZE (LBS)	NSN's
CFC-113	1 Gal	6850-01-426-4813
Methyl Chloroform	1 Gal	6810-01-411-5954

Encl 2

SERVICE/AGENCY POINTS OF CONTACT

SERVICE	NAME	OFFICE	PHONE NUMBERS			E-MAIL
			COMMERCIAL	DSN	FAX	ADDRESS
				PREFIX		EXTENSION
AIR FORCE	KENNETH DORMER	HQ-USAF	571-256-0313	260	No FAX	kenneth.j.dormer.ctr@mail.mil
AIR FORCE	SHERMAN FORBES	HQ-USAF	571-256-0309	260	No FAX	sherman.g.forbes.civ@mail.mil
ARMY	DAVID KOEHLER	HQ-AMC	703-304-1680			dkoehler@prospectivetechnology.com
	JIM VINCENT	HQ-AMC	636-477-7515		636-447-3875	jtvincent@prospectivetechnology.com
MARINES	JIM LETTINHAND	HQ-USMC	703-695-8934, X 2433	225	8905	edmond.lettinhand@usmc.mil
NAVY	PETE MULLENHARD	NAVSEA	571-241-9195			peter.m.mullenhard@leidos.com
	JIM HIGGINS	NAVSEA	301-227-4928			james.higgins1@navy.mil
	FRANK STOUDT	NAVSUP	717-605-5520	430	3480	frank.stoudt@navy.mil
	MARY HAMMERER	NAVAIR	301-866-2493	757	301-342-0958	mary.hammerer@navy.mil
	JAMES FERNAN	MSC	202-685-5764	325	5224	james.b.fernan@navy.mil
COAST GUARD	JOHN CEPHAS	HQ-USCG	202-475-5668		4516	john.w.cephas@uscg.mil
	HENRY HERZBERG	HQ-USCG	202-475-5666		4516	henry.j.herzberg@uscg.mil
DLA	JEFF MORSCH	DLA AVIATION RICHMOND-VO	804-279-4525	695	804-279-4970	avnodsreserve@dla.mil
	ALEX STUART	DLA AVIATION RICHMOND-VO	804-279-5004	695	804-279-4970	avnodsreserve@dla.mil
	SCOTT JOHNSON	DLA AVIATION RICHMOND-VO	804-279-6451	695	804-279-4970	avnodsreserve@dla.mil
	BRIAN HOWARD	DLA AVIATION RICHMOND-VO	804-279-5202	695	804-279-4970	avnodsreserve@dla.mil

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APPENDIX H

Refrigerant Mass Balance Tracking Form

Please fill out this form completely for any activity involving Refrigerant Cylinder Actions **NOT** involving AC&R appliances or Tactical Weapons System Components. This form shall be used to track cylinders regardless of refrigerant type.

(Contact DPW-ED Air Program at 719/526-6601.)

Compliance Month/Year: _____ **Shop:** _____ **Validated:** _____

Required Monthly Reporting:

Refrigerant Action Reporting Type	Cylinder ID	Refrigerant Type	Vacuum	Vacuum Units	Receiving Cylinder ID	Amount Received	Amount Units
Cylinder Disposal							

DEFINITION OF FIELDS

Refrigerant Action Reporting Type	List what action was taken for the cylinder or refrigerant 1 Refrigerant Purchased 2 Refrigerants Transferred from Existing Cylinder 3 Refrigerants Disposed of 4 Cylinder Hydrostatic Testing 5 Cylinder Disposal
Cylinder ID	Identification number for the cylinder
Refrigerant Type	The type of refrigerant (i.e. R22, R123, R11, R410a, etc.)
Vacuum	Measurement of vacuum achieved
Vacuum Units	Unit of measure for vacuum
Receiving Cylinder ID	Identification number for the cylinder that the refrigerant is being transferred to
Amount Received	The quantity of the refrigerant for the action type
Amount Units	Unit of measure for the refrigerant amount

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APPENDIX I

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

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 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

Please copy this form if additional copies are needed

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

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APPENDIX J

COLORADO DEPARTMENT OF PUBLIC HEALTH & ENVIRONMENT
AIR POLLUTION CONTROL DIVISION / CFC PROGRAM

AIR CONDITIONING/REFRIGERATION FACILITY NOTIFICATION

PLEASE ANSWER THE FOLLOWING QUESTIONS AND RETURN THIS CARD WITH THE APPROPRIATE FEE.

Annual registration fee: $40.00 April 1 – March 31

1. Does this business perform air conditioning/refrigeration service? **YES** _____ **NO** _____
2. Does this business use ozone-depleting compounds (ODC)? **YES** _____ **NO** _____
3. Does your business perform motor vehicle air conditioning **(MVAC)** _____or stationary equipment air conditioning **(SSAC)** _____?

Comments / Notes:

_____

_____

Company Name: _____

Contact Name: _____

Mailing Address: _____

_____

Site Address: _____

County in which business is located: _____

Phone: _____

Please send form and payment to:

COLORADO DEPT OF PUBLIC HEALTH and ENVIRONMENT
4300 CHERRY CREEK DR S
APCD-SS-B1 CFC PROGRAM
DENVER CO 80246-1530

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APPENDIX K

J&J/VWI FORT CARSON REFRIGERATION EQUIPMENT INVENTORY 9/15/2014

The inventory below is from 2009. Please update/delete items as needed and return to DPW-ENV. Thank you.						
RPIE ID	**NOMENCLATURE**	**MANUFACTURER**	**SERIAL #**	**MODEL #**	**ROOM #**	**INST-FAC#-FAC NAME**
07500-ACU-001	AIR CONDITIONING UNIT	STULTZ	9211922	CC552G6	0308	FORT CARSON-07500-EACH
07500-ACU-002	AIR CONDITIONING UNIT	STULTZ	9211923	CC552G6	0308	FORT CARSON-07500-EACH
07500-ACU-ACU4	AIR CONDITIONING UNIT	TRANE	30631243F	NA	CRAWL SPACE	FORT CARSON-07500-EACH
07500-CU-101	CNDENSING UNIT FOR FREEZER	COPELAND	84A16512	W2WL-0200-TAO-001	1936	FORT CARSON-07500-EACH
07500-CU-102	CONDENSING UNIT	COPELAND			1936	FORT CARSON-07500-EACH
07500-CU-103	CONDENSING UNIT	COPELAND			1936	FORT CARSON-07500-EACH
07500-CU-104	CONDENSING UNIT	COPELAND			1936	FORT CARSON-07500-EACH
07500-CU-105	CONDENSING UNIT	COPELAND			1936	FORT CARSON-07500-EACH
07500-CU-106	CONDENSING UNIT	COPELAND			1936	FORT CARSON-07500-EACH
07500-DF-001	DRINKING FOUNTAINS & COOLERS	ELKAY	830952123	CSRC-8-1	0701	FORT CARSON-07500-EACH
07500-DF-002	DRINKING FOUNTAINS & COOLERS	ELKAY	830952121	CSRC-8-1	0607	FORT CARSON-07500-EACH
07500-DF-003	DRINKING FOUNTAINS & COOLERS	ELKAY	88-10549754	FRCC-8	C050A	FORT CARSON-07500-EACH
07500-DF-004	DRINKING FOUNTAINS & COOLERS	ELKAY	850710691	CSRC-8-1	0328	FORT CARSON-07500-EACH
07500-DF-005	DRINKING FOUNTAINS & COOLERS	ELKAY	830952122	CSRC-8-1	0320	FORT CARSON-07500-EACH
07500-DF-006	DRINKING FOUNTAINS & COOLERS	ELKAY	830952120	CSRC-8-1	C020	FORT CARSON-07500-EACH
07500-DF-007	DRINKING FOUNTAINS & COOLERS	ELKAY	830952114	CSRC-8-1	0213	FORT CARSON-07500-EACH
07500-DF-008	DRINKING FOUNTAINS & COOLERS	HALSEY TAYLOR	40925914	5500-5-EQ-1K	0105	FORT CARSON-07500-EACH
07500-DF-101	DRINKING FOUNTAINS & COOLERS	ELKAY	831282907	FRCC-8	1200	FORT CARSON-07500-EACH

J&J/VWI FORT CARSON REFRIGERATION EQUIPMENT INVENTORY 9/15/2014

RPIE ID	NOMENCLATURE	MANUFACTURER	SERIAL #	MODEL #	ROOM #	INST-FAC#-FAC NAME
07500-DF-101K	DRINKING FOUNTAINS & COOLERS	ELKAY	830952343	ESW-8-1	ESW-89-1	FORT CARSON-07500-EACH
07500-DF-102K	DRINKING FOUNTAINS & COOLERS	ELKAY	830952119	CSRC-8-1	C192	FORT CARSON-07500-EACH
07500-DF-103	DRINKING FOUNTAINS & COOLERS	ELKAY	830952110	CSRC-8-1	C121A	FORT CARSON-07500-EACH
07500-DF-103K	DRINKING FOUNTAINS & COOLERS	ELKAY	830952350	ESWA-8-1	1904	FORT CARSON-07500-EACH
07500-DF-104	DRINKING FOUNTAINS & COOLERS	ELKAY	830952116	CSRC-8-1	C132A	FORT CARSON-07500-EACH
07500-DF-105	DRINKING FOUNTAINS & COOLERS	ELKAY	831054970	CSRC-8-1	1400	FORT CARSON-07500-EACH
07500-DF-106	DRINKING FOUNTAINS & COOLERS	ELKAY	830952117	CSRC-8-1	C140A	FORT CARSON-07500-EACH
07500-DF-107	DRINKING FOUNTAINS & COOLERS	ELKAY	830952115	CSRC-8-1	C152	FORT CARSON-07500-EACH
07500-DF-108	DRINKING FOUNTAINS & COOLERS	ELKAY	831054969	FRCC-8	C100B	FORT CARSON-07500-EACH
07500-DF-109	DRINKING FOUNTAINS & COOLERS	ELKAY	831282908	FRCC-8	C100D	FORT CARSON-07500-EACH
07500-DF-110	DRINKING FOUNTAINS & COOLERS	ELKAY	830952345	CSRC-8-1	C174	FORT CARSON-07500-EACH
07500-DF-114	DRINKING FOUNTAINS & COOLERS	ELKAY	830154973	FRCC-8	C170	FORT CARSON-07500-EACH
07500-DF-201	DRINKING FOUNTAINS & COOLERS	ELKAY	830952086	CSRC-8-1	C274A	FORT CARSON-07500-EACH
07500-DF-202	DRINKING FOUNTAINS & COOLERS	ELKAY	830952088	CSRC-8-1	C270A	FORT CARSON-07500-EACH
07500-DF-203	DRINKING FOUNTAINS & COOLERS	ELKAY	830952113	CSRC-8-1	C285	FORT CARSON-07500-EACH
07500-DF-204	DRINKING FOUNTAINS & COOLERS	ELKAY	831054960	FRCC-8	C291	FORT CARSON-07500-EACH

J&J/VWI FORT CARSON REFRIGERATION EQUIPMENT INVENTORY 9/15/2014

RPIE ID	NOMENCLATURE	MANUFACTURER	SERIAL #	MODEL #	ROOM #	INST-FAC#-FAC NAME
07500-DF-206	DRINKING FOUNTAINS & COOLERS	ELKAY	831054957	FRCC-8	C280	FORT CARSON-07500-EACH
07500-DF-207	DRINKING FOUNTAINS & COOLERS	ELKAY	831054968	FRCC-8	C201	FORT CARSON-07500-EACH
07500-DF-208	DRINKING FOUNTAINS & COOLERS	ELKAY	8310542112	CSRC-8-1	C242	FORT CARSON-07500-EACH
07500-DF-209	DRINKING FOUNTAINS & COOLERS	ELKAY	830952109	CSRC-8-1	C205	FORT CARSON-07500-EACH
07500-DF-210	DRINKING FOUNTAINS & COOLERS	ELKAY	830952124	CSRC-8-1	C235A	FORT CARSON-07500-EACH
07500-DF-211	DRINKING FOUNTAINS & COOLERS	ELKAY	80527656	ECP81D	C201	FORT CARSON-07500-EACH
07500-DF-212	DRINKING FOUNTAINS & COOLERS	ELKAY	830952346	ESWA-8-1	C204	FORT CARSON-07500-EACH
07500-DF-213	DRINKING FOUNTAINS & COOLERS	ELKAY	8309524981	FRCC-8	C201	FORT CARSON-07500-EACH
07500-DF-301	DRINKING FOUNTAINS & COOLERS	ELKAY	831054970	FRCC-8	C390	FORT CARSON-07500-EACH
07500-DF-401	DRINKING FOUNTAINS & COOLERS	ELKAY	831054976	FRCC-8	C471	FORT CARSON-07500-EACH
07500-DF-402	DRINKING FOUNTAINS & COOLERS	ELKAY	831054975	FRCC-8	C482	FORT CARSON-07500-EACH
07500-FRE-104	FREEZER	HOBART	1108734	QF1	1902	FORT CARSON-07500-EACH
07500-FRE-105	FREEZER	TRAVELSEN	T08610J05	RF134HUTBF-FHS	1902	FORT CARSON-07500-EACH
07500-FRE-108	FREEZER	TRAVELSEN	T55080103	RLT126WVT-FHS	1902	FORT CARSON-07500-EACH
07500-IM-101	ICEMAKER	SCOTSMAN	741496-09E	AFE400A-1B	T108	FORT CARSON-T07500-EACH
07500-IM-102	ICEMAKER	MANITOWK	40862395	SY0854A	1905	FORT CARSON-07500-EACH
07500-IM-103	ICEMAKER	SCOTSMAN	07031-320010886	FME804605-1B	1910	FORT CARSON-07500-EACH
07500-IM-104	ICEMAKER	MANITOWK	960299	Q210	1954	FORT CARSON-07500-EACH
07500-IM-201	ICEMAKER	FERNO FORGE	1514484E8	NIM984RCM	2926	FORT CARSON-07500-EACH
07500-IM-202	ICEMAKER	FERNO FORGE	1514474E8	NIM984RCM	2976	FORT CARSON-07500-EACH
07500-IM-301	ICEMAKER	FOLLETT	C67314-07609	L400A	3734	FORT CARSON-07500-EACH

J&J/VWI FORT CARSON REFRIGERATION EQUIPMENT INVENTORY 9/15/2014

RPIE ID	NOMENCLATURE	MANUFACTURER	SERIAL #	MODEL #	ROOM #	INST-FAC#-FAC NAME
07500-IM-501	ICEMAKER	SCOTSMAN	0851320013218	MDT5N25A	5833	FORT CARSON-07500-EACH
07500-REF-001	REFRIGERATOR	MCQUAY (EVAPORATOR COIL)	120782/053734	RLC090C-M-11	0714	FORT CARSON-07500-EACH
07500-REF-107	REFRIGERATOR	TRAULSEN	735049J02	RR1232HUT-FHS	1902	FORT CARSON-07500-EACH
07500-REF-111	REFRIGERATOR	TRUE	1-4331787	TA2RR189-25	1902	FORT CARSON-07500-EACH
07500-REF-117	REFRIGERATOR, DISPLAY, AIR CURTAIN TYPE	RPI INDUSTRIES	02062329	SCRFC878R	C200C	FORT CARSON-07500-EACH
07500-REF-201	REFRIGERATOR	VICTORY	L-8420VIZ	411001Q4621038	2976	FORT CARSON-07500-EACH
7500-WIF-101	WALK IN FREEZER	RUSSELL EVAPORATOR COIL	NO NAME PLATE	NO NAME PLATE	1938	FORT CARSON-07500-EACH
7500-WIF-102	WALK IN FREEZER	RUSSELL EVAPORATOR COIL	C8477842-1	AL35123E	1912A	FORT CARSON-07500-EACH
7500-WIR-002	WALK IN REFRIGERATOR	RUSSELL EVAPORATOR COIL	B8476904-35	AL36139	1913	FORT CARSON-07500-EACH
7500-WIR-004	WALK IN REFRIGERATOR	RUSSELL EVAPORATOR COIL	B8476904-29	AL36-139	1915	FORT CARSON-07500-EACH
7500-WIR-101	WALK IN REFRIGERATOR	RUSSELL EVAPORATOR COIL	F8479927-6	AL26-92	1912	FORT CARSON-07500-EACH
7500-WIR-103	WALK IN REFRIGERATOR	RUSSELL EVAPORATOR COIL	B8476904-39	AL36139	1914	FORT CARSON-07500-EACH
	AIRCONDITIONING UNIT PORTABLE	SPT	A060506898	WA1220E	2919	FORT CARSON-07500-EACH
	AIRCONDITIONING UNIT PORTABLE	SPT	A060508418	WA1220E	2920	FORT CARSON-07500-EACH
	AIRCONDITIONING UNIT PORTABLE	SPT	A0600510617	WA1220E	2921	FORT CARSON-07500-EACH
	AIRCONDITIONING UNIT PORTABLE	SPT	NA	WA1220E	2922	FORT CARSON-07500-EACH
	CONDENSING UNIT	MITSUBISHI	11900314B	MX2230TN	AIRWAY WALL E. OF ER	FORT CARSON-07505-EACH

J&J/VWI FORT CARSON REFRIGERATION EQUIPMENT INVENTORY 9/15/2014

RPIE ID	NOMENCLATURE	MANUFACTURER	SERIAL #	MODEL #	ROOM #	INST-FAC#-FAC NAME
	EVAPORATIVE UNIT	MITSUBISHI	1000091	MSH12TN	1718	FORT CARSON-07505-EACH
	EVAPORATIVE UNIT	MITSUBISHI	1006001	MSH09TW	1719	FORT CARSON-07505-EACH
	EVAPORATIVE UNIT	MITSUBISHI	1001081	MSH09TW	1713C	FORT CARSON-07505-EACH
	EVAPORATIVE UNIT	MITSUBISHI	1000331	MSH17TW	1721	FORT CARSON-07505-EACH
	EVAPORATIVE UNIT	MITSUBISHI	1001082	MSH09TW	1722	FORT CARSON-07505-EACH
	EVAPORATIVE UNIT	MITSUBISHI	1001054	MSH09TW	1723	FORT CARSON-07505-EACH
	EVAPORATIVE UNIT	MITSUBISHI	1001730	MSH09TW	1779 N	FORT CARSON-07505-EACH
	EVAPORATIVE UNIT	MITSUBISHI	1002138	MSH09TW	1779 W	FORT CARSON-07505-EACH
	AIR HANDLER W/DX COIL	TRANE	K298529850	TWE060D150-0A1	R1746	FORT CARSON-07505-EACH
	CONDENSUNG UNIT, A/C	TRANE	K334WB2BF	TTA048C300AD	EAST ROOF	FORT CARSON-07505-EACH
	ICEMAKER	MANITOWK	020163392	QY0274A	1519	FORT CARSON-07505-EACH
	AIR DRYER (REFRIGERATED)	WILKERSON	10-02-95-5099	WRA-075-1-0	0105	FORT CARSON-07505-EACH
	AIR DRYER (REFRIGERATED)	HANKISON	0321A-1-8605	80100	0105	FORT CARSON-07505-EACH
	AIR DRYER (REFRIGERATED)	HANKISON	0321-A1	80100	0105	FORT CARSON-07505-EACH
	CONDENSING UNIT	COPELAND CBAM0153	84B05217	KAB0150CAH	0711	FORT CARSON-07505-EACH
	FREEZER	TRUE	5142326	TS23F2	1903	FORT CARSON-07505-EACH
	REFRIGERATOR	TRUE	4996363	TS23-2	1903	FORT CARSON-07505-EACH
	AIR HANDLER W/DX COIL	TRANE	TWE-1N-1D	TWE018C14	1313	FORT CARSON-07505-EACH
	HEATING AND COOLING UNIT	TRANE	637101604L	WSC048A	ROOF R1724	FORT CARSON-07505-EACH
	AIR COOLED CONDENSOR	LIEBERT	0641C91163	CDL205-A	ROOF R1724	FORT CARSON-07505-EACH
	AIR HANDLER WCOMPRESSOR	LIEBERT	923766-01	DH125A-AAE15766	1724	FORT CARSON-07505-EACH
	CONDENSING UNIT	TRANE	3095KB9AD	TTA090A40SEA	1534	FORT CARSON-07505-EACH
	CONDENSING UNIT	TRANE	31451AXAD	TTA090A40SEA	1534	FORT CARSON-07505-EACH

J&J/VWI FORT CARSON REFRIGERATION EQUIPMENT INVENTORY 9/15/2014

RPIE ID	NOMENCLATURE	MANUFACTURER	SERIAL #	MODEL #	ROOM #	INST-FAC#-FAC NAME
	CONDENSING UNIT	TRANE	34151ACD	TTA090A40SEA	1534	FORT CARSON-07505-EACH
	AIR HANDLER W/DX COIL	MAGIC AIR	WO305658 90	90/120-BMW/BMX	1534	FORT CARSON-07505-EACH
	CONDENSING UNIT	MITSUBISHI	11900145B	MXZ30TN	EAST ROOF NORTH	FORT CARSON-07505-EACH
	CONDENSING UNIT	MITSUBISHI	1190021B	MXZ30TN	EAST ROOF SOUTH	FORT CARSON-07505-EACH
	CONDENSING UNIT	MITSUBISHI	1190026B	MXZ30TN	EAST ROOF ON WALL	FORT CARSON-07505-EACH

J&J/VWI FORT CARSON REFRIGERATION EQUIPMENT INVENTORY 9/15/2014

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ITEM #	RPIE ID	NOMENCLATURE	MANUFACTURER	SERIAL #	MODEL #	ROOM #	INST-FAC#-FAC NAME
2		CHILLER, CENTRIFUGAL	YORK	GNDM081633	YTH3V-3E1-CNG	PO 10	FORT CARSON-07501-EACH
3		CHILLER, CENTRIFUGAL	YORK	GNDM08162	YTH3V-3E1-CNG	PO 10	FORT CARSON-07501-EACH
4		AIR DRYER	HONEYWELL	NA	NA	PO 10	FORT CARSON-07501-EACH
5		AIR DRYER	HANKISON	H025A1150 3 111D19	HPRP25-11T	PO 10	FORT CARSON-07501-EACH
6		DRINKING FOUNTAINS & COOLERS	ELKAY	830952127	CSRC-8-1	PO 10	FORT CARSON-07501-EACH

J&J/VWI FORT CARSON REFRIGERATION EQUIPMENT INVENTORY 9/15/2014

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ITEM #	RPIE ID	NOMENCLATURE	MANUFACTURER	SERIAL #	MODEL #	ROOM #	INST-FAC#-FAC NAME
2		DRINKING FOUNTAINS & COOLERS	ELKAY	81222385	EZFS8		FORT CARSON-07488-WRC
3		AIRCONDITIONING UNIT	CARRIER	0308V03311	38MC012-3	EXTREIOR	FORT CARSON-07488-WRC
4		AIRHANDLER W/AC	CARRIER	580005907	511AA48TMF016	ERTERIOR	FORT CARSON-07488-WRC
5		DRINKING FOUNTAINS & COOLERS	ELKAY	81115801	E2F581C		FORT CARSON-07488-WRC
6		AIRCONDITIONING UNIT	CARRIER	2608V26250	38MVC062-3	EXTREIOR	FORT CARSON-07488-WRC

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ITEM #	RPIE ID	NOMENCLATURE	MANUFACTURER	SERIAL #	MODEL #	ROOM #	INST-FAC#-FAC NAME
2		AIRHANDLER W/AC	CARRIER	2608U24663	48TMF016511AA	EXTERIOR	FORT CARSON-07489-WRC

J&J/VWI FORT CARSON REFRIGERATION EQUIPMENT INVENTORY 9/15/2014

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ITEM #	RPIE ID	NOMENCLATURE	MANUFACTURER	SERIAL #	MODEL #	ROOM #	INST-FAC#-FAC NAME
2		CONDENSOR UNIT	COLEMAN	W0F6447321	AC3B042F1A	EXTERIOR	FORT CARSON-06190-VET CLINIC
3		CONDENSOR UNIT	COLEMAN	WOD7704293	AC3B042F1A	EXTERIOR	FORT CARSON-06190-VET CLINIC
4		CONDENSOR UNIT	COLEMAN	WOD7704294	AC3B042F1A	EXTERIOR	FORT CARSON-06190-VET CLINIC
5		CONDENSOR UNIT	COLEMAN	WOF6567456	AC3B042F1A	EXTERIOR	FORT CARSON-06190-VET CLINIC
6		CONDENSOR UNIT	COLEMAN	WOF6567450	AC3B042F1A	EXTERIOR	FORT CARSON-06190-VET CLINIC
7		CONDENSOR UNIT	COLEMAN	WOF6447336	AC3B042F1A	EXTERIOR	FORT CARSON-06190-VET CLINIC
8		DRINKING FOUNTAINS & COOLERS	ELKAY	70911495	ESWA8 1H		FORT CARSON-06190-VET CLINIC

J&J/VWI FORT CARSON REFRIGERATION EQUIPMENT INVENTORY 9/15/2014

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ITEM #	RPIE ID	NOMENCLATURE	MANUFACTURER	SERIAL #	MODEL #	ROOM #	INST-FAC#-FAC NAME
2		AIRHANDLER W/AC	RHEEM	2D6329ADAAF 370705763	RKKB-A090CM22E		FORT CARSON-01058-WTU CLINIC
3		AIRHANDLER W/AC	RHEEM	2D6329ADAAF 390708836	RKKB-A090CM22E	EXTERIOR	FORT CARSON-01058-WTU CLINIC
4		AIR CONDITIONING UNIT	MITSUBISHI	62U2292B	PUY-A12NHA	EXTERIOR	FORT CARSON-01058-WTU CLINIC
5		DRINKING FOUNTAINS & COOLERS	ELKAY	3211845	EZFS8-1A		FORT CARSON-01058-WTU CLINIC
6		ICEMAKER	SCOTSMAN	77367609F	CSE60A-1A		FORT CARSON-01058-WTU CLINIC

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ITEM #	RPIE ID	NOMENCLATURE	MANUFACTURER	SERIAL #	MODEL #	ROOM #	INST-FAC#-FAC NAME
2		AIR CONDITIONING UNIT	RHEEM	5881F140129257	RAKA-018JAZ	EXTERIOR	FORT CARSON-02059-PREV MED CLINIC
3		AIRHANDLER W/AC	TRANE	J83A70138	SFHCC308LB6D51DCO	EXTERIOR	FORT CARSON-02059-PREV MED CLINIC
4		DRINKING FOUNTAINS & COOLERS	ELKAY	10514446	EBFSA8		FORT CARSON-02059-PREV MED CLINIC
5		DRINKING FOUNTAINS & COOLERS	ELKAY	10514448	EBFSA8		FORT CARSON-02059-PREV MED CLINIC

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ITEM #	RPIE ID	NOMENCLATURE	MANUFACTURER	SERIAL #	MODEL #	ROOM #	INST-FAC#-FAC NAME
2		DRINKING FOUNTAINS & COOLERS	HALSEY TAYLOR	70515864	HTVB8BLQA1		FORT CARSON-01227-LARSON DENTAL CLINIC
3		DRINKING FOUNTAINS & COOLERS	HALSEY TAYLOR	71126725	HTVB8BLQA1		FORT CARSON-01227-LARSON DENTAL CLINIC
4		AIR CONDITIONING UNIT	CARRIER	1305-25454	38HDC024-341LA	EXTERIOR	FORT CARSON-01227-LARSON DENTAL CLINIC
5		CHILLER/CONDENSOR	YORK	SBTM848280	YCAL0061EC	EXTERIOR	FORT CARSON-01227-LARSON DENTAL CLINIC

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2		CHILLER CONDENSOR	YORK	SFFM-495010	YCA244BA3-46PA	EXTERIOR	FORT CARSON-7490-ROBINSON FAMILY MEDICINE CLINIC
3		ICEMAKER (FLAKER)	SCOTTSMAN	07031320015842	AFE400A-1A	24	FORT CARSON-7490-ROBINSON FAMILY MEDICINE CLINIC
4		ICEMAKER (CUBE)	SCOTTSMAN	06041320012739	SCE170A-1C	24	FORT CARSON-7490-ROBINSON FAMILY MEDICINE CLINIC
5		DRINKING FOUNTAINS & COOLERS	ELKAY	970333646	ECP8-1		FORT CARSON-7490-ROBINSON FAMILY MEDICINE CLINIC
6		DRINKING FOUNTAINS & COOLERS	ELKAY	97033501	ECP8-1	24	FORT CARSON-7490-ROBINSON FAMILY MEDICINE CLINIC
7		DRINKING FOUNTAINS & COOLERS	ELKAY	080624541	ECP8-1		FORT CARSON-7490-ROBINSON FAMILY MEDICINE CLINIC

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ITEM #	RPIE ID	NOMENCLATURE	MANUFACTURER	SERIAL #	MODEL #	ROOM #	INST-FAC#-FAC NAME
1		AIR CONDITIONING UNIT	TRANE	Z43100414D	YGH02C3HBAC	ROOF	FORT CARSON-00815-DENTAC HEADQUARTERS
2		AIR CONDITIONING UNIT	TRANE	Z43100418D	YCD075C3HCBE	ROOF	FORT CARSON-00815-DENTAC HEADQUARTERS
3		DRINKING FOUNTAINS & COOLERS	SUN ROC	011404655	NWCA8-0061J		FORT CARSON-00815-DENTAC HEADQUARTERS

J&J/VWI FORT CARSON REFRIGERATION EQUIPMENT INVENTORY 9/15/2014

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ITEM #	RPIE ID	NOMENCLATURE	MANUFACTURER	SERIAL #	MODEL #	ROOM #	INST-FAC#-FAC NAME
1		AIR CONDITIONING UNIT	CARRIER	0806G20296	50TM-004-A-501XQ	ROOF	FORT CARSON-0253-WARRIOR FAMILY MEDICINE CLINIC(MODULAR)
2		AIR CONDITIONING UNIT	CARRIER	08066-20295	50TM-004-A-501XQ	ROOF	FORT CARSON-0253-WARRIOR FAMILY MEDICINE CLINIC(MODULAR)
3		AIR CONDITIONING UNIT	CARRIER	0106G20302	006	ROOF	FORT CARSON-0253-WARRIOR FAMILY MEDICINE CLINIC(MODULAR)
4		AIR CONDITIONING UNIT	CARRIER	0806G20288	004	ROOF	FORT CARSON-0253-WARRIOR FAMILY MEDICINE CLINIC(MODULAR)
5		AIR CONDITIONING UNIT	CARRIER	0108G5 538	006	ROOF	FORT CARSON-0253-WARRIOR FAMILY MEDICINE CLINIC(MODULAR)
6		AIR CONDITIONING UNIT	CARRIER	0106G20307	005	ROOF	FORT CARSON-0253-WARRIOR FAMILY MEDICINE CLINIC(MODULAR)
7		AIR CONDITIONING UNIT	AARON INC.	200603-AMEH07070	RM-008-8-0-AB02-162	ROOF	FORT CARSON-0253-WARRIOR FAMILY MEDICINE CLINIC(MODULAR)
8		DRINKING FOUNTAINS & COOLERS	ELKAY	60121097	EZFSTL8		FORT CARSON-0253-WARRIOR FAMILY MEDICINE CLINIC(MODULAR)

Bldg. #	Manufacturer	Model #	Serial #	Refrigerant Type	Amount	Labor Hrs/ Mechanic	Issued Date	SO #	Completed Date
330	Trane	RAUCC404PT03A0DF00T10	C99G12367M	R22	56-lbs	3.0/ Ken	3/14/2012	424069	3/23/2012
350	Phoenix	OD33ORLRA-SG	OD302SC12	R422A	966-lbs	3.0/ Mike	3/14/2012	424455	3/30/2012
704	McQuay	RCSZOF240D	7932F240902428	R410A	56-lbs	3.0/ Ken	3/14/2012	424423	4/10/2012
756	Trane	RTUA1004YB01X3DIVN	U97J05104	R22	300-lbs	3.0/ Ken	4/11/2012	429827	17-Apr-12
758	Trane	RTUA10044B01X3DIVN	U97J05103	R22	300-lbs	3.0/ Ken	4/11/2012	429831	4/20/2012
842	Trane	CGAM080F2C02AXD2	U11A20881	R410A	148-lbs	3.0/ Ken	4/23/2012	431706	4/23/2012
842	Trane	CGAM080F2C02AXD2	U11A20880	R410A	148-lbs	3.0/ Ken	4/23/2012	431705	4/23/2012
1000	Trane	RAUCC604BZ130BD0000105	C08E04501	R407C	80-lbs	3.0/ Ken	4/23/2012	431707	5/3/2012
1005	Trane	RAUCC804EQ132BDF0105	C09A1218	R407C	223-lbs	3.0/ James	3/14/2012	424430	4/9/2012
1048	Trane	RTAA070AYT01A3DOKNBF	U07G04590	R22	116-lbs	3.0/ Ken	4/23/2012	431708	5/3/2012
1118	Trane	RTUA0804XH01R3DOVFN	U07J05962	R22	153-lbs	3.0/ C.D.	3/14/2012	424427	
1435	York/C-1	YCIV0207PA46VABBXT	SCTM879990	R134A	367-lbs	3.0/ Seth	3/14/2012	424460	1-May-12
1435	York/C-2	YCIV0207PA46VABBXT	SCTM879940	R134A	367-lbs	3.0/ Seth	3/14/2012	424461	1-May-12
1444	McQuay	ALS186C27-ER11	STNU031000082	R22	310-lbs	3.0/ Seth	3/14/2012	424462	5/1/2012
1449	Carrier	30XAA1106L-00RCL	2608Q90006	R134A	183-lbs	3.0/ C.D.	3/15/2012	424772	
1454	McQuay	AGZ034AS12-ER10	STNU030700227	R22	50-lbs	3.0/ C.D.	3/20/2012	425300	5/15/2012
1500	Trane	CGAFC404ACA10000E	C99L23595M	R22	76-lbs	3.0/ C.D.	3/20/2012	425301	5/15/2012
1510	Trane	CGAM080F2F02	U12B27786	R410A	148-lbs	3.0/ Mike	3/14/2012	424456	5/7/2012
1510	Trane	RTAA1104XND1A3D1BG	U03G01383	R22	171-lbs	3.0/ Mike	3/14/2012	424457	5/7/2012
1511	Trane	CGAM052A2F02	U12B27787	R410A	64-lbs	3.0/			
1526	McQuay	ALP0270	55H8508501	R22	68-lbs	3.0/ Mike	4/23/2012	431872	5/3/2012
1526	McQuay	ALP032C	55G8502001	R22	68-lbs	3.0/ Mike	4/23/2012	431874	5/3/2012
1532	Trane	RTAA100AYK01A3COBFGK	U98K030681	R22	146-lbs	3.0/ C.D.	3/20/2012	425302	5/16/2012
1550	York	YCAZ88EE8-46PA	RAEM1032AA	R22	142-lbs	3.0/ Jeff	3/14/2012	424437	5/29/2012
1550	Trane	RAUCCC204CT0300DF00000	C99M27182M	R22	72-lbs	3.0/ Jeff	3/14/2012	424433	5/9/2012
1550	Trane	RJAA1104YN01A3D0BGK	U03E00274	R22	171-lbs	3.0/ Jeff	3/14/2012	424435	5/11/2012
1550	Trane	RTAC 3004	U10J08304	R134A	615-lbs	3.0/ Jeff	3/14/2012	424432	4/9/2012
1551	Canatal	9AU22WEBHGX	07-0712/C01/02A	R22	114-lbs	3.0/			
1551	Canatal	9AU22WEBHGX	07-0712/C01/01A	R22	114-lbs	3.0/			
1552	McQuay	AGS230B27-ER10	STNU030700184	R134A	598-lbs	3.0/ Jeff	4/10/2012	429408	
1554	McQuay	AGS230A27-ER10	STNU030100234	R134A	598-lbs	3.0/ Seth	3/29/2012	427197	5/1/2012
1805	Carrier	30RAN030JE-611PK	1105Q03746	R22	55-lbs	3.0/ C.D.	4/23/2012	431845	
1840	Trane	CGAM070F2C02	U11D22073	R410A	96-lbs	3.0/ C.D.	4/23/2012	431847	
1925	York	YLAA0175HE46XCA	SGXM-005150	R410A	186-lbs	3.0/ James	4/9/2012	424431	4/9/2012
2010	York	YCUL0045EE46XEA	SCXM-886160	R410A	75-lbs	3.0/ James	4/18/2012	430934	4/20/2012
2132	York/C-1	YCAV0327VA46VABBXT	RKSM020083	R134A	370-lbs	3.0/ Shane	3/14/2012	424463	4/23/2012
2132	York/C-2	YCAL0060EB46	RGSM019532	R407C	57-lbs	3.0/ Shane	3/14/2012	424464	4/23/2012
2132	York/C-3	YCAL0060EB46	RGSM019533	R407C	57-lbs	3.0/ Shane	3/14/2012	424465	4/23/2012
2135	Trane	RTAC1704UW0N	U12C02986	R134A	350-lbs	3.0/ Michael	3/14/2012	424425	5/14/2012
2135	Trane	RTAC1704UW0N	U12C02987	R134A	350-lbs	3.0/ Michael	3/14/2012	424424	5/14/2012
2135	Data Aire	2000-2172-A	DAAU-2634	R22	62-lbs	3.0/ Michael	3/14/2012	424426	4/20/2012
2140	Trane	CGAFC30EAMA1	C07G08079	R22	144-lbs	3.0/ James	4/18/2012	430935	5/2/2012
2144	McQuay	AGZ130CHSNN-ER10	STNU080900209	R410A	238-lbs	3.0/ James	4/18/2012	430936	5/4/2012
2146	McQuay	AGS125CS27-ER-10	STNU080600106	R134A	310-lbs	3.0/ James	4/23/2012	431710	5/16/2012
2259	Trane	SFHLF30E	C10K04999	R410A	58.5-lbs	3.0/ Joel	3/14/2012	424451	4/5/2012
2260	McQuay	AGZ030DHSNN-ER10	STNU111200042	R410A	60-lbs	3.0/			

Bldg. #	Manufacturer	Model #	Serial #	Refrigerant Type	Amount	Labor Hrs/ Mechanic	Issued Date	SO #	Completed Date
2330	Carrier	30RBA09064-577-C	1409Q72724	R410A	85-lbs	3.0/ James	4/23/2012	431711	4/30/2012
2340	McQuay	AGS125CS27-ER-10	STNU080600118	R134A	310-lbs	3.0/ Jeff	4/23/2012	431850	5/11/2012
2344	McQuay	AGS125CS27-ER-10	STNU080600123	R134A	310-lbs	3.0/ Jeff	4/23/2012	431851	5/29/2012
2346	McQuay	AGS125CS27-ER-10	STNU080600094	R134A	310-lbs	3.0/ Jeff	4/23/2012	431852	5/29/2012
2429	Carrier	30GT-040---500KA	3593F63980	R22	87-lbs	3.0/ Seth	3/29/2012	427199	5/1/2012
2600	AAON	RL-070-3-0-BB04-EAJ	200804-BLWG00153	R410A	132-lbs	3.0/ Joel	3/14/2012	424452	4/5/2012
2610	AAON	RL-075-3-0-BB04-EAJ	200804-BLWG00154	R410A	132-lbs	3.0/ Joel	4/9/2012	428935	4/12/2012
2615	McQuay	RPS045CSW	FBOU08070136902	R407C	88-lbs	3.0/ Joel	4/9/2012	428936	4/12/2012
2620	AAON	RL-075-3-0-BA04-EAH	2000803-BLWH00148	R410A	136-lbs	3.0/ Joel	4/12/2012	430089	4/23/2012
2625	McQuay	RPS050CLW	FBOU08070200802	R407C	102-lbs	3.0/ Michael	4/23/2012	431839	5/14/2012
2630	AAON	RL-075-3-0-BA04-EAH	200803-BLWH00149	R410A	136-lbs	3.0/ Joel	4/12/2012	430090	4/23/2012
2635	McQuay	RPS050CLW	FBOU08070166602	R407C	102-lbs	3.0/ Joel	4/12/2012	430091	4/24/2012
2640	AAON	RN-050-3-0-BB04-EHJ	200803-BNWW00562	R410A	116-lbs	3.0/ John	3/14/2012	424453	4/9/2012
2645	McQuay	RPS045CSW	FBOU08070137302	R407C	88-lbs	3.0/ John	3/14/2012	424454	4/12/2012
2650	AAON	RN-060-3-0-BB04-EHJ	200803-BNWX00561	R410A	116-lbs	3.0/ John	4/3/2012	427991	4/9/2012
2655	McQuay	RPS045CSW	FBOU08070166702	R407C	92-lbs	3.0/ John	4/3/2012	427993	4/13/2012
3450	Trane	RTAA0904YU01A3D1ABDF	U03E00451	R22	134-lbs	3.0/ John	4/10/2012	429577	4/13/2012
3490	McQuay	RCS040CYY	FBOU090601534	R407C	65-lbs	3.0/ John	4/10/2012	429579	4/23/2012
3492	McQuay	RPS045CSW	FBOU09010107002	R407C	90-lbs	3.0/ John	4/23/2012	431866	4/24/2012
4790	Trane	CGAM052F2D02	U11E23150	R410A	64-lbs	3.0/ Michael			
5950	Trane	CGAEC504AAA1EGTMCDJR	J94080777	R22	94-lbs	3.0/ John	4/23/2012	431868	4/24/2012
6058	Trane	RAUBC404FE00F23	J86F81519	R22	124-lbs	3.0/ Mike	4/23/2012	431875	6/26/2012
6060	York	YCAZ44RA3-46PA	SBGM-849860	R22	100-lbs	3.0/ Mike	4/23/2012	431876	6/26/2012
6204	Carrier	38AH054621BA	3809Q29180	R407C	150-lbs	3.0/ Mike	3/30/2012	427706	5/10/2012
6237	Trane	CGAFC604ALA1000DE	C07C02135	R22	150-lbs	3.0/			
7330	Trane	RTAA1104YT01A3C0GNB	U07M06590	R22	171-lbs	3.0/ Ray	3/14/2012	424458	4/4/2012
7400	Trane	CGAM0701F2G02	U12G31078	R410A	96-lbs	3.0/ Michael	4/23/2012	431840	5/14/2012
7402	Trane	CGAM060F2F02	U12B27781	R410A	100-lbs	3.0/ Michael	4/23/2012	431841	5/14/2012
7403	Trane	CGAFC30EANA1L00DE0H	C08J09412	407C	72-lbs	3.0/ Michael	4/23/2012	431843	5/14/2012
7404	Trane	CGAM060F2F02	U12B27785	R410A	100-lbs	3.0/ Joel	4/23/2012	431861	4/24/2012
7416	Trane	RTAA0704YT01A3D1GKBF	U06H08688	R22	116-lbs	3.0/ Shane	3/19/2012	431200	4/23/2012
7418	Trane	CGAM090F2F02	U12B27788	R410A	156-lbs	3.0/ Seth	3/23/2012	431885	5/1/2012
7438	Trane	CGAM040F2F02	U12B27783	R410A	64-lbs	3.0/ Ray	3/14/2012	424459	4/4/2012
7450	Trane	CGAM052F2F02	U12B27782	R410A	64-lbs	3.0/ Mike	4/23/2012	427877	6/26/2012
7462	McQuay	ALR075C	5ZK8177301	R22	76-lbs	3.0/ Ken	4/23/2012	431709	5/3/2012
7480	Trane	CGAM090F2F02	U12B27789	R410A	156-lbs	3.0/ John	4/23/2012	431870	4/24/2012
7481	Trane	CGAM040F2F02	U12B27784	R410A	64-lbs	3.0/ Joel	4/23/2012	431863	4/24/2012
7482	Trane	CGAM090F2F02	U12B27790	R410A	156-lbs	3.0/ Jeff	4/23/2012	431853	5/11/2011
7506	York	YCAS0118EB46YGADBT	SBRM-123430	R407C	319-lbs	3.0/ Ray	4/5/2012	428364	
8932	McQuay	STO25A1500	SSB0500200	R22	100-lbs	3.0/ C.D.	4/23/2012	431848	
9062	McQuay	RPS045CSW	FBOU09010106902	R407C	90-lbs	3.0/ Ray	4/5/2012	428635	4/13/2012
9093	McQuay	AGZ035CHSNN-ER10	STN4090600032	R410A	60-lbs	3.0/ Ray	4/5/2012	428429	4/5/2012
9420	Trane	SLHJ0904HH0112KB5	C10E02219 (RTU-1)	R410A	181-lbs	3.0/ Shane	4/19/2012	431201	4/23/2012
9420	Trane	SLHJ0904HH0112KB5	C10E02218 (RTU-2)	R410A	181-lbs	3.0/ Shane	4/19/2012	431202	4/23/2012
9420	Trane	SLHJ0904PH0112KB5	C10E02220 (RTU-3)	R410A	181-lbs	3.0/ Shane	4/19/2012	431205	4/23/2012
9420	Trane	SLHF404BBPGD7BD900	C10E02229 (RTU-4A)	R410A	99-lbs	3.0/ Shane	4/19/2012	431206	4/23/2012

Bldg. #	Manufacturer	Model #	Serial #	Refrigerant Type	Amount	Labor Hrs/ Mechanic	Issued Date	SO #	Completed Date
9420	Trane	SLHF404BBPGD7BD900	C10E02230 (RTU-4B)	R410A	99-lbs	3.0/ Shane	4/19/2012	431207	4/23/2012
9426	AAON	RN-050-3-0-EB09-EJN	200912-BNWW01071	R410A	116-lbs	3.0/ Ray	4/9/2012	428932	no access
9427	York	V34AW2407K	N1B0594605	R410A	75-lbs	3.0/ Ray	4/23/2012	431880	5/11/2012
9436	AAON	RN-050-3-0-EB09-EJN	200912-BNWW01069	R410A	116-lbs	3.0/ Ray	4/23/2012	431881	no access
9437	York	V34AW2407K	N1B0594604	R410A	75-lbs	3.0/ Ray	4/23/2012	431882	5/11/2012
9439	Carrier	30RBB1106C-517HC	3110Q74668	R410A	98-lbs	3.0/ Seth	4/23/2012	431886	5/1/2012
9446	AAON	RN-050-3-0-EB09-EJN	201002-BNWW01072	R410A	116-lbs	3.0/ Seth	4/23/2012	431887	5/1/2012
9447	York	V34AW2407K	N1C0719309	R410A	75-lbs	3.0/ Seth	4/23/2012	431888	5/1/2012
9456	AAON	RN-050-3-0-EB09-EJN	200912-BNWW01070	R410A	116-lbs	3.0/ Todd	3/14/2012	424466	4/10/2012
9457	York	V34AW2407K	N1B0642399	R410A	75-lbs	3.0/ Todd	3/14/2012	424467	4/10/2012
9467	York	V34AW2407K	N1B0642398	R410A	75-lbs	3.0/ Todd	4/11/2012	429711	4/27/2012
9471	York	YCAL0065EC46XDASDT	SHRM-285910	R22	115-lbs	3.0/ Todd	4/11/2012	429712	4/27/2012
9472	York	YCAL0065EC46XDASDT	SHRM-285890	R22	115-lbs	3.0/ Todd	4/11/2012	429821	4/30/2012
9473	York	YCAL0065EC46XDASDT	SHRM-285850	R22	115-lbs	3.0/ Todd	4/11/2012	429822	4/30/2012
9474	York	YCAL0065EC46XDASDT	SHRM-285870	R22	115-lbs	3.0/ Todd	4/11/2012	429823	5/1/2012
9487	York	V34AW2407K	N1B0637013	R410A	75-lbs	3.0/ Todd	4/11/2012	429824	5/1/2012
9633	Carrier	38AKS024---621--	1605G40016	R22	50-lbs	3.0/ Michael	4/23/2012	431844	6/8/2012
9638	Trane	CGAFC604AAA1ETW9	J97M60311	R22	130-lbs	3.0/ Todd	4/11/2012	419826	5/2/2012
20000	ERS	CU1174-CU415DMRA-AC	CU1174-7685	R22	350-lbs	3.0/ James	4/18/2012	430937	4/20/2012
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