

Owners/Operators of Refrigeration Equipment

Maintain records onsite for a minimum of 3 years. Records must be legible.

Table 1: Contractor Service Records

Contractor service records for appliances with full charge of 50 or more pounds of refrigerant must documenting the following:	
	The date and type of service (e.g. preventative maintenance, service, repair, disposal, etc.)
	Unique ID Number for the appliance being serviced (Maximo or CMS asset number)
	Full charge of the appliance
	Part(s) of the appliance being maintained, serviced, repaired, or disposed
	Type of maintenance, service, repair, or disposal performed for each part
	Name AND certification number for the certified technician performing the work
	The quantity of refrigerant added, as recorded on an invoice or other documentation provided by the person performing the service
	The certification of the technician performing the service
Additional documentation required if contractor prepares an appliance with 50 pounds or more of refrigerant for disposal, the service record must document the following:	
	The quantity of refrigerant recycled or removed, as recorded on an invoice or other documentation provided by the person performing the service
	Equipment certification for the reclamation or recycling equipment used to recover refrigerant from the appliance

Table 2: Leak Rate Calculation Records

When contractor add refrigerant an appliance with full charge of 50 pounds or more, the service record must document the following:	
	Date refrigerant was added to the appliance
	The quantity of refrigerant added, as recorded on an invoice or other documentation provided by the person performing the service
	The leak rate and the method used to determine the leak rate
	<p>If purged refrigerant was excluded from the leak rate calculation, then the following record are provided:</p> <ul style="list-style-type: none"> a.) Flow rate of the purged flow; b.) Quantity or concentration of the refrigerant in the vent stream c.) Periods of purge flow; d.) Identification of the facility and a contact person, including the address and telephone number; e.) General description of the refrigeration system, focusing on aspects relevant to the purging of refrigerant and subsequent destruction; f.) Description of methods used to determine the quantity of refrigerant sent for destruction and type of records that are being kept by the facility g.) Frequency of monitoring and data-recording h.) Description of the control device and its destruction efficiency
<p>The engineering shop must be immediately notified if the leak rate exceeds and of the following thresholds:</p> <ul style="list-style-type: none"> • 20% for commercial refrigeration equipment: • 30% for industrial process refrigeration equipment; or • 10% for comfort cooling appliances or other appliances with a full charge of 50 or more pounds of refrigerant and are not commercial or industrial process equipment 	

Table 3: Leak Repair Records

When the contractor repairs a leak (within 30 days of discovery), the service record must document the following:	
	Leak investigation procedure
	The date and description of repairs (see Table 4 for recordkeeping requirements of verification testing)
The following records are required when the leak cannot be repaired within 30 days of discovery due to:	
	Repair delays due to an industrial process shutdown being necessary to repair the leak: Documentation identifying the industrial process and the date it was shut down to allow for leak repairs
	Repair delays due to “mothballing” the appliance: Documentation identifying the dates the appliance was “mothballed”
	Repair delays due to parts or other applicable regulations: Notification to the EPA which includes the following: <ul style="list-style-type: none"> a.) Identification of the facility b.) Leak rate c.) Method used to determine the leak rate and full charge d.) Date of discovery that the leak rate was above the trigger rate e.) Location of the leaks to the extent determined f.) Any repair work that has already been completed and the date the work was completed g.) Documentation of the reasons why more than 30 days (or 120 days) are needed to complete the work; h.) Estimate of when the repairs will be completed
	See Table 5 for requirements if the appliance will be retrofitted or retired
	The date and description of repairs (see Table 4 for recordkeeping requirements of verification testing)

Table 4: Verification Testing

The following documentation is required for verification and follow-up verification testing completed after leak repairs are completed:	
	Leak repair verification test records which includes: the dates, results, and operating conditions of the appliance during testing
	Follow-up verification test records which includes: the dates, results, and operating conditions of the appliance during testing
The following documentation is required when leak repairs fail the follow-up verification test	
	Notification to the EPA the of the failed follow-up verification test
	Appliance retrofit or retirement plan submitted to the EPA (see Table 5)
	Request for relief of retrofitting or retiring the appliance to the EPA because: <ul style="list-style-type: none"> a.) The leak was successfully repaired within 30 days of the failed follow-up verification test; or b.) The leak was demonstrated to be below the trigger rate within 180 days of the failed follow-up verification test.

Table 5: Appliance Retrofit or Retirement Plan

Owners/operators of regulated appliances/refrigeration equipment intended to be retrofitted or retired must maintain on- site the following information relevant to the affected appliances/refrigeration equipment:	
	The identification of the industrial process facility;
	The leak rate;
	The method used to determine the leak rate and full charge;
	The date a leak rate above the applicable allowable rate was discovered.
	The location of leaks(s) to the extent determined to date;
	Any repair work that has been completed thus far and the date that work was completed;
	Certification records any technicians performing the service on the appliances/refrigeration equipment;
	A plan to complete the retrofit or retirement of the system;
	The reasons why more than 1 year is necessary to retrofit or retire the system;
	The date of notification to EPA; and
	An estimate of when retrofit or retirement work will be completed.
	If the estimated date of completion changes from the original estimate and results in extending the date of completion, the owner or operator must submit to EPA the new estimated date of completion and documentation of the reason for the change within 30 days of discovering the need for the change, and must retain a dated copy of this submission.
	If the estimated date of completion changes from the original estimate and results in moving the date of completion forward, documentation of the reason for these changes must be submitted within 30 days of occurring.
	If the estimated date of completion changes from the original estimate and results in moving the date of completion forward, the date of notification to EPA regarding this change and the estimate of when the work will be completed must be maintained and submitted.

Table 6: Records for Determining Full Charge for Appliances

Owners/operators of regulated appliances/refrigeration equipment choosing to determine the full charge of regulated appliances/refrigeration equipment by using an established range or using that methodology in combination with other methods for determining the full charge must maintain the following information:	
	Description of method used to determine the full charge of the system (e.g., measure, calculate, manufacturer's information, establish range, combination)
	<p>If range method or combination of methods incorporating the range method was used, records are maintained including:</p> <ul style="list-style-type: none"> a.) The identification of the owner or operator of the appliance/refrigeration equipment; b.) The location of the appliance/refrigeration equipment; c.) The original range for the full charge of the appliance/refrigeration equipment, its midpoint, and how the range was determined; d.) Any and all revisions of the full charge range and how they were determined; and e.) The dates such revisions occurred.
	Date full charge was determined